

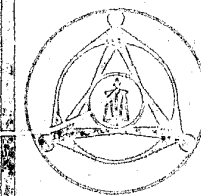
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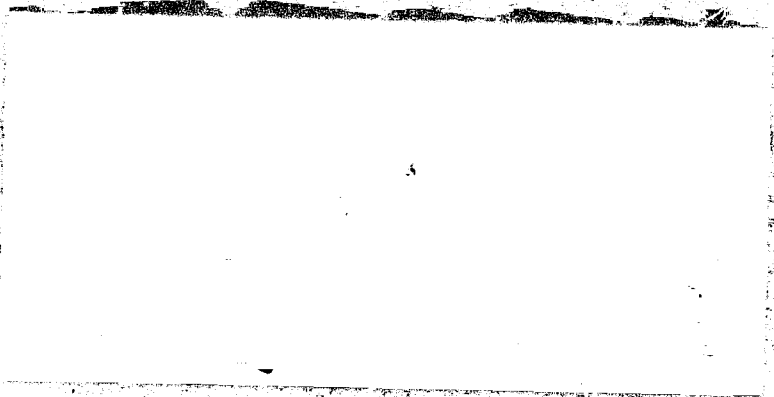
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THE AMERICAN UNIVERSITY

Criminal Courts Technical Assistance Project
Institute for Studies in Justice and Social Behavior
The American University Law School
Washington, D.C.



PRELIMINARY REPORT ON THE DEVELOPMENT
OF ADP TRACKING SYSTEM FOR
ALCOHOL SAFETY ACTION PROJECT (ASAP)

Prepared by:

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March 9, 1973-

NCJRS

MAR 8 1977

ACQUISITIONS

Prepared for:

Criminal Courts Technical Assistance Project
Institute for Studies in Justice and Social Behavior
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I. INTRODUCTION

A. Background of ASAP

The Fairfax County Alcohol Safety Action Project (ASAP) represents a joint effort on the part of the county police and probation departments to reduce the number of fatalities, personal injuries and property damage resulting from traffic accidents related to alcohol. Initiated in February 1972 under funds provided primarily by the Department of Transportation, the objective of the ASAP program is to identify drivers with alcohol problems and rehabilitate them in one of several treatment modalities depending upon the seriousness of the defendant's drinking problem.

B. Need for Technical Assistance

When the project was launched, staffing and other resource requirements were geared to an anticipated average intake of 75 clients per month. During the first year of operation, however, arrests for driving while intoxicated (DWI) increased more than 2,000% over the previous year and the ASAP staff handled 3,500 clients of which 3,000 are currently in some active participation category. Due to this large influx of clients, the ASAP staff has encountered considerable difficulty in maintaining knowledge of the status of each client and in being able to collect and analyze information related to the overall effectiveness of the ASAP.

To alleviate these problems, Mr. Barent F. Landstreet, ASAP Director, requested technical assistance in the development of an ADP tracking system for defendants referred into the ASAP Probation Office by the Commonwealth Attorney and/or the County Court. This request was forwarded through LEAA channels to The American University Criminal Courts Technical Assistance Project which secured the services of a two-man consultant team with specific experience and expertise in the requested area of assistance. This team consisted of Mr. Geoffrey A. Corbett, Director of the Office of Crime Analysis for the District of Columbia and Mr. Thomas W. McCahill, a staff associate of the Philadelphia Office of Treatment Alternatives to Street Crime (TASC)--a diversion program similar to ASAP except for its focus on drug offenders. It was felt that the TASC Program experience might be significantly relevant to the ASAP technical assistance effort--particularly in view of the fact that TASC had developed a tracking system similar to that desired by the ASAP officials.

C. Scope of Technical Assistance Effort

The primary purpose of this technical assistance effort was to review both the existing program situation and the current status of plans to develop an information system and to provide recommendations or suggestions related to the problems outlined above.

The consultants met with the ASAP staff and other individuals in the Fairfax County government on March 9, 1973.* During this one day meeting, the consultants were briefed on the current status of the system development effort. This briefing also provided the consultants with an insight into the problems which could be alleviated by the proposed system. The underlying purpose of the system proposed in this report is to provide the ASAP staff with the capability to track each client entering ASAP in a timely and accurate fashion.

*Barent F. Landstreet, Project Manager
Clayton S. Hall, Assistant Project Director
Robert F. Jordan, Jr., Evaluator-In-Residence
James Fourqurean, Representative of Fairfax County Courts
W.R. Norton, Fairfax County Police Department
Dee Sheer, Probation Counselor

II. ANALYSIS OF EXISTING SITUATION

A. Resources for Developing an Automated Tracking System

The ASAP staff recognized quite early the need for some form of tracking system and initiated efforts to obtain assistance in developing such a system. The Fairfax County Police Department (FCPD) has tentatively agreed to provide operation support to the ASAP system through its Police Management Information System (PMIS). PMIS is an automated information system which is run on the County's computer system. The FCPD has also provided support in the systems analysis effort (see attachment #1). The results of this support provide a good basis for the system design effort. Furthermore, other groups related to ASAP have indicated a willingness to cooperate in the operation of a tracking information system.

B. Purposes of Proposed Tracking System

The primary requirement of the ASAP is a partial or fully^{*} automated system which 'tracks' clients through the ASAP program.

The system must perform the following tasks:

- provide information on the status of individual clients and the schedules of individual counselors;
- provide information to management on performance; and
- collect data required in research and evaluation efforts.

*Final determination will be made after a general cost estimate and a general system specification have been developed.

The client volume is expected to continue to increase. This means that the existing staff will be spending more and more of its time on 'tracking' clients rather than providing counseling and other services. If this situation continues, the ASAP staff function will be reduced to what would amount to a clerical effort which would result in the ASAP concept becoming unproductive.

It is apparent from the documentation made available to the consultants that ASAP is highly respected and is providing a worthwhile service. With the investment of a limited amount of funds, this situation can be maintained. Furthermore, the majority of the requiring investment would consist of non-recurring costs associated with the proposed system development effort discussed below.

III. RECOMMENDATIONS

The recommendations discussed below should be considered pre-fatory in nature in view of the brief time available to the consultants for surveying the ASAP Project. However, these recommendations have merit and could be more fully explained and developed with a few more days of analysis. The focus of the recommendations is concentrated on those problems identified during the one day briefing or apparent from analysis of available documentation. While it was beyond the scope of this technical assistance effort to review budget requirements, staff allocation, prior performance, etc., these factors directly relate to the type of system which should be ultimately developed and should be taken into consideration during the initial stages of system design.

A. Principle Requirements & Distribution of ASAP Tracking System

The major design characteristics of the recommended tracking system must take into consideration the three general requirements discussed above, i.e., providing information on 1) client status and counselor scheduling, 2) program performance, and 3) research and evaluation. In addition, consideration must be given to the need for the system to respond to outside requests for information concerning the overall ASAP program or a specific ASAP client. With respect to the latter point, the consultants strongly

recommend that detailed and effective safeguards be established within the system to insure the maintenance of privacy and security of information related to individual clients. This maintenance of privacy must be a general requirement of the system, for careless release of individual information can create a feeling of mistrust which would result at the very least, in reduced client cooperation. The difficulty in preserving privacy while maintaining a free flow of information becomes particularly apparent in the use of an automated information system.

The recommended tracking system should yield discrete weekly output to four distinct organizational components within the ASAP system:

- the administrative component to include the Project Director
- the probation counselor unit
- the research and evaluation unit
- the various components inputting transactions into the system.

Effective management of the overall program requires precise information on the distribution of the total ASAP population. In addition, all changes in structure resulting from a given week's activity should be highlighted and output should conform to the requirement of the various components of the ASAP program.

1. Administrative Information Requirements

Definition of the outputs the administrative component should obtain weekly includes:

- a. For the total number (N) who have ever been in the ASAP system-
- S are logged in awaiting meeting with the Prosecutor
 - T have met with the Prosecutor and are awaiting Probation Interview
 - U have met with their probation counselor and are awaiting referral to a treatment modality (U₁ = probation cases, U₂ = pre-trial diversion cases)
 - V_k are in each of k treatment modalities (V_{k1} = probation cases, V_{k2} = pre-trial diversion cases)
 - W are awaiting trial (W₁ = Prosecutor non-referrals, W₂ = pre-trial diversion, successful treatment cases, W₃ = probation assignments, successful treatment cases, W₄ = pre-trial diversions, dropped from treatment, W₅ = probation assignments, dropped from treatment)
 - X have completed trial but have not reached their first trigger date (conviction + 9 months); this group is subdivided by the W grouping and by disposition within W group.
 - Y have passed their first trigger date but have not reached their second trigger date (conviction + 12 months); this group is subdivided by the X groupings and by trigger date inquiry result within each disposition group.
 - Z have passed out of the ASAP system (subdivided by Y groupings).
- b. For the given report week:
- o new DWI contact cards were introduced into the system.
 - p met with the prosecutor (p₁ were referred to ASAP; p₂ were referred to trial)

- q completed probation counselor interviews (q_1 = pre-trial diversion cases, q_2 = probation assignments) broken down by treatment modality of assignment
- r_k new admissions to each of k modalities (in p groups)
- s_k transfers into each of k modalities (in p groups)
- t_k transfers out of each of k modalities (in p groups)
- u_k drops (including reasons) from each of k modalities (in p groups)
- v_k successful completions from each of k modalities (in p groups)
- w_k actively enrolled in each of k modalities (in p groups)
- x ASAP cases went to trial (in X groupings)
- y have passed their first trigger date inquiry (in Y groupings)
- z have passed out successfully of the ASAP system (in Y groupings)

2. Counselor Information Requirements

Each counselor within the probation counselor unit has output needs similar in structure to those of the administrative unit but restricted to his own caseload and more specific within it.

Definition of the outputs each counselor should expect weekly include:

- a. A list of all new clients scheduled for a Probation Interview during the following week with appointment time and date, contact card information, records check information, and court trial information (pre-trial or probation referral)

- b. A list of all clients already interviewed but who have not entered a treatment modality
- c. A list of all differences between the above list and the prior weeks list broken down within modality by nature of change to include new admissions, transfers in, transfers out, drops, and successful completions of treatment (in particular, the drops should be highlighted in order that trial dates can be relisted)
- d. A list of all clients scheduled for trial in the following week with trial date and time
- e. A list of all clients tried (with disposition of case) during the report week
- f. A list of all clients who have a trigger date in the following two weeks
- g. A list of all clients who have moved out of the ASAP system and the reason for moving out.

Each list is tied to action that must be performed. This may involve a master record update, a hard copy record update, an initiation of an inquiry, or an actual appointment. This should facilitate management of the large caseload which exists in ASAP.

3. Research and Evaluation Information Requirements

The research and evaluation unit has less specific yet more intensive requirements. Either through terminal inquiries or through batch runs, the unit should have the capacity to access individual case records in their entirety.

Further, a series of programs and subroutines should be made available to the unit which, when prefaced by a given command and a given series of header cards, could complete specific executions. A library of such programs with documentation of commands and headers required and outputs obtained would become the most powerful tool at the unit's command.

4. Other Organizational Units' Information Requirements

Finally, each component which provides inputs to the tracking clerk for a weekly run should be provided with documentation of these inputs and their effect on the status of the component. For example, if a given modality reported four new admissions, three transfers in, two transfers out, two successful completions of treatment and one drop for successive unexcused absences its transactions with all their particulars should be recorded as a routine part of the weekly run. Further, a revised roster would be provided which would reflect the inclusion of the recorded transactions. This would enable the unit to feedback discrepancies as well as report transactions on the next successive run.

In addition, any information pertinent to the on-going activity of the inputting component would be provided. Using our example from above, suppose our inputs from the various probation counselors included four clients scheduled for referral to a new modality in the following week. Also suppose that FACE has scheduled one transfer to the same modality in the following week. The modality would receive, as part of its output, a listing of the five clients scheduled for admission, including time and date scheduled.

All output should be structured to result from a single weekly run executed to revise the individual case records within the master file and to add to the system new admissions. The only exception to this rule would involve the executions of the various research and evaluation unit procedures which would be initiated upon demand.

B. Specific Elements for Inclusion in System

The consultants recommend that the following specific elements be included in a general system development plan.

1. Detailed Information Flow Chart

The ASAP staff and the individuals who will be involved with the system development effort should construct a detailed information flow chart. This document should reflect the source, use, and retention period for all pieces of information which are related to an ASAP client. This flow chart should also contain information on the schedule associated with the process (i.e., the time in the ASAP process at which a particular item of information should be generated).

2. Forms Design

Expert assistance should be obtained to review existing forms and to develop new ones which may be required by the tracking system. Well designed forms will minimize the time spent by the ASAP staff in recording required information as well as insuring that the forms present as few problems as possible during the conversion to a machine readable form.

(One source for this assistance might be the National Archives).

3. Tracking Clerk

The major staffing requirement identified by the consultants is a 'tracking clerk'. There was insufficient information available to ascertain whether the functions of the tracking clerk could be handled by the existing ASAP support staff or would require an additional one or two people. The basic function of the tracking clerk would be to act as the central collection point for information related to new clients or changes in the status of existing clients. In this regard, the tracking clerk would have counterparts (sources of information) in the other agencies/groups dealing with ASAP (e.g. Clerk's Office, Northern Virginia Community College, etc.). Standard procedures and forms would be utilized by the tracking clerk to collect the information on clients required by the tracking system. The clerk would also be responsible for performing 'input edits' on all data to be entered into the system. In part, the clerk's function involves the last major control over the accuracy of the data which will be used by the tracking system.

Development of the recommended system could involve systematic trial runs using information reconstructed from prior records and geared to weekly time frames. If reconstruction were possible, this would permit documentation of the ASAP system from Day 1. Even if reconstruction is impossible, estimates could be provided to fill out the newly created automated tracking system.

IV. SUMMARY

This summary is basically a recapitulation of the major recommendations contained in the report.

- A. Some form of fully or partially automated tracking system is definitely required by the ASAP Staff.
- B. The automated system must be capable of responding to the needs of ASAP management, the probation counselors, research and evaluation personnel, and random inquiries related to status of individual clients.
- C. The basic steps involved in developing such a system would include:
 - 1. Development of a detailed information flow chart
 - 2. Delineation of personnel responsible for providing or collecting information within each organizational component
 - 3. Creation of uniform record keeping forms including delegation of forms control responsibility
 - 4. Systems analysis
 - 5. Applications programming
 - 6. Testing and debugging
 - 7. Reconstruction of prior weeks output
 - 8. First weekly input

Needless to say, steps 5 through 8 are reduced in complexity to the extent specificity can be articulated in steps 1 through 4. In fact, documentation of the tracking system constitutes only an

appendix to the documentation of the flow of information throughout the ASAP system. The design of this information flow, however, must be coupled with the development of effective and well enforced procedures dealing with the privacy and security of the information collected. Throughout this developmental process existing tracking systems (which are basically people accounting systems) should be reviewed by the ASAP staff. There is no need to "reinvent the wheel" if existing routines could be utilized with only minor modifications to meet the needs of ASAP.

APPENDIX A

Memorandum on ASAP Information System

FAIRFAX COUNTY POLICE DEPARTMENT
FAIRFAX, VIRGINIA

MEMORANDUM

January 12, 1973

To: Clayton Hall,
Fairfax ASAP

From: W. R. Norton, Systems Analyst *Norton*
Fairfax County Police Department

Subject: ASAP Information System

As a result of the meeting of January 5, 1973 with LtCol King, Deputy Chief, regarding development of the subject system, my necessarily limited analysis leads to the estimate contained herein.

Review of the "analysis of steps involved in working up an individual case record." under the Judicial Countermeasures phase of ASAP indicates that a file structure similar to Attachment 1 will be required. Three areas of effort will occupy the majority of the Analyst time included in the estimate. The areas are:

- Definition of the outputs to be obtained from the System.
- Design of the inputs to the System.
- Identification, and documentation, of the flow of the inputs from participating agencies to the ASAP office, and then to the data processing installation.

Analyst and applications programmer costs are based on salary rates in a Cost/Effectiveness guide prepared in the County Office of Management and Budget, Systems Development Branch. The overhead rate of 100% of direct labor costs is used with the thought that the development effort, and maintenance, may be under commercial contract, rather than as an "in-house" effort.

The computer development cost is based upon actual costs of a somewhat similar development effort over a period of 11 months.

Provision is made for $\frac{1}{2}$ man year/year of programmer effort in maintenance of the System. The maintenance effort anticipated will, primarily, be the generation of new reports that will be requested by the "customers" as they become more familiar with the data base.

The figure of \$200.00 per month for operational computer time is based on the "in-house" cost of production of some current Police batch processing reports. The figure should also cover the computer time involved in the maintenance effort outlined above.

The cost estimate is in Attachment 2.

Attachments: 2

cc: LtCol King

OUTLINE OF ASAP INFORMATION SYSTEM FILE.

Master Name Index: To contain NAME, SSN (from Operator License if Virginia resident) and CASE Number assigned.
 Used for Rec. vidist check.
 ISAM file using a "browsing" function on NAME and SSN to collect all Case No.'s of the individual.
 File search should be on full key. (NAME, SSN & CASE) or a combination of the parts of the key.

Master File
 Content:

Case No.
 Most of Contact Card or Person Analysis sheet.
 DMV record? No! Too variable in length.
 Other jurisdiction records? No! Too variable in length.
 Need a Probation Officer Module in two parts; one for initial meeting, one for meeting after treatment.
 Need Prosecutor Module.
 Need Staff Assignment Module.

Driver Improvement Module

Class No. & School.
 Payment Date.
 Class dates & attendance check-off.
 Class performance code.
 P. O. Appointment date & Status Code.

FACE Module

Group assignment number.
 Payment date.
 Meeting dates & attendance check-off.
 Class performance code.
 P. O. appointment date & Status code.

MHC Module

MHC appointment date & status.
 MHC treatment type.
 Treatment dates & attendance check-off.
 Date psycho-social evaluation & synopsis of recommendations.
 Date psycho-social evaluation to P. O.

Alcohol Clinic Module

Which clinic.
 Liaison form to MHC (Date).
 Referral letter MHC - AC (Date).
 Start treatment date.
 Non-contact date(s) and date to P. O.
 Non-attendance date(s) and date to P. O.
 Status (Progress Report).
 Release letter from AC.
 Appointment date & attendance.

Other Treatment Module(s) (4 DOD-type agencies.)

Identification of agency. .
Date referred. .
Date to be completed.
Date of completion.
Attendance record?

"Final" Court Module

Court date.
Final evaluation date (of letter).
"Final" Disposition (may not be truly Final if re-referral.)
Trigger date for 1st re-check after date of conviction.
Trigger date for 2nd re-check after date of conviction.
1st re-check is date of conviction + 9 months.
2nd re-check is date of conviction + 12 months.
(Trigger date required because of Judge Morris' memo , 12/26/72.)

COST ESTIMATE.

Analyst - 3 man months @\$1,440/month *3 - 11/11/2002*
 100% O'head 1,440/month
 \$2,880
x 3
 \$8,640

Applications
Programmers (2)

- 6 man months @\$1,115/month
 100% O'head 1,115/month
 \$2,230
x 6
 \$13,380

Development

Computer Time \$1,800/month
x 3
 \$5,400

Operating Costs

1/2 man year/year of
 Programmer Effort \$6,690

Computer Reports \$200 per month

APPENDIX B

Resumes of Technical Assistance Team

GEOFFREY A. CORBETT

3706 Raymond Street
Chevy Chase, Md.

656-6281

EDUCATION:

Wesley College - A.A. Degree in Engineering

Pennsylvania State University - B.S. Degree in
Applied Mathematics

University of Pennsylvania - M.B.A. Degree - Wharton
School of Finance

EXPERIENCE:

Currently, Mr. Corbett is Director of the Office of Crime Analysis in the District of Columbia Government. As such, he is responsible for formulating technical policies, guidelines, and standards governing the development, installation, and operation of a central crime information and analysis system for the entire city. Mr. Corbett is delegated authority to represent the District Government to Federal agencies and to negotiate a course of action with regard to the development and operation of this system. The function of the representative requires Mr. Corbett to coordinate the actions of the District Government and all three branches of the Federal Government and conduct policy-level meetings for the purposes of blending diverse viewpoints into unified courses of action.

Previously, Mr. Corbett was a senior consultant with a large management consulting firm in Washington, D.C. His responsibilities included:

- management of a project with the U.S. Attorney's Office for the District of Columbia. This effort involved the development of changes to USAO policy and procedures which would reduce the rate of dismissal for certain types of criminal cases, improve the time for returning indictments, and improve administrative support functions.
- assisting the District of Columbia Redevelopment Land Agency in planning and managing urban renewal and rehabilitation projects.

GEOFFREY A. CORBETT (Cont'd)

- development of a master plan for an international development organization. This effort involved identifying requirements and technical staff capabilities and developing a five year forecast of activities.

With this firm, Mr. Corbett was actively involved in the fields of criminal justice planning and operations, urban renewal activities, international development operations, and project management for defense programs.

Prior to his association with this firm, Mr. Corbett was with the Radio Corporation of America. His responsibilities included the development of programs for demonstrating computer capabilities and the analysis of potential requirements for various clients.

RESUME

Thomas W. McCahill
2104 Pine Street
Philadelphia, Pa. 19103
215 KI 5 1556 - Home
215 KI 6 1978 - T.A.S.C.

SSAN: 199 38 8730
Birthdate: 7 June 1947
Married with no children

EDUCATION:

1964 - 1967: Tulane University
New Orleans, La.
Junior Year Abroad: University of Edinburgh

1966 - 1969: University of Edinburgh
George Square
Edinburgh EH8 9LL
Scotland

DEGREE:

M.A. with First Class Honors (Summa Cum Laude) in
Sociology. All PhD course work complete.

PRESENT POSITION:

Social Research Associate
T.A.S.C. Program
1426 Walnut Street
Philadelphia, Pa. 19102

PREVIOUS POSITION I:

Research Analyst
Department of Sociology
University of Edinburgh

DATES OF POSITION AND REASON FOR LEAVING:

June - September, 1969
Loss of Student Deferment

PREVIOUS POSITION II:

Drug Abuse Contact Team; NCO in charge
3d Force Service Regiment
Camp Foster, Okinawa
APO San Francisco, Ca. 96602

DATES OF POSITION AND REASON FOR LEAVING:

March - December 1971
Released From Active Duty December 14, 1971

REFERENCES:

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Temple University
1939 N. Broad St.
Philadelphia, Pa. 19140

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END