

RECEIVED 11/23/89

USE OF AN ON-LINE  
COMPUTER SYSTEM FOR  
PROGRAM EVALUATION

LAURA WINTERFIELD  
RESEARCH & EVALUATION COORDINATOR

COLORADO STATE JUDICIAL DEPARTMENT

This report was financed under Law Enforcement Assistance Administration Grant No. 75-1B-(3)-JO-89, Probation Research and Evaluation, awarded by the Colorado Division of Criminal Justice to the Colorado Judicial Department.

53851

## INTRODUCTION

In 1960, a massive report on judicial administration in Colorado was presented to the General Assembly by the Colorado Legislative Council. Mainly as a result of this study, a constitutional amendment was passed in 1962, which reorganized the state's judicial system into twenty-two judicial districts. On January 1, 1970, pursuant to legislation adopted in 1969, the state assumed responsibility for funding all courts of record, except the Denver County Court and municipal courts. The enabling legislature provided for probation officers, and a judicial personnel system was established. Upon the state assuming full responsibility for funding the reorganized court system, a probation department was created in each judicial district. The transition to a state funded system did not diminish the local administration and flavor of probation, as each department was still largely dependent upon available community resources to aid probationers.

The past twelve years have seen a great increase in the population of both Colorado and the court and probation systems. In this era of dwindling resources, careful and in-depth planning is crucial to meet the management needs and dilemmas faced by this department. This paper offers one approach to meet this demand.

## STATEMENT OF THE PROBLEM

Over the past three years, probation workloads have increased dramatically. The following table demonstrates this increase in supervision cases:

	<u>FY 73-74</u>	<u>FY 74-75</u>	<u>FY 75-76</u>	Percent Change <u>FY 73-74 -</u> <u>FY 75-76</u>
Number Adult Supervisions	12,065	14,552	16,763	38.9
Number Juvenile Supervisions	8,466	8,884	9,417	11.2

These trends, coupled with the limited availability of resources, have made it increasingly necessary for the Judicial Department to provide more intensive support to probation field staff. The body of information pertaining to Colorado probation services has developed greatly over the past three years, but is still far from complete. One of the areas most lacking is any overall evaluation of program effectiveness in probation. This information is lacking not only in Colorado, but across the country as well.

Both nationally and in Colorado, there has been little research which concerns the overall effectiveness of probation. Further, there has been very little research dealing with the effectiveness of the various treatment approaches and services offered through probation. A literature review has shown that there are two broad categories of probation research. The first concerns institutionalization versus probation, but never deals with the heterogeneity within probation in evaluative terms. The second category is usually interested in a monolithic approach, and measures the impact of one treatment method on one outcome. Further, most studies are one-shot, and as such, are temporally bound. Neither of these sets of research, then, offers much in terms of the effectiveness of the varied approaches within probation, and how these may change over time.

In 1972, the Judicial Department began plans for an extensive on-line information system, linked by terminals in each district to the main computer in Denver. It was felt that, by designing a program module for the probation information subsystem, the research needs for budget and program planning could be met. Through this, multifaceted and timely probation program information could be generated. An ongoing analysis of probation effectiveness could then be made to meet those planning and budgetary needs of the Judicial Department, as well as offering added information to the body of criminal justice research.

### THE COLORADO ON-LINE INFORMATION SYSTEM

#### Description

In Colorado, the on-line computer system is primarily a caseload and information records system. All information, both new and updated, is entered directly into a terminal by the clerks in each district. These terminals are linked by telephone lines to the computer installation in Denver. Prior to this system, all data were received on monthly batch system. The data so received were cursory, and the recording keeping system was unwieldy. Errors had to be corrected through a two-step process, and reports generated from this system were quickly outdated because of the time span between the actual occurrence, receipt of that information, keypunching and error correction, to the final report generation. The on-line system, however, provides the ability for capturing much more information, and having that information be current. For those districts that are not on-line, the batch system is still maintained.

Over the past five years, the on-line system has been implemented in the nine largest metropolitan districts. These districts account for approximately 80 percent of both the statewide district court and probation caseload.

There are presently several systems on-line. For this paper, only the juvenile probation system will be described. Further information is available on request.

## THE JUVENILE PROBATION SYSTEM

### Structure

The probation system is set up on an individual case basis. Each child referred to the probation department is given a unique case file. The supervision case file is set up when the child is placed under the supervision of the department. This can happen in several ways. The child can be given an informal adjustment, which is supervision without a court case, and is generally for six months. A court case (petition) may be filed, either as a CHINS (Children in Need of Supervision) or as a delinquency petition. The petition may be sustained, the child adjudicated, and then placed on probation. The other alternative is to not adjudicate, but place the child on continued petition supervision for up to one year, at which time the petition may be dismissed. Regardless, the same type of case file is developed.

There are fifteen records (files) in the case file. Each of these records contains certain data elements for a specific topic area. The following is a list of each record and the subject area. A completed case file is in the appendix.

### File and Line Descriptions

#### Contents of Files

Within each file, information is categorized according to lettered lines, with each line representing a certain type of information.

The Probation File contains the following lines:

#### Social File:

- 'A' line - Identification number
- 'B' line - Name information
- 'J' line - Social information

#### Referral File:

- 'A' line - Basic referral information
- 'K' line - Detention information
- 'L' line - Charge information and count disposition
- 'M' line - Investigation information
- 'N' line - Intake information
- 'P' line - Register of actions information
- 'S' line - Calendar information (from court file)
- 'U' line - Case type, dates on/off supervision/probation
- 'V' line - Date skipped, courtesy supervision information
- 'W' line - Problem information
- 'X' line - Agency/service information
- 'Y' line - Date and reason for termination

## The 'W' and 'X' Records - The Program Module

The program module has two main objectives:

- 1) To establish a consistent ongoing data collection system to measure program effectiveness for separate districts and statewide; and,
- 2) To determine the short and long range effects of different treatment programs and services offered in probation.

The 'W' record (the problem record) and the 'X' record (the treatment record) are included in the probation case file. The layouts and data elements are as follows:

### 'W' LINE - PROBLEM FILE

```
-----  
W000 PROB No      INTL-DATE STATUS  CURR-DATE STATUS  FINL-DATE STATUS  
W010 ALCO 10      11-12-76 SEV     12-15-76 MOD     01-15-77 SLI  
  (1) (2) (3)      (4)   (5)         (6)   (7)         (8)   (9)
```

- ```
-----
```
- 1) LINE TYPE AND SEQUENCE NUMBER FOR 'W' LINE
  - 2) TYPE OF PROBLEM (PROBLEM AREA CODES)
  - 3) TYPE OF PROBLEM NUMBER (PROBLEM AREA CODES)
  - 4) INITIAL PROBLEM IDENTIFICATION DATE
  - 5) INITIAL STATUS OF PROBLEM (PROBLEM STATUS CODES)
  - 6) MOST CURRENT DATE OF PROBLEM EVALUATION
  - 7) MOST CURRENT STATUS OF PROBLEM (PROBLEM STATUS CODES)
  - 8) DATE TREATMENT OF PROBLEM TERMINATED
  - 9) STATUS OF PROBLEM AT TERMINATION (PROBLEM STATUS CODES)

### 'X' LINE - AGENCY/SERVICE

```
-----  
X000 P#  AGENCY SERV  DATE ON          TERM DATE PART  LEVEL REAS  RESULT  
X010 10  FTLOG  MICI   11-12-76        01-12-77  FULL  MORE  SATI  ALCH  
  (1) (2)  (3)  (4)    (5)             (6)   (7)   (8)  (9)  (10)
```

- ```
-----
```
- 1) LINE TYPE AND SEQUENCE NUMBER FOR 'X' LINE
  - 2) PROBLEM AREA NUMBER (PROBLEM AREA CODES)
  - 3) AGENCY PROVIDING SERVICE (AGENCY CODES)
  - 4) TYPE OF SERVICE REQUESTED FROM AGENCY (SERVICE CODES)
  - 5) BEGINNING DATE OF SERVICE WITH AGENCY
  - 6) ENDING DATE OF SERVICE WITH AGENCY
  - 7) CLIENT'S (CHILD) PARTICIPATION LEVEL (CLIENT PARTICIPATION CODES)
  - 8) LEVEL OF SERVICE RECEIVED BY CLIENT FROM AGENCY (SERVICE LEVEL CODES)
  - 9) REASON FOR TERMINATING SERVICE (TERMINATION REASON CODES)
  - 10) SERVICE AGENCY RESULT (RESULT CODES)

Please consult the appendix for codes.

## Sequence of Data Entry

When the probation officer has identified a problem, or problems, this is recorded in the 'W' record. The description of the problem, the initial status of that problem, and the date identified are entered at that time. Then, when a referral is made for services concerning that problem, the 'X' record is used. The record begins with the problem number identifier, and at time of referral, the agency, the service, and the date referred are entered. The system allows for any number of combinations of problems, agencies, and services. Additionally, 'W' and 'X' records can be established any time during probation.

When a service from an agency is discontinued, the rest of the 'X' record is completed. The date of service termination is entered, as well as the degree of client participation, the service level provided by the agency, the reason that the service was terminated, and the result of that service. The 'W' record is then updated: if further problem resolution is to be attempted, the current status and date are used. If the problem is not going to be worked with further, the final status and date are used. If there are to be additional services for the problem, additional 'X' records are used, the current status is updated, until resolution occurs. The information is based on the probation officer's subjective opinions as to the variables, and departmental definitions then will be developed. Through this module, the interrelationships between treatments, client participation, and agency services can be noted, as well as determination of the impact of these on problem resolution. Also, the ultimate influence of these elements on future re-entry into the court system can be measured.

## Reports Generated from the Program Module

Currently, there are six programs developed from these data. The first four are completed and tested and will be operational as soon as sufficient data have been entered. The fifth has been written and is being tested. The sixth is in the design phase. The first two are managerial in nature, and were designed to meet specific probation officer requests. The others are statistical, and attempt to measure the relationships between program variables and outcome measures.

### Program 1: Agency Status Report

This report lists, for each officer, the probationers who have been referred to other agencies. It also lists the services being received, and the date referred. This report serves as a listing of probationers referred elsewhere, to help the officers keep track of referrals. It is run monthly and is cumulative.

### Program 2: Problem Area Statistical Report

This report lists the service levels being received by the departments' clients as a whole. It lists, by problem area, the services rendered by an agency, and the service levels received. This serves as both a "library" of resources, and as an agency "accountability" index. It is also run monthly and is cumulative.

Program 3: Client Participation/Termination Reason Relationships by Petition and Case Type

This report shows the relationship, for each case type (i.e., CHINS sustained; delinquency continued) between the agency, service, client participation, and termination reason. This is listed by problem area. It is run quarterly, and is cumulative.

Program 4: Status Comparison Relationship Report

This report shows the relationship, for each problem area, between initial status of the problem, service level and client participation, and change in the status of that problem. Again, this is run quarterly and is cumulative.

Program 5: Program Participation/Probation Termination Report by Case Type

This report is the first of two which deals with the impact of program variables on recidivism. It shows, by case type and problem areas, the relationships between final program termination reason, final problem status, probation termination reason, and number and status of new court cases. It is for cases that have been terminated from probation. The time frame for follow-up is one year. Also included in this report are probationers who have not received treatment programs. Thus, comparisons as to the degree of program effectiveness can be made.

Program 6: Program Participation/Court Status Report by Case Type

This report, currently being designed, is the same as the last, except that it is concerned with clients currently on probation. Again, for each case type and by problem area, the program termination reason, current or final problem status, and the number and status of additional court cases will be recorded. Also, clients not receiving referral services will also be included in this report for comparison. This report, then, gives an indication of recidivism while on probation.

Present Project Status

Two departments have agreed to use the panel on a test basis. The officers have been consulted and are in agreement as to the usefulness of the output programs being generated. Input forms have been designed, and procedures for entering the data have been developed. It is planned that data entry will begin by February 1, 1977. At that point, return visits will be made to the other on-line districts to inform them of the status of the project. By the end of 1977, four more juvenile probation departments will be entering information.

## APPLICATIONS

There are two levels of use for this program module. The first is for the Judicial Department's management and budgetary needs, and the second is for the probation staff.

In Colorado, the Judicial Department supplies money to probation departments to purchase "contract services" from outside agencies. With this module, accurate information concerning agency effectiveness will be available; thus, "contract services" money can be more appropriately channeled. For planning purposes, successful programs can be identified, and implemented in other departments. Further, more adequate criminological research can be done in order to assess the overall impact of differential program use on recidivism.

The uses by the individual probation staff are different. The program module can help the probation officer in tracking his clients, both in terms of referrals and in problem resolution. Further, it will aid him in monitoring agency performance. In order to more effectively use the module, probation officers are being trained in the "problem oriented system" of caseload management, thereby introducing a new concept of caseload management. At the present time, training is being held for those departments using the module.



APPENDIX

Alcohol	ALCO
Delinquent Behavior	DELO
Drug	DRUG
Education	EDUC
Employment	EMPL
Family Relations	FAML
Mental Health	MENT
Peers	PEER
Physical Health	PHYS
Placement	PLAC
Recreation/Companion	RECR
Self-Image	SELF
Sex-Related Problem	SEX
Vocational Training	VOCT
Other	OTHR

PROBLEM STATUS CODE

Moderate	MOD
Satisfactory	SAT
Severe	SEV
Slight	SLI
Unknown	UNK

PROBLEM AREA CODES

AGENCY CODES  
DEVELOPED FOR EACH DEPARTMENT

SERVICE CODES

Alcohol Treatment In Patient Mental Health	ALMI
Alcohol Treatment In Patient Other	ALAI
Alcohol Treatment Out Patient Mental Health	ALMO
Alcohol Treatment Out Patient Other	ALAO
Diagnosis	DIAG
Drug Treatment In Patient Mental Health	DRMI
Drug Treatment In Patient Other	DRAI
Drug Treatment Out Patient Mental Health	DRMO
Drug Treatment Out Patient Other	DRAO
Education-Outside District-GED Facility	EOSG
Education-Outside District-HEP	EOSH
Education-Outside District-Junior College	EOSC
Education-Outside District-Upward Bound	EOSU
Education-Within District-Learning Disability	EISL
Education-Within District-Retardation	EISR
Education-Within District-Special Education	EISS
Employment Counsel	EMPL
Job Finding	JOBS
Medical Assistance-In Patient	MEDI
Medical Assistance-Out Patient	MEDO

Mental Health-In Patient-Client-Group	MICG
Mental Health-In Patient-Client-Individual	MICI
Mental Health-In Patient-Family-Group	MIFG
Mental Health-In Patient-Family-Individual	MIFI
Mental Health-Out Patient-Client-Group	MOCG
Mental Health-Out Patient-Client-Individual	MOCI
Mental Health-Out Patient-Family-Group	MOFG
Mental Health-Out Patient-Family-Individual	MOFI
Placement: Foster	PLCF
Placement: Group	PLCG
Placement: Independent Living	PLCI
Placement: Relative or Friend	PLCR
Religious	RELI
Substance	SUBS
Vocational Training-School	VOCS
Vocational Training-Other	VOCA
Volunteer-In House	VOLI
Volunteer-Private	VOLA
Unknown	UNKN
Other	OTHR

CLIENT PARTICIPATION CODES

Absconded	SKIP
Did Not Participate	DIDN
Participated Fully	FULL
Participated Partly	PRTL
Unknown	UNK

SERVICE LEVEL CODES

Different than Requested	DIFF
Less than Requested	LESS
More than Requested	MORE
Not Delivered	NONE
Same as Requested	SAME
Unknown	UNK
Unsatisfactory	UNSA

TERMINATION REASON CODES

Absconded	SKIP
Change in Client Needs	CHNG
Lack of Payment	NPAY
Moved	MOVE
New Referral	NEW
Program Completed-Satisfactorily	SATI
Program Completed-Unsatisfactorily	UNSA
Probation Revoked	PREV
Probation Terminated-Satisfactory	TRMS
Unknown	UNK
Other	OTHR

RESULT CODES

Alcohol Use Controlled	ALCH
------------------------	------

Attends School Regularly	SCHL
Child Moved Home	HOME
Child Placed	PLAC
Drug Use Controlled	DRUG
Got a GED	GED
Got a Job	JOB
Got Job	GOTJ
Home Situation Improved	HIMP
Health Problem Corrected	HLTH
Learned a Skill-Vocational	SKLL
Makes Friends	FRND
No Addition Contacts	NCNT
No Change	NCHG
No Longer Suicidal	SUIC
Respects Self	SELF
Sex Related Problems Alleviated	SEX
Works Well With Others	WORK
Other	OTHR

PROBATION DISPLAY: SOCIAL INFORMATION

AG 01 IDEN #  
 AG 01 517478

CTL  
 PCA

B000 LAST NAME FIRST M TI COM BIRTH DT S C HGT WGT HR EYS IDEN4 PCOD  
 B010 WINTERFIELD ELLIOT L CHL 12-12-55 F B 50005 INW  
 B020 WINTERFIELD A PFA - -

J010 SCHOOL NAME GR PERF ATTEND BEHAVIOR CHILD OLD-YNG MST5 DATE  
 J010 DENVER JR HIGH 10 0250 GOOD COOP 06 18 04 MAR 01-01-77

PROBATION DISPLAY: INTAKE/PROBATION INFORMATION

AG 01 IDEN # REF DATE C P YR CASE # FLG DATE  
 AG 01 517478 10-11-76 3 G 76 000327 - - CTL  
 PCA

K010 AGENCY DET TYPE HRG-DATE JUDG ACTION # OPEN  
 K010 SSERV D DETN 10-12-76 JJJV A222

L010 STATUTE NUMBER S C# P OFFENSE DESCRIPTION TYP VIC DNG DISP  
 L010 018-04-401( ) ( ) 1 A THEFT PL N NOB  
 L020 018-04-402( ) ( ) 2 D THEFT OF RENTAL PROPERTY DA N NOB

M010 INVEST DT COMP INVEST AGENCIES HOURS RECOMMENDATION INV PO  
 M010 PREL 10-14-76 PB-PL-DA-SS- - 004 00 FILE FILE PETITION 00305

N010 INTAKE DISPOSITION DATE  
 N010 FILE FILE PETITION 10-14-76

U010 TYPE PETN ORDER IND DT-ON-SUPV TERM-DATE NEXT-REVM OTHER #  
 U010 THEFT CPET SUPV 10-14-76 10-14-77 06-14-77

V010 DT-SKIPPED DATE-RETND CRTSY-SUPV DATE IND-SUPV VOL-PO  
 V010 11-14-76 11-15-76 - - IS V

PROBATION DISPLAY: INTAKE/PROBATION INFORMATION

AG 01 IDEN # REF DATE C P YR CASE # FLG DATE  
 AG 01 517478 10-11-76 3 G 76 000327 - - CTL  
 PCA

W010 PROB NO INTL-DATE STATUS CURR-DATE STATUS FINL-DATE STATUS  
 W010 EDUC 04 10-14-76 SEV - - - -

X010 P# AGENCY SERV DATE ON TERM DATE PART LEVEL REAS RESULT  
 X010 04 CLAYT EISS 10-15-76 - -

PROBATION DISPLAY: COURT CASE INFORMATION

0000 C A CASE NO. ENTITLEMENT S NEXT-APP CR FIL-DATE TYPE LAST-CHG RF  
 00 3 G 76000327 P 06-07-76 B 01-01-76 GUARD - -  
 001 IN THE MATTER OF THE PETITION OF CONCERNING THE

SS	CR	DATE	TIME	JUDG	P	REAS	DESCRIPTION	EST	HRS	DISP	FUT-DATE	CHILD
00	B	06-07-76	08:00	JJV		REVN		0.0		CONT	- -	1
00	B	03-01-76	08:00	JJV		DISP		0.0		JUDG	- -	1
00	B	01-01-76	08:00	JJV		HEAR		0.0		CONT	- -	1

PROBATION DISPLAY: INTAKE/PROBATION INFORMATION

00 IDEN # REF DATE C P YR CASE # FLG DATE CTL  
 0 517478 12-07-76 3 000000 - - I T

0000 AGENCY DET TYPE HRG-DATE JUDG ACTION # OPEN  
 00 0 SSERV - -

0000 STATUTE NUMBER S C# P OFFENSE DESCRIPTION TYP VIC DMG DISP  
 00 0 018-04-401( ) ( ) 1 0 THEFT FL N NOD

0000 INVEST DT COMP INVEST AGENCIES HOURS RECOMMENDATION INV PO  
 00 0 PREL 12-08-76 FB-DA- - - - 002 00 LECT LECTURE AND RELEASE 00005

0000 INTAKE DISPOSITION DATE  
 00 0 LECT LECTURE AND RELEASE 12-08-76



**END**