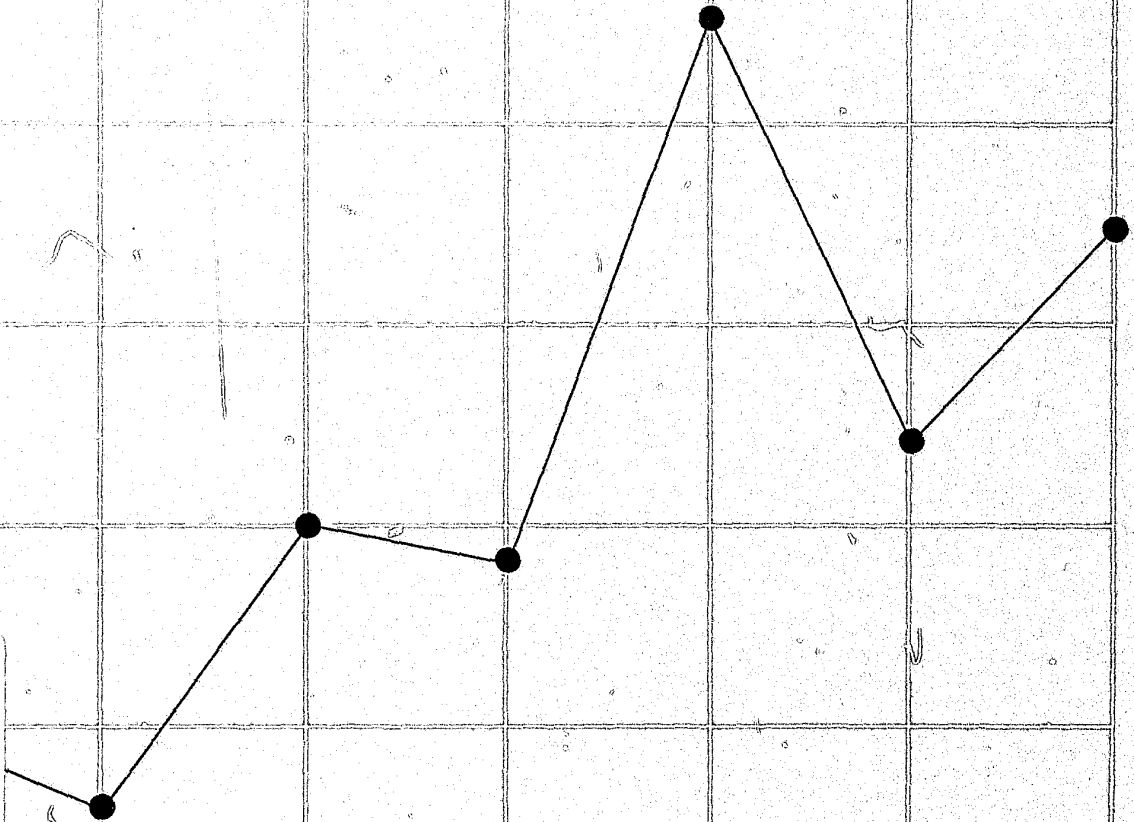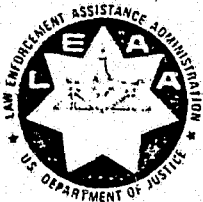# Instructors Guide

Introduction to Analysis of Crime and the Criminal Justice System

44734

Introduction to Analysis of Crime and the Criminal Justice System

James M.H. Gregg, Acting Administrator
Perry A. Rivikind, Assistant Administrator
Office of Operations Support

NCJRS

JAN 12 1978

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PREFACE

The purpose of this Instructor Guide is to provide trainers with
the basic material needed for them to deliver the Introduction to
the Analysis of Crime and the Criminal Justice System course.
Included in this manual is the necessary information for organiz-
ing the individual components of the training program. The Guide
has been organized in instructional sequence, and reads like a
script. Each module is initiated with a brief statement concern-
ing the rationale for the particular module and its relationship
to the major course themes. In addition, guidelines concerning
organization of specific portions of the module and timing are
included.

Trainers should, in preparing for their activities, be sure to
utilize the Text. The Guide has been prepared to parallel the
presentation of material in the Text. Throughout the Guide the
modules have been organized with the same topic outline used in
the Text. Following the Rationale and Recommendations facing
pages have been formatted into five columns as illustrated in
Exhibit 1. The Topic Outline, which appears in column 1,
corresponds to the Text outlines for each module and appropriate
page references to the Text have been provided for reference.
In developing presentations trainers should utilize the material
in the Text. The Guide does not present this information, which
is critical to the achievement of course objectives.

The second column is reserved for reproductions of all slides
developed to accompany the presentations. The slides are organized
in this column in instructional sequence and are utilized through-
out the training program. The slides introduce concepts, high-
light critical elements of the training program, and serve to focus
and organize the program of instruction. It is important that these
slides be used in their present sequence and at the times alotted.
This will help to assure continuity thorughout the week of training
and coverage of the basic information. (Page-sized copies of all
slides are appended to each module in the Guide.)

The third column, Presentation Guide, serves three major purposes.
It provides suggestions and recommendations for presentation of
specific sections of the course. Second, it provides a brief nar-
rative keyed to each of the slides to assist in their presentation.
Finally, the Presentation Guide makes specific recommendations
concerning the trainer's role in conducting the exercises of the
training course.

The emphasis in this training program is on an interactive parti-
cipatory learning environment. Exercises have been developed with
this objective in mind as has the Instructor Guide. This Guide is
not a script to be read to the participants. It should be viewed
as a tool to assist in a difficult task. The Presentation Guide
narrative provides important information specifically written with
the Instructor's needs in mind.

The next to the last column is blank for the trainer's notes and
comments. The final column presents the approximately delivery time
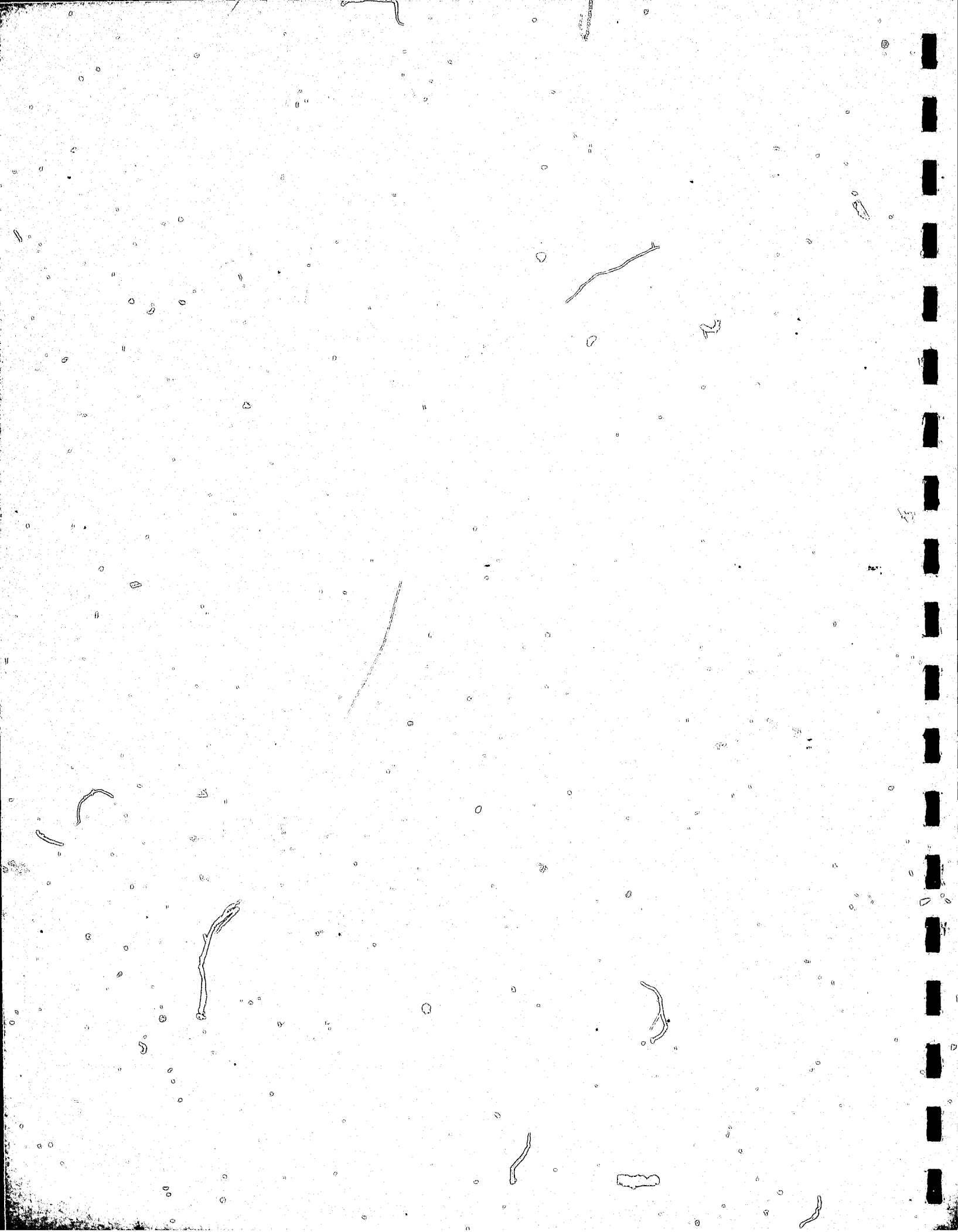for the particular components of the training program.

INTRODUCTION TO ANALYSIS OF CRIME
AND THE CRIMINAL JUSTICE SYSTEM

FOREWORD
ACKNOWLEDGEMENTS

Foreword

The Law Enforcement Assistance Administration is actively engaged in providing assistance to state and local governments to support their planning capabilities. Good planning is indispensable to the development and implementation of effective programs for improving criminal justice and reducing crime. Planners know that they must begin with an analysis of the crime and criminal justice problems they face and that the chances for a rational allocation of the system's scarce resources are enhanced when the relevance of the data to the problem at hand is clearly apparent.

A powerful tool at the planner's disposal is the data collected and analyzed during the earliest steps of the planning process. However, it is in these early steps that the greatest difficulties are encountered.

The expertise of analysts, planners, researchers, statisticians, and of greatest importance, people who have had direct personal experience with state and local crime analysis and planning processes have been tapped by LEAA to develop and deliver a training course which is an <u>Introduction to Analysis of Crime and the Criminal Justice System</u>. This training course is being offered to state and local governments to assist and support their capabilities to identify, acquire, and utilize the best available data, analytic techniques, and problem-solving methods.

LEAA has developed a training course in <u>Planning</u>, and has under development a course in <u>Evaluation</u>. The design of these programs of instruction is intended to form a comprehensive and complementary package for the assistance of state and local criminal justice agencies. These three courses, the <u>Planning</u> course, and the <u>Analysis</u> and <u>Evaluation</u> courses--once successfully pilot-tested--are being offered by the LEAA sponsored Criminal Justice Training Center system.

The analysis course materials, including the <u>Text</u>, <u>Instructor Guide</u>, and <u>Administrative Plan</u>, are to be considered

in draft form until the final pilot-testing of the materials is successfully completed by the Criminal Justice Training Center at the University of Southern California. Upon successful pilot-testing in December, 1977, the material and course are to be made available throughout the Training Center system during 1978.

Acknowledgements

The <u>Introduction to Analysis of Crime and the Criminal Justice System</u> curriculum material is the product of over a year's effort on the part of numerous practitioners, academics, and professional organizations. This development process was divided into two phases. During the initial phase, the curriculum development effort was coordinated by Abt Associates. Five pilot offerings of the course were delivered by the State University of New York at Albany and were evaluated by the American Institutes of Research. As a result of these pilot experiences, a revision of the curriculum was undertaken.

Overall supervision of the curriculum development and revision effort was provided by Seth I. Hirshorn with the assistance of Laura R. Studen. Vincent O'Leary supervised the initial pilot offerings of the course given by SUNY-Albany, and Harris Shettel provided evaluation comments during the initial pilot offerings of the course.

Considerable assistance in the early planning stages of this project was provided by the National Conference of State Criminal Justice Planning Administrators, National Association of Criminal Justice Planning Directors, Criminal Justice Statistics Association, the National League of Cities/U.S. Conference of Mayors, and the National Association of Counties.

During the initial phase of course development, overall direction of the curriculum and delivery of the pilot offerings was a cooperative endeavor within LEAA. Primarily involved were the Office of Planning and Management, the National Criminal Justice Information and Statistics Service, and the Training Division of the Office of Operations Support. Leonard Oberlander of the Office of Planning and Management and Marianne Zawitz of the Statistics Division monitored the first phase of the Project. The revision phase of the course's development was directed by the Training Division, Office of Operations Support. John Moxley of the Training Division was project monitor during this revision phase.

The revision of the material was assisted by the formation of an Advisory Group. This group of practitioners, identified on the following page, provided critical judgement in further developing and improving the curriculum.

Finally, recognition must be given to the pilot course instructors and participants who provided both patience and suggestions in recommending revisions to the curriculum--recommendations which are reflected in this material.

ABT ASSOCIATES--Initial Curriculum Development and Revision

Project Director	Seth I. Hirshorn
Project Associate	Laura R. Studen

Project Assistants	James Beha	Paul Cirel	Andrew Halper
	Carol Blew	Ralph Earle	Richard Ku
	Gerald Bryant	James Fox	Murray Naditch
	Ken Carlson	Stanley Grabowski	Marda Mayo
	Bernard Coffey	Ilene Greenberg	

Consultants

Leo A. Sch erman	University of Southern California, Social Science Research Institute
William H. Hutchin	.lifornia Bureau of Criminal Information
William A. Hamilton	Institute for Law and Social Research
John L. McCarty	Institute for Law and Social Research
William D. Falcon	Institute for Law and Social Research
Alfred Blumstein	Carnegie-Mellon University
Michael Lettre	Maryland State Planning Agency
Roberta S. Sklower	Louisiana Statistical Analysis Center
Charles D. Weller	Denver Anti-Crime Council
Jim Wilson	Oklahoma Statistical Analysis Center
Charles Friel	Texas Criminal Justice Center
Steve E. Kolodney	Search Group Inc.
Miles J. Enis	Search Group Inc.
Paul Mott	Mott-McDonald Associates
Leo Holliday	Rand Corporation

Project Secretary	Mame Lyttle

STATE UNIVERSITY OF NEW YORK-ALBANY--Initial Pilot Delivery

Project Director	Vincent O'Leary

Project Assistants	Robert Hardt	Michael Buckman	Sue Mitchell
	Michael Hindelang	Tim Flanagan	Tim Veiders
	Mark Cunniff	John Laub	Jerry Stowell
	Barbara Broderick	Joan McDermott	

AMERICAN INSTITUTES FOR RESEARCH--Initial Pilot Course Evaluation

Evaluator	Harris Shettel

ANALYSIS COURSE ADVISORY GROUP--Provided assistance during curriculum revision	

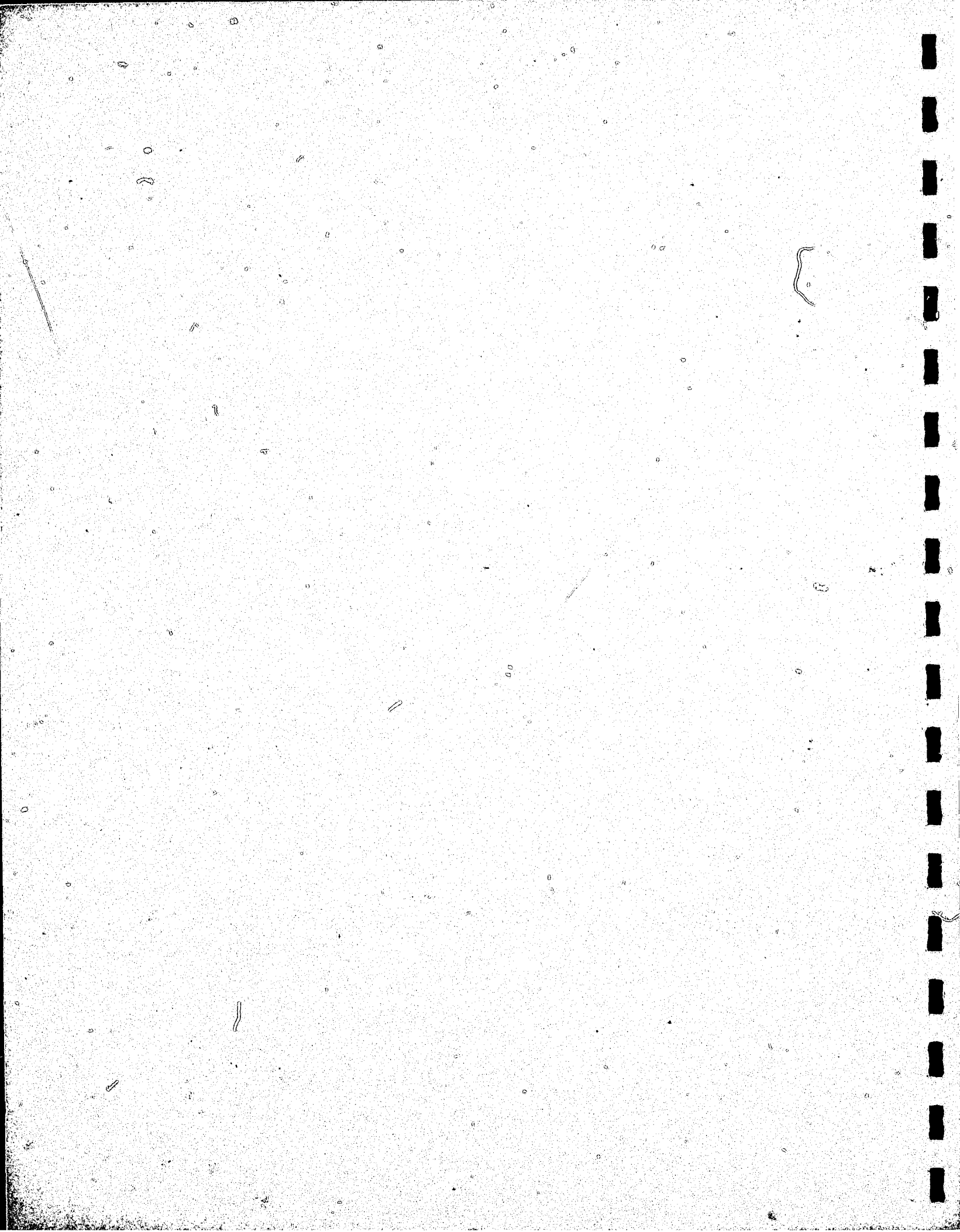|	
Richard N. Ulrich	Director, Training Division, Office of Operations Support
John Moxley	Training Division, Office of Operations Support
Benjamin H. Renshaw	Director, Statistics Division, National Criminal Justice Information and Statistics Service
Marianne Zawitz	Statistics Division, National Criminal Justice Information and Statistics Service
Paul Estaver	Manpower Specialist, Philadelphia Regional Office, LEAA
Ted Trott	Executive Director, Maine Criminal Justice Planning and Assistance Agency
Robert Stonek	Director, Criminal Justice Training Center, University of Wisconsin-Milwaukee
Tishe Elston	Hillsborough County Planning Unit, Tampa, Florida
Rebecca Wurtzburger	Criminal Justice Planning Institute, University of Southern California
Harris Shettel	American Institutes of Research
Robert Ragsac	Criminal Justice Planning Board, San Jose, California
John Carr	Denver Anti-Crime Council, Denver, Colorado
Robert Galatti	Director, Criminal Justice Training Center, Northeastern University
Ed Minnihan	Wisconsin Council on Criminal Justice
Al Benson	Washington Metropolitan Council of Governments

INTRODUCTION TO ANALYSIS OF CRIME
AND THE CRIMINAL JUSTICE SYSTEM

INTRODUCTION

INTRODUCTION

Rationale

The function of the Introduction is to give participants an over-
view of the course's structure, content and methods. It should
tell participants what they will learn, thereby establishing
realistic expectations for the course. In addition, the Intro-
duction also must motivate the participants by presenting the
overview in an interesting manner, and by elaborating the benefits
of data analysis to participants.

Recommendations

The Introduction should be presented by the Lead Instructor. It
is broken into two parts. Between 9:00 a.m. and 9:20 p.m. the
Lead Instructor should present the slides for the Introduction.
In using these slides, and as a rule-of-thumb for all slide pre-
sentations, the Instructor should show the slide first, pause a
few moments so participants have a chance to study it, and then
proceed with the verbal presentation of the slide.

The second part of the Introduction is set aside to review the
Course Agenda, and to go over any administrative matters. The
Introduction should conclude by 10:00 a.m.; total duration approx-
imately 60 minutes.

TOPIC OUTLINE	SLIDES

I. Course Audience

#1

II. Course Themes

#2

A. Analysis as a Process

#3

B. Analysis as a Set of Tools

#4

C. Analysis as a Set of Skills

#5
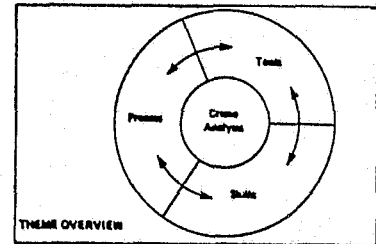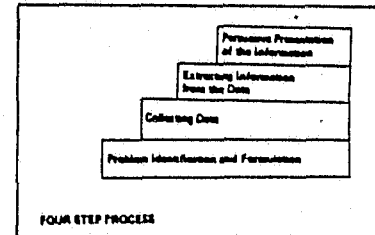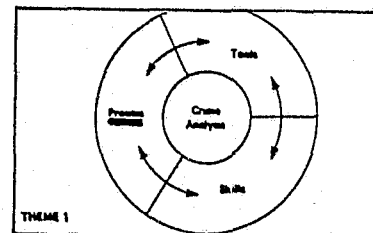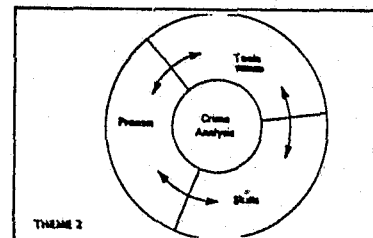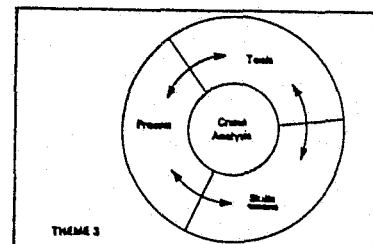
#1 This slide is a logo for the
    course and introduces the basic
    elements of the training pro-
    gram.

#2 You may want to use a mnemonic
    to assist participants in remem-
    bering this four-step process.

          PRO COL EX PRES

    Problem Formulation
    Data Collection
    Data Interpretation
      (extracting information from
      data)
    Presentation of findings

    PRO COL EX PRES should be prom-
    inently written on newsprint
    or the chalkboard.

#3-#5 The theme logo provides a
    graphic description of the
    course. The instructor should
    emphasize the connections
    between the themes and their
    interactive nature. The three
    themes together provide a work-
    ing definition of analysis as
    used in this course.

TOPIC OUTLINE

III. Course Structure

   A. Overall Framework

   B. Goals and Objectives

#6

#7

#8

#9

#10

#11

#12

4

#6 This slide is used to demon-
   strate how the course themes
   have been elaborated into
   instructional modules and how
   the themes overlap and serve
   to integrate the week of
   instruction.

#7-#12 Once themes had been estab-
   lished, the development of the
   course necessitated specifica-
   tion of goals and objectives
   and these had to be covered by
   the content of the modules.
   This slide is an example of how
   goals and objectives for the
   course have been specified.

C. Modules

#13

Module 1:   PROBLEM FORMULATION

What is re?

How is it done?

What are the outcomes?

#14

Module 2:   DATA COLLECTION

What types?

What sources?

What uses?

What limitations?

#15

Module 3:   DATA INTERPRETATION—CRIME

What are the quantitative tools?

How do these techniques work?

How are these techniques used?

#16

Module 4:   DATA INTERPRETATION—SYSTEM

What makes up the criminal justice system?

How can you analyze performance?

#17

Module 5:   IMPLEMENTATION

How do you structure a Data Collection Plan?

How do you prepare an Analysis Plan?

#18

Module 6:   PRESENTATION OF FINDINGS

How to prepare persuasive products of analysis?

How to use the Products of Analysis?

D. Overall Framework
Revisited

#19

ANALYSIS PLAN DEVELOPMENT STAGES, ANALYSIS PL					
STAGES IN DEVELOPING AN ANALYSIS PLAN	Steps produces for which analysis is needed	Identify outcomes & set the findings	Specify desired products types those to be answered	Access available information & formulate hypotheses to be tested	Identify various needs sources of var
ANALYSIS PLAN COMPONENTS	Statement of the Problem	Analyze identification & Use for product	Products	Hypotheses	List of needed & mea

#13-#18 Each of these slides high-
lights the module's content in
the form of questions.
Instructors should prepare
additional questions to sup-
plement the slides.

This didactic prepares the par-
ticipants to expect answers and
serves as another motivator.

In a sense the course supplies
the knowledge, skills and tools
the participant needs to answer
these questions.

#19 Instructor is to go over
briefly what an analysis plan
is, what its components are,
and relate these to the course
structure.

TOPIC OUTLINE ─────────────────────────   SLIDES

IV. Agenda

V. Organization of Text

VI. Administrative Issues

TOPIC OUTLINE

8

The Instructor should indicate the following:

- the schedule of activities
- the emphasis on exercises
- the emphasis on participant involvement

V.   Instructor should go through the Text and elaborate its structure and uses. Emphasis should be given to:

- the functions of each part of the Text:
    - Abstract: Goals and Objectives, Topic Outline
    - Narrative: Text, Graphics

- how it is used throughout the course, i.e., lectures follow outlines, exercises are elaborated, examples are provided.

It is recommended that copies of the Text be distributed during Registration so that participants will have had a chance to skim the materials prior to the Introduction.

VI. Local option.

THEME OVERVIEW

A-1

Persuasive Presentation
of the Information

Extracting Information
from the Data

Collecting Data

Problem Identification and Formulation

FOUR STEP PROCESS

Tools

Process

Crime
Analysis

Skills

THEME 1

THEME 2

A-4

13
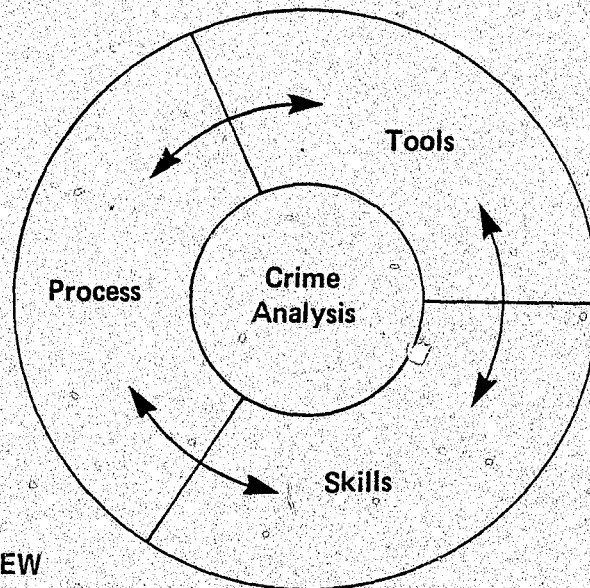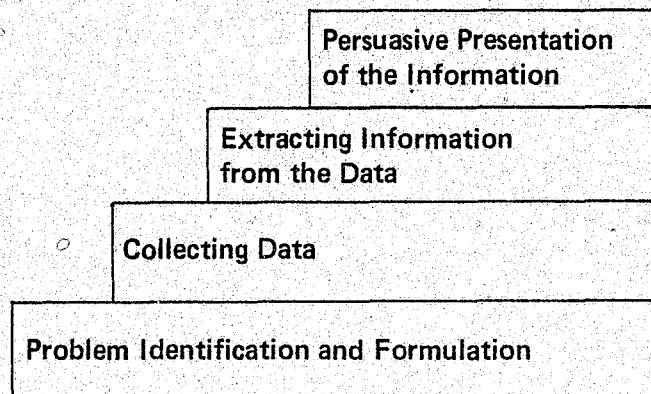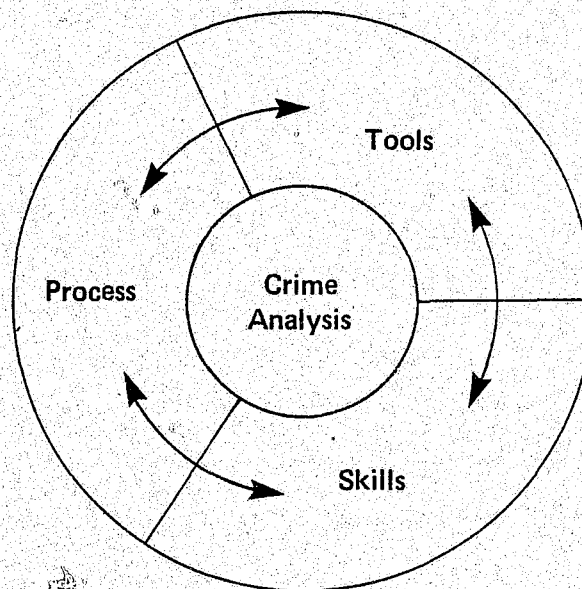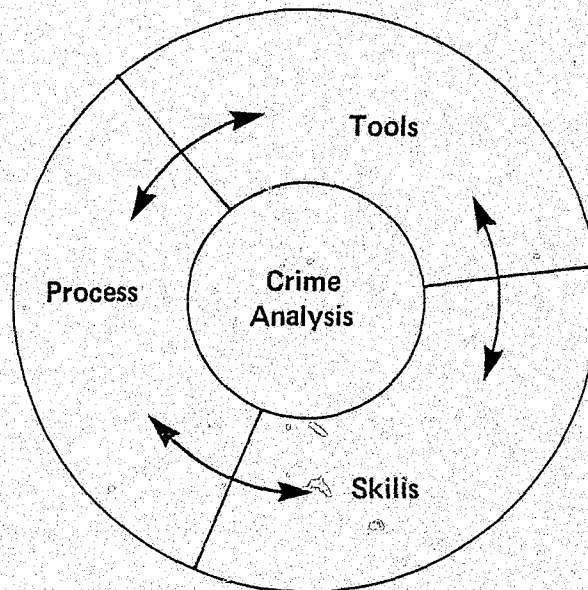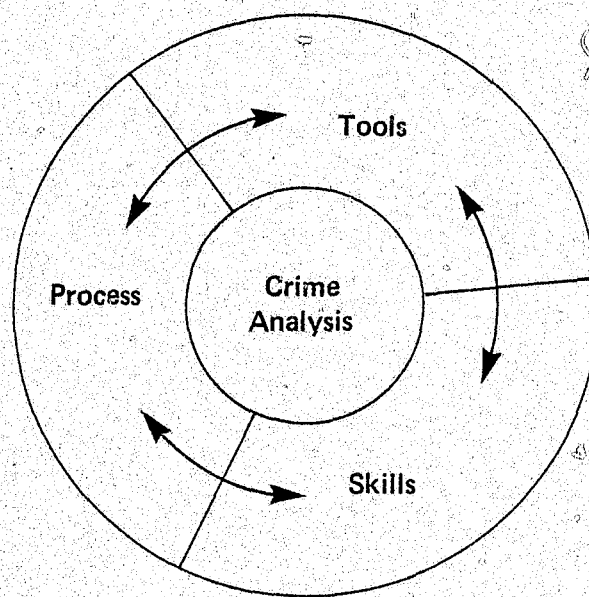
THEME 3

EXHIBIT 1
RELATIONSHIP OF COURSE THEMES AND GOALS

THEME 1: Analysis as a process

THEME 2: Analysis as a set of tools

THEME 3: Analysis as a set of skills

Module: Problem Formulation

Module: Data Collection

Module: Data Interpretation:Crime

Module: Data Interpretation:Systems

Module: Implementation

Module: Presentation of Findings
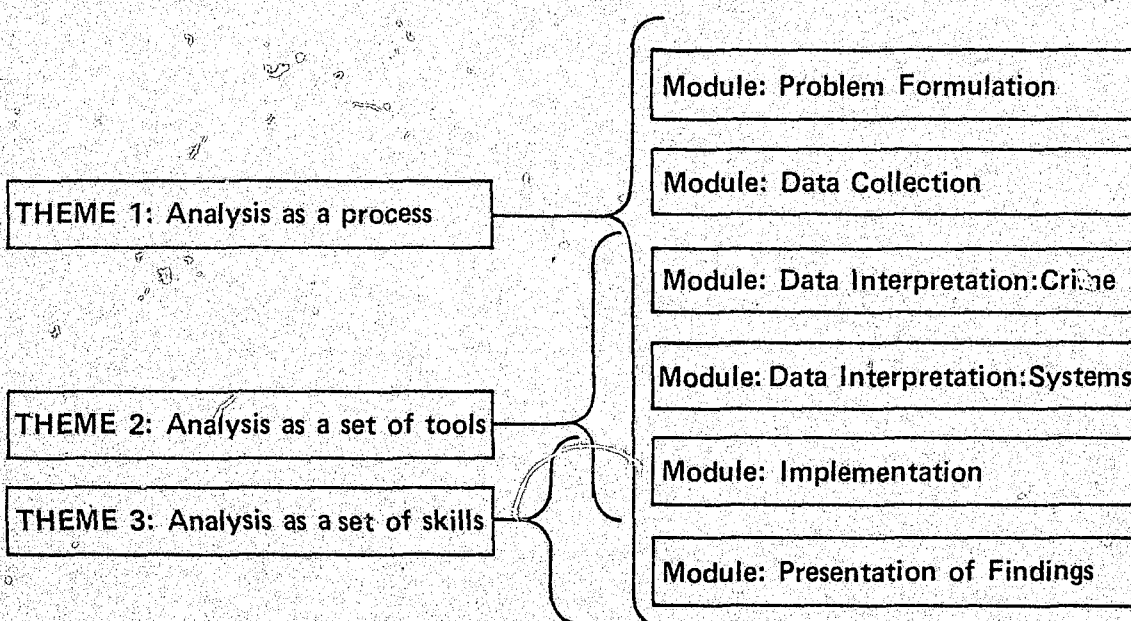
Goal 1:   To define analysis as

- a process
- a set of tools and
- a set of skills

Objective:

- Define analysis
- List points in planning process model where analysis is useful/necessary
- List/explain perceived barriers/facilatators to analysis
- Ask questions needed to analyze a given crime problem
- List barriers/facilitators of analysis for a given crime problem

A-7

Goal 2: To develop "know how" about range and type of data, obtaining and collecting data needed for analysis.

Objective:

- Note strengths/weaknesses, and apply Actual Crime Data, Public Opinion Data, Reported Crime Data, Systems Data, and Juvenile Data.

A-8

Goal 3: To build "know how" of the types of strengths and limitations of needed quantitative skills to perform analytic tasks.

Objective:

- Identify descriptive/comparative techniques and indicate level of mathematics required for each.
- Match analytic techniques applicable to a given crime problem.
- Apply analytic techniques to sample crime problems.

A-9

Goal 4: To know how criminal justice systems work and use this knowledge to determine the level of system performance.

Objective:

- Define functional areas of criminal justice system with diagram for resources/cost data.
- Track a defendant through the system.
- Isolate problems in the system and assess alternative remedies using OBTS and MAS.

A-10

16

Goal 5: To develop skills in getting at available/accessible data, as well as new sources of data.

Objective:

Identify the crime problem, formulate questions to be addressed, devise an analysis plan, and construct a data collection plan for a sample jurisdiction.

Identify the uses of local surveys and existing criminal justice information system data.

A-11

Goal 6: To interpret/present analytic findings in context of agency objectives and environmental factors.

Objective:

State analysis findings in narrative/graphical representations.

A-12

Module 1: PROBLEM FORMULATION

What is it?

How is it done?

What are the outcomes?

A-13

Module 2: DATA COLLECTION

What types?

What sources?

What uses?

What limitations?

A-14

17

Module 3:   DATA INTERPRETATION—CRIME

What are the quantitative tools?

How do these techniques work?

How are these techniques used?

A-15

Module 4:   DATA INTERPRETATION—SYSTEM

What makes up the criminal justice system?

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A-16

Module 5:   IMPLEMENTATION

How do you structure a Data Collection Plan?

How do you prepare an Analysis Plan?

A-17

Module 6: PRESENTATION OF FINDINGS

How to prepare persuasive products of analysis?

How to use the Products of Analysis?

A-18

ANALYSIS PLAN DEVELOPMENT STAGES, ANALYSIS PLAN COMPONENTS, USES, AND MODULE REFERENCE

STAGES IN DEVELOPING AN ANALYSIS PLAN	State *problem* for which analysis is needed	Identify *audience &* *use* for findings	Specify desired products (questions to be answered)	Review available information & formulate *hypotheses* to be tested	Identify *variables* needed & measurement of variables	Identify & select *data sources*	Select *analysis techniques*	Determine target *manpower, equipment* and *time* needed	Estimate *costs*	Select *presentation* format & *dissemination* procedure
ANALYSIS PLAN COMPONENTS	Statement of the Problem	Audience Identification & Use for products	Products	Hypotheses	List of variables & measures	Data Collection Plan	Selected Analysis Technique(s)	Work Plan	Costing	Presentation & dissemination plan
USE (WHAT EACH STAGE TELLS THE PLANNER)	WHY		WHAT			HOW		WHEN & BY WHOM	HOW MUCH	FOR WHOM
MODULE REFERENCE	MODULE 1: PROBLEM FORMULATION				MODULE 2: DATA COLLECTION		MODULE 3: DATA INTERPRETATION — CRIME / MODULE 4: DATA INTERPRETATION — SYSTEM	MODULE 5: IMPLEMENTATION		MODULE 6: PRESENTATION OF FINDINGS

A-19
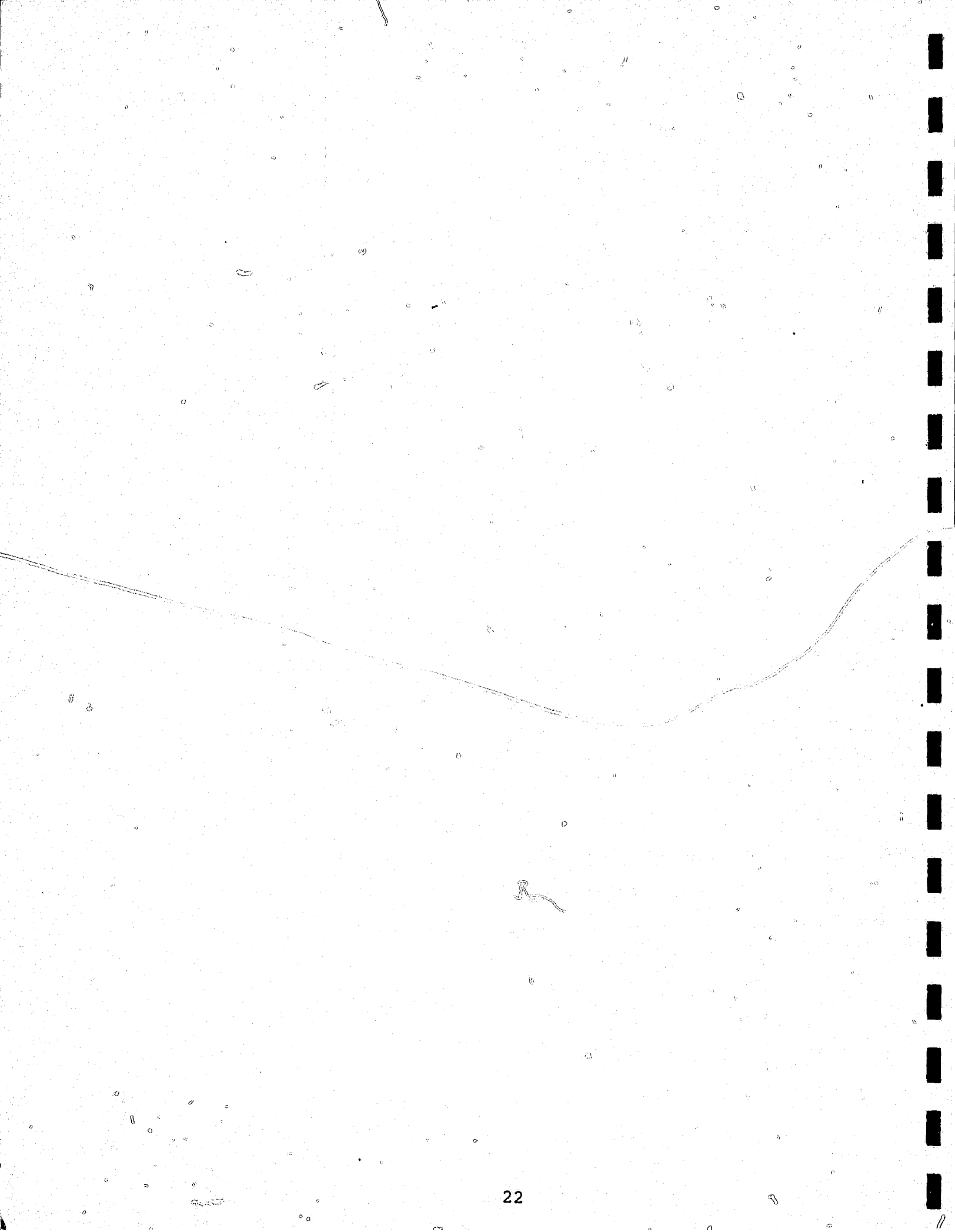
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U.S. Department of Justice
Law Enforcement Assistance Administration
Washington, D.C.
1977

INTRODUCTION TO ANALYSIS OF CRIME
AND THE CRIMINAL JUSTICE SYSTEM

MODULE 1: PROBLEM FORMULATION
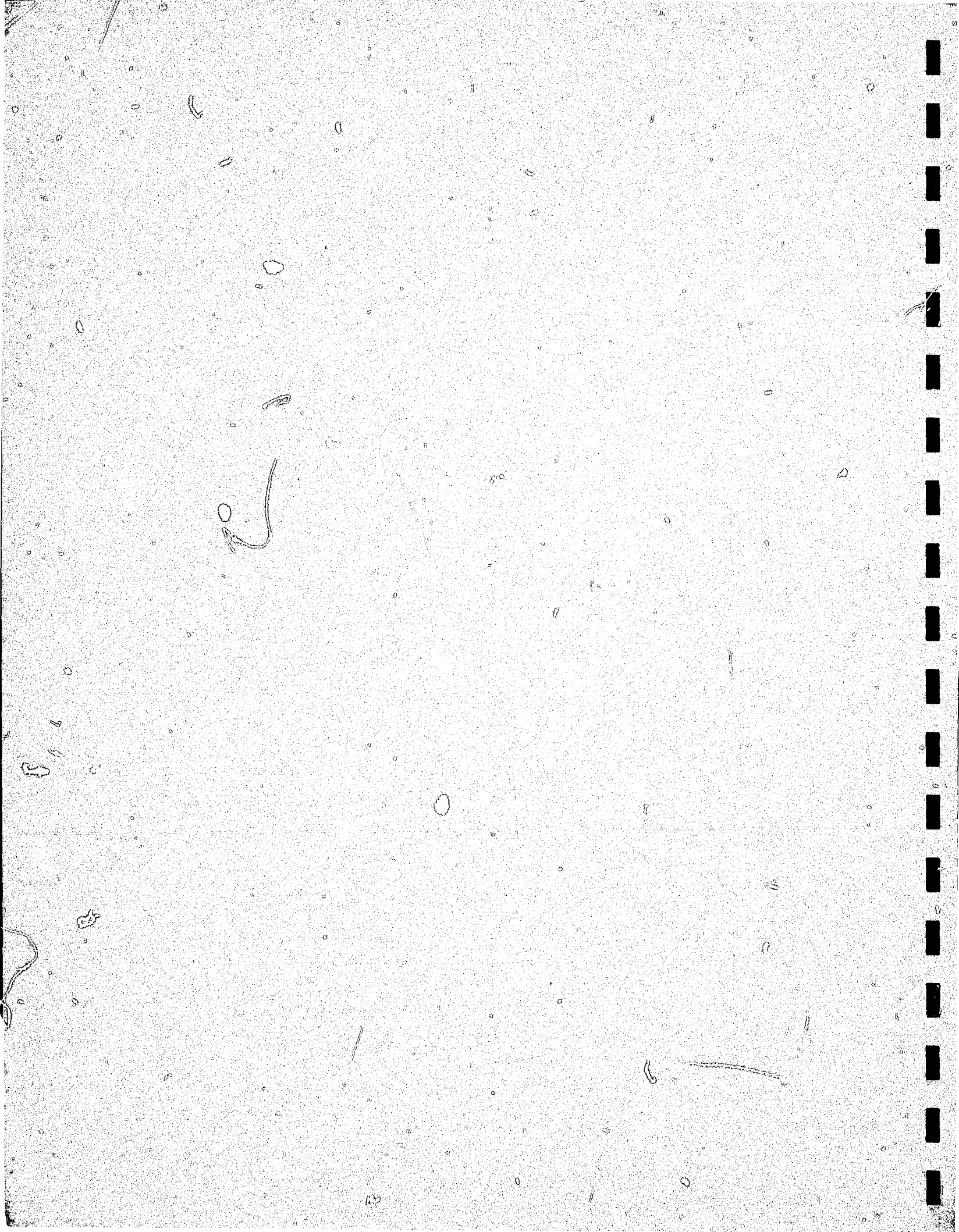
MODULE 1:   PROBLEM FORMULATION

Rationale

This module both establishes a working definition for analysis and elaborates the initial step in the analysis process--problem identification and formulation.   Analysis is defined as a four-step process related to both the traditional definition of the scientific method and current perspectives from the policy sciences in which the policy analyst converts data into information which is used persuasively to affect public decision-making.

This module also involves initiating trainee participation in exercises.   The first exercise is intended to help the individual participants understand the process theme of the course by forcing them to compare models of both planning and analysis to their present organizational experiences.   Exercise Two results in the development of a rank-ordered listing of crime problems.   These problems will be used as a reference during the entire course.

Recommendations

This module calls for an Instructor who will present the lectures and oversee the exercises.   For the exercises four other staff members will be required to facilitate small group discussions.

When Section IIB (see Topic Outline) Problem Statements is approached, the Instructor should indicate to participants that they should review the four problem statements in the Text on pages 1-16-1-19 during the lunch break.   After the break the Instructor can proceed to discuss these statements by calling attention to the critical elements contained or missing from each.

The exercises are participatory learning didactics.   The allocated times are approximations.   The Instructor must be attuned to the groups, extending the discussion time or shortening it as necessary.

The total time allotted for Module 1 is 150 minutes.   It should conclude no later than 1:30 p.m. following the lunch break.

SLIDES

Introduction

#1

#2

I. Criminal Justice Planning

A. Major Characteristics of Planning

#3

#4

#1 Instructor should begin by
   putting module into perspective
   using the course themes, the
   Analysis Plan, and specific
   module objectives.

#3 This portion of the lecture
   should be extracted from the
   narrative portion of the Text
   and elaborated with Instructor
   examples, anecdotes and refine-
   ments. Specifically, the
   Instructor is to elaborate with
   local examples the four char-
   acteristics of planning (Text,
   p.1-1) and go over the general
   planning model (Text, Exhibit
   1-1) in detail.

B. Relationship of Data Analysis to Criminal Justice Planning

   1. Planning Agency Functions and Analysis

      a. Allocation of Resources by Geographic Unit

#5

FORMULA FOR ALLOCATION OF FUNDS TO SUB-STATE JURISDICTIONS

LOCAL ALLOCATION = LOCAL POPULATION SHARE + CRIME SHARE + CRIME GROWTH

#6

RANKING FORMULA

LOCAL ALLOCATION PRIORITIES = RANK — SUMS RANKED

      b. Establishment of Initiatives

      c. Assessment of Competing Proposals

      d. Allocation of Resources Among Functional Components

   2. General Planning Process Model and Analysis

10:20
a.m.

These slides require reference
to Exhibits 1.2 and 1.3 for ex-
planation of the procedures used.
The Instructor is to compare the
two approaches of allocating
resources geographically noting
the different results and the
importance of analysis. The
Instructor is to quickly go over
the other three functions which
have analytic components, and
should ask the participants for
other agency functions not identi-
fied which have analytic com-
ponents.

The concluding portion of this
presentation is to focus on the
explicit links between analysis
and the general planning model.

10:40

Break

11:00

Exercise #1:

The Relationship of Analysis to Planning

Begin by explaining the purpose of
the exercise. Then, divide the
participants into groups of four
or five (depending on the number
present) so that you have no more
than five groups.

Each group is to have one staff
person. Instructor should take one
group so that four other staff
members are necessary to facili-
tate discussion.

After groups are formed, ask one
of the participants in each group
to be a recorder to take notes on
the responses of the group to the
questions.

Next, ask each group to turn to
the exercise in the Text and to
consider question a. Using you
own small group as a guide for
timing, after about five minutes
ask the recorder in each group to
write on newsprint the assumptions
formulated by their group.

Put the newsprint sheets on the
wall and ask the group-at-large
to comment on the responses.

When participants have made their
comments, tell the small groups
to resume their discussions taking
up questions b through g. Tell
them they will have 25 minutes for
their work.

At the end of 25 minutes ask the
recorder from each group to give
a final brief summary of their
responses to question b. Write
the main points on newsprint. Do
the same for questions c through g.

The entire exercise should take no
longer than 60 minutes.

At the lunch break the Instructor
is to ask the participants to read
the Problem Statements in the Text
(p. 1-16) before the afternoon
session.

11:00

12:00

Lunch

29

II. Problem Formulation

#7

PROBLEM FORMULATION

#8

EXAMPLE OF PROBLEM STATEMENT

A. Defining Problems

#9

DETAILED SCHEMATIC OF THE ANALYSIS PROCESS

B. Problem Statements:
Four Hypothetical Examples
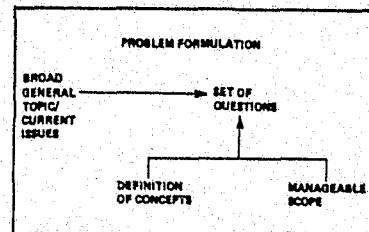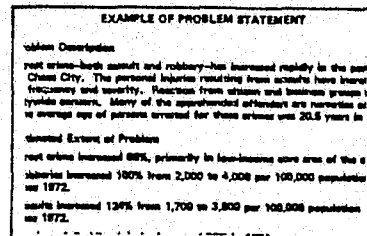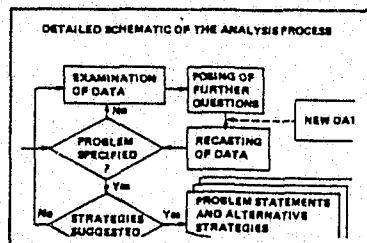
Briefly elaborate the way in which crime problems tend to be identified and how problems are then formulated in a manner that is compatible with data analysis. The Instructor is to identify good and bad characteristics of problem statements using slide #8 to work from. Criteria that should be considered include explicitness, clarity, testability, significance and relevance (see McGraw and Watson reference in bibliography).

1:00 p.m.

The Instructor should define analysis, relate it specifically to problem formulation, and more generally to the planning process. The detailed model of the analysis process is to be incorporated in this definition.

1:20 p.m.

The Instructor and participants are to identify and prepare a list of the characteristics of good and bad problem statements using the problem statements provided in the Text.

1:40 p.m.

Exercise #2:

Problem Formulation

Ask the participants to divide into the same working groups established in Exercise #1 and turn to the next exercise in the <u>Text</u>.

Ask each participant individually to list five crime questions/ issues/problems which have been the frequent focus in their respective jurisdictions. (Allow only five minutes.)

Next have the individuals within each group compare their lists and create a single group list (ten minutes).

Tell the groups they are to rank their problem statements in terms of how amenable they feel each problem is to analysis. List problems starting with the problem most amenable to analysis. Tell the recorder in each group to write these rankings on newsprint (15 minutes).

Place the newsprint reports on the walls during the break. Give each group an opportunity to justify their rankings. Preserve these newsprint reports for reference throughout the course. These lists should record all questions noted by the group; the Instructor should note which questions are most frequently surfacing and which are most difficult to analyze as well as identify trends observed in the origins of criminal justice problems. Once the questions are listed, discussion of which issues are amenable to analysis should surface two main points:

1. "Analysis" could mean a number of things and be a collection of a number of types of activities--policy analysis may be different from routine data analysis.

2. "Analysis" is a process, a collection of tools and skills needing careful definition if this training course is going

1:40 p.m.

2:20 p.m. Break

2:30 p.m.

33

SLIDES

Exercise #2:
Continued

to effectively transfer ana
lytic capabilities to the
planner.

A definition of analysis should
be formulated with the large group
and prominently displayed next to
the set of questions identified as
"amenable" to anlaysis. The
analysis definition could take a
number of forms, but the phrases
should capture two main concepts:

1. Analysis is the process of col-
   lecting data, extracting infor-
   mation from the data, and
   making arguments based on the
   findings; and

2. Analysis within the context of
   criminal justice planning
   should be sensitive to the
   political, social, and environ-
   mental factors influencing the
   planning process and the opera-
   tion of the criminal justice
   system.

The exercise should last no longer
than 60 minutes. Instructors
should make special effort to
relate the exercise results to
the preceding presentation which
should "set-up" the participants'
work.

3:00
p.m.

STAGES IN DEVELOPING AN ANALYSIS PLAN	State *problem* for which analysis is needed	Identify *audience* & *use* for findings	Specify desired products (ques-tions to be an-swered)	Review available information & formulate *hypotheses* to be tested
ANALYSIS PLAN COMPONENTS	Statement of the Problem	Audience Identifica-tion & Use for products	Products	Hypotheses
USE (WHAT EACH STAGE TELLS THE PLANNER)	WHY		WHAT	
MODULE REFERENCE	MODULE 1: PROBLEM FORMULATION			

1-1

OBJECTIVES

- Define analysis

- Elaborate procedures used to identify and formulate problem statements.

- Identify the major characteristics of well prepared problem statements.

1-2

CRIMINAL JUSTICE PLANNING IS:

- Future oriented
- Change oriented
- Goal oriented
- A Process

1-3

GENERAL PLANNING PROCESS MODEL*

Preparing for Planning → Determining Present Situation → Determining Projections and Anticipations → Considering Alternative System Futures

Monitoring and Evaluating Progress — Identifying Problems — Setting Goals

Implementing Plans ← Planning for Implementation ← Selecting Preferred Alternatives ← Identifying Alternative Courses of Action
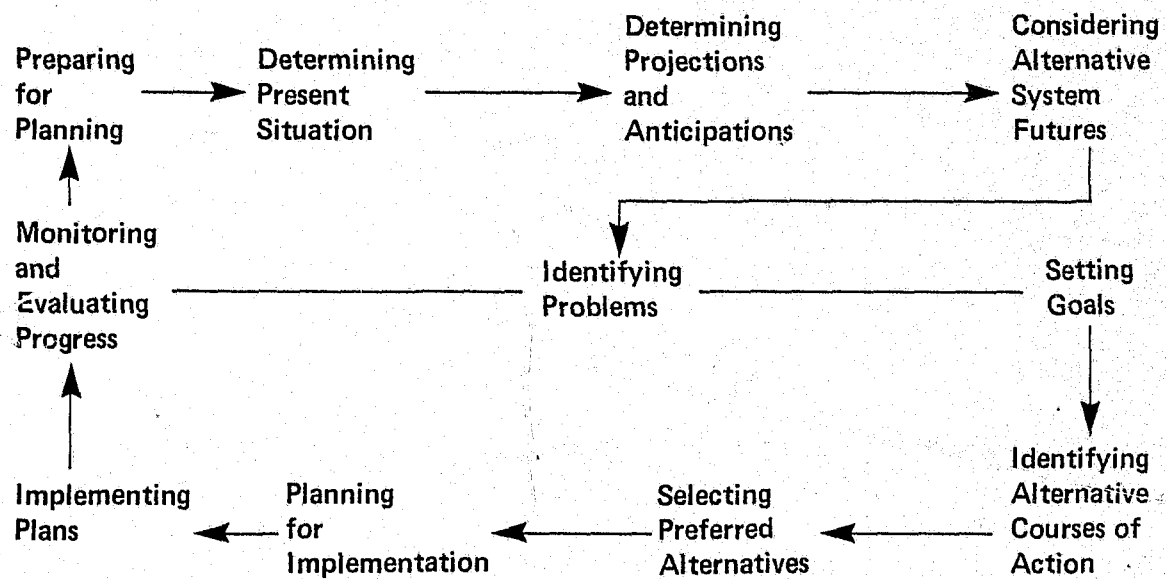
*This model is based on the "General Planning Process Model" developed by the Criminal Justice Planning Institute (University of Southern California) for their planning course, which is part of the LEAA training series.

FORMULA FOR ALLOCATION OF FUNDS
TO SUB-STATE JURISDICTIONS

LOCAL ALLOCATION	=	LOCAL POPULATION SHARE	+	CRIME SHARE	+	CRIME GROWTH

1-5

RANKING FORMULA

LOCAL ALLOCATION PRIORITIES	=	RANK	—	SUMS RANKED

1-6

PROBLEM FORMULATION

BROAD GENERAL TOPIC/ CURRENT ISSUES ⟶ SET OF QUESTIONS

DEFINITION OF CONCEPTS

MANAGEABLE SCOPE
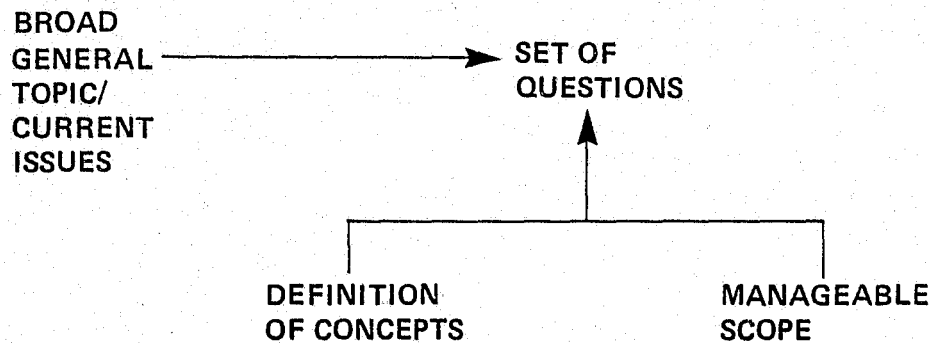
1-7

EXAMPLE OF PROBLEM STATEMENT

Problem Description

Street crime--both assault and robbery--has increased rapidly in the past year in Chaos City. The personal injuries resulting from assaults have increased in frequency and severity. Reaction from citizen and business groups reflects citywide concern. Many of the apprehended offenders are narcotics addicts. The average age of persons arrested for these crimes was 20.5 years in 1976.

Estimated Extent of Problem

Street crime increased 68%, primarily in low-income core area of the city.

Robberies increased 100% from 2,000 to 4,000 per 100,000 population since 1972.

Assaults increased 124% from 1,700 to 3,800 per 100,000 population since 1972.

Number of disabling injuries increased 50% in 1974.

1-8

DETAILED SCHEMATIC OF THE ANALYSIS PROCESS
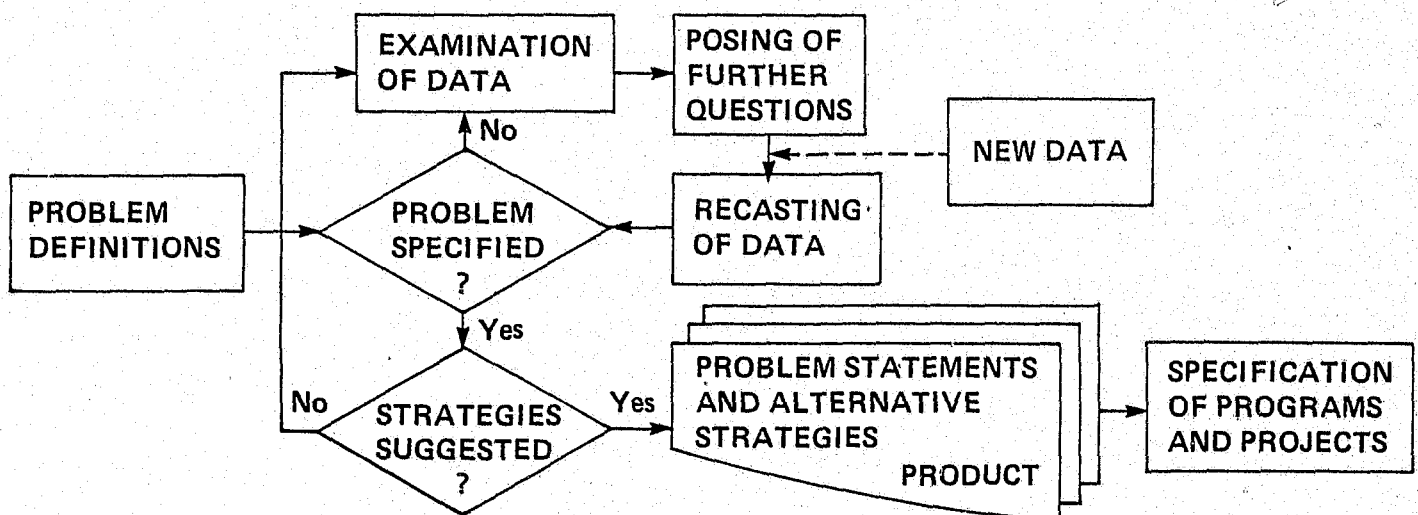
1-9

INTRODUCTION TO ANALYSIS OF CRIME
AND THE CRIMINAL JUSTICE SYSTEM

MODULE 2: DATA COLLECTION
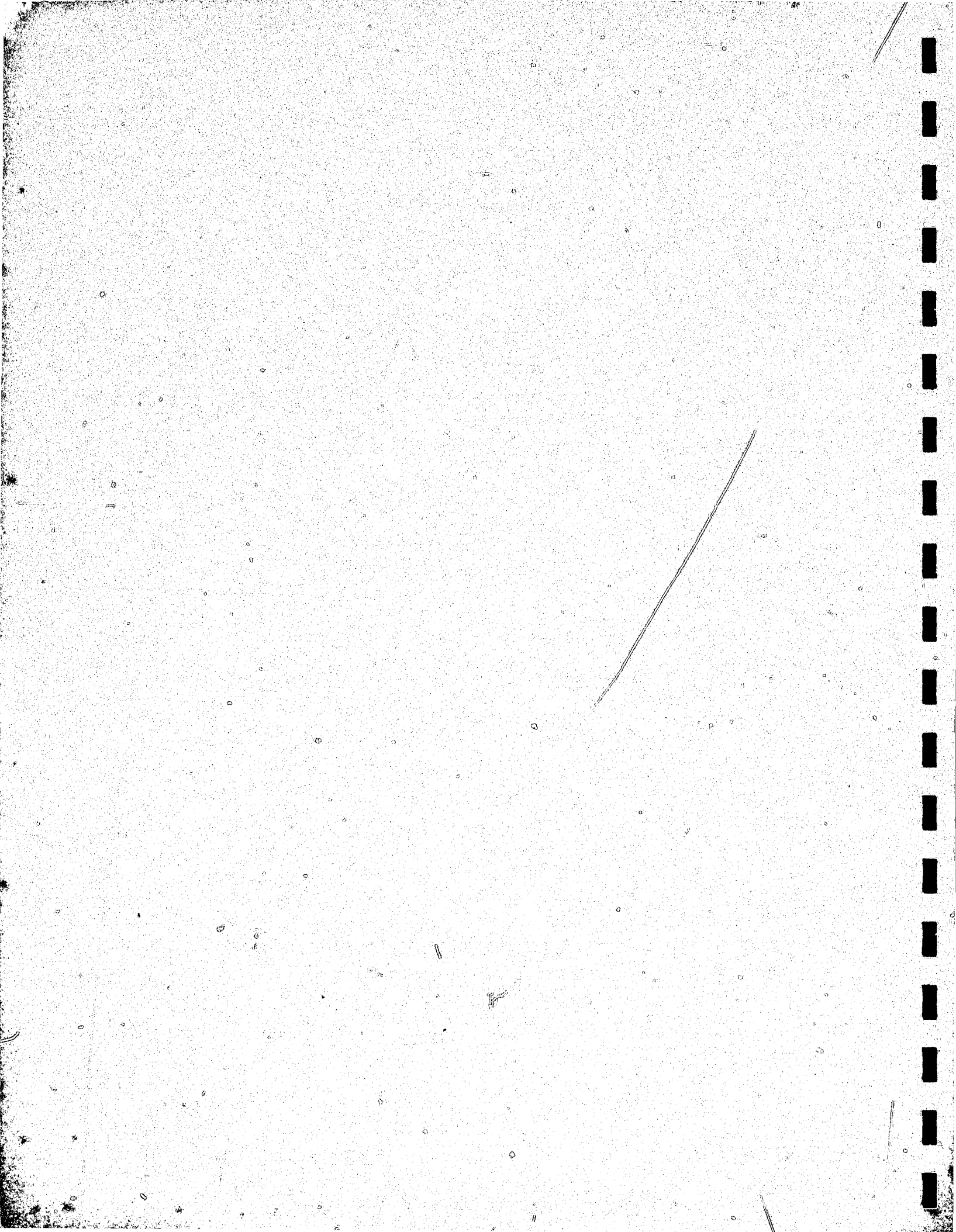
MODULE 2: DATA COLLECTION

Rationale

This module explains how to identify and obtain various kinds of data necessary and useful for elaborating crime problems and for measuring the impacts of proposed policies, programs or projects designed to deal with these problems. Identifying what types of data and how many observations are needed in addressing a problem, presupposes a comprehensive understanding of the sources of data, how specific data can be used and their respective limitations. Such a comprehensive understanding of data available for criminal justice analysis is the major reason for including this material. Data collection, in addition, is the second step in the analysis process, thus, its inclusion and placement are dictated by one of the course themes.

Recommendations

The module is divided into two sections: secondary data and primary data. Each section is treated by a combination of lectures and exercises in the module. The nature of the content does not lend itself to fast-moving presentations and, so, lecture portions must be brief, to the point, and incorporate local examples and/or case studies which enrich and make the topic outline relevant to the participant group.

The participants will go through three exercises: Exercise 3, to get the feel for secondary data available for analysis; Exercise 4, to practice assembling various data and for putting together a Data Collection Plan; and Exercise 5, to develop and apply data to a crime problem.

Total time for Module 2 is three hours and it should continue until 10:00 a.m. on Tuesday.

SLIDES

I. Introduction

#1

#2

#3

#4

#5

3:00

Begin by putting the module into
perspective. Show the slide on
the Analysis Plan; then state the
goals and objectives for Module 2.

Slides #3-#9 present an overview
of the module, and the sequence of
planned activities. The presenta-
tion of these slides and accompany-
ing Instructor comments should
take no longer than 20 minutes.

#6

#7

#8

#9

II. Secondary Data

   A. Actual Crime Data

#10

Tell the participants that for
each of the data categories you
will cover the following four
treatments: definitions, sources,
uses, and limitations. In handl-
ing the sections on Secondary Data
participant involvement is to be
encouraged by asking them to iden-
tify additional sources, uses and
limitations of each.

3:20
Break
3:30

B. Public Opinion Data

Exercise #3:
Attitudinal Survey Data

C. Reported Crime Data

1. Local Police Dept.
   Reports
2. State Regional Criminal
   Justice Planning Agencies
3. National Uniform Crime
   Reporting Data
4. Data in Published Form

D. Demographic Data

Explain to the participants the
purposes of the exercise. You
may suggest that participants work
in pairs. Tell them that they
will have 15 minutes to complete
the exercise.

At the end of 15 minutes ask two
or three participants to read
their lists of data results,
allowing others to ask questions
and make comments. Do the same
for the community profile. Write
the profile results on newsprint.
(Total time for exercise: 30
minutes.)

This lecture portion of the module
involves much specific information.
It should be dealt with succinctly
and with dispatch. You may choose
to review these four data cate-
gories quickly and spend the major-
ity of time elaborating one cate-
gory which is of particular inter-
est such as juvenile data. At a
minimum, each category should be
reviewed to (1) define it,
(2) specify where the data may be
obtained, (3) explain how this
type of data is typically used in
criminal justice planning, and
(4) explain what limits there are
in using such data.

3:45

4:15

E. System Data

F. Juvenile Data

Exercise #4:
Secondary Data Sources

III. Primary Data

Total time for this presentation
should not exceed 20 minutes.

Explain the purpose of the exer-
cise. Repeat the directions for
the exercise, stressing what the
chart listing the desired infor-
mation ought to look like.

Tell the participants that they
will do this individually. Time
given for this portion of the
exercise is not to exceed 20
minutes.

Next have each participant
exchange his/her chart with
another person and react to their
work. Allow time for questions
(about 15 minutes).

Total time for exercise: 30
minutes.

As with other sections of the
course the specific Instructor
recommendations in treating this
subject area are to use the
material from the Text elaborated
with Instructor examples and
experiences. For instance, in
treating CJIS material, the
Instructor is to reference infor-
mation systems, and the applica-
tions of such data to planning
related problems familiar to him/
her.

4:35

4:55

5:05
End
of
first
day

TUE
9:00
a.m.

III. Primary Data (continued)

    A. Primary Data Collection
       Methods

       1. Sampling Procedures   #11

       2. Survey Instruments

    B. Criminal Justice Informa-
       tion System

Exercise #5:
Data Collection and Analysis--
An Example

Contrast the four sampling
designs illustrated in the slide
and elaborate how such samples
might be drawn.

In reviewing survey instruments,
consider the form provided in
Exercise #2 for an example of
how to draft such a questionnaire.

9:30
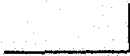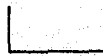
Explain the purpose of the exer-
cise. Tell the participants to
work in groups of threes. Read
the instructions for the activity.
Allow 30 minutes for the small
group work.

Circulate among the groups to
see how they are doing and to
answer questions. At the end
of 30 minutes ask two or three
participants to read their state-
ments and allow reactions from
others after each is read.

10:15
Break

Total time for exercise is 45
minutes.

STAGES IN DEVELOPING AN ANALYSIS PLAN	Identify *variables* needed & measurement of variables	Identify & select *data sources*
ANALYSIS PLAN COMPONENTS	List of variables & measures	Data Collec- tion Plan
USE (WHAT EACH STAGE TELLS THE PLANNER)		HOW
MODULE REFERENCE	MODULE 2: DATA COLLECTION	

2-1

OBJECTIVES

To understand the types of data used in criminal justice
analysis including:

- definitions
- sources
- uses
- limitations

2-2

DATA

```
┌─────────────────────────────────────────────────────────────┐
│                                                             │
│  ┌──────────────────┐                  ┌──────────────────┐ │
│  │ EXPENDITURES     │                  │ JAIL             │ │
│  │                  │      ┌────────┐  │ SURVEY           │ │
│  │                  │      │ CENSUS │  │                  │ │
│  └──────────────────┘      │        │  └──────────────────┘ │
│  ┌──────────────────┐      │        │  ┌──────────────────┐ │
│  │ VICTIMIZATION    │      │        │  │ UCR              │ │
│  │                  │      └────────┘  │                  │ │
│  │                  │                  │                  │ │
│  └──────────────────┘                  └──────────────────┘ │
└─────────────────────────────────────────────────────────────┘
```

2-3

MODULE SCHEDULE

LECTURE: SECONDARY DATA SOURCES

- Secondary Data Source use at the Local and State Levels

EXERCISE # 3:   VICTIMIZATION SURVEYS

EXERCISE # 4:   SECONDARY DATA SOURCES

LECTURE: PRIMARY DATA SOURCES

- Primary Data Source use at the Local and State Levels

EXERCISE # 5:   DATA COLLECTION AND ANALYSIS

2-4

MAJOR DATA CATEGORIES

1. Actual Crime
2. Public Opinion
3. Reported Crime
4. Demographic Statistics
5. System Data
6. Juvenile Data

2-5

DIFFERENCE BETWEEN SECONDARY AND PRIMARY DATA

SECONDARY	PRIMARY
CURRENTLY AVAILABLE IN EASILY USABLE FORM	NOT CURRENTLY AVAILABLE IN EASILY USABLE FORM
	CAN BE OBTAINED:
	● Through Surveys and/or Polls
	● By Developing a New Data Base from Records and Reports

2-6

59

DATA SELECTION FROM ALTERNATIVE DATA SOURCES

- How well will these data permit the question(s) to be answered?
- Are the data reliable?
- Can they be obtained in time?
- What is the most inexpensive data source which will provide adequate answers to the questions posed?

2-7

DEVELOPING DATA COLLECTION PLAN

✓ Identify Major Categories of Data

✓ Identify Secondary Data Available

✓ Select Best Data Sources

✓ Identify Primary Data Needed

➤ Prepare Preliminary Data Collection Plan

2-

61

DATA SELECTION PROCESS LEADING TO DATA COLLECTION AND ANALYSIS PLAN

```
┌──────────────┐     ┌──────────────┐     ┌──────────────┐     ┌──────────────┐
│ Questions    │     │              │     │ Data         │     │              │
│ to be        │ ──► │ Data         │ ──► │ Collection   │ ──► │ Analysis     │
│ Answered     │     │ Selection    │     │ Plan         │     │ Plan         │
└──────────────┘     └──────────────┘     └──────────────┘     └──────────────┘
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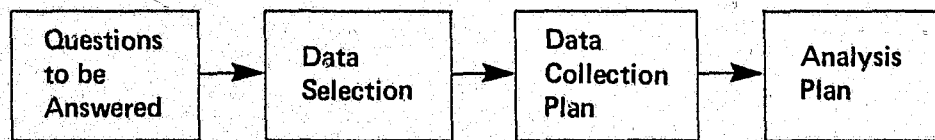
2-9

VICTIMIZATION SURVEY DATA

```
                    ┌─────────────────┐
                    │  Characteristics │
                    │   of Offenders   │
                    │         ↓        │
      ┌─────────────┼─────────────────┼─────────────┐
      │  Risk of    │  Characteristics │ Consequences of │
      │ Victimization → │   of Victims  │ ← Victimization │
      └─────────────┼─────────────────┼─────────────┘
                    │         ↑        │
                    │  Characteristics │
                    │    of Crimes     │
                    └─────────────────┘
```
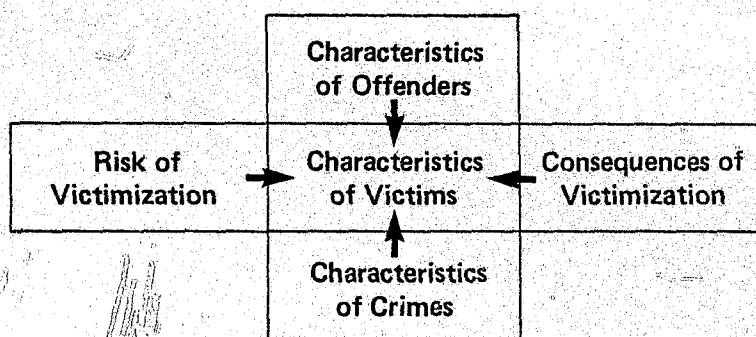
2-10

SAMPLING

1	2	3	(4)	5	6	7	8
9	10	(11)	12	13	14	15	(16)
17	(18)	19	(20)	21	22	(23)	24
25	26	(27)	28	(29)	30	31	32
33	34	35	36	37	(38)	39	(40)
(41)	42	(43)	44	45	46	47	48

SIMPLE RANDOM SAMPLE

1	(2)	3	4	5	(6)	7	8
9	(10)	11	12	13	(14)	15	16
17	(18)	19	20	21	(22)	23	24
25	(26)	27	28	29	(30)	31	32
33	(34)	35	36	37	(38)	39	40
41	(42)	43	44	45	(46)	47	48

SYSTEMATIC SAMPLING

(1)	3	5	(7)	2	4	(6)	8
9	11	(13)	15	10	12	14	(16)
17	(19)	21	23	18	20	22	24
25	27	29	31	(26)	28	(30)	32
(33)	35	37	(39)	34	(36)	(38)	40
41	(43)	45	47	42	44	46	(48)

STRATIFIED SAMPLE

1	(2)	3	4	(5)	6	7	8
9	(10)	11	(12)	13	(14)	15	(16)
17	18	(19)	20	21	(22)	23	(24)
25	(26)	27	(28)	29	30	31	32
(33)	34	(35)	36	37	38	39	(40)
41	42	43	44	45	(46)	(47)	48

CLUSTER SAMPLE

2-11

64

INTRODUCTION TO ANALYSIS OF CRIME
AND THE CRIMINAL JUSTICE SYSTEM

MODULE 3: DATA INTERPRETATION — CRIME

MODULE 3: DATA INTERPRETATION--CRIME

Rationale

This module is the "heart" of the course. It concentrates on the tools and skills--descriptive and inferential statistics--needed for the interpretation of crime data. The emphasis is on developing skills, on the methods, on how the results of various calculations are used to interpret crime data, and on knowing when to use what analytic tool.

The exercises are designed to give trainees practical opportunities to apply the knowledge and skills developed in this module.

Directives

This module calls for one Instructor to oversee and orchestrate the module, but is not limited to one Instructor making presentations. Four other staff members are required as resource persons for the exercises.

Pacing is critical in this module inasmuch as it contains difficult and tedious material. It is purposely spread across two days to allow time for exercises and applications. In presenting the various statistical methods Instructors should emphasize practical applications, rules to follow in utilizing the techniques, and interpreting the results of statistical calculation.

While one Instructor is to be given overall responsibility for the module, this material is to be presented by at least two and preferably four Instructors who divide the presentation workload. All Instructors assist in the exercises. If two Instructors are available then one should present the Introduction and Descriptive Methods, while the other presents the Inferential Methods material. With four Instructors the division should be as follows: Instructor I--Introduction and Descriptive Methods (excluding Comparative Methods); Instructor II--Comparative Methods; Instructor III-- Measures of Association; and Instructor IV--Methods of Prediction.

TOPIC OUTLINE ————————————

SLIDES

I. Introduction

#1

#2

Data Interpretation-definition
Quantitative/Qualitative
  techniques
Quantitative =
  Descriptive   Statistics
  Inferential

#3

Purposes of Descriptive
  Statistics
Purposes of Inferential
  Statistics

#4

II. Descriptive Tools

  A. Measures of Central Tendency

    1. Mean

    2. Median

    3. Mode

#5

#6

Review course themes and place
goal and objectives of Module 3
into context using, again, the
Analysis Plan Exhibit.

This overview (slides 1-4) should
take 15 minutes.

You are to give the participants a
few samples of data and ask them
to compute the mean, median, and
mode using the sample data provided
in Appendix A.

Allow about 15 minutes for this
presentation.

TUE
10:30

10:45

11:00

B. Measures of Variation

1. Variation Ratio
   Definition (Formula)
   Example

2. Index of Qualitative
   Variation
   Definition (Formula)
   Example

3. Range
   Definition (Formula)
   Example

4. Average Deviation
   Definition (Formula)
   Example

Exercise #6:

Descriptive Methods

For the measures of variation you should spell out some practical uses and implications of each, as well as provide examples of how combinations of these measures may be used. Each of the four methods is to be presented, including its definition and an example of how it is calculated and interpreted.

Presentation of the measures of variation should take about 20-30 minutes.

State the purpose of the exercise. Have the participants form groups of fives. Tell them to inspect the data base. Allow 20 minutes for them to prepare the first statement and another 20 minutes to list alternative crime reduction strategies.

Ask two or three groups to present their statements. Allow for comments and questions.

Total time for exercise: 60 minutes.

11:30

12:30

CONTINUED

1 OF 3

C. Graphical Methods

1. Graphical Methods for Qualitative/Categorical Variables

   Pie Chart

   Bar Graph

2. Graphical Methods for Quantitative Variables

   Statistical Maps

   Frequency Distributions

   Time Charts

Exercise #7:

Graphical Methods

#7

#8

#9

#10

#11

#12
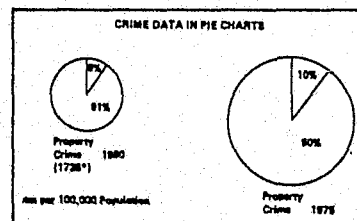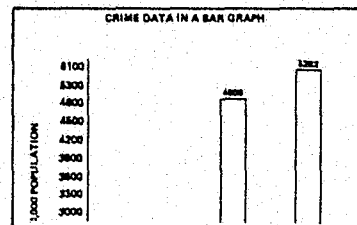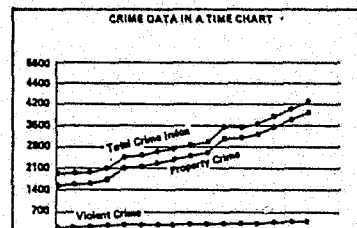
Lecture and presentation on graphical methods should not exceed 30 minutes each, for a total of 60 minutes. Instructors should select a crime problem that they are familiar with and develop appropriate graphics which clarify and highlight the nature of the problem. The four crime data slides should be used at the end of the presentation to summarize. (Slides #8-#11) Slide #12 is to be used in discussing statistical maps.

Explain the purpose of the exercise. Tell the participants to form groups of twos or threes. Emphasize the products each participant is to produce. Allow 30 minutes for the activities. Then tell the participants to combine three of the small groups to form larger groups to compare their products. (During the exercise the Instructors may wish to circulate among the groups to answer questions and to clarify procedures.)

Total time: 60 minutes.

TUE
1:30

2:30

3:30
Break

D. Comparative Methods

1. Rate/Index Development
   and Application

   Concentration Indices

   Distribution Indices

   Density Indices

   Indices of Unit Share

   Comparative Analysis
   Using Index Numbers

Exercise #8:

Comparative Analysis

#13

RURAL-URBAN DIFFERENCES

#14

INTRACITY DIFFERENCES

#15

COMPARATIVE ANALYSIS

74

This presentation emphasizes comparative methods and is to begin with Slides #13 and #14, which illustrate (1) the relationship between two variables, and (2) the use of rates. Examples of the four types of indices are to be presented. Slide #15 is to conclude the presentation.

3:45

Explain the purpose of the exercise and the products you expect as the result of the tasks.

4:00

Suggest that participants work in small groups of twos or threes but allow them to work individually if they wish.

Instructors are to circulate among the participants to help them as may be necessary.

At the end of the exercise ask several participants to present their calculations and responses. Encourage brief discussions on responses to tasks 5 and 6. Be prepared to make out any calculations on newsprint that may be in question.

Total time for entire exercise: 75 minutes.

5:15
End
of
Day
2

2. Seriousness Scales

Exercise #9:

Crime Seriousness

3. Cross Classification
   Contingency Tools
   Scatter Diagrams

#16

Exercise #10:

Scatter Diagrams
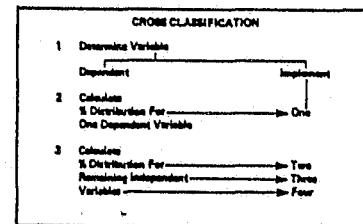
PRESENTATION GUIDE	INSTRUCTOR NOTES	TIME

This 20-minute presentation should focus on the general concepts of weighting data; the use of value judgements built into quantitative analyses; and the specifics of Wolfgang-Sellin. Instructors should reference qualitative methods at this point as one means for developing subjective/value/ attitude information, i.e., delphi.

Explain the purpose of the exercise. Tell the participants to work in groups of threes. Allow 15 minutes for the exercise.

At the end of the 15 minutes ask individuals from different groups to respond to the questions. Allow questions and comments from the other participants. Total time for Exercise #9: 30 minutes.

Lecture on Cross Classification should not exceed 30 minutes. Instructors are to work through (1) percentage interpretation of tables and (2) construction and interpretation of scatter diagrams.

Explain the purpose of the exercise. Tell the participants to work individually on the exercise. Allow 20 minutes. Then tell them to work in twos to compare their results. Allow 10 minutes for this conference and for questions.

TIME column:
WED
9:00
a.m.

9:20

9:50

10:20
Break
10:30

11:00

III. Inferential Tools

    A. Measures of Association

        1. Chi-Square Statistic

#17

Exercise #11:

Chi-Square Test

        2. Correlation Coefficient

Exercise #12:

Correlation Analysis

    B. Methods of Prediction

        1. Forecasting Crime on
           the Basis of Time
           Series Data

        2. Forecasting Tools

#18

        Smoothing Techniques

        Visual Estimation

        Linear Regressions
          (least squares)

#19

The lectures on the two measures of association presented ought to take 30 minutes each, for a total of 60 minutes. To begin, the Instructor should discuss the purpose and method of statistical testing (slide #17). This should be followed by one example in detail. Participants should then be requested to calculate and interpret the chi-square statistic on a given data set. This same procedure should be followed in presenting the correlation co-efficient between 1:00 and 1:20 p.m.

Explain the purpose of the exercise. Tell the participants to work in groups of threes. Allow 40 minutes for the exercise. Allow five minutes for questions.

Explain the purpose of the exercise. Divide the participants into six groups of about 4-5 students. Assign activity A to two groups, activity B to two other groups, and activity C to the remaining groups. Allow 40 minutes for the exercise. Spend 20 minutes obtaining reports from the groups and for brief dis-cussion.

Total time for exercise: 60 min-utes.

The presentation and explanation of methods of prediction should not exceed 60 minutes. Emphasis should be on working through a clearly defined and meaningful problem familiar to the Instructor and participants. Instructor should take care in the use of specific measures and concepts, i.e., confidence interval, r^2 and the slope, being sure to explain the interpretation of each. Instructors are to make explicit the assumptions made in using linear regression, i.e., linearity of the data.

11:00 a.m.

11:20

12:00 Lunch

1:00
1:20

2:15 Break

2:30

3:30

Exercise #13:
Predictions

Explain the purpose of the exer-
cise. Tell the participants to
work in groups of fives. Allow
30 minutes for their calculations.
Ask one group to present their
results. Check with other groups
to ascertain whether all came to
the same conclusions. Allow
several minutes for questions and
observations. Total time not to
exceed 60 minutes.

3:30
p.m.

4:30

End
of
Day
3

82

APPENDIX A

Three Age of Victims Distributions with Central Tendency Measures

Neighborhood #1	Neighborhood #2	Neighborhood #3
25	70	32
22	15	32
19	14	32
18	13	16
17	11	11
14	10	11
11	10	11

$\bar{X} = 18$ $\bar{X} = 20.3$ $\bar{X} = 20.7$

Median = 18   Median = 13   Median = 16

Mode = 17 - 19   Mode = 10   Modes = 32 and 11

STAGES IN DEVELOPING AN ANALYSIS PLAN	Select analysis techniques
ANALYSIS PLAN COMPONENTS	Selected Analysis Technique(s)
USE (WHAT EACH STAGE TELLS THE PLANNER)	
MODULE REFERENCE	MODULE 3: DATA IN-TERPRE-TATION — CRIME

3-1

OBJECTIVES

To develop skill in selecting, calculating and interpreting descriptive and inferential statistics to analyze crime data.

To understand two basic analytic problems in criminal justice planning:

- explaining crime
- predicting crime

To develop skill in using comparative methods to analyze crime data.

3-2

DATA – INTERPRETATION TOOLS

QUANTITATIVE   QUALITATIVE

DESCRIPTIVE   INFERENTIAL

3-3

STATISTICS

DESCRIPTIVE	INFERENTIAL
To Characterize Typical	To Measure Relatedness
To Measure Variation	To Measure Predictability
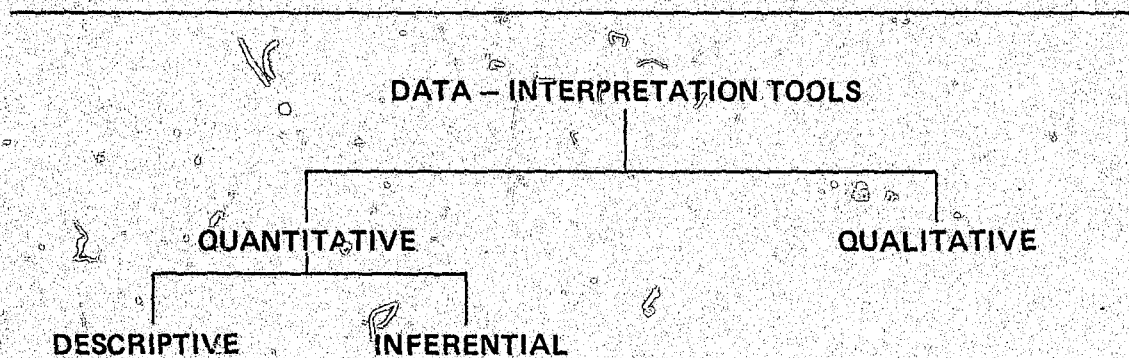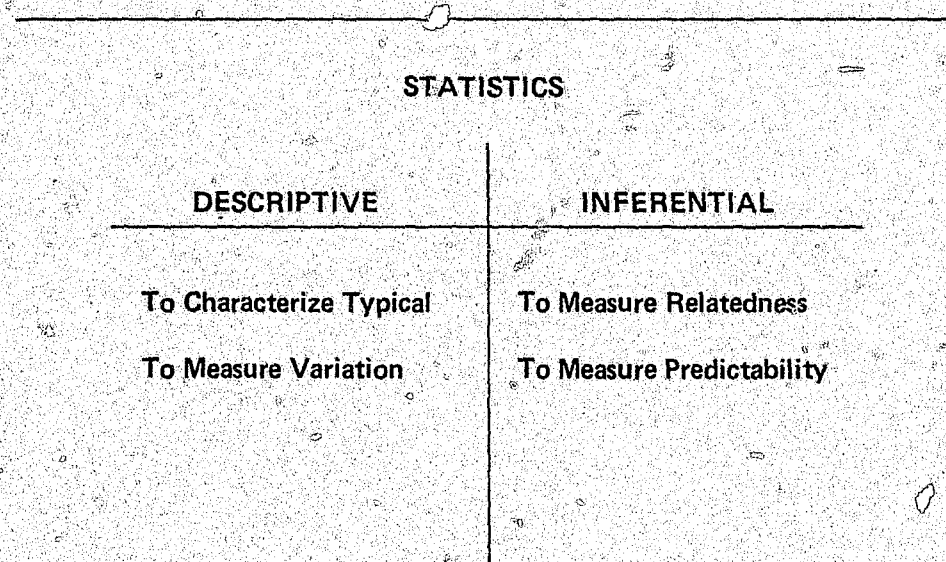
3-4

MEASURES OF CENTRAL TENDENCY

MEAN = The Average

MEDIAN = The Middle Value

MODE = Most Frequent Value(s)

3-5

COMPARISON OF MEAN, MEDIAN AND MODE

Age of Victims

70

MEAN ──────────▶ 20.3

15

14

(13) MEDIAN

11

(10)

MODE (10)

3-6

87
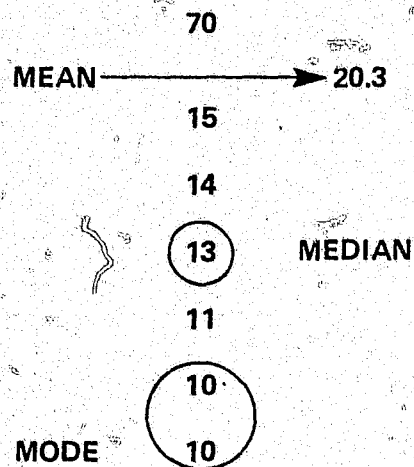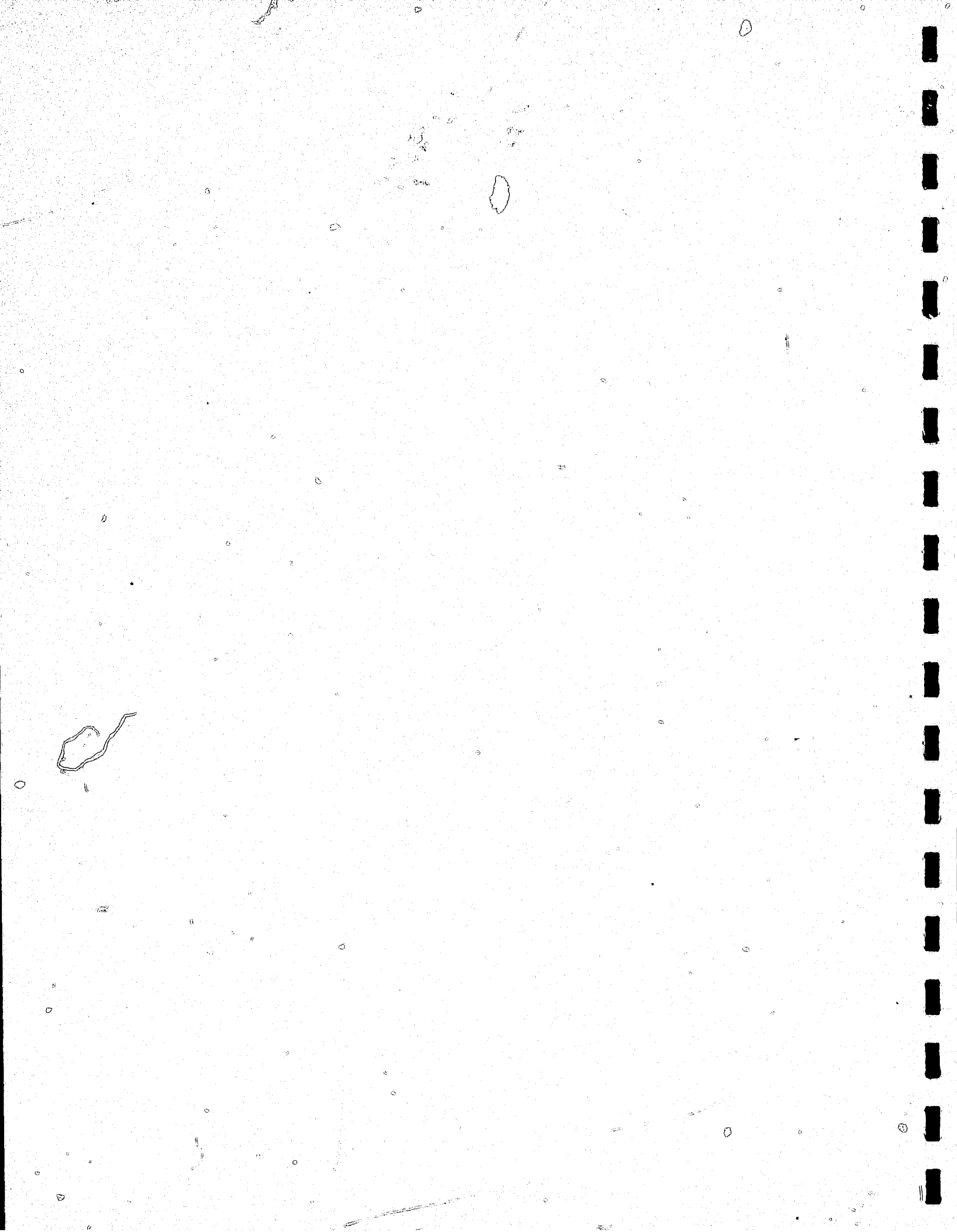
GRAPHICAL METHODS

- Clarify ⎤
- Highlight ⎥ DATA
- Contrast ⎥
- Summarize ⎦

3-7

89

CRIME DATA IN TABLE FORM

Type of Crime	Rate Per 100,000 Population		Per Cent Increase
	1965	1975	1960-1974
Violent Crime	161	482	199%
Property Crime	1726	4800	178%
	1887	5282	180%

Source: FBI, *Crime in the U.S.*—1975

3-8

CRIME DATA IN PIE CHARTS

9%

91%
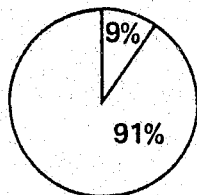
Property
Crime   1960
(1726*)

10%

90%
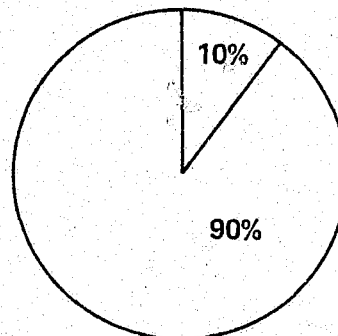
Property
Crime   1975
(4800*)

*Rates per 100,000 Population

Source: FBI, *Crime in the U.S.*—1975

3-9

CRIME DATA IN A BAR GRAPH

Source: FBI, *Crime in the U.S. — 1975*

3-10
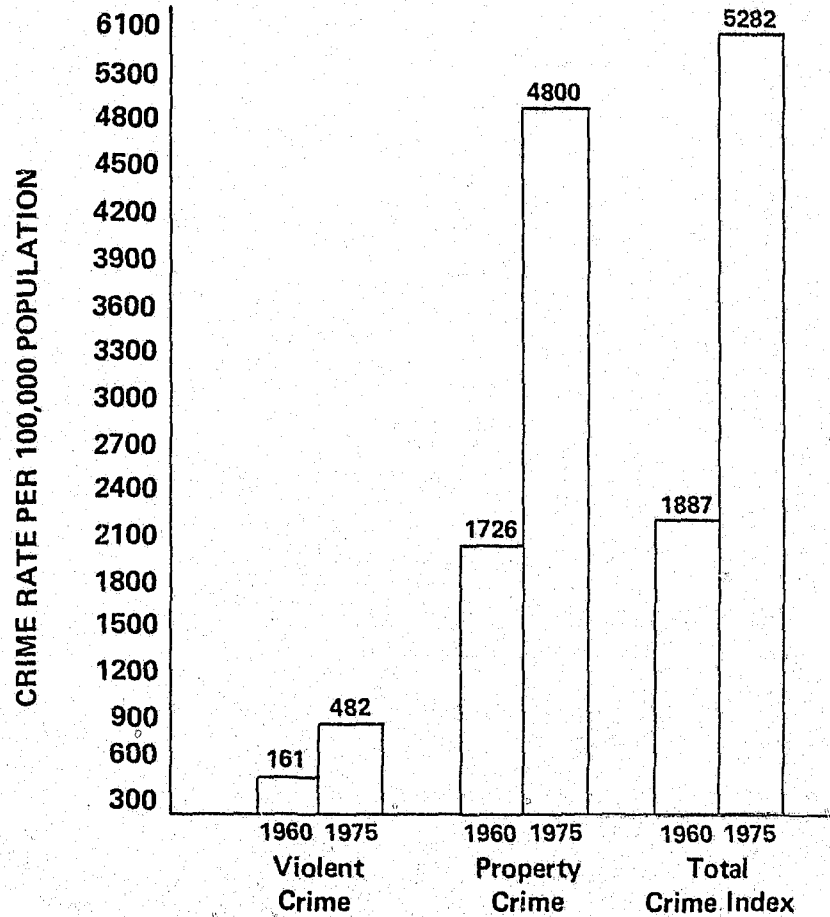
CRIME DATA IN A TIME CHART

|		
5600		
4400		
4200		
3500		
2800	Total Crime Index	
2100	Property Crime	
1400		
700	Violent Crime	

60   65   70   75
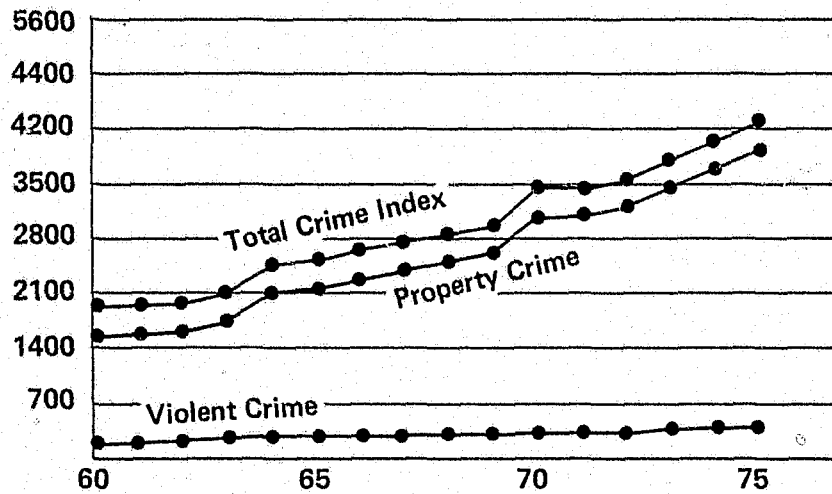
3-11

SPATIAL PATTERN CONSIDERATIONS OF
CRIME DATA

- ● RURAL—URBAN DIFFERENCES

- ● INTRACITY DIFFERENCES

- ● INTERCITY DIFFERENCES

- ● REGIONAL DIFFERENCES

REF: "Ecological Correlates of Crime and Delinquency," Dr. Judith
A. Wilks, *Task Force Report: Crime and Its Impact,* pp. 138+

3-12

RURAL—URBAN DIFFERENCES

Property Crimes/100,000 Population
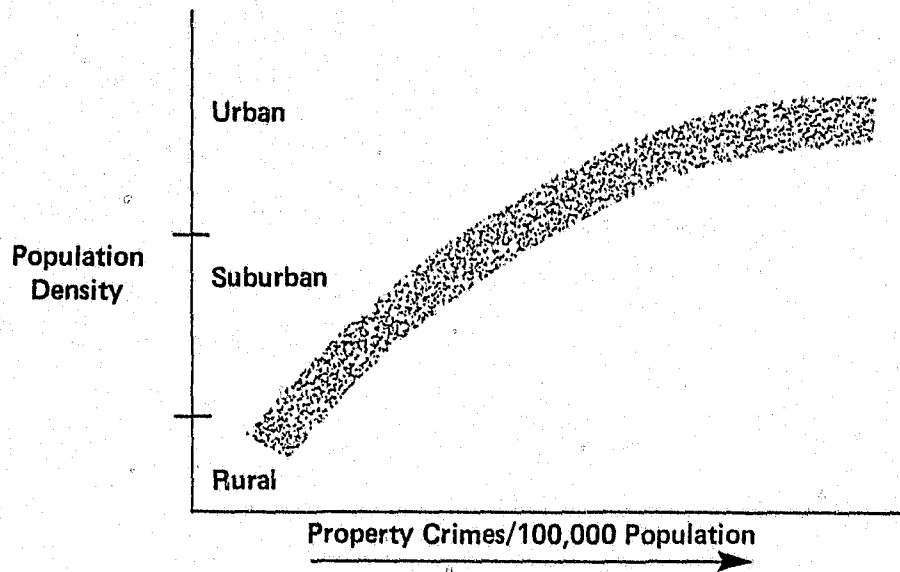
3-13

INTRACITY DIFFERENCES
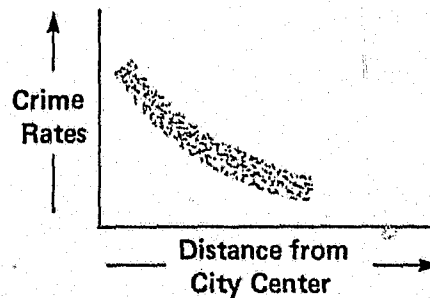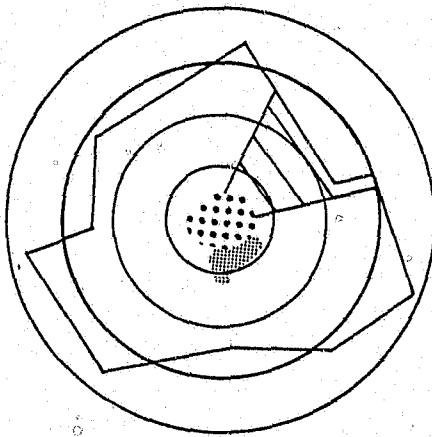
Offenses and Offenders Concentrated In Areas Characterized By:

- Low Income
- Physical Deterioration
- Mixed Land Usage
- Non-Traditional Family Patterns
- Racial—Ethnic Concentrations
- Isolation of Section from Society

3-14

COMPARATIVE ANALYSIS

Strengths

- ● Evaluating Local Change and Crime Conditions

- ● Objective Measurement of Resource Need

Weaknesses

- ● Different Crime Reporting Behavior

- ● Lack of Historical Perspective

- ● Uniqueness of Local Environment/
  Importance of Local Sentiments

3-15

CROSS CLASSIFICATION

1 Determine Variable

Dependent   Implement

2 Calculate
   % Distribution For ──────────────► One
   One Dependent Variable

3 Calculate
   % Distribution For ──────────────► Two
   Remaining Independent ───────────► Three
   Variables ───────────────────────► Four

4 Compare/Interpret
   Percentages
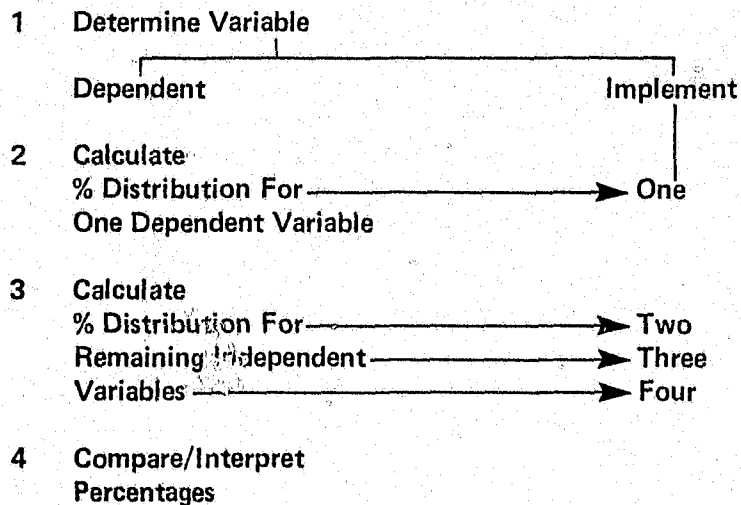
3-16

STATISTICAL TEST PROCESS

1. State Null Hypothesis

2. State an Alternative Hypothesis

3. Select Statistical Test

4. Determine Level of Significance

5. Calculate Test Statistic

6. Compare Test Statistic to Table Values

7. Interpret Findings.

3-17

ELEMENTS OF FORECASTS

● Time Frame

● Historical Data

● Risk of Errors

3-18

FORECASTING METHODS

Model	Time Series	Casual
Uses	Historical Data	Associated Data
Limitations	Cannot Measure Impact of Proposed Actions	Difficult to Develop. Need More Historical Data
Strengths	Easy to Develop and Communicate	Policy Relevant. Builds on Previous Forecasting Efforts

3-19

INTRODUCTION OF ANALYSIS OF CRIME AND THE CRIMINAL JUSTICE SYSTEM

MODULE 4: DATA INTERPRETATION – SYSTEM
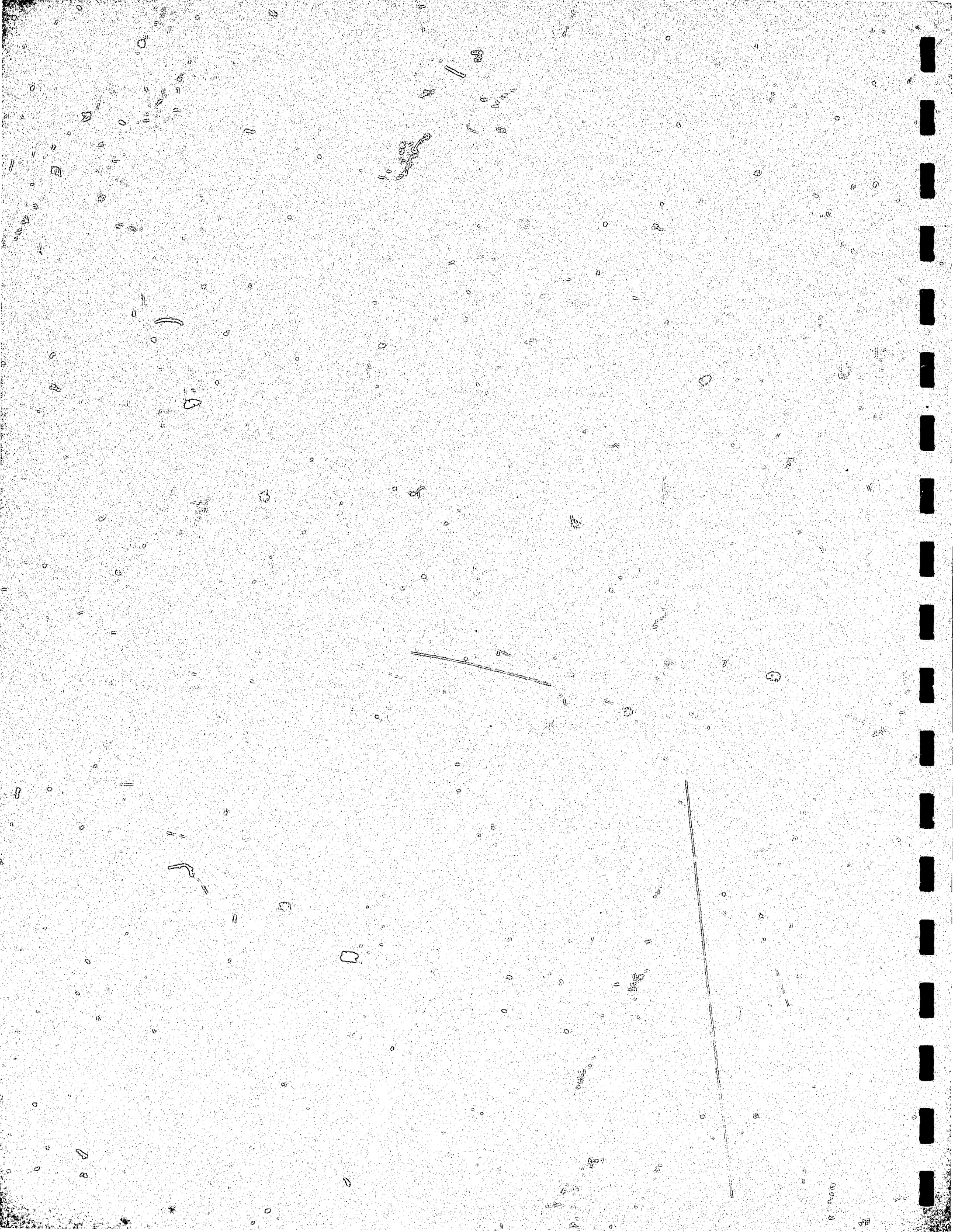
MODULE 4: DATA INTERPRETATION--SYSTEM

Rationale

The purpose of this module is to 1) introduce the concept of performance-based research; 2) assist participants in perceiving the interrelationships among parts of the criminal justice system and to perceive the multiple impacts proposed policy and program changes might have on the system; 3) obtain a basic knowledge of which data can be used, and how resource analysis is an intergral part of interpreting criminal justice system data. In another sense, this module is also a demonstration of how the basic tools and techniques of Module 3 can be applied to interpreting system resources and performance data.

Recommendations

Instructors should draw heavily on the examples utilized in the Text to illustrate how the basic statistical techniques, i.e., correlation analysis, graphical methods and others, are used to interpret system data.

Special emphasis in localizing this module should be given to presenting more specific local examples of the tools used in the module. For instance, a model of the California and Los Angeles criminal justice system might be developed to graphically present the subsystem components. Similarly, local disposition trees, resource analysis and performance indicators are to be presented by instructors.

I. Introduction

#1

Law Enforcement Agencies
The Courts
Corrections

#2

#3

#4

#5

#6

Exercise #14:

Constructing a System Model

Place Module 4 into the overall
context of the course and empha-
size how the same tools developed
to analyze crime data can be used
to analyze system performance and
resource data.

Briefly describe the functions of
each subsystem and the construction
of a system's model. Participants
should be involved at this point,
by developing their own juris-
dictions in model form. After
presenting the system component
slides, the Instructor should
provide 25 minutes for each parti-
cipant to develop a graphic model
of their own jurisdiction. The
model should focus on the primary
decision points and possible dis-
positions following arrest all the
way through incarceration. The
debriefing should focus on varia-
tions in system structures and
techniques for representing system
components, by displaying a sample
of participant charts against the
system model outlined in the
lecture.

9:00

9:15

9:40

II. Measuring System Performance

A. Performance Data Analysis   #7

1. Summary Tabulations   #8

2. Transaction Statistics   #9
    Disposition Tree Data
       Displays
    Offender Flow Analysis
    Demographic and Other
       Correlates
    Additional Uses of
       Transaction Statistics
    Implementation of   #10
       Transaction Statistics

B. Criminal Justice System
    Performance:

    A Case Study

The text for Module 4 contains much explanatory material. Most of it ought to be presented in outline form during the lectures, leaving many details for the participants to study at their own leisure. The focus of this presentation, therefore, should be on the interpretation of transaction statistics using either the <u>Text</u> examples or material drawn from the instructor's experience.

9:40

Approximately 15 minutes is to be spent presenting the disposition tree data display and its interpretation. The second portion of this presentation is to focus on the use of correlates to interpret offender flows, standardizing the data and other uses of offender flow analysis. The presentation should concentrate on how these statistics and displays are useful for pinpointing system problems or "backlogs."

9:55

Present highlights of case study. (See special instructions and case study in Appendix A.) The case study should be distributed to participants no later than Day 3, and participants should be asked to read and prepare a list of questions for this module. In addition to being able to respond to participant questions, the case study is to highlight:

10:15

- caseflow analysis
- interpretation of disposition trees
- correlates of caseflow
- time and disposition relationships
- constructing a system and subsystem model
- developing an offender profile

10:30

Break

┌─────────────────────────────────┐
│ Exercise #15:   │
│ Measuring System Performance   │
└─────────────────────────────────┘

III. Measuring System Capabilities

    A. Resource Data Analysis   #11

    B. Resource Data Collection

    C. Application of Management
       and Administrative
       Statistics

                                 #12

    D. Action Plan Cost Analysis––
       Case Study
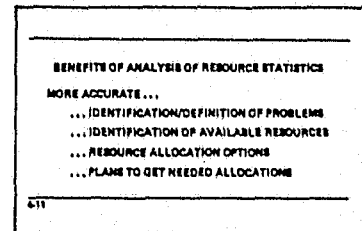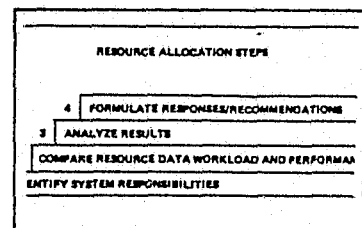
Explain the purposes of the exercise. Tell the participants to form in groups of three. Point out that each group should come up with three approaches to solving the crime problem. Allow 60 minutes for the groups to prepare their approaches. During their deliberations, the Instructor and other resource persons ought to mix with the groups. At the end of 45 minutes, ask one individual from each group to give a brief report of their proposed solutions.

Allow 30 minutes for reports and comments. Total time for exercise: 90 minutes. Appendix B provides material to assist in debriefing this exercise.

The first portion of this presentation is to cover the benefits of and steps associated with resource analysis. These are covered in slides 11 and 12. The second portion of the presentation is to focus on the collection of resource data by reviewing the structure of the questionnaire presented in Exhibit 4-8. The last portion of this presentation is to cover the interpretation of the performance indicators presented in Exhibit 4-8 noting significant trends and patterns. The instructor is to indicate how specific tools learned in Module 3 can be applied to these data.

Do not go over the case study in detail. Outline only the conclusions indicating the benefits of such a cost analysis using the Allegheny material provided in Appendix C or a parallel case study using a jurisdiction familiar to you. The presentation is to highlight:

10:45

11:45

12:15

Lunch

1:15

2:00

E. Integrated Analysis of
   Performance and Resources

- interpretation of cost data
- relationships between
  objectives/costs/multi-
  jurisdictions cost impacts
  of proposed projects and
  programs.

The example in the <u>Text</u> should
be presented, discussed and per-
haps compared to an Instructor-
provided example.

2:20

2:35

Break

APPENDIX A

Criminal Justice System Performance--Louisiana Case Study[*]

This case study is concerned with examining the criminal justice system's performance (see Exhibit 4-1 for a model of the criminal justice system) and analyzing that performance as a result of system organization. It should be noted that, in terms of system organization, many of the system inputs and responses, both external and internal, may not be measurable. It should also be noted that systems analysis is not performed for the purpose of establishing a machine which, when given a number, responds with another as a final product. The purpose of such analysis is to combine and explain, insofar as possible, system operation and organization, in order to identify the gaps and deficiencies within the system so that its performance may be improved.

The coordination of various operational parts in such a data collection effort presents imposing obstacles. It is no simple task to monitor hundreds of local agencies in the use of standard reporting forms, to check the reliability of data, and to see that information is submitted on time. Administrative and organizational problems such as these have hindered the development of offender-based transaction statistics, for each state and local jurisdiction is, in a real sense, tied to its traditional procedures and organizational capabilities. Retooling existing operations to meet OBTS requirements may require major revisions. It is, however, possible to obtain some of the benefits of a transaction data collection system without a complete retooling of resources.

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[*]The material in this section was adapted from a preliminary draft for the Louisiana State Comprehensive Plan for 1977. Instructors are to use this case study or prepare a parallel study of jurisdiction they are familiar with. The text for either this study or a substituted case study text is to be made available to students prior to the presentation.

EXHIBIT 4.1
CRIMINAL JUSTICE SYSTEM FLOW CHART
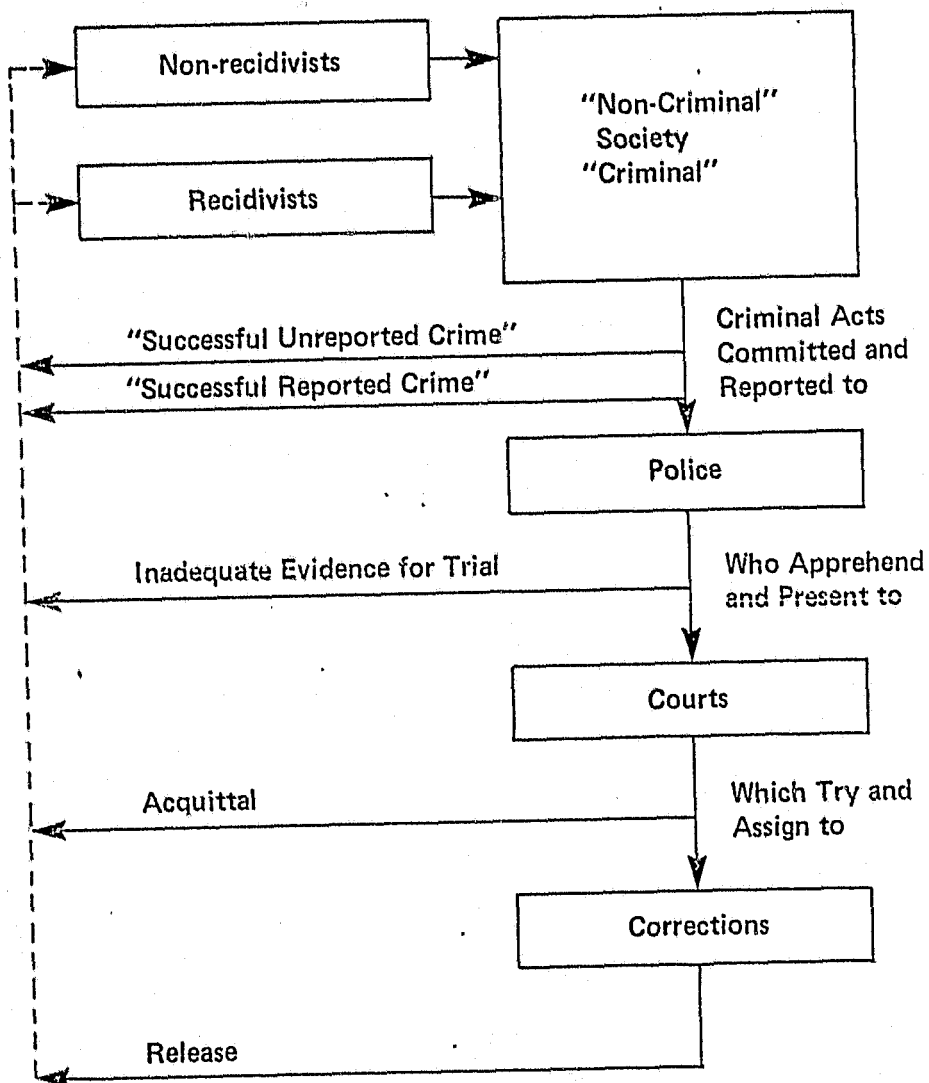
*Source: Adapted from "A Systems Approach to the Study of Crime and Criminal Justice" by Alfred Blumstein and Richard Larsen; *Operations Research for Public Systems*, Morse and Bacon, MIT Press, 1967.

It should be possible, for example, to draw a sample of offenders from arrest records maintained by local police agencies. This sample could then be linked to judicial and correctional processes to obtain some estimate of the flow of offenders through the system. While there are many different sampling processes, a random sample stratified on the basis of offense and offender characteristics would probably prove useful. Some inferences could then be made to the general population of offenders proceeding through the criminal justice system.

The advantages to be gained with an offender-flow model are considerable. Overall, transaction data provide more basic information regarding the operation of the criminal justice system than has previously been available, especially with summary statistics.

1.   Statutory Framework

The primary external factor affecting the criminal justice system is the statutory framework, the legal codes that underlie our basic relationships in society. The laws of our cities, states, and our nation define those acts which are considered by society to be antisocial or criminal. The law also defines the responsibility and functions of the criminal justice agencies-- and the acts which they may or may not perform. Any attempt at studying the system in order to improve its performance must take into account the statutory framework, for the statutory framework which determines the authority and mission of each component of the system also regulates the relationships between these components. An adjustment of this framework may impact the entire system or a subdivision thereof. It logically follows that needed improvements in the system may often require amendments to this framework.

In practice, however, many relationships are shaped by informal agreements and traditional methods, arrangements which may or may not be efficient and/or desirable.

It is beyond the scope of the case study to analyze the statutory framework as it affects the criminal justice system; that is the prerogative of other reports that could originate from the Justice Department and other Executive Departments. This text seeks only to lay the foundation for the realization that the statutory framework influences the system at every point--not only who is arrested, but how the arrest is made, which charges are transferred to the District Attorney and the court/prosecutor subsystem, whether or not the District Attorney can accept the charges, and, once the case is pursued by the District Attorney, whether or not it results in an acquittal, a conviction, or a dismissal.

2.   Law Enforcement Response

Exhibit 4-7 describes the way the law enforcement subsystem responds to the collection of serious criminal acts--i.e., the 154,466 Part I Index Crimes in Louisiana that were reported in 1975. There were 43,839 arrests made which may or may not be directly concerned with those specific 154,466 crimes. Some of these may have cleared up some 1974 crimes, as well as clearing 1975 crimes. Even though the time periods do not match in one sense, in another sense they do. Clearances in 1974 were involved in 1973 offenses, similarly--1976 in 1975 and 1973 in 1972. Taking the second point of view then, it is acceptable to apply some of these 1975 arrests against the Part I Index Crimes. The number of offenses cleared by arrest in Louisiana in 1975 was reported to be 42,715. The national clearance rate, reported by the FBI

EXHIBIT 4-7

LAW ENFORCEMENT SUBSYSTEM CASE/CHARGE FLOW

```
┌──────────────────┐        ┌──────────────────┐        ┌──────────────────┐
│ PART 1           │        │ INDEX            │        │ POLICE           │
│ OFFENSES         │        │ CRIMES           │───────▶│ DIVERSION **     │
│ N = 154,466      │        │ ARRESTS          │        │ &                │
│                  │        │ N = 43,839       │        │ SCREENING        │
└──────────────────┘        └──────────────────┘        └──────────────────┘
```

```
                        ┌──────────────────┐
                        │ INDEX            │
                        │ CRIMES           │
                        │ CHARGES          │
                        │ TRANSFER         │
                        └──────────────────┘
                                 │
                                 │  N = 12,868
                                 │  (0/0 = 100)*
                                 ▼
```

```
┌──────────────────┐                      ┌──────────────────┐
│ CHARGES          │                      │ CHARGES          │
│ REFUSED          │                      │ PURSUED          │
│ BY D.A.          │                      │ BY D.A.          │
└──────────────────┘                      └──────────────────┘
        │                                          │
◀───────┘                                          ▼
  N = 5,135                                   N = 7,733
  (40.0)                                      (60.0)
```
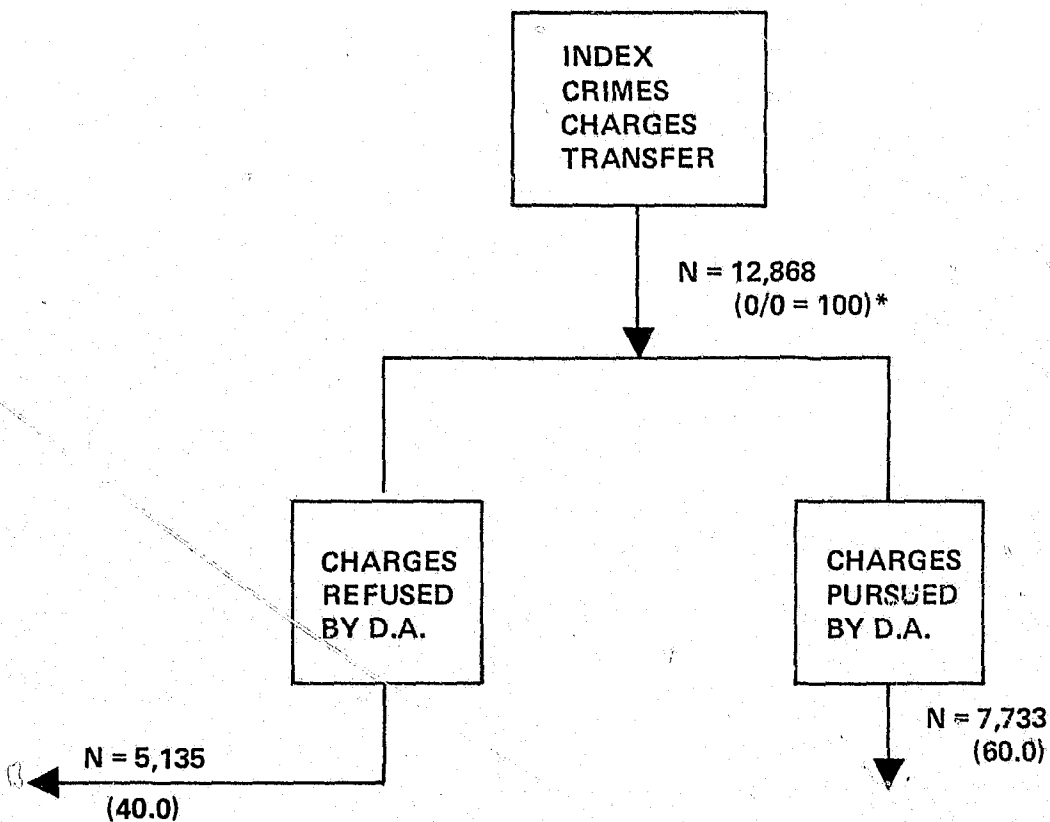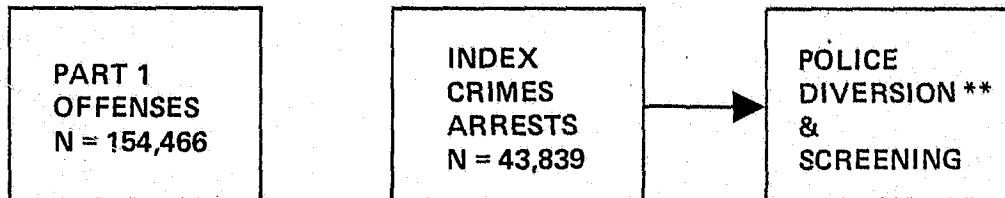
SOURCE: Louisiana Department of Justice — LCJIS

* ( ) are percents

** The numbers and percent of police diversions are unknown.

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for 1974, was 21 percent. Louisiana's clearance rate in 1975 was approximately 28 percent. The FBI reported in 1974 that offenses cleared by arrest increased some 42 percent. If this trend continued nationally, then Louisiana's rate would compare favorably with the national clearance rate.

Exhibit 4-7 also shows that only 12,868 charges were transferred to the District Attorney. A police discretion factor would appear to account for the differences among the 43,839 arrests, the 42,715 charges made, and the 12,868 charges transferred to the District Attorney. Not all those who are stopped are arrested. Nor are all those arrested deemed by the police to be worthy of turning over to the District Attorney. Police arrests are based on probable cause, and the amount of evidence needed to support that arrest may or may not be sufficient in the estimation of a trained expert and a veteran police officer to continue with the case. Additionally, police officers might tend to let some young first offenders go after a stern warning diverting them from the system. A discretion factor would underlie this screening and diversion process. It would appear that the kinds and quality of diversion used would relate directly to the level of expertise of the law enforcement officer, his background, experience and training.

The area of discretion also relates to the prosecutor, to the charges that he will accept and pursue, and those that he will refuse. The case/charge flow would indicate that, of the 12,868 charges transferred from law enforcement, some 5,135 charges (or 40 percent) are refused by the District Attorney. This refusal rate does not imply that the law enforcement/court subsystem connection is weak; it may indicate a multiplicity of factors at work.

The police arrest is based on "probable cause;" the District Attorney acceptance is based on "beyond a reasonable doubt." With limited budgets and staff, the District Attorney would be a poor manager if he weakened his allocation of resources using the inaccuracy of a shotgun approach--accepting all cases--rather than the well-aimed rifle of sighting the surer targets. In Louisiana, the District Attorney may refuse cases for the following five reasons: (1) the case may not appear to him to be able to be proven in court beyond a reasonable doubt; (2) his law enforcement training may not have equipped an officer to assess probable cause in a manner so that a judge would agree that the officer had a right to make the arrest. This is not to say the officer was wrong in making the arrest--there are many cases on record nationally where the probable cause was weak and the evidence found which would have supported probable cause not usable. Real-life law enforcement officers do not have the latitude of a Kojak or an Hawaii 5-0 in arresting people. Probable cause definitions are much stricter than televisions would lead us to believe. While kicking in doors and seizing evidence may be spectacular and entertaining--judges and citizens frown upon the kicked-in door without probable cause and legal safeguards, and while roof-top chases are diverting and good exercise--real police work is more of the wear-em-out shoe leather type; (3) law enforcement may not have the requisite equipment and facilities to gather the necessary evidence to support a case; (4) the evidentiary support for a case may have evaporated--the witness may be unable to certify, or the victim may have changed his mind about continuing the charge; and (5) the District Attorney may drop or refuse or defer charges around one individual, preferring to work with the stronger. This differs from the first reason discussed in that the former refusal of the charges would pertain to all charges concerning an individual.

In summary, the 40 percent rate of cases refused by district attorneys in Louisiana may not indicate weaknesses in the system--it may well indicate system strength. The system cannot try everyone who is arrested--it would weaken the system--and from this point of view, the symptom of a 40 percent refusal rate may well be the symptom of a healthy system.

3.   Law Enforcement System

Another perspective on the law enforcement subsystem may be furnished by an examination of the system operation. Exhibit 4-8 describes the system in terms of the objects or elements of the system, the stimuli or inputs into the system, and the outputs or responses from the system.

The importance of the statutory framework as an input into the system has already been discussed. Whether or not a criminal act has been committed is a matter of the definition and interpretation of the law. Public attitudes are another major factor influencing the system. Whether or not a call for service is made by a citizen is a matter of public attitude. Some acts, which are clearly against the written code, may not be reported by a witness--marijuana use is one example. Many people do not consider marijuana use to be a crime and do not report it, but it is a criminal offense as defined at present by the laws of Louisiana. It may not continue to be an offense, depending upon the permanency of the applicable statute. In terms of officer utilization and workloads, a public attitude has risen that law enforcement efforts might be more productively used when concentrated upon the pushers and users of hard drugs. Whether or not this attitude succeeds in changing the law cannot be determined at this point.

Public attitudes also determine law enforcement budgets, and budgets, in turn, determine the number of officers and equipment available for response to calls for service. Whether or not an officer is dispatched to answer a call

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EXHIBIT 4-8

LAW ENFORCEMENT SUBSYSTEM

Elements
Equipment
Personnel
Facilities

System Inputs
External:
Statutory Framework
Calls for Service (resulting from
   other inputs)
Criminal Acts
Public Attitudes*

Internal:
Witnesses
Budgets
# of Officers/Offense
Officers/Capita
Cars, equipment & facilities
Dispatch Time
Work Load
Department policy/attitudes

System Outputs
Internal:
Dispatch Time
Work Load
Arrests transferred to DA

External:
Arrests
Cases Cleared

*Not always measureable

117

External Environment

Legal Code

Public Attitudes*

Criminal Acts

Attitudes

Calls for Service

Work Loads

Budgets for Police — Public Dollars

# of Available Officers

# of Available Cars

Department Policy

Response Time

Statutory Framework and Legal Code ——

Dispatches Made

Response Time ——
Officer Expertise and Training ——

Work Load

Arrests

Witnesses, Officer Training facilities & —— equipment ——

Inadequate Evidence

Transfers to DA

Cases Cleared

Property Recovered

Subsystem

for service is dependent upon his availability (dependent in turn upon his workload). The response time or time taken by officers to respond to a call for service is critical in determining whether or not an arrest is made; yet response time itself is determined by the number of officers and cases available, and upon the officer workload. Low budgets could imply high workload. High workloads could (1) indicate high response time which could lead to low arrest rates, or (2) if only the most serious calls were answered, then high workloads would have little or now effect upon the arrest rate, the other factors of officer expertise and training, and response time would be paramount.

In Louisiana, an attempt was made to measure the relationship between the workload (number of dispatches made in 1975 per officer) and the arrest rate per officer. However, not enough jurisdictions reported the number of total dispatches made in 1975. Therefore, a substitute measure was used--for number of dispatches made--the number of Part I Index Crimes per officer reported in the jurisdiction. A high degree of relationship was shown to be present between a workload indicator (Index Crimes per officer) and arrests per officer. This might tend to indicate that officers were investigating the more serious crimes and de-emphasizing the less serious. From one point of view, this might be highly desirable. From another point of view, so-called "First Offenders" are many times not really first offenders. They have been in scrapes with the law over less serious matters and have not been dealt with in an appropriate manner or in a manner which would decrease their chances of committing a more serious act for which they would be arrested later. It is difficult to diagnose, in the absence of hard data about the number of dispatches made, but if officers must indeed concentrate on the more serious offenses, then a possible gap in the system might be present--i.e., some law enforcement elements may be needed to divert the less serious offender from

more serious crimes later and to reach a defined goal of the law enforcement subsystem--i.e., to preserve law and order through the prevention of misconduct and crime.

The last part of the law enforcement subsystem is concerned with the processing of the offender after arrest. The desired outputs of the subsystem are to "clear" cases--i.e., solve the offenses reported; to transfer those people whose cases warrant prosecution to the District Attorney and to recover property. Exhibit 4-8 indicates that officer training and expertise, the equipment available, and witnesses are the major inputs in determining the outcome of the arrest. The weight of evidence necessary to support the charge must be assured; the proper procedures must have been followed. Proper links between the cases and the offenses must be made, and the strongest charge brought to the District Attorney's attention for proper processing.

Any assessment then, of the law enforcement subsystem must take into account, not only the outcomes and the way the system responds, but also the status of the major inputs--dollars, facilities, equipment, workloads, laws, and above all, people, their backgrounds, experience, capabilities, and training.

2.   Courts

Theoretically, the performance of the court subsystem--the judiciary and prosecutors and defense--might be assessed against the following goals:

1. to determine swiftly the guilt or innocence of those persons who come before it;

2. to sentence guilty offenders in such a way that their rehabilitation is possible and others are deterred from committing criminal acts; and

3. to protect the rights of society and the offender.

Problems that could cause the courts to fall short of these goals are: (1) inconsistency in the processing of criminal defendants, (2) uncertainty as to the results obtained, and (3) unacceptable delays. It is the purpose of this section to consider the processing of criminal defendants by examining the time and disposition relationships within the subsystem.

● Time and Disposition Relationships

Although the performance of the court subsystem might theoretically be measured by assessing its progress against the three goals defined above, in actuality, court performance is difficult to measure.

Exhibits 4-9 and 4-10 illustrate the operation of the courts in Louisiana by quantifying the time and disposition relationships. Both of these show that of the charges pursued, 81 percent are terminated at the arraignment or preliminary hearing stage. Twenty-six percent of these charges are apparently nolle pros or dismissed by the prosecutor, and 55 percent plead guilty at arraignment and are sentenced shortly thereafter. However, in analyzing these statistics, it should be noted that they refer to charges, not people. One District Attorney will file the maximum number of charges about a case, up to 17 or perhaps 22. If the defendant is arraigned on one or two of the more serious Part I Index Crimes, a District Attorney may then drop the other charges, dismissing or nolle pros, yet actively pursue the other charges. This may give the impression that the case was dropped--while in actuality it was not. An additional complication is the amount of prosecutor diversion taking place in these dismissed or nolle pros charges. By itself then, a 27 percent nolle pros or dismissal rate for charges is hard to interpret. What is needed is a data mechanism to connect the charges to individuals, to count people rather than records when information about a group of individuals is pertinent. (Conversely, in considering caseloads, charges rather than individuals are pertinent, since five charges

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EXHIBIT 4-9

LOUISIANA CASE DISPOSITIONS

```
                        ┌──────────────────┐
                        │ CHARGES PURSUED  │
                        └──────────────────┘
                                 │
                            N = 7,733
                             (100%)
                                 │
            ┌────────────────────┴────────────────────┐
            │                                          │
   ┌──────────────────┐                      ┌──────────────────┐
   │ DIVERSIONS       │                      │                  │
   │ NOLLE PROS       │                      │   ARRAIGNMENT    │
   │ OR               │                      │                  │
   │ DISMISS          │                      └──────────────────┘
   └──────────────────┘                               │
                                                  N = 5,647
  N = 1,086                                         (73.0)
   (27.0)                                             │
                              ┌─────────────────────┬─┘
                              │                     │
                     ┌──────────────────┐  ┌──────────────────┐
                     │ PLEAD            │  │  PLEAD GUILTY    │
                     │ NOT GUILTY       │  │                  │
                     └──────────────────┘  └──────────────────┘
                              │                     │
                          N = 1,447            N = 4,188
                           (18.7)               (54.3)
                              │                     │
         ┌──────────┬─────────┴────────┐      ┌─────┴──────────┐
         │          │                  │      │                │
  ┌────────────┐ ┌──────────┐ ┌──────────────────┐ ┌──────────┐ ┌──────────────┐
  │ ACQUITTED  │ │DISMISSED │ │ FOUND GUILTY     │ │AS BILLED │ │ GUILTY TO    │
  └────────────┘ └──────────┘ │ INCLUDES PLEA    │ └──────────┘ │ A LESSER     │
                              └──────────────────┘              │ CHARGE       │
  N = 606        N = 80        N = 682                          └──────────────┘
   (7.8)         (1.0)          (8.8)       ┌──────────────────┐
                                            │ PLEAD GUILTY     │ N = 3,647    N = 540
                                            │ TO A LESSER      │  (47.1)       (7.0)
                                            │ PLEA             │
                                            └──────────────────┘
                                             N = 80
                                              (1.0)
```
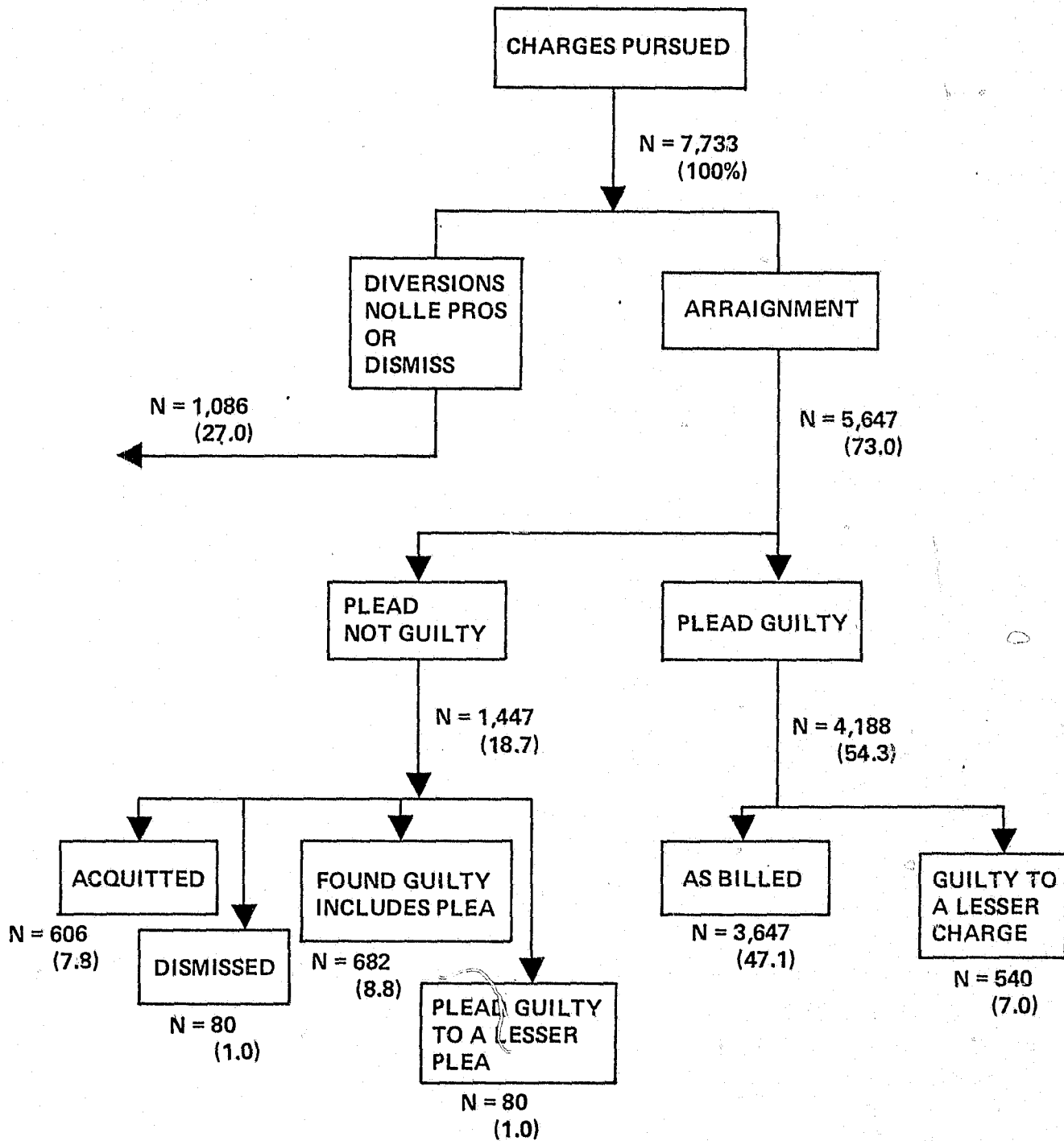
against the same individual can take not one unit of an assistant district attorney's time, but five.)

Similarly, the 55 percent of guilty pleas at arraignment may or may not indicate plea bargaining. District Attorneys indeed plea bargain with offenders in order to lighten their workload. On the other hand, however, plea bargaining may have little or nothing to do with the high percentage of cases that plead guilty at arraignment. Relationships may be measured between the number of assistant district attorneys and the percent of charges pleaded guilty to at arraignment, and between prosecutor workload indicators and the percent of charges pleaded guilty to. A reverse relationship between the caseload indicators and the percentage of guilty pleas would appear to be present in Louisiana; i.e., the lower the workload, the higher the number of guilty pleas. On the other hand, a direct relationship was found between the number of assistant district attorneys (ADA's) and the percentage of guilty pleas--i.e., the larger the number of ADA's available to prosecute, the larger the percentage of guilty pleas.

One possible interpretation of both of these relationships might be that, with heavy workloads for ADA's, implying insufficient time for trial preparation, the guilty are pleading not guilty, in the hope of either lightening the charge and then pleading guilty, or of winning acquittal. Similarly, the presence of a large ADA staff would imply sufficient ADA time for case processing and trial preparation, thus inducing the guilty to plead guilty at arraignment in the hopes of getting a lighter sentence. Finally, it just might be the weight of the evidence, inducing the guilty to plead guilty. This ties back to the efficiency of law enforcement and investigative capabilities.

Similarly, the time differentials involved in case processing may or may not indicate inconsistencies in the processing of defendants,

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EXHIBIT 4-10

TIME ANALYSIS COURTS/PROSECUTION SUBSYSTEM
CASE/CHARGE/FLOW (ALL EXITS)


```
                        ┌──────────────┐
                        │   Arrest     │
                        │  (Charges    │
                        │  Pursued)    │
                        └──────────────┘
                               │
                          N = 7,733
                               │
        ┌──────────────────────┴──────────────────────┐
     121 days                                       79 days
        │                                              │
 ┌──────────────┐                            ┌──────────────┐
 │  Nolie Pros  │                            │              │
 │  Diversion   │                            │ Arraignment  │
 │  or Dismiss  │                            │              │
 └──────────────┘                            └──────────────┘
        │                                           │
     N = 1,086                                   N = 5,647
        │                                           │
        ◄──                        ┌────────────────┴────────────┐
                               64 days                        Same day
                               (143)                             │
                          ┌──────────┐                    ┌──────────┐
                          │  Trial   │                    │  Plead   │  Same day
                          │  (Not    │                    │  Guilty  │
                          │  Guilty  │                    │          │  N = 4,188
                          │  Plea)   │                    └──────────┘
                          └──────────┘                          │
                               │                          17 days
                            N = 1,447                      (100)
                               │                          ┌──────────┐
                                                          │ Sentence │
                                                          └──────────┘
```

1 day	1 day	2 days (130)	
Acquitted	Dismissed	Found Guilty Includes Plea	Plead Guilty to Lesser Charge
N = 606	N = 80	N = 682	N = 80

Sentence
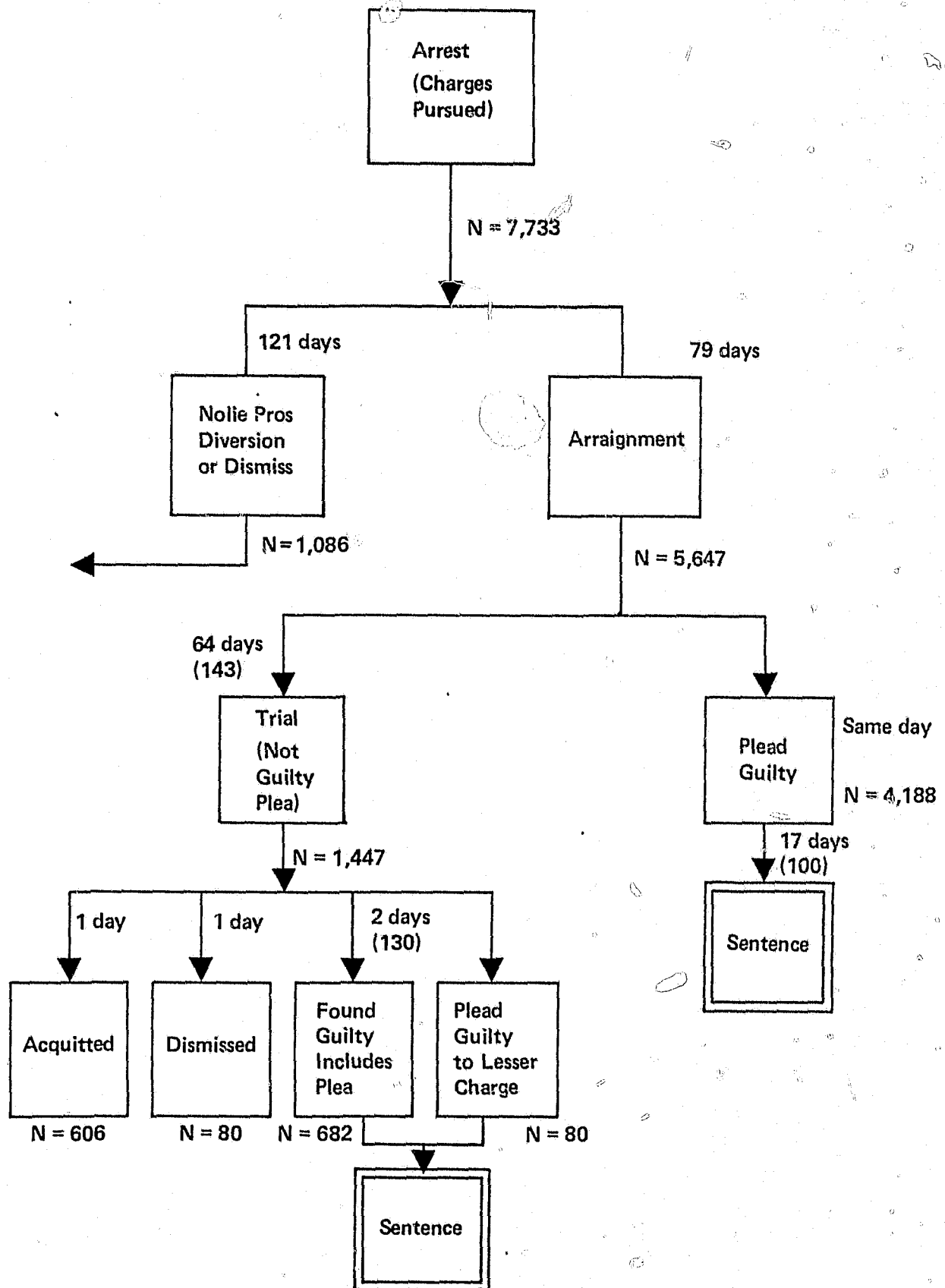
14 days
(144)

*Cumulative days are in parenthesis
*Time unknown for diversions
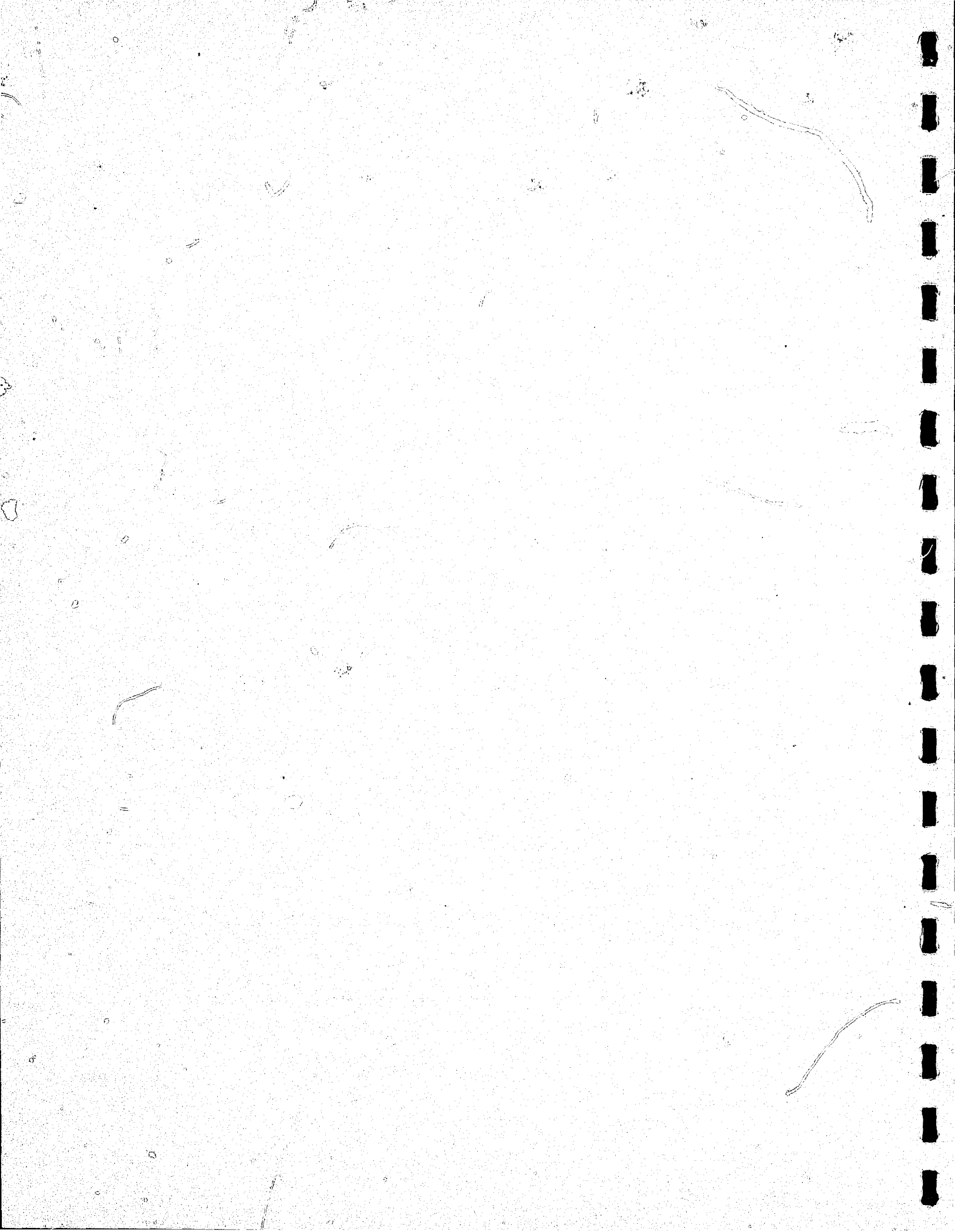
thereby causing the system to fall short of its goals. Exhibit 4-11 indicates four basic exits to the system in Louisiana--i.e., the four points at which persons may leave the court subsystem. The individual may exit the court portion of the system as a result of District Attorney discretion--before or concurrently with arraignment. He may exit if his case is dismissed, or if he is a first offender and in the District Attorney's opinion he can be rehabilitated and saved from the system, he is "diverted," i.e., if he keeps out of trouble for a specified period, all charges are dropped. Twenty seven (27) percent of the charges are dismissed or Nolle Pros at this exit. The second exit from the court subsystem occurs when the individual pleads guilty at arraignment. Exit IIIA and IIIB occur through the trial process. The defendant pleads not guilty at arraignment, necessitating a trial setting. He then may continue the not guilty plea, and be acquitted, or have his case dismissed (about 9 percent), or he may be found guilty or plead guilty (exit IIIB, about 10 percent). If all exits are averaged together (Exhibit 4-10), the time relationships indicate some 79 days from arrest to arraignment and 143 days from arrest to trial for all defendants in Louisiana in 1975.

However, when these four termination types are considered separately, it would appear that processing time from arrest to arraignment is not uniform. For those who plead "guilty" at arraignment (Type II exit), the number of days from arrest to arraignment is 83. For those pleading "not guilty" at arraignment, the number of days from arrest to arraignment range from 59 for the Type IIIB (those subsequently found guilty or changed their plea to guilty at District Court Trial) to 66 for the Type III exit, (those subsequently acquitted or whose case was dismissed). It can be shown that these 17 and 24 day differentials could become a significant source of cost savings for parish government. The cost of lodging a

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EXHIBIT 4-11

TIME ANALYSIS BY EXIT
TOTAL INDEX CRIME
AVERAGE PROCESS TIME IN DAYS

TYPE 1 EXIT:
PROSECUTOR TERMINATION
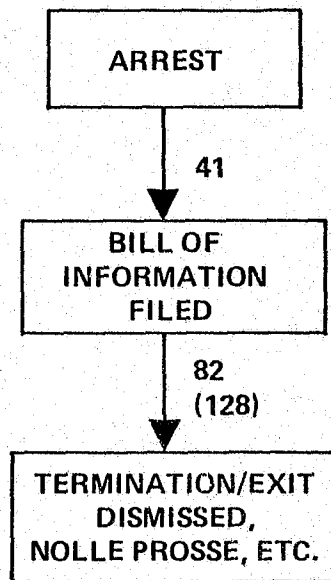
TYPE II EXIT:
GUILTY PLEA AT ARRAIGNMENT
TERMINATION AT SENTENCING
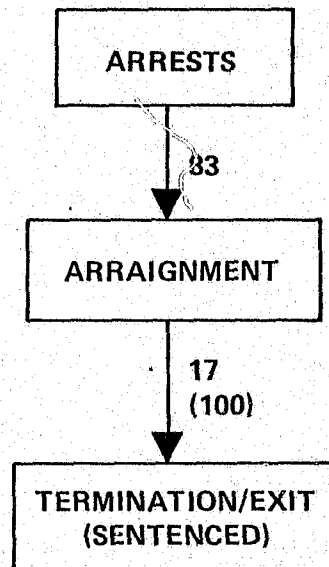
TYPE IIIA EXIT:
NOT GUILTY PLEA/TERMINA-
TION AT END OF TRIAL
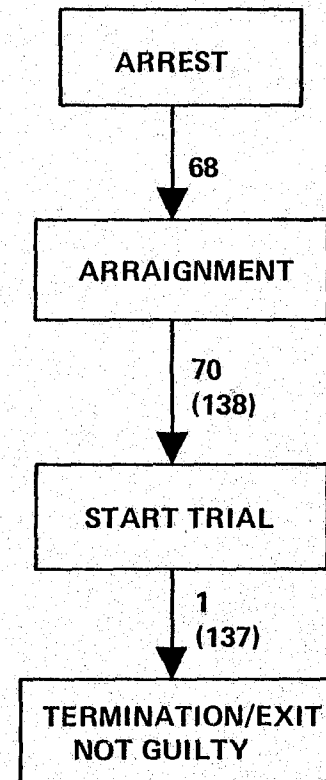
TYPE IIIB EXIT:
GUILTY AT END OF TRIAL
(may include change of
plea during trial)
TERMINATION AT SENTENCING

TYPE 1 EXIT

```
ARREST
  |
  41
  |
BILL OF
INFORMATION
FILED
  |
  82
  (128)
  |
TERMINATION/EXIT
DISMISSED,
NOLLE PROSSE, ETC.
```

TYPE II EXIT

```
ARRESTS
  |
  33
  |
ARRAIGNMENT
  |
  17
  (100)
  |
TERMINATION/EXIT
(SENTENCED)
```

TYPE IIIA EXIT

```
ARREST
  |
  68
  |
ARRAIGNMENT
  |
  70
  (138)
  |
START TRIAL
  |
  1
  (137)
  |
TERMINATION/EXIT
NOT GUILTY
```

TYPE IIIB EXIT

```
ARRESTS
  |
  (59)
  |
ARRAIGNMENT
  |
  60
  (128)
  |
START TRIAL
  |
  2
  (130)
  |
END TRIAL
(FOUND GUILTY
OR PLEA)
  |
  14
  (144)
  |
TERMINATION/EXIT
SENTENCED
```

Figures not enclosed in parentheses represent time
from one processing point to another.

Figures in parentheses represent accumulated times
based on the arrest date.

Source: Louisiana Department of Justice — LCJIS

prisoner in a local jail ranges from $3 to $5 per day in Louisiana. It can be assumed that some percentage of those who plead "guilty" at arraignment are not released on bond for the period from arrest to arraignmment, but remain at the facility for 83 days. After arraignment, those who pleaded guilty were sentenced to a state institution or to a local jail, or placed on probation or fined. Of the 14,188 people so sentenced, only 1,395 were sentenced to parish jails. If the others were to be arraigned some 17 days earlier, or 24 days earlier, along with the individuals in the system who pleaded "not guilty," and if these others had not been released on bail during the pre-trial period, a significant amount of money could have been saved by local governments. It is true that the taxpayer would continue to lodge those confined at the state penitentiary, and the cost would merely be shifted from locality to the state, but it is also true that the money involved in lodging those who were fined or placed on probation would be saved. It would appear that system performance in this area could be investigated further, with the objective of improving the cost effectiveness of case and charge processing by making the time from arrest to arraignment more uniform for all the dispositions.

Exhibit 4-12 shows the exit time and flow analysis for each of the six major Index Crimes and also exhibits some interesting discrepancies, both within one type of crime (Burglary, 91 days at arraignment for those who plead guilty at arraignment, 71 and 64 for those who do not), and between two categories, (Murder, 153 days, 93 and 79). Again, perhaps the time discrepancy may be due to system ineptitude and comprehensive case preparation on the part of the ADA's.

The whole area of elapsed time may be considered a gray area. Intuitively, it would appear that the number of days from arrest to trial would be related to the number of ADA's available to prepare and process

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EXHIBIT 4-12

PART I INDEX CRIMES
EXIT TIME AND FLOW ANALYSIS
COURT/PROSECUTOR SUBSYSTEM

	MURDER AND MANSLAUGHTER	FORCIBLE RAPE	ROBBERY	AGGRAVATED ASSAULT	BURGLARY	LARCENY THEFT	TOTAL INDEX
Type 1 Exit							
Cases Dismissed or Not Pressed							
Number	25	35	100	791	343	686	1,980
Percent of Offense Category	16.9%	38.0%	17.8%	34.0%	20.8%	23.2%	25.6%
Time:							
From Arrest to Billing	32	40	24	35	45	49	41
Billing to Disposition	125	289	84	61	91	88	82
Arrest to Disposition	157	329	108	96	136	137	123
Type 2 Exit							
Cases P and Guilty at Arraignment							
Number	71	32	337	971	1,041	1,827	4,279
Percent of Offense Category	48.0%	34.8%	60.0%	41.8%	63.0%	61.8%	55.3%
Time:							
Arrest to Arraignment	153	204	94	74	91	76	83
Arraignment to Sentencing	32	41	25	12	24	14	17
Arrest to Sentence	185	245	119	86	115	90	100
Type 3 Exit							
District Court Trial Acquittals							
Number	21	6	36	280	89	174	606
Percent of Offense Category	14.2%	6.5%	6.4%	12.0%	5.4%	5.8%	7.8%

Exhibit 4-12 (continued)

	MURDER AND MANSLAUGHTER	FORCIBLE RAPE	ROBBERY	AGGRAVATED ASSAULT	BURGLARY	LARCENY THEFT	TOTAL INDEX
Type IIIA Exit (Cont.)							
Time:							
Arrest to Arraignment	93	84	56	61	71	69	66
Arraignment to Trial Start	121	96	78	57	102	67	70
Trial Start to Trial End	1	1	6	1	1	1	1
Arrest to Trial Start	214	180	134	118	173	136	136
Arrest to Disposition	215	181	140	119	174	137	137
Type IIIB Exit							
Found Guilty at District Court Trial (May Include Plea)							
Number	31	17	84	246	154	230	762
Percent of Offense Category	21.0%	18.5%	15.0%	10.6%	9.3%	7.8%	9.9%
Time:							
Arrest to Arraignment	79	95	45	51	64	65	59
Arraignment to Trial Start	129	72	88	48	87	63	69
Trial Start to Trial End	4	1	1	1	7	1	2
Trial End to Sentence	20	20	27	12	20	7	14
Arrest to Trial Start	208	167	131	99	151	128	28
Arrest to Trial End	212	168	132	100	158	129	130
Arrest to Sentence	226	188	152	112	178	136	144

the case. The relationships between these were measured and found to be small in Louisiana. Similarly, intuitively one would know that there should be a relationship between an ADA workload indicator,[*] and elapsed time to trial, between the number of judges and elapsed time to trial. However, measures of relationships were inconclusive, when this intuition was tested using Louisiana data.

When elapsed time to trial was measured for rural and urban courts separately, the correlation coefficient rose to +.6 between ADA workload indicator (urban) and this elapsed time. Other relationships did not increase. However, with the courts grouped into urban and rural, with New Orleans excepted, urban courts showed a strong relationship between elapsed time to trial and a combination of all four factors. Rural courts showed no such relationship, indicating additional factors that have not been considered. The urban relationship is shown in Exhibit 4-13.

There is a word that the great architectural iconoclast Buckminster Fuller uses called "synergism." Webster's defines it as the "simultaneous action of separate agencies which, together, have greater total effect than the sum of their individual effects." Fuller defines synergy as "the behavior of whole systems, unpredicted by knowledge of the component parts or of any subassembly of components," and cites the example of two basic metals, each with a given tensile strength. Combined, the tensile strength of these two metals is greater than the sum total of each component. Why? Because of the interaction of their molecular structure. To translate this into criminal justice system terms, the strength of

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[*] The number of Index Crime cases processed divided by the number of DA's and Judges available to process them.

EXHIBIT 4-13

URBAN COURTS
NUMBER OF DAYS FROM ARREST TO TRIAL
(AS A FUNCTION OF PERSONNEL AND WORKLOAD INDICATOR)

# OF ADA'S	# OF JUDGES	ADA WORK LOAD INDICATOR	JUDGE WORK WORK LOAD INDICATOR	ACTUAL # OF DAYS TO TRIAL	COMPUTED # OF DAYS TO TRIAL	PERCENT OF DIFFERENCE BETWEEN ACTUAL & COMP.
10	2	36	142	112	113	1.0
7	4	25	39	71	75	5.4
7	4	24	31	81	74	9.0
8	6	73	62	125	123	0.8
8	5	27	10	111	110	0.8
21	4	78	103	177	176	0.09
5	2	103	151	166	163	1.2
25	1	14	28	109	109	0.2
6	4	83	82	115	125	8.7
7	4	69	68	116	108	6.3
5	4	42	20	135	149	10.7
4	4	53	29	189	178	5.6

the process as a whole is greater than the sum of the contributions of the individual factors of judge availability, District Attorney or law enforcement availability. They must work together to form a new complex entity.

Intuitively, this is obvious.[*] It does little good to have a large staff of ADAs with moderate workloads available if judges are not available to hear the cases. Similarly, it does little good to have judges with light dockets, when ADAs are not able to process cases. The implications for management is that a complex causality pattern is at work here, and strengthening one part of the pattern will not yield the results that an across-the-board impact program can. This complex causality will be examined later in this section.

Louisiana sentencing patterns exhibit inconsistencies. Exhibit 4-15 and Exhibit 4-16, the Urban/Rural Sentence Analysis, would tend to indicate that while the rural population comprises some 62 percent of the state population, only 33 percent of those sentenced come from the rural area. This would confirm the discussion in Module 3 about the relationship between population density and crime. The sentence patterns also would tend to indicate that rural areas make less use of people than would be expected. About a third, or 33.4 percent, of those committed to institutions come from rural courts, yet only 21 percent of those placed on probation come from rural courts. This may well indicate a gap in available services in the system.

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*The lack of causality by any one factor is illustrated in Exhibit 4-14. Strong causality and relationship would mandate that these plotted points lie around a straight line. Exhibit 4-14 shows that they do not and are scattered instead.

EXHIBIT 4-14

TIME RELATIONSHIP

JUDGES WORKLOAD – URBAN RURAL
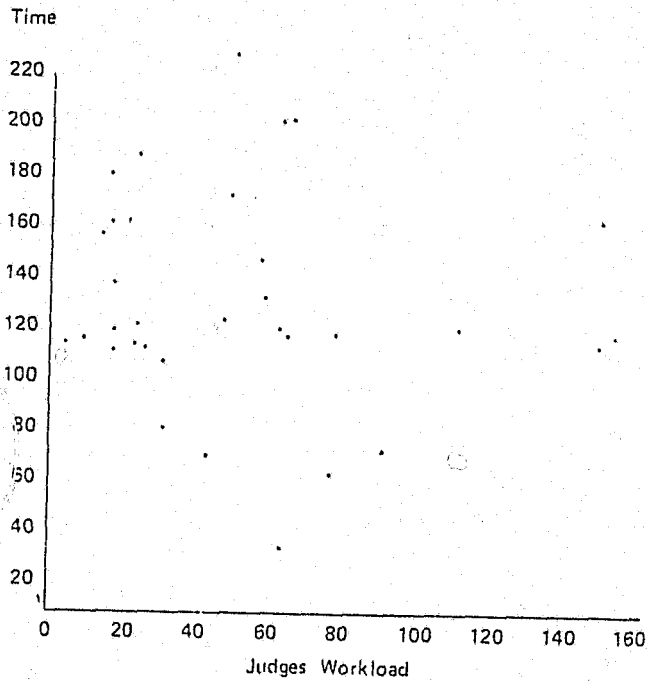
JUDGES – URBAN/RURAL
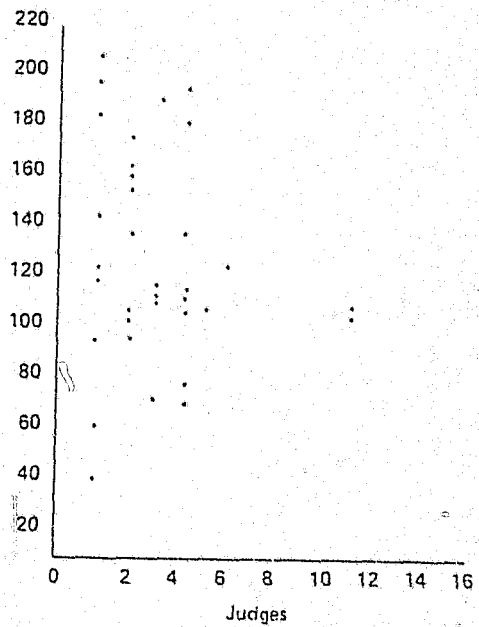
ADA WORKLOAD – URBAN/RURAL

ADA–URBAN/RURAL

131
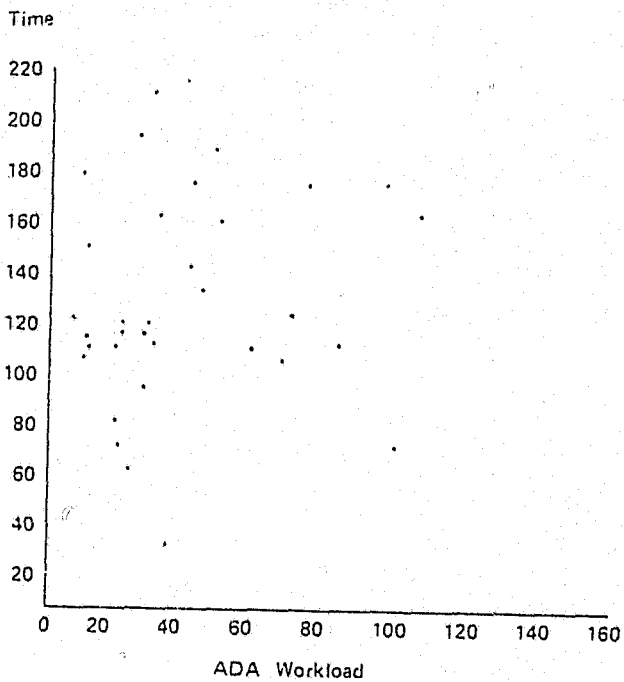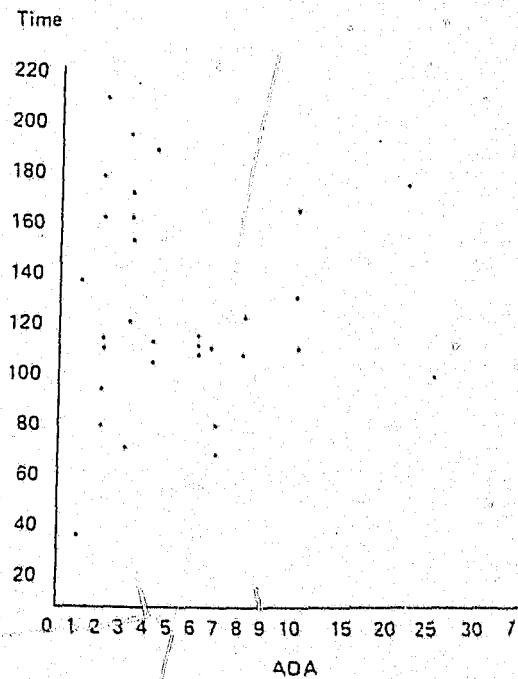
EXHIBIT 4-15

COURT SUBSYSTEM SENTENCE ANALYSIS
PART I INDEX CRIMES


```
Prosecutor
Disposition
   |
   v
Diversion

N = 212
(4.1)
```

```
                              Sentence

                          N = 4949
                          (95.9)*

   N = 2433          N = 1234         N = 1260        N = 32
   (47.2)            (23.9)           (24.5)          (0.6)

  Confinement       Probation         Fines          Other
                                                      (e.g., deferred
                                                      sentences)
```

```
  Other           State      Parish        State          Other
  Institutions    Prison     Jail          Supervised     Probation

  N = 10          N = 1028   N = 1395      N = 1103       N = 131
  (0.2)           (19.1)     (27.9)        (21.4)         (2.5)
```

132
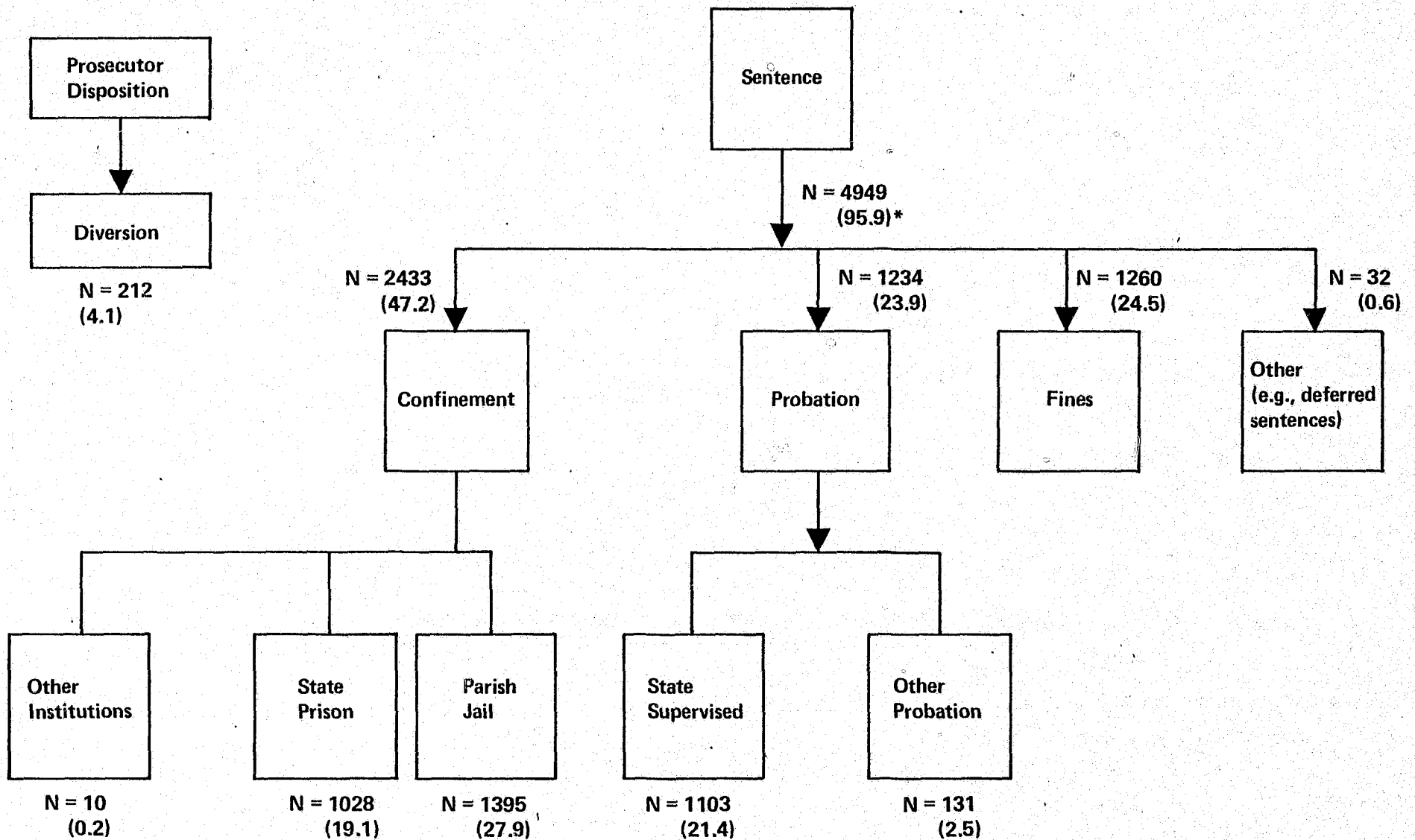
* (   ) are percentages.

EXHIBIT 4-16

URBAN/RURAL SENTENCE ANALYSIS

	TOTAL COMMITTEE	STATE PEN.	OTHER INST.	PARISH JAIL	TOTAL PROB.	STATE PROB.	OTHER PROB.	FINES	OTHER	TOTAL
State	2,433	1,028	10	1,395	1,435	1,103	332	1,260	32	5,165
Urban*	1,623	709	10	914	1,131	867	264	672	8	3,435
Rural	810	319	--	481	304	236	68	588	24	1,725
Rural % of Category	(33.3)	(31.0)		(34.5)	(21.2)	(21.3)	(20.5)	(46.7)	(75.0)	(33.5)

Urban population totals 60 percent of the population of the state, rural population is about 40 percent of the state population. Based on this, one would expect that the Rural percent of each category should be around 40 percent. This table indicates the conformities and the discrepancies.

On the other hand, the low probation figure, coupled with the high
figure for fines, may well indicate an innovative approach toward personal
responsibility with the offender.

- Framework for Problem Identification

Exhibit 4-17 is a description of the system and a framework for
analysis to determine the gaps in its organization and operation, and to
identify the needs and problems that must be addressed in order to improve
the courts' performance.

The causal relationships discussed earlier appear to be more explicit,
using the case/charge flow charts in Exhibit 4-12. The system element of
personnel (judicial as well as prosecutorial) must be combined in the
proper balance with facilities and equipment in order that the offender
be processed in as expeditious and just a manner as possible. Obviously,
budgets determine the staff size and the expertise available to determine
whether or not diversion is preferable to incarceration. Similarly, budgets
help determine the numbers of judges in a judicial district, which in turn,
impact the length and number of sittings. And as was shown earlier, analysis
of the complex causal pattern of District Attorney workload, judicial work-
load, DA and judicial staff is necessary to assess properly judicial per-
formance. Juries are also a factor in establishing the elapsed times to
trial. It is obvious that jury trials are difficult to conduct with no
jury present to hear the presentation of opposing counsels. And finally,
the availability, interest, and motivation of defense counsel play a large
part in the court process. A highly paid private counselor will try to
delay a case until the last witness's memories fade with time--an underpaid
court-appointed counsel is tempted to hurry through his community service,
try to get the lightest sentence possible for his client, and return to his
practice.

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EXHIBIT 4-17

PROSECUTOR COURT SUBSYSTEM

Statutory Framework — = of cases transferred from Law Enforcement

ELEMENTS
Personnel
   DA's, Judges & Court Appointed
   Counsel, Support Staffs
Facilities
   Courtrooms
Equipment
Offenders/Charges/Cases

Review by appropriate staff

Budgets
- Staff Size & Expertise
- Workloads
- Training
- Crime Seriousness

INPUTS
External
   Budgets
   = of Cases Transferred
   from Law Enforcement
   Seriousness of Offenses
   Types of Offenders
   Staff Expertise &
   training and discretion
   Witnesses
   Statutory Framework

Diversions — Cases Billed — Rejection

- Defense Counsel
- DA Staff
- Judge and Staff

Length to & number of settings

Arraignment

INTERNAL
   Workloads
   Trial times and
   settings available
   Case Processing
   times

- DA Workloads
- Staff Expertise
- Witness Availability
- Defense Workloads
- Judge Workloads
- Jury Settings

Times to Trial

SUBSYSTEM OUTPUTS
   Case Flows
   Terminations
   Inputs to
   correctional
   subsystem

Dismissals — Trial Settings — Guilty Pleas

Budgets
- Motions
- Workloads
- Personnel
- Juries

Trial

Dismissals — Sentences — Acquittals

Pre-Sentence Reports

Jail — Probation — Prison — Fine

On a closing note for the court subsystem, it should be emphasized that the trial process produces inputs to the correctional subsystem. The quality and numbers of those who do the pre-sentence reports, and the availability of probation and competent supervision may well have a bearing on the success or failure of the correctional subsystem as it processes the offender toward eventual re-entry into society.

3. Corrections

Corrections is that subsystem of the criminal justice system that is concerned with the post-conviction supervision of the offender. In Louisiana, the Department of Corrections is charged with the responsibility of post-conviction supervision of the offender and of his rehabilitation. This Department is organized into three basic areas--adult institutions, juvenile institutions, and the headquarter's function which includes probation and parole supervision.

This following discussion about the corrections subsystem is concerned soley with the adult offender population and the way that the system responds to the stimuli that the adult offender furnishes to the system. A partial picture of the way the system responds could be drawn from the sentence analysis of the prior section about the court/prosecutor subsystem. However, if any meaningful information is to be drawn from the way that the system reacts, a change in the reference frames of offenders subject to the analysis and the time frame must be made. Part I Index Crimes, although "serious," constitute only about 44 percent of the Department population. Distributionally, inferences cannot be made that this 44 percent is represented by 44 percent of work/release programs - or of probationary/diversion programs. These crimes are too serious.

Data are available, however, about the inmate population[*] as a whole and therefore, the information about the way people are placed in programs becomes more reliable and meaningful, in terms of pressures on the system. Secondly, data are not available for calendar year 1975, but are available for fiscal year 1974/1975. The purpose of this analysis is to provide information for management about trends and patterns in the system--and it can be assumed that the shift of reference points in time will not distort that analysis, but will prove to be as valid as that of calendar year 1975.

Therefore, the analysis presented in this section will be based on the total adult inmate population, and on the total adult population supervised by parole officers under the state supervised probation and parole programs, i.e., not restricted to those sentenced for Part I Crimes, and FY 1974/1975 time frame.

- Response

| Inmate Profiles |

(1) Adult Males

The "typical" adult subject of the Louisiana Department of Corrections has most likely been sentenced for burglary, he committed a crime in one of the ten high-ranking parishes for crime; he is most likely to be unskilled, single, and he most likely has some history of drug usage, ranging from light to addiction (60 percent light usage; 6 percent heavy, and 10 percent addicted--see Exhibit 4-18). He is probably between 26 and 30 years of age and has more than an even chance of being committed to the State Penitentiary for the first time (58 percent first admission; 42 percent not).

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* All data about corrections are from the Louisiana Department of Corrections.

EXHIBIT 4-18

ADULT ADMISSIONS-DRUG USAGE

TYPE OF DRUG	LEVEL OF USAGE								FREQUENCY		PERCENTAGE	
	LIGHT		MODERATE		HEAVY		ADDICTION					
	M	F	M	F	M	F	M	F	M	F	M	F
MARIJUANA	374	34	75	-	29	4	6	3	484	41	20.7	23.5
HEROIN	75	10	21	-	10	-	173	15	279	25	11.9	14.4
ALCOHOL	761	56	101	2	74	3	37	3	973	64	41.6	36.8
BARBITUATES	82	16	13	2	12	-	5	2	112	20	4.8	11.5
AMPHETAMINES	52	5	6	-	11	-	4	-	73	5	3.1	2.9
HALLUCINOGENS	52	4	11	3	7	1	-	-	70	8	3.0	4.6
OTHERS	25	6	4	-	11	2	6	3	46	11	2.0	6.3
NO DRUG USAGE	-	-	-		-	-	-	-	302	-	12.9	-
TOTAL	1,421	131	231	7	154	10	231	26	2,339	174*	100.0	100.0

*Multi-drug use may account for the discrepancy in total

Exhibits 4-19 and 4-20 furnish data about adults admitted to Louisiana State Penitentiary.

(2) Adult Females

The "typical" woman inmate admitted in FY 1975, as in FY 1974, most likely was sentenced for drugs or for homicide. The most frequent sentence for women was 3 to 5 years, with the next most frequent (by one percentage point) between 5 and 10 years. The sentence pattern in 1974 was between 5 and 10 years. The difference between these patterns would not be considered significant enough to put additional stress on the system. She is somewhat younger than her male counterpart and apparently has a higher degree of skills and education.

The Department also cites figures that show that almost one-third of those women committed in 1975 were under 22 at the time of their first arrest and/or commitment. Thirty-eight point seven (38.7) percent of the men were under 20 at the time of their first arrest and/or commitment. These data would agree with national rates for juvenile recidivism, and would tend to agree with the increasing emphasis on diversionary programs for juveniles in trouble for the first time.

The profiles would indicate a need for vocational training for men, and, if the drug figures are accurate, some type of drug program for men and women. However, the information obtained about drug usage is subjective, is not extensive, and is not verifiable. Nor can the statements made about age at first arrest or first commitment be verified. However, with extensive research carried on nationally about the juvenile in trouble-- the statements made at admission by those newly sentenced are to some extent quite believable--and may indicate a need for new types of juvenile programs.

EXHIBIT 4-19

ADULT ADMISSIONS
BY OCCUPATION, MARITAL STATUS, AGE AND SEX

OCCUPATIONAL BREAKDOWN

	M	%	F	%
PROFESSIONAL/ MANAGERIAL	25	1.1	5	4.4
CLERICAL/ SALES	69	2.9	14	12.3
SERVICES	352	15.0	30	26.3
SKILLED WORKER	341	14.6	-	-
OPERATIVE	262	11.2	4	3.5
UNSKILLED	924	39.5	6	5.3
FARMER	15	0.6	-	-
STUDENT	41	1.8	5	4.4
NOT IN LABOR FORCE	290	12.4	50	43.8
UNKNOWN	20	0.9	-	-
TOTAL	2,339	100.0	114	100.0

MARITAL STATUS

	M	%	F	%
SINGLE	1,219	52.1	41	35.0
MARRIED	649	27.8	36	31.6
COMMON LAW/ CONSORT	179	7.6	9	7.9
DIVORCED	131	5.6	9	7.9
WIDOWED/ SEPERATED	148	6.3	19	16.7
UNKNOWN	13	0.6	-	-
TOTAL	2,339	100.0	114	100.0

AGE AT ADMISSION

AGE LEVEL	M	%	F	%
16-18	264	11.3	6	5.3
19-22	761	32.5	31	27.2
23-25	406	17.4		
23-26			25	21.9
26-30	427	18.3		
27-30			19	16.7
31-34			15	13.2
31-35	235	10.1		
35-38			5	4.4
36-40	106	4.5		
39-42			2	1.7
41-45	68	2.9		
43-46			4	3.5
46-50	79	1.2		
47-50			3	2.6
51-	43	1.8	4	3.5
TOTAL	2,339	100.0	114	100.0

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EXHIBIT 4-20

ADULT ADMISSIONS
OFFENDER CLASS AND LENGTH OF SENTENCE

LENGTH OF SENTENCE	FIRST OFFENSE		REPEAT OFFENSE		FREQUENCY		PERCENTAGE	
	M	F	M	F	M	F	M	F
1 < 2		12		5		17		14.9
— 2	285		161		446		19.1	
2 < 3		21		2		23		20.2
— 4	345		214		559		23.9	
3 < 5		24		5		29		25.4
5 — 6	280		195		475		20.3	
< 10		24		3		27		23.7
7 — 8	70		62		132		5.6	
— 10	125		84		209		8.9	
10 < 15		6		2		8		7.0
11 — 12	36		25		61		2.6	
3 — 14	8		8		16		0.7	
15 ≤ Life		6		1		7		6.2
5 — 20	103		68		171		7.3	
21 — 25	38		33		71		3.0	
26 — 30	14		12		26		1.1	
< 1 or more	7		64		71		3.0	
Life	47	3	52	—	99	3	4.2	2.6
Death	1		2		3		0.1	
TOTAL	1,359	96	980	18	2,339	114	100.0	100.0
PERCENTAGE	58.1	84.2	41.9	15.8				

Source: Louisiana Department of Corrections, Preliminary 1975 Annual Report Reproduction

• Operation

Exhibit 4-21 illustrates in schematic form the Louisiana Corrections subsystem, its inputs and, to some extent, its operations. It is apparent that the Department is responsible for some 16,000 individuals, 3,511 of whom are incarcerated at the Louisiana State Penitentiary, and 9,600 are probationers supervised by the Department. Five hundred thirty-nine inmates are in maintenance programs (similar to work release) and 184 are in work release programs. Another 1,200 are waiting in local jails to enter the state penitentiary.

The emphasis of corrections is supervision and, clearly, one major input into the system is staff--staff expertise and staff training--which are dependent upon staff turnover. While firm data about staff turnover are scarce, the Department estimates that of the court-ordered authorized strength of 950 guards, 350 new positions were to be created. Twelve hundred people were hired to fill 250 of the 350 positions, but the guard population numbers only around 850. That these 1,200 people have been hired since the court order would indicate turnover problems. Similar problems were encountered last year, hiring 16 people to fill six teaching positions in 18 months. The implication of such turnover is that it results in a low degree of program continuity. In view of the unskilled, uneducated state of the average inmate, that lack might be critical.

One test of a Correctional Program is the recidivism rate-- probation/ parole officers with a caseload of approximately 150 cases--or about three times the national standard. Effective supervision is difficult under such conditions. In addition to their regular caseload, these officers conduct pre-sentence investigations for the court. This again has important implications for the Correctional Subsystem. Court decisions should be based on

EXHIBIT 4-21

CORRECTIONS SUBSYSTEM*

ELEMENTS
Offender
Staff
  Psychologists
  Social Workers
  Medical Personnel
  Prob/Parole Officers
  Guards
  Other Service Staff

Facilities

Equipment

Programs

INPUTS
External
  Community Attitudes
  Budgets
  No. of Sentenced Offenders
  Court decisions
  Civil rights, etc.

Internal
  Staff Expertise
  Programs
  Staff Turnover
  Facilities Availability
  Workloads

OUTPUTS
Rehabilitation*
Recidivism*

Pre-Sentence Report

Trial and Findings

Sentenced Offenders in FY 74/75

Diagnostic Process

Budgets

Staff Expertise
Staff Training
Staff Turnover
Programs

Community Attitudes

Community Attitudes
Prob. Officers/Workload
Programs

Incarceration with work/ release or study release N = 184

Maintenance Programs N = 539

Incarceration N = 3,611

Correctional Diversion

Parole

Parole

Misdemeanor Probation N = 3,885

Felony Probation N = 5,738

Post Release Programs
Supervisory Personnel

Parole N = 1,963

Exit

*The 2,339 admittants were added to the existing population

(Data Source: Department of Corrections)

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full information so that the most appropriate decision for offender rehabilitation can be made. Again, it is difficult to see how these officers contending with a caseload of 150 cases per man can have the time to conduct pre-sentence investigations for the courts that will give them the full information needed.

For this exercise, trainees are asked to assume that 15% of defendants before a particular court are rearrested on new charges while awaiting trial for the present offense. The goal of this exercise is to reduce this total by selecting an effective alternative course of action which requires a change in the current operation of the criminal justice system.

Participants are asked to assume that offenders awaiting trial may be divided into six categories:

(1) persons in jail

(2) persons released on their own recognizance (ROR) without supervision

(3) persons released on their own recognizance (ROR) with supervision

(4) persons released on their own low or nominal bonds

(5) persons released on normal bail

(6) persons sent to a diversion or intervention program after being charged but before case disposition.

Below are hypothetical data on the "current status" of the six types of defendants awaiting trial prior to any system changes.

Current Status Type of Defendant	% of Total Cases	Average # of Months on Release	Rearrests per Person-Month on Release	Rearrests per 100 cases
Jail	4	0	–	0
Unsupervised ROR	40		.03	3.6
Supervised ROR	5	4.5	.02	.45
Normal Bond	10	3	.05	1.5
Normal Bail	35	3	.05	5.25
Diversion	6	3	.03	.54

Four possible system changes might be:

(1) to add one additional judge to the court

(2) to screen out high risk offenders and bring them to an early trial

(3) to detain a higher percentage of offenders

(4) to increase the percentage of persons on supervised rather than unsupervised ROR.

Step 1 - Following are calculations for the four proposed system changes based on the given and hypothetical data which may be used in selecting the change that produced the lowest percentage of rearrests.

Step 1 - Following are calculations for the four proposed system changes based on the given and hypothetical data which may be used in selecting the change that produced the lowest percentage of rearrests.

System Change I

Assuming one full-time judge is added to the court, 20 additional cases should be tried each week, and the waiting time for all defendants will be decreased by approximately 7%. This should decrease the total rearrests per 100 cases.

Type of Defendant	% of Total Defendants		Average # of Months on Release		Rearrests Per Person-Month on Release		Rearrests per 100 Defendants
Jail	4	x	0		-		0
ROR	40	x	2.79	x	.03	=	3.35
Supervised ROR	5	x	4.19	x	.02	=	.42
Nominal Bond	10	x	2.79	x	.05	=	1.40
Normal Bail	35	x	2.79	x	.05	=	4.88
Diversion	6	x	2.79	x	.03	=	.50
						total	10.55

System Change II

Assume that an intake screening system is set up in the district attorney's office to screen out high risk cases and bring them to an early trial. This will decrease their time on release, the number of offenses they commit, and thus the number of rearrests. Assume also that these high risk

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defendants are drawn from persons on bail and that the screening program decreases their average time on release from three to two months. An additional result of this change, of course, is to increase the release time of other defendants. Assume that the total increase is the same number of person-months as are saved for the bailed defendants and that the increased release time is distributed proportionately among other released defendants (e.g., 40% of the increase is added to the person-months on unsupervised ROR).

Type of Defendant	Person-months on Release Prior to Change II	Person-Months on Release Added/ Subtracted by Change II	Rearrests per Person-Month on Release		Rearrests per 100 Defendants
Jail	0	0	—		0
Unsupervised ROR	(40x3=120)	+ (.66x35=23.10)	x .03	=	4.29
Supervised ROR	(5x4.5=22.50)	+ (.08x35=2.80)	x .02	=	.51
Nominal Bond	(10x3=30)	+ (.16x35=5.60)	x .05	=	1.78
Normal Bail	(35x3=105)	— (35)	x .05	=	3.50
Diversion	(6x3=18)	+ (.10x35=3.50)	x .03	=	.65
			total		10.73

System Change III

Assume that bail rates are raised so that fewer persons are able to make bail and are instead detained in jail awaiting trial. Assume that the percentage of total defendants in jail is increased from 4% to 14% and the number of people on bail is decreased from 35% to 25%. Assume that of the

defendants still able to make bail, a higher percentage are professional criminals than previously and thus the average number of rearrests per person-month of those remaining on bail is increased to .065.

Type of Defendant	% of Total Defendants	Average # of Months on Release	Rearrests Per Person-Month on Release	Rearrests per 100 Defendants
Jail	14	0	-	0
Unsupervised ROR	40	3	.03	3.60
Supervised ROR	5	4.5	.02	.45
Nominal Bond	10	3	.05	1.50
Normal Bail	25	3	.065	4.88
Diversion	6	3	.03	.54
			total	10.97

System Change IV

Assume that there is a decrease in unsupervised ROR from 40% to 20% of the total defendants and that supervised ROR cases rise from 5% to 25%. Since the poorer risk defendants will be removed from unsupervised ROR, assume that this will also decrease the rearrests per person-month on release of those remaining on unsupervised ROR to .02. Since unsupervised ROR defendants may still be lower-risk cases than supervised ROR defendants, this change may also lower the rearrest rate of the latter group to .18 after accounting for the effects of supervision.

Type of Defendant	% of Total Defendants	Average # of Months on Release	Rearrests per Person-Months on Release	Rearrests per 100 Defendants
Jail	4	0	–	0
Unsupervised ROR	20	3	.02	1.20
Supervised ROR	25	4.5	.018	2.03
Nominal Bond	10	3	.05	1.50
Normal Bail	35	3	.05	5.25
Diversion	6	3	.03	.54
			total	10.52

Step 2 -

Identify other possible programmatic system changes which could reduce the crimes committed by released defendants prior to trial. There are two basic approaches which might be useful to consider. One is to manipulate the system so that there is less time between initial court appearance and trial on case disposition. The second is to manipulate the system to change what occurs during the pre-trial period which affects disposition.

APPENDIX C

E.   Action Plan Cost Analysis--Allegheny County Case Study[*]

1.   Introduction

A major thrust of the Allegheny Regional Planning Council's (ARPC)

Fiscal Year (FY) 1974 plan is directed toward decreasing recidivism. The

national recidivism rate is 87% - calculated against all crime types. The

recidivist is the most cost effective target - a 1% decrease in recidivism is

equal to 4% decrease in first offenders. The FY 1974 Action Plan was also

designed to fulfill the law enforcement needs of the Allegheny Region and the

federal and state requirements to institute Crime-Specific Planning in the

1974 budget year. ARPC's 1974 crime specific plan directs its attention to

alcohol and drug abusers.

In Pittsburgh, 1970, intoxication accounted for 31% of arrests; this

increased to 36% in 1972. The total Intoxication and Narcotics apprehensions

for these two crimes accounted for 45.6% of the area's arrests. As almost

one-half of all arrests resulted from these crimes, the Council determined that

crime specific planning in these areas would: 1) yield the most immediate

results; 2) reduce all crime, as police officers would spend less time on

the booking and detention process, which can range from twenty minutes up to

four hours, and more time on patrol; and 3) affect the most System-wide impli-

cations.

A common theme expressed throughout the Council's public hearings,

held June 4-8, was the need to coordinate services to eliminate duplication

and to involve the community in the Criminal Justice System. (CJS) Coordi-

nation is essential to both effective treatment and services and to preventing

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[*] Source: Allegheny Regional Planning Council. Instructors are to use their
case study or prepare a parallel study of a jurisdiction they are familiar
with.

crime and reducing recidivism. To this end, the concept of Regional Service Centers was developed to centralize all justice-related services and activities within a community.[1] The crime specific planning programs should also function through these coordinated services centers.

A second cause of concern raised at the Hearings was the plight of the rape victim in seeking justice. Here, Council allocated $60,000 to the development of a Center to aid the victim, to improve prosecution, and to develop community education programs.

2. <u>Cost Analyses</u>[2]

Taking the projects for minimum effects of the programs summarized above, the following analysis was developed.

Utilizing the following parameters, system-wide cost estimates were made upon the Planned Effects noted below:

Parameters

Group	Crime	Planned Effects	Rationale
1	Intoxication	Decrease 22%	Based upon San Francisco's experience with a like project
2	Drunk Driving	Decrease by 15%	Based upon the Alcoholism Diversion Program noted above and the cooperation of the Minor Judiciary
3	Family Offenses Disorderly Conduct	Decrease by 10%	Domestic Disturbance Team
4	Narcotics	Decrease by 45%	By 1) Reducing discharge rate of arrests from 40% to 25% and 2) effective treatment for those in CJS by reducing recidivism 20%

[1] A description of this concept and the FY 1974 Plan can be found in The 1974 Comprehensive Plan: Action Program (Allegheny Regional Planning Council, Governor's Justice Commission, September 1973).

[2] These impact calculations were made by use of the JUSSIM model of the Allegheny Criminal Justice System. The model was developed by Carnegie Mellon University and the ARPC. The Allegheny Region is a prime mover in the application of Operations Research techniques to the Criminal Justice System.

Parameter

Group	Crime	Planned Effects	Rationale
5	Rape	Decrease 20%	Increasing the probability of arrest from 38% to 53% by increasing police training and the probability of conviction from 63.6% to 75% by increasing Assistant District Attorney's contact with victims.
6	Part I Offenses	Decrease 10%	Effective community treatment programs
7	Part II Offenses	Decrease 15%	Effective community treatment programs

In addition the effects of recent bail reform were included - bail data was based upon the first half of 1973 statistics.

3. Results

A. Summary of Costs for City

	Current Case	FY 74 Plan	Change	Percent Change
Cost in Thousands				
Police	$1,317.7	$1,109.6	$-208.1	-15.8
Minor Judiciary	206.7	162.1	- 44.6	-21.6
TOTAL	$1,524.4	$1,271.7	$-252.7	-16.6

The cost savings of $252,700 would be achieved by reducing the Judiciary workload by 805.7 hours and flows of defendants by an average of 18.3%.

	Current Case	FY 74 Plan	Change	Percent Change
Flows				
Police	23,155.7	19,066.3	-4,089.3	-17.7
Minor Judiciary	18,537.6	15,084.7	-3,452.9	-18.6

.B.   **Summary of Results for County**

	Current Case	FY 74 Plan	Change	Percent Change
Cost in Thousands				
Detention	$ 779.2	$297.6	$-481.6	-61.8
Court	1,020.3	838.1	-182.2	-17.9
Corrections	460.3	366.1	- 94.3	-20.5

Detention covers the County Jail. Included in the court system are the District Attorney and Public Defender offices, Grand Jury activities, and the Behavior Clinic. Corrections covers the Probation offices.

The most sizeable savings are realized through detention reductions of 1,994 defendants. These reductions are a direct result of reducing crime committed and the associated district magistrate, city magistrate, summary hearing detention activities and reducing detention days from 111,320.4 to 42,518.5, a decrease of 68,801.9 days - 61.8% decrease.[3]

An additional saving of $902,200 from Juvenile Court can result from decreasing flows by 598 individuals or -17.6%. Since Juvenile Court costs include hearings, probation officer actions, detention and YDC Institutions, savings for the County are limited because a major portion of Juvenile Court cost is attributable to state YDC's, 69.7% However, direct county savings of $162,000 would accrue from decreases in costs of juvenile detention and probation services.

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[3]This decrease has been partially achieved this year with the initiation of the Court Bail Agency. Current data indicates yearly savings resulting from the Court Bail Agency should average $90,000 per year in total detention costs.

Summary of Costs for State

	Current Case	FY 74 Plan	Change	Percent Change
Cost in Thousands				
District Magistrates	90.7	77.5	13.3	-14.6
Court Judge	1,509.9	1,187.0	322.9	-21.4
Parole	498.8	370.4	128.4	-25.4
Probation	49.1	38.7	10.5	-21.3
Institution		7,791.9	-2,312.8	-22.9
TOTAL	12,233.3	9,445.5	-2,787.8	-22.8
Workloads				
District Magistrate (Hrs)	5,509.4	4,704.4	- 805.0	-14.6
Court Judge (Days)	1,754.7	1,379.5	- 375.2	-21.4
Probation (Years)	102.4	80.6	- 21.8	-21.3
Parole (Years)	1,039.2	771.6	- 267.6	-25.7
Institution (Years)	2,272.4	1,751.2	- 521.11	-22.9
Flows				
District Magistrate	16,113.0	13,795.5	-2,317.5	-14.4
Court Judge	7,442.0	6,278.2	-1,163.7	-15.6
Probation	63.4	49.9	- 13.5	-21.3
Parole	468.6	350.8	- 117.9	-25.2
Institution	1,531.7	1,200.7	- 331.0	-21.6

Major cost impacts would be in the area of Institution savings which could amount to $2.3 million dollars by reducing Institution Workload Years by 521.1.

An associated savings can also be realized by the non-Pittsburgh Police activities:

Summary for Non-Pittsburgh Policy

Cost in Thousands		Flows
Current Case	$1,130.2	19,823.2
FY 74 Plan	981.1	16,988.1
Change	- 149.2	-2,835.1
Percent Change	- 13.2	- 14.3

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Summary of CJS Savings

Cost in Thousands	Current Case	FY 74 Plan	Change	Percent Change
City	$ 1,524.4	$ 1,271.7	$- 252.7	-16.6
County	2,260.0	1,501.8	- 758.1	-33.5
State	12,233.3	9,445.5	- 2,787.8	-22.8
Non-Pgh. Police	1,130.2	981.1	- 149.2	-13.2
Juvenile Court	5,517.3	4,615.1	- 902.2	-16.4
TOTAL	$22,665.3	$17,815.2	$- 4,850.1	-21.4

4.   Summary

The Criminal Justice System in Allegheny County will obtain a measurable cost benefit by full implementation of the 1974 Action Plan of the Allegheny Regional Planning Council of the Governor's Justice Commission. Total system-wide savings would approximate $5 million.

These cost analyses have been developed as an assist to local and state government planning and budget units. The Allegheny Regional Planning Council urges these government agencies to utilize the analyses with the intent of taking the cost savings and putting them into support of the programs initially funded by LEAA, but which eventually must be supported by local units of government. This level of detail reported in the preceding case study may not be needed for an initial analysis of resources. When decisions are made on resource allocation and management in order to produce a particular impact, however, such qualitative information goes a long way toward making projections and planning "realistic" and it is invaluable for the interpretation of quantitative data. It is also difficult and expensive to obtain. Though most planners have no direct links to evaluation of projects, they should be urged to tie evaluation very closely to their planning and data collection systems.

The kinds of statistics discussed here deal with all the same problems as previously discussed crime statistics: they may not be well defined; they may not be collected in a standardized fashion; the collectors may not be trained and may fail to use uniform procedures; the number does not necessarily indicate the reality. Despite these and other limitations, collection, organization, and analysis of resource statistics in conjunction with collection, organization, and analysis of crime statistics is essential to criminal justice planning. Through this process, the criminal justice planner can more accurately

- identify and define problems;

- know the resources available to deal with the problems;

- know the possible allocations of resources which can solve the problems; and

- plan the changes and developments needed to bring about the necessary allocation of resources.

STAGES IN DEVELOPING AN ANALYSIS PLAN	Select *analysis techniques*
ANALYSIS PLAN COMPONENTS	Selected Analysis Technique(s)
USE (WHAT EACH STAGE TELLS THE PLANNER)	
MODULE REFERENCE	MODULE 4: DATA IN- TERPRE- TATION — SYSTEM

4-1

OBJECTIVES

To interpret transaction statistics

To interpret a disposition tree

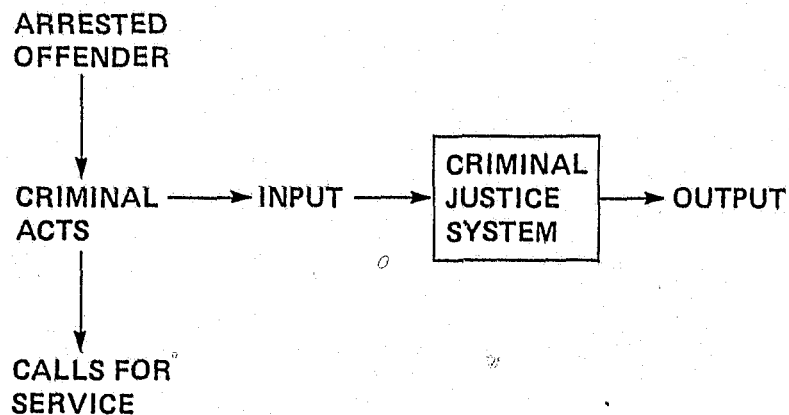To identify benefits of using transaction statistics

To demonstrate how to correlate demographic and environmental data to offender flow statistics

To prepare and interpret a system flow chart for local jurisdictions

To identify resource data in assessing system capabilities

4-2

ARRESTED
OFFENDER

CRIMINAL ──────► INPUT ──────► CRIMINAL JUSTICE SYSTEM ──────► OUTPUT
ACTS

CALLS FOR
SERVICE

4-3

INTERACTION OF CRIMINAL JUSTICE SYSTEM

Law Enforcement

Courts

Offender

Correctional Agencies
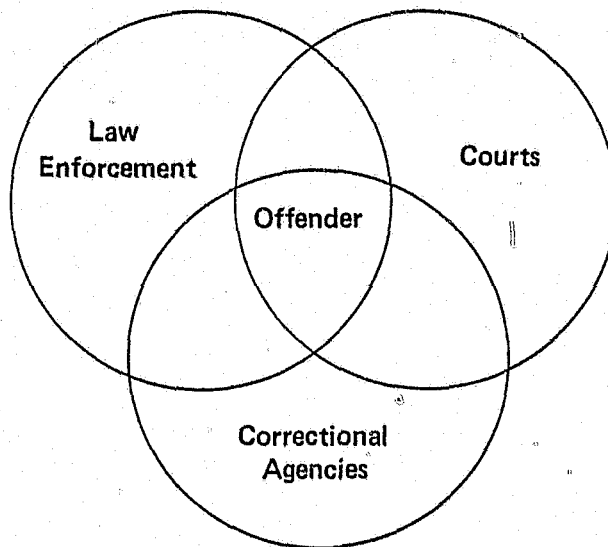
4-4

PROCESSING THROUGH CRIMINAL JUSTICE SYSTEM
OVERVIEW

PRIMARY INPUTS	PRIMARY ELEMENTS	PRIMARY OUTPUTS
CRIMINAL ACTS	CRIMINAL JUSTICE AGENCIES PERSONNEL FACILITIES EQUIPMENT BUDGETS	OFFENDER CASE FLOW TIME RELATIONSHIPS

4-5

CRIMINAL JUSTICE SYSTEM FLOW CHART
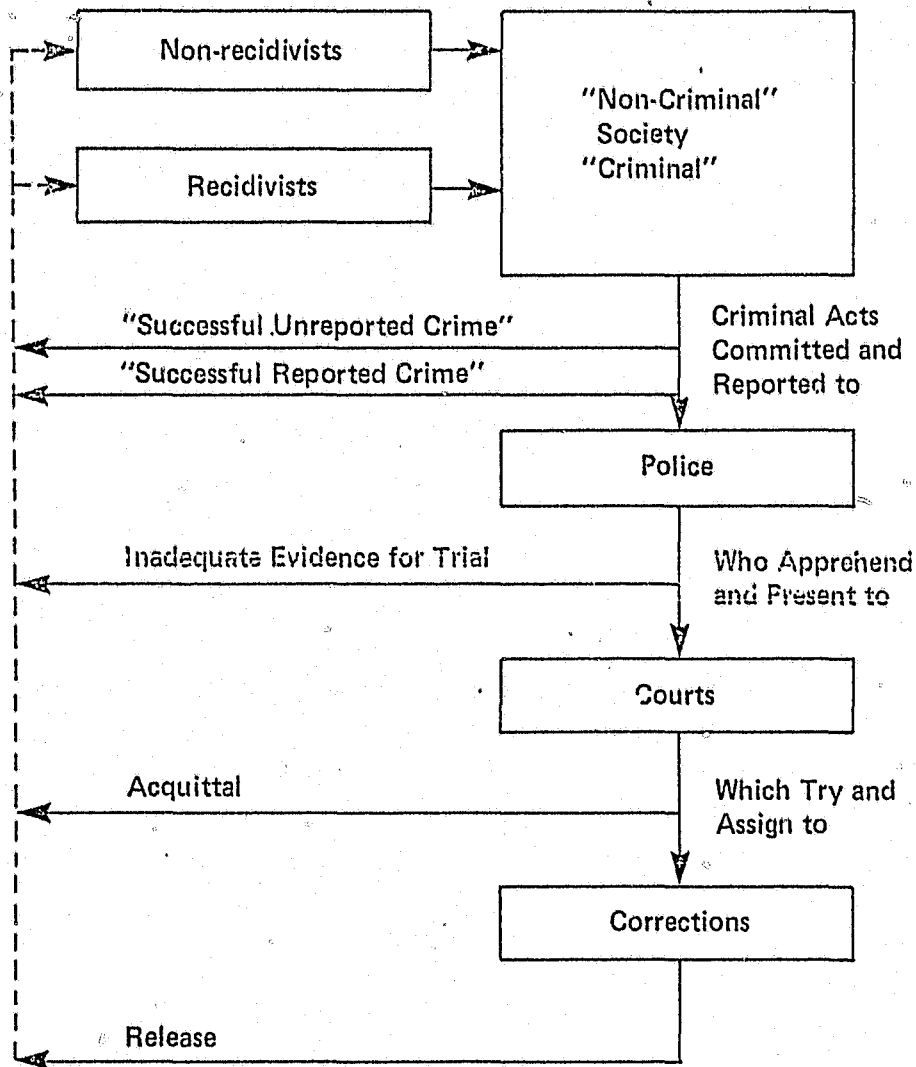
```
┌──────────────────────┐          ┌──────────────────────┐
│   Non-recidivists     │─────────▶│                      │
└──────────────────────┘          │    "Non-Criminal"    │
                                   │       Society        │
┌──────────────────────┐          │     "Criminal"       │
│     Recidivists       │─────────▶│                      │
└──────────────────────┘          └──────────────────────┘
                                              │
◀──── "Successful Unreported Crime"           │  Criminal Acts
                                              │  Committed and
◀──── "Successful Reported Crime"             │  Reported to
                                              ▼
                                   ┌──────────────────────┐
                                   │        Police        │
                                   └──────────────────────┘
                                              │
◀──── Inadequate Evidence for Trial           │  Who Apprehend
                                              │  and Present to
                                              ▼
                                   ┌──────────────────────┐
                                   │        Courts        │
                                   └──────────────────────┘
                                              │
◀──── Acquittal                               │  Which Try and
                                              │  Assign to
                                              ▼
                                   ┌──────────────────────┐
                                   │     Corrections      │
                                   └──────────────────────┘
                                              │
◀──── Release ────────────────────────────────┘
```

4-6

LIMITS OF SUMMARY TABULATIONS

- Can not be used to identify the impacts of system changes.

- Can not be used to elaborate the process or "dynamic" aspects of the criminal justice system.

4-7

USES OF TRANSACTION STATISTICS

- Trace the flow of offender through the criminal justice system.
- Aids in developing explanations of the observed characteristics of the offender flow.
- Allows measurement of the processing time, and identification of where backlogs and queing occur.
- Permits measurement of the recirculation of offenders.
- Helps in performing input-output analysis.
- Helps in monitoring the system.

4-8

DISPOSITION TREE DATA DISPLAY

FLOW OF OFFENDERS
CALIFORNIA, Urban Areas,
1971-1972.

TRANSFERRED   1986 (10%)

PRE TRIAL
SCREENING

DISMISSED   4724 (24%)

19,835 (100%)

HELD   12,925 (66%)

FLOW OF OFFENDERS
CALIFORNIA, Rural Areas
1971–1972.

TRANSFERRED   1355 (10%)

PRE TRIAL
SCREENING

DISMISSED   2681 (21%)

13,058 (100%)

HELD   9022 (69%)

4-9

STANDARDIZING DATA

PURPOSE:

- To aid in making legitimate comparisons

METHOD:

- Group like categories of data, i.e.
  - similar charges
  - similar prior records
  - similar criminal status
- Make comparisons between groups.

4-10

164

BENEFITS OF ANALYSIS OF RESOURCE STATISTICS
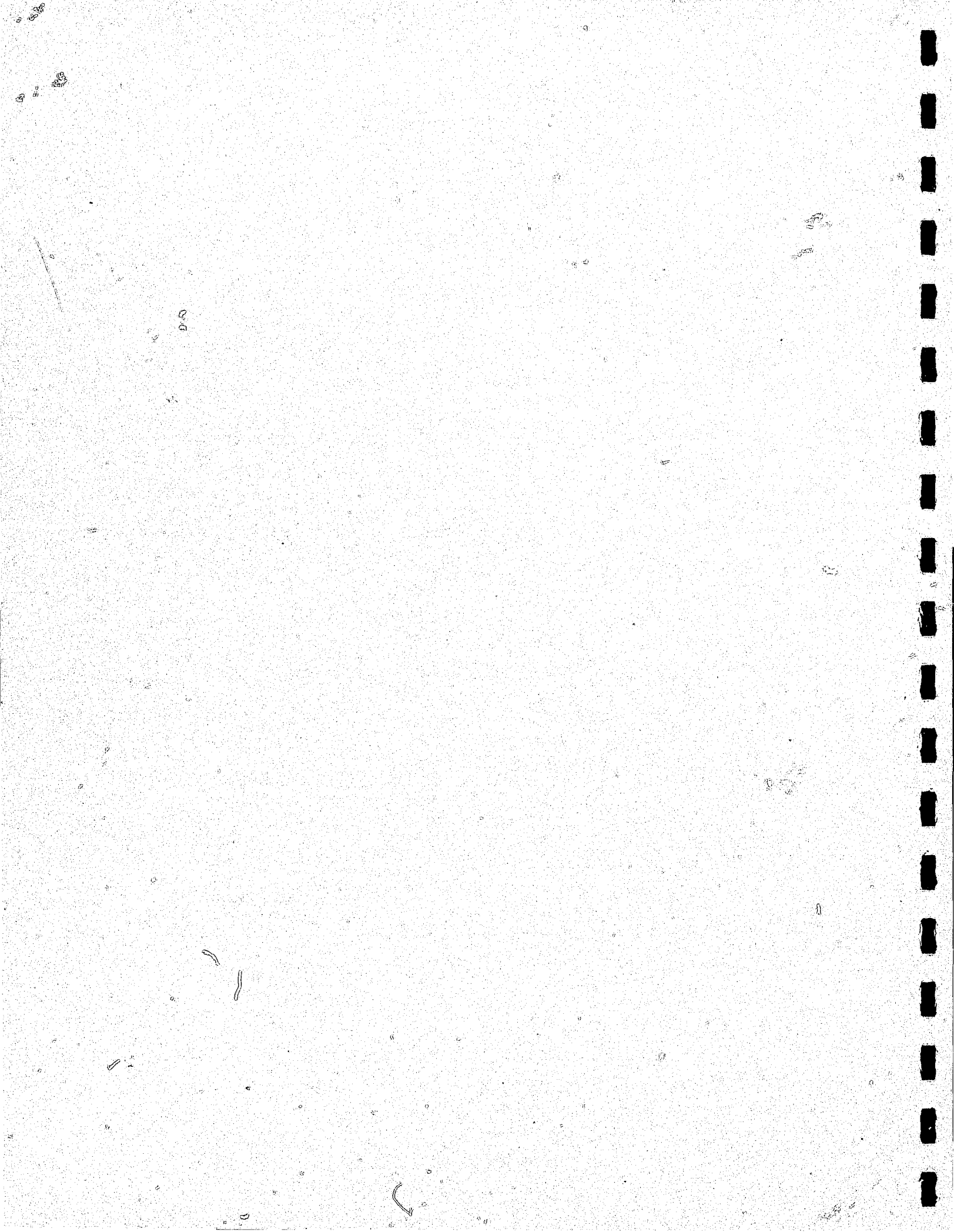
MORE ACCURATE . . .

    . . . IDENTIFICATION/DEFINITION OF PROBLEMS

    . . . IDENTIFICATION OF AVAILABLE RESOURCES

    . . . RESOURCE ALLOCATION OPTIONS

    . . . PLANS TO GET NEEDED ALLOCATIONS

4-11

RESOURCE ALLOCATION STEPS

4	FORMULATE RESPONSES/RECOMMENDATIONS

3	ANALYZE RESULTS

2	COMPARE RESOURCE DATA WORKLOAD AND PERFORMANCE

1	IDENTIFY SYSTEM RESPONSIBILITIES

U.S. Department of Justice
Law Enforcement Assistance Administration
Washington, D.C.
1977

INTRODUCTION TO ANALYSIS OF CRIME
AND THE CRIMINAL JUSTICE SYSTEM

MODULE 5: IMPLEMENTATION
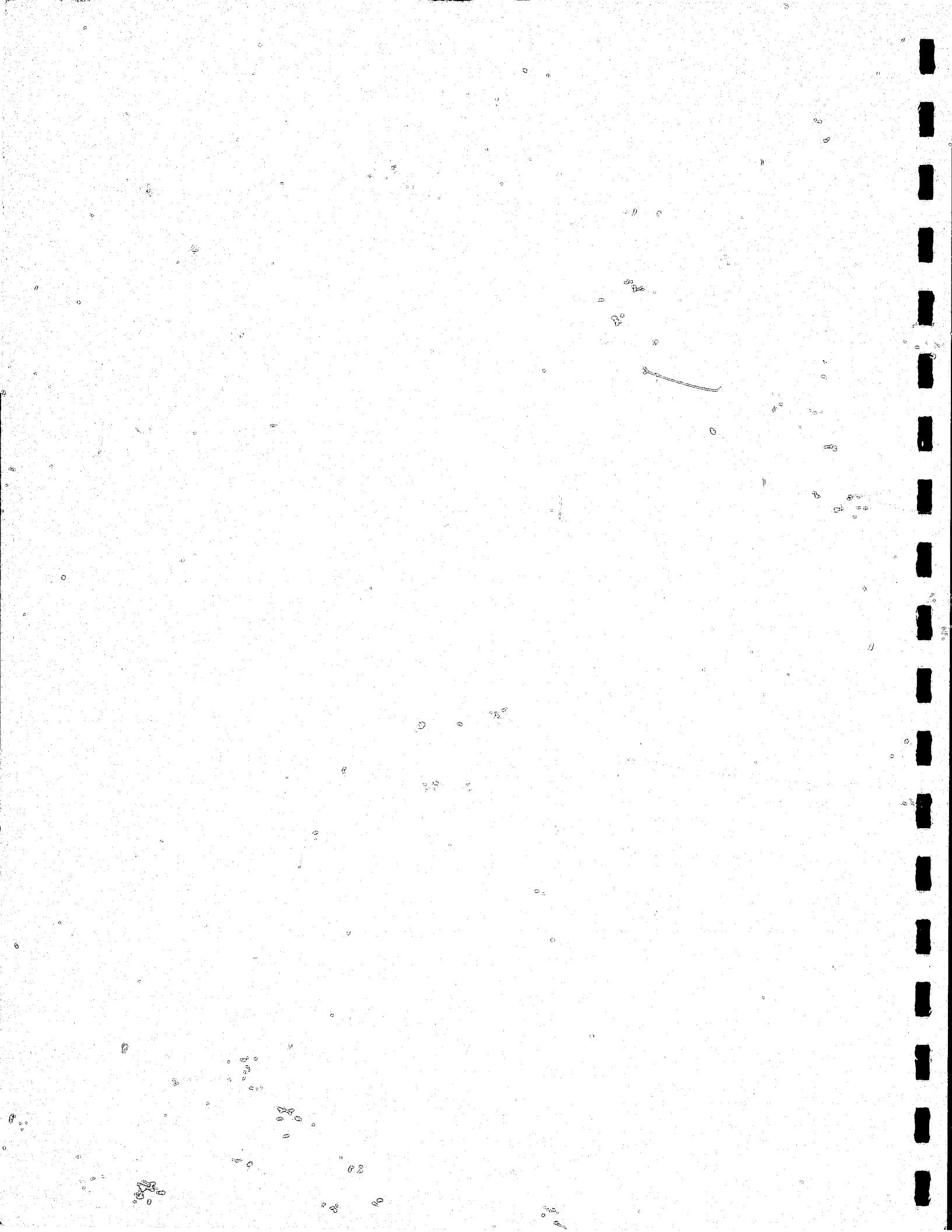
MODULE 5:   IMPLEMENTATION

Rationale

This module presents the process and parts in developing an
analysis plan. It defines an analysis plan as a written docu-
ment which systematically outlines the major components of the
analysis task from the initial statement of the analytical prob-
lem to estimation of costs and evaluation of a dissemination
plan.

The module introduces the participant to various work plan
approaches and provides an opportunity to incorporate and build
upon skills practiced in previous exercises.

Recommendations

This module calls for an Instructor to present the lecture and
oversee the exercise. In addition, five other resource people
from the staff will be needed for the exercise.

The exercise has been designed to incorporate numerous skills
from throughout the course. Therefore much attention ought to
be given to its implementation.

I. Analysis Plan--An Overview

#1

#2

#3

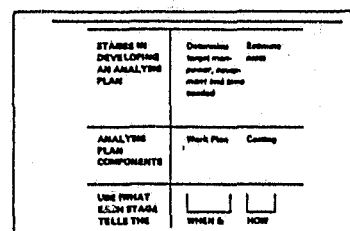II. Developing the Components of an Analysis Plan

   A. Statement of the Problem

#4

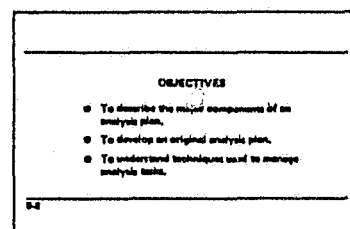   B. Audience Identification and Use of Products

#5

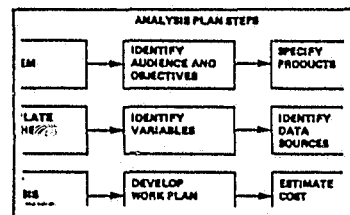

   C. Desired Analysis Products

#6
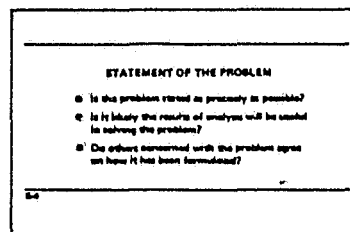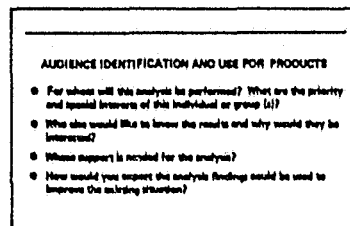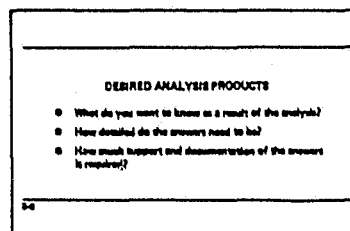
Introduce the module, placing it
in perspective and in the context
of the course. Identify the
benefits of preparing an analysis
plan, incorporating practical
considerations and time and
resources available to the plan-
ner.

2:45

3:00

For each component, explain what
it is, where it fits into the
plan, and questions to be asked
in operationalizing the steps.

D. Hypotheses

#7

E. Variables and Measures

#8

F. Data Sources

#9

G. Analysis Techniques

#10

H. Work Plan

#11

#12

#13

Present the charts used in developing the work plan. Emphasis is to be on the purpose of the methods and how they have been applied to the specific analysis problem.

TOPIC OUTLINE ————————

SLIDES

    I. Costing

#14

    J. Presentation and
       Dissemination

#15

III. Task Complexity Versus Degree
     of Analysis Plan Development

IV. Analysis Plan Case Study

Exercise #16:
Developing an Analysis Plan

This part of the presentation is, in effect, placing the analysis plan into the reality of criminal justice agency workloads and demands. Instructor is to point out how, under varying pressures and circumstances, an analysis plan can be adapted for use, i.e., intuitive in one instance, a formal presentation in another.

The case study shows how an agency proceded in putting together an Analysis Plan. "Walk through" the case study.

Appendix A is a case study of an Analysis Plan. The Instructor for this module has the option of utilizing this case study or developing a parallel one more familiar to him/her. In either event the following should be highlighted in presenting the case study:

- actual plan components
- analysis plan preparation-- the actual experience
- utility of plan in juris- diction

Explain the purposes of the exercise. Have the participants work individually for the first part of the exercise and explain what products you expect at the end of the exercise.

3:30

3:45
Break
4:00

4:15

Exercise #16:
continued

Allow 60 minutes for each parti-
cipant to develop a plan. Then
tell the participants to form
groups of five or six to discuss
the three questions suggested in
the exercise. Give them 30
minutes for small group dis-
cussions.

Devote 15 minutes for selection of
plans for tomorrow's presentations.
Direct each group to select one
plan for a 10-minute presentation
tomorrow morning.

APPENDIX A

PEORIA PROGRAM TO REDUCE RESIDENTIAL BURGLARY--
ANALYSIS PLAN CASE STUDY

The City of Peoria received grants from the Illinois Law
Enforcement Commission to establish a Crime Reduction Council consist-
ing of city officials, officials of the local criminal justice system,
and community representatives, and a staff consisting of a Director,
two criminal justice analysts, a fiscal analyst, and a secretary.
Part-time services of student interns were also utilized, primarily
for data collection.

The purpose of these grants was to plan, implement and eval-
uate action projects whose aim was to reduce the level of residential
burglary. This program goal was adopted by the Crime Reduction
Council for the following reasons:

- Residential burglary levels had increased dramatically during
  prior three years.

- There was a consensus among Crime Reduction Council members
  that residential burglary was a crime which instilled con-
  siderable fear on the part of the community.

- Other programs were being funded to address other crimes
  of concern.

This case study relates primarily to the planning approach taken by the
Crime Reduction Council and the staff. This approach was used to
enable the Council to select and design action projects which, on the
basis of available information, demonstrated the greatest potential
for reducing residential burglary levels, within time, budgetary, and
state-of-the-art constraints.

The product of the planning work of the Crime Reduction Council
was a two-part Master Plan. The first part recommended actions that
could be taken by the adult justice system, while the second part
dealt with the juvenile justice system. These were treated separately
because of the distinct natures of these two systems and their possible
differential impact on the crime of residential burglary, and because
different sets of agencies and procedures comprise these two systems.
This case relates to the adult part only.

The (Adult) Master Plan evolved as a series of studies, each designed to test hypotheses about relationships between actions, policies or practices of the (adult) justice system and (a) the incidence of residential burglary or (b) the behavior of adults arrested for that crime. The diagram shown in Exhibit 5.7 summarizes the Council's initial hypothesis about actions which could reasonably be expected to result in a reduction of the residential burglary level. Local data describing the actions and performance of the adult criminal justice system and estimates of residential burglaries which could be attributed to adults were then compiled to test these hypothesized relationships.

Five major studies were performed in testing the hypotheses. These dealt with:

- comparisons among various categories of persons within the "target population" (i.e., arrested for a residential burglary occurring within Peoria city limits between 1 January 1971 and 1 July 1976) with respect to re-arrests, and estimates of the number of residential burglaries that would not have occurred during this period if there had been no recidivism (the Recidivism Study);

- relationships between sanctions of the (adult) criminal justice system (two sanction variables for police and one for each of pre-trial processing, verdict, and sentencing) and the number of residential burglaries estimated to have been committed by adults (Deterrence Study);

- relationships between the speed of the system (overall and between designated case processing benchmarks) and the number of residential burglaries estimated to have been committed by adults (Time Study);

- relationships between (a) the probability of not securing release on bail and the number of residential burglaries estimated to have been committed by adults and (b) the amount of pre-trial jail time associated with target (adult) arrests and the number of residential burglaries estimated to have been committed by adults (Bail/Bond Study);

- relationships between the system's identification and treatment of individual social problems (e.g., drug abuse treatments of the target population and these individuals' subsequent re-arrests for residential burglary (Diversion/Rehabilitation Study).

Exhibit 5-7
PEORIA

PROGRAM STRUCTURE

```
                    ┌─────────────────────────┐
                    │   Reduce Annual Number of │
                    │   Projected Residential   │
                    │   Burglaries by 10%       │
                    └─────────────────────────┘
                                │
        ┌───────────────────────┼───────────────────────┐
        │                       │                       │
┌───────────────┐     ┌──────────────────┐     ┌───────────────┐
│    Reduce     │     │ Increase Perceived│     │    Reduce     │
│  Opportunity  │     │  and Actual Risks │     │  Recidivism   │
└───────────────┘     └──────────────────┘     └───────────────┘
```

| Alter Environment | Harden Target | Detection | Apprehension | Prosecution and Conviction | Prompt Sentence Execution | Prior to System Entry | After System Entry |

| Social | Economic | Medical | Diversion | Rehabilitation |
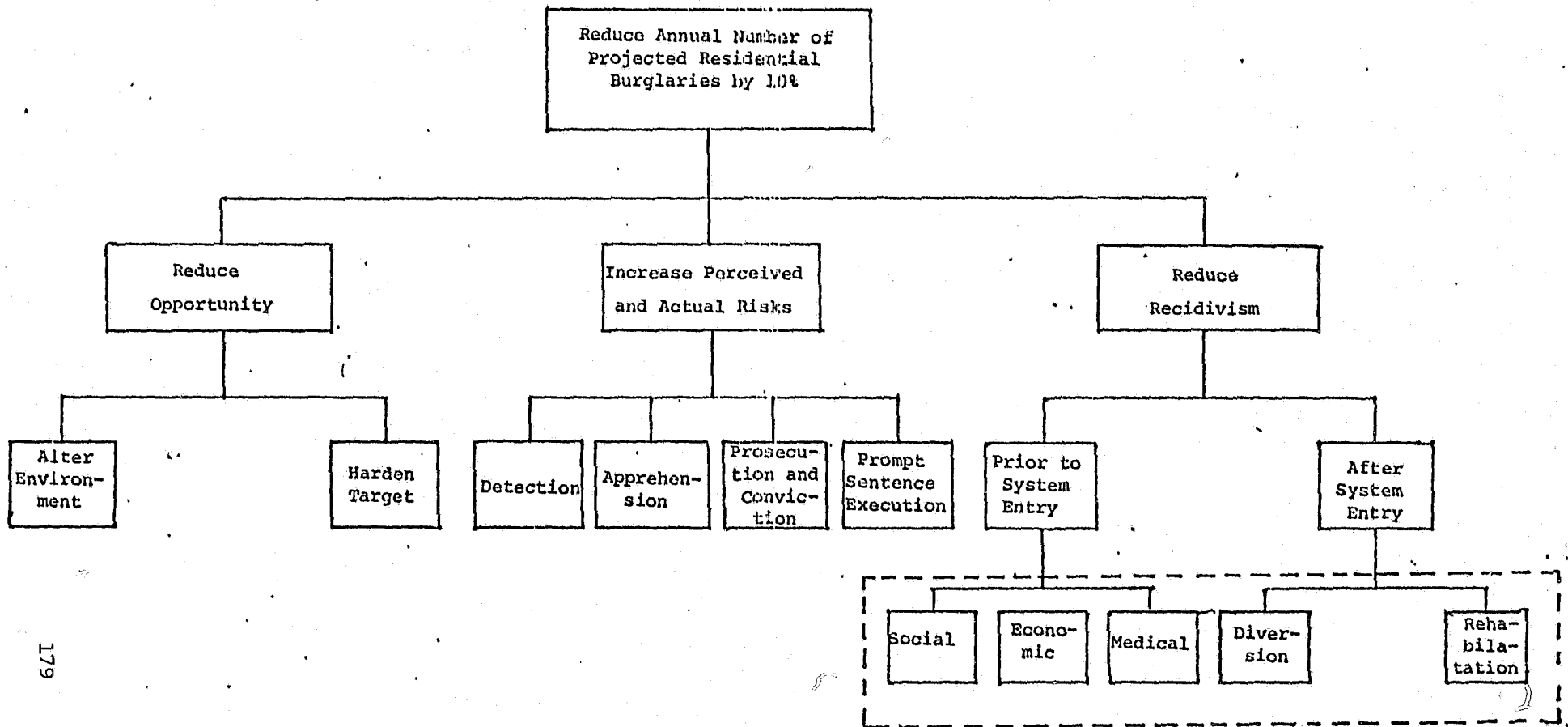
In general, the analytic techniques used in the studies partitioned the five and a half year period into quarters, computed for the variables indicated above quarterly measures of system performance, and calculated correlation coefficients betwee these and quarterly estimates of residential burglary attributable to adults.

Findings of these studies—summarized in terms of the major elements of the program structure—are quoted from the Adult Plan as follows:*

I. Reduce Opportunity

There currently exists no body of facts upon which to make a determination of whether or not, or to what extent, Reducing the Opportunity to commit residential burglary in Peoria will lead to a reduction in this offense. In order to answer this question, it would be necessary actually to implement, and of course, evaluate a program designed to accomplish this.

II. Increasing the Risks

Action taken thus far related to the Risk of Detection has been to determine exactly what those risks are now. The Victimization Survey recently conducted in Peoria provided us with information regarding how many residential burglaries actually occur in Peoria, as distinct from the number that are brought to the attention of the Police Department.

Our analysis has indicated that, of the remaining components under this section of the program structure, the two most important are, in priority order: Prompt Case Disposition (particularly at the front end of the system) and Increasing the Risk of Apprehension.

III. Reduce Recidivism

Our analysis has revealed that recidivism for the offense of residential burglary is not a serious problem. Our study of Diversion/Rehabilitation practices reveal that this does not occur frequently enough to draw any

---

* Adult Master Plan, City of Peoria Crime Reduction Council, pp. 10-11.

. conclusions regarding possible or potential crime reduction effects. Our studies do suggest that Bail Bond practices probably do have an effect on the incidence of residential burglary in the City.

In summary, our analyses of the facts suggest that the most important actions the Crime Reduction Council should take are to increase the likelihood that, if an individual commits a residential burglary he will be caught, and that he will be dealt with in a swift manner. The three action projects described in this plan are intended to accomplish these objectives.

A Dedicated Prosecutor Project was recommended to address the strategy objective, "Prompt Case Disposition." This recommendation, which was described as based upon discussions with the State's Attorney, stemmed from the observations that cases could best be accelerated between arrest and indictment using Assistant State's Attorney to screen residential burglary cases and to move these cases to the Circuit Court within 30 days.

A more elaborate procedure was followed in selecting two projects designed to increase the risk of apprehension. Four methods were used to develop an initial list of about 125 projects. First, target arrests were examined to identify key factors leading to these arrests. Next, personal interviews with more than 60 line police officers were conducted to solicit their ideas. Third, evaluative research relating to action strategies tried elsewhere was reviewed. Finally, activities of existing components of the Police Department were studied.

Based on criteria relating to administrative and management feasibility, the availability of facts to support a belief that a project could be expected to increase the risk of apprehension, the possibility of accomplishing project objectives through procedural or operational changes, time and financial constraints, and prior experience with similar projects elsewhere, several categories of action projects were presented to the Council, along with the results of staff examination of projects in these categories. Based on this analysis, three action projects were recommended: Physical Evidence, Criminal Investigation Center, and Fencing Operations. Further study indicated that substantial resources would be required to

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implement the Fencing Operations Project properly, and that project
was subsequently dropped from consideration. In regards to the
Physical Evidence Project, it was noted in at least two Council
meetings that this would facilitate the prosecution function by (a)
providing physical evidence in a more timely manner (thereby assisting
the Dedicated Prosecutor Project) and (b) strengthening the case.

Since it was believed preferable to base funding decisions on
all available information, completion of the juvenile part of the
Master Plan was planned before action projects were recommended.
However, time constraints on committing funds prevented this from
occurring. Minimal required fund commitments were therefore made to
permit the re-alignment of action projects after juvenile justice
system findings could be assessed.

It is important to note that the studies conducted in the plan-
ing stage provided an analytic framework for evaluating the effects
of the recommended action projects on residential burglary levels.
In effect, these evaluations amount to further tests of the initial
hypotheses regarding action objectives.

The case study described above demonstrates how a rational
analysis plan can be used to aid decision-makers in the selection
of action strategies. Since this plan was actually implemented as
described, the case study also demonstrates the feasibility of such
an effort.

STAGES IN DEVELOPING AN ANALYSIS PLAN	Determine target *man-power, equip-ment* and *time* needed	Estimate *costs*
ANALYSIS PLAN COMPONENTS	Work Plan	Costing
USE (WHAT EACH STAGE TELLS THE PLANNER)	WHEN & BY WHOM	HOW MUCH
MODULE REFERENCE	MODULE 5: IMPLEMENTATION	

5-1

OBJECTIVES

- To describe the major components of an analysis plan.

- To develop an original analysis plan.

- To understand techniques used to manage analysis tasks.

5-2

ANALYSIS PLAN STEPS

```
┌─────────────┐      ┌─────────────────┐      ┌─────────────┐
│ STATE       │      │ IDENTIFY        │      │ SPECIFY     │
│ PROBLEM     │ ───▶ │ AUDIENCE AND    │ ───▶ │ PRODUCTS    │ ───▶
│             │      │ OBJECTIVES      │      │             │
└─────────────┘      └─────────────────┘      └─────────────┘

     ┌─────────────┐      ┌─────────────┐      ┌─────────────┐
     │ FORMULATE   │      │ IDENTIFY    │      │ IDENTIFY    │
──▶  │ HYPOTHESES  │ ───▶ │ VARIABLES   │ ───▶ │ DATA        │ ───▶
     │             │      │             │      │ SOURCES     │
     └─────────────┘      └─────────────┘      └─────────────┘

     ┌─────────────┐      ┌─────────────┐      ┌─────────────┐
     │ SELECT      │      │ DEVELOP     │      │ ESTIMATE    │
──▶  │ ANALYSIS    │ ───▶ │ WORK PLAN   │ ───▶ │ COST        │ ───▶
     │ TECHNIQUES  │      │             │      │             │
     └─────────────┘      └─────────────┘      └─────────────┘

     ┌─────────────────┐
     │ SELECT          │
     │ DEMONSTRATION   │
──▶  │ AND             │
     │ DISSEMINATION   │
     │ PLANS           │
     └─────────────────┘
```
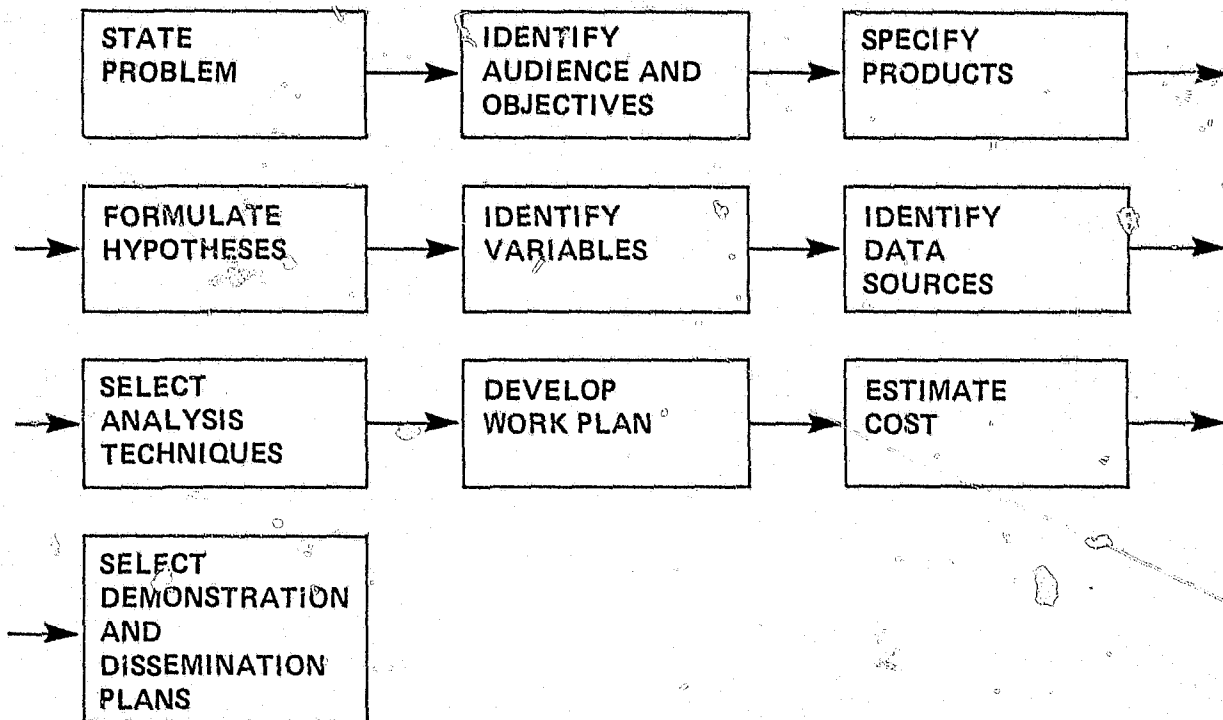
STATEMENT OF THE PROBLEM

- Is the problem stated as precisely as possible?

- Is it likely the results of analysis will be useful in solving the problem?

- Do others concerned with the problem agree on how it has been formulated?

5-4

AUDIENCE IDENTIFICATION AND USE FOR PRODUCTS

- For whom will this analysis be performed? What are the priority and special interests of this individual or group (s)?

- Who else would like to know the results and why would they be interested?

- Whose support is needed for the analysis?

- How would you expect the analysis findings could be used to improve the existing situation?

5-5

DESIRED ANALYSIS PRODUCTS

● What do you want to know as a result of the analysis?

● How detailed do the answers need to be?

● How much support and documentation of the answers is required?

5-6

HYPOTHESES

● Have the available data and research been reviewed?

● Have primary sources been included in the review if secondary sources are inadequate?

● Can the hypotheses be tested?

● Are the hypotheses supported by the available data?

5-7

VARIABLES AND MEASURES

● Have the related variables been listed in anticipated order of importance so that they can be added or dropped in order of priority, depending on data and resources available for the task?

● Have alternative measures been considered and the most desirable identified?

5-8

DATA SOURCES

● Which agencies have data on the variables selected?

● If alternative sources are available for the same variable, which source would be quicker, less expensive, and more reliable?

● What potentially important data is not available? What substitutes can be used?

● Is any primary data collection needed? How is it justified?

5-9

ANALYSIS TECHNIQUES

- Are the analysis techniques consistent with the output needed, the hypotheses to be tested, and available data?

- Is available staff trained in the use of the techniques or can properly trained staff be obtained?

- What are the cost implications of the most appropriate analysis techniques?

- Will the audience identified be able to understand the use of the specific techniques?
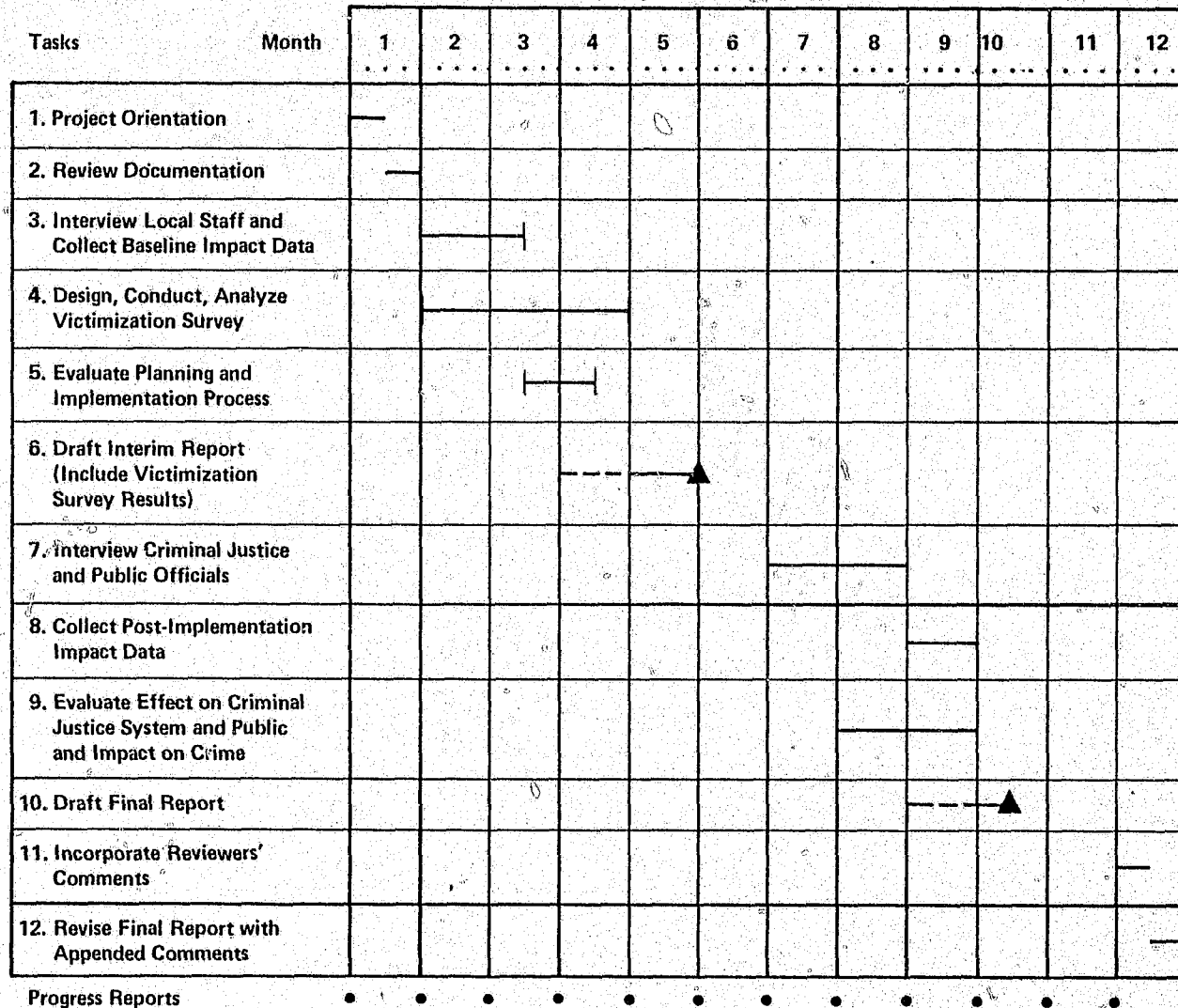
5-10

WORK PLAN

- How much and what types of manpower are needed to complete the analysis?

- When are the various skills needed?

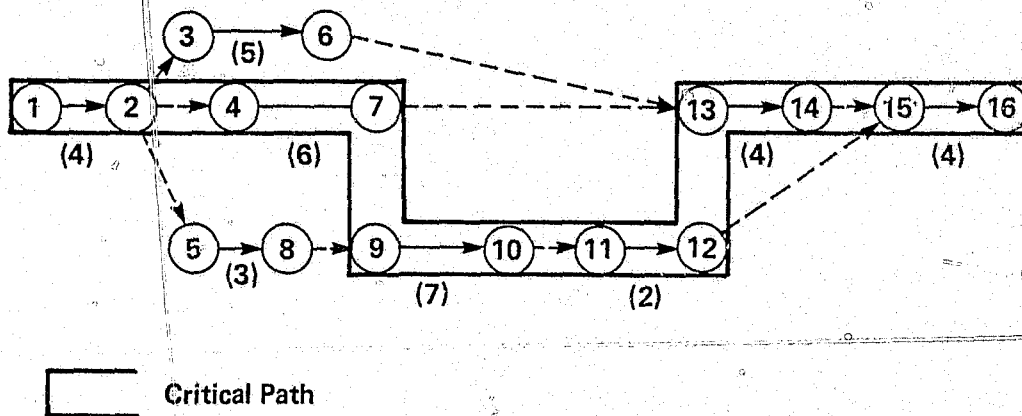- Will delays in any of these analysis tasks hold up completion of the final product?

5-11

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GANTT CHART — STATE ANALYSIS OF LOCAL CRIME REDUCTION PROGRAM IMPACTS

Tasks	Month	1	2	3	4	5	6	7	8	9	10	11	12
1. Project Orientation		—											
2. Review Documentation		—											
3. Interview Local Staff and Collect Baseline Impact Data			⊢——⊣										
4. Design, Conduct, Analyze Victimization Survey			⊢————⊣										
5. Evaluate Planning and Implementation Process					⊢—⊣								
6. Draft Interim Report (Include Victimization Survey Results)					- - - ▲								
7. Interview Criminal Justice and Public Officials								⊢—⊣					
8. Collect Post-Implementation Impact Data										⊢⊣			
9. Evaluate Effect on Criminal Justice System and Public and Impact on Crime									⊢—⊣				
10. Draft Final Report										- - - ▲			
11. Incorporate Reviewers' Comments												—	
12. Revise Final Report with Appended Comments													—

Progress Reports   •

▲ Interim or Final Report

190

5-12

Summary PERT Network for Analysis Project

```
                    ( 3 )──(5)──( 6 )
                    ╱                  ╲
┌───────────────────────────────────────────┐   ┌─────────────────────────────┐
│ ( 1 )→( 2 )→( 4 )        ( 7 )   ─ ─ ─ ─ ─ ─→( 13 )→( 14 )→( 15 )→( 16 ) │
└────────────┬──────────────┬────────────────┘   └─────────────────────────────┘
   (4)                    (6)                        (4)             (4)
             ╲
          ( 5 )→( 8 )→( 9 )→( 10 )→( 11 )→( 12 )
             (3)            (7)              (2)
```

☐ **Critical Path**

5-13

COSTING: Developing a Budget

● Assess scope of the tasks

● Assess costs of alternatives

● Assess likely results of alternatives

5-14

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PRESENTATION AND DISSEMINATION

- How would the identified audience (s) affect the methods used in presenting the findings and recommendations?

- Given certain anticipated findings and knowledge about areas of possible resistance by the audience (s), what strategies would be most effective in presenting your analysis results and recommendations?
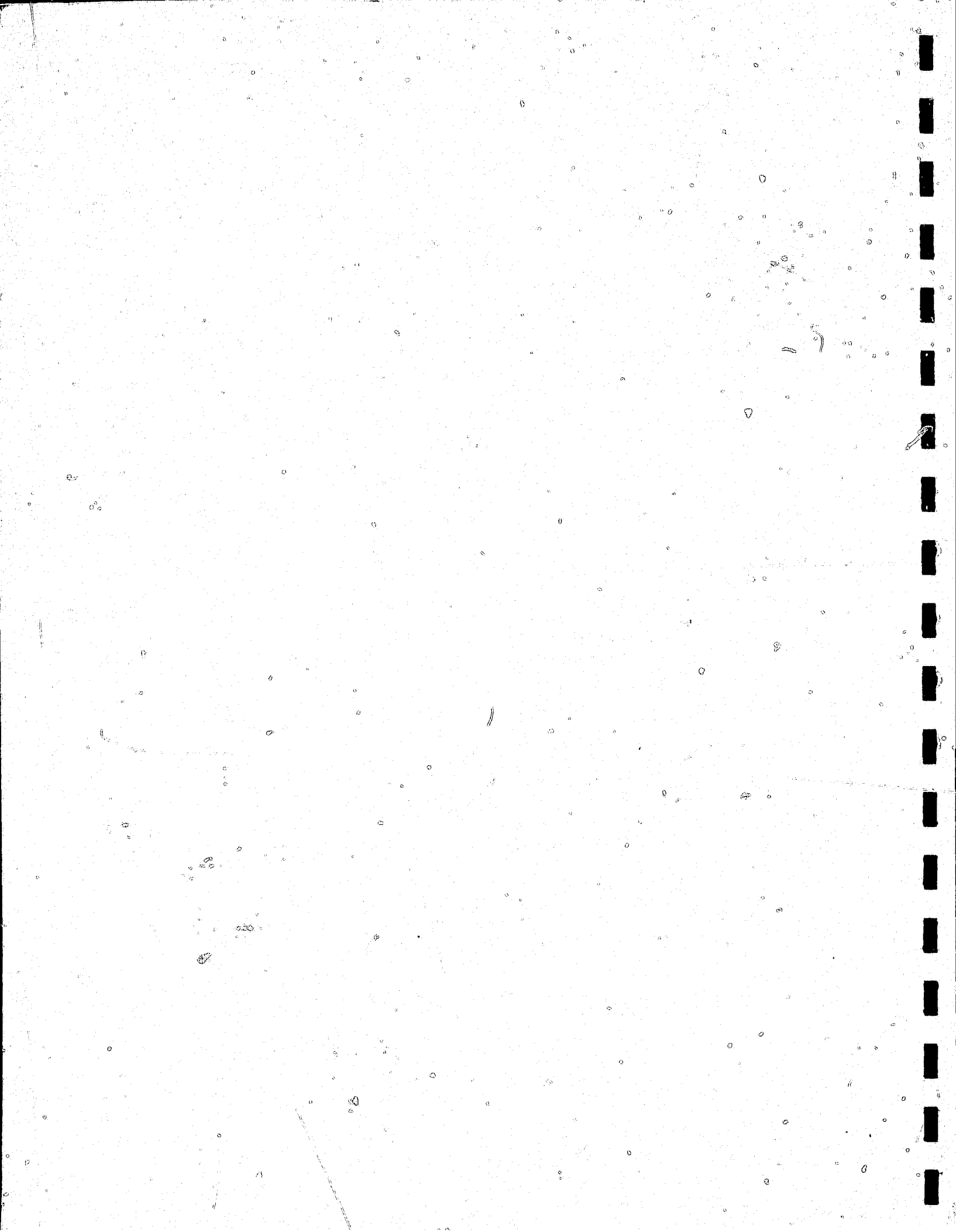
5-15

INTRODUCTION TO ANALYSIS OF CRIME
AND THE CRIMINAL JUSTICE SYSTEM
STATE CURRICULUM

MODULE 6: PRESENTATION OF FINDINGS

MODULE 6:   PRESENTATION OF FINDINGS

Rationale

This module is the capstone of the course.   It suggests ways to critique and to make effective presentations.

Although the lecture of this module is relatively brief, it makes a telling point since all the results are useless if they cannot be persuasively presented to the proper individuals and agencies.

Recommendations

The critique of the Analysis Plans as developed in Part I of Exercise #16 in Module 5 should form the major departure point for 1) reinforcing what constitutes effective analysis, and 2) what elements are necessary to prepare and deliver a convincing presentation.   The Instructor giving the lecture on presentations should model what he/she is presenting.   In addition the review of participant presentations also serves as a summary of the week of instruction.   The concluding presentation on the written report likewise covers all modules and the Instructor is to relate the week of instruction to this presentation, thus providing a conclusion to the training program.

Exercise #16 (continued)
Analysis Plan Presentations

I. Introduction

#1

II. Guidelines for Making Pre-
    sentations

#2

   A. Stick to Priority
       Message

#3

   B. Stick to Terms that are
       Important to Audience

#4

   C. Clarify and Interpret

#5

	TIME
Allow the six small groups to organize their presentations. At the beginning remind them to come up with one plan for each group. Allow about 30 minutes for this final preparation.	9:00
Call upon each of the six groups to present, in turn, their plans. Tell them that each group will have ten minutes for its presentation. (In fact, they may go a few minutes overtime--so be prepared for 15 minute presentations.)	9:30
At the end of the six presentations call a break. During the break, the panel and judge will rate the plans.	10:45 Break
After the break, the panel will present the ratings of the six groups. (See Appendix A for sample Critique Form to be used by Review Panel.)	11:00
Use examples from the Analysis Plan presentations and your own experience to illustrate each point. Practice what you teach by following the six points in your own presentation.	11:15

D.   Make Contrasts and
     Comparisons

#6

STORIES AND EXAMPLES... (slide)

GO FROM KNOWN TO UNKNOWN
RELATE TO AUDIENCE EXPERIENCES

E.   Take in Illustrations
     and Examples

#7

STORIES AND EXAMPLES
PICTURES
ILLUSTRATIONS (DIAGRAMS, GRAPHS)
DEMONSTRATIONS

F.   Anticipate Questions,
     Problems, Assumptions

#8

THINK AHEAD
ASK YOURSELF
BE PREPARED

III. Guidelines for Preparing
      Reports

Close of Instruction

Instructor is to review the
structure of an analysis report
and problems associated with the
use of data and statistics in
such a report.

11:30

Administrative Issues and
Evaluation

11:40

12:15

End
of
Week

SAMPLE CRITIQUE FORM

Criteria	Weight Scale	Rating
1. Is the problem clearly and accurately stated?	15	
2. Have the desired products and outcomes been identified?	12	
3. Is the hypothesis complete?	5	
4. Is the list of variables and measures comprehensive and realistic?	13	
5. Is the data collection plan specific and realistic?	10	
6. Are the techniques for analysis appropriate?	15	
7. Is the work plan realistic and within cost constraints?	15	
8. Has the dissemination plan considered the interests and concerns of the potential audience?	15	
	100	
	TOTAL	

Each plan is to be rated under each criterion using the Weighting Scale. So, for example, the highest rating on the first criterion is 15 and on the second criterion 12.

STAGES IN DEVELOPING AN ANALYSIS PLAN	Select *presentation* format & *dissemination* procedure
ANALYSIS PLAN COMPONENTS	Presentation & dissemination plan
USE (WHAT EACH STAGE TELLS THE PLANNER)	FOR WHOM
MODULE REFERENCE	MODULE 6: PRESENTATION OF FINDINGS

6-1

STICK TO THE TOPIC

"SO WHAT?"

WHAT DOES IT MEAN?

CONTRAST AND COMPARE

"SHOW ME"

ANTICIPATE LISTENER REACTIONS

6-2

WHAT'S IMPORTANT

FEW POINTS

HIGHLIGHTS

6-3

KNOW YOUR AUDIENCE

SPEAK THEIR LANGUAGE

6-4

BE CLEAR

BE SIMPLE

BE MEANINGFUL

6-5

GO FROM KNOWN TO UNKNOWN
RELATE TO AUDIENCE EXPERIENCES

6-6

STORIES AND EXAMPLES
PICTURES
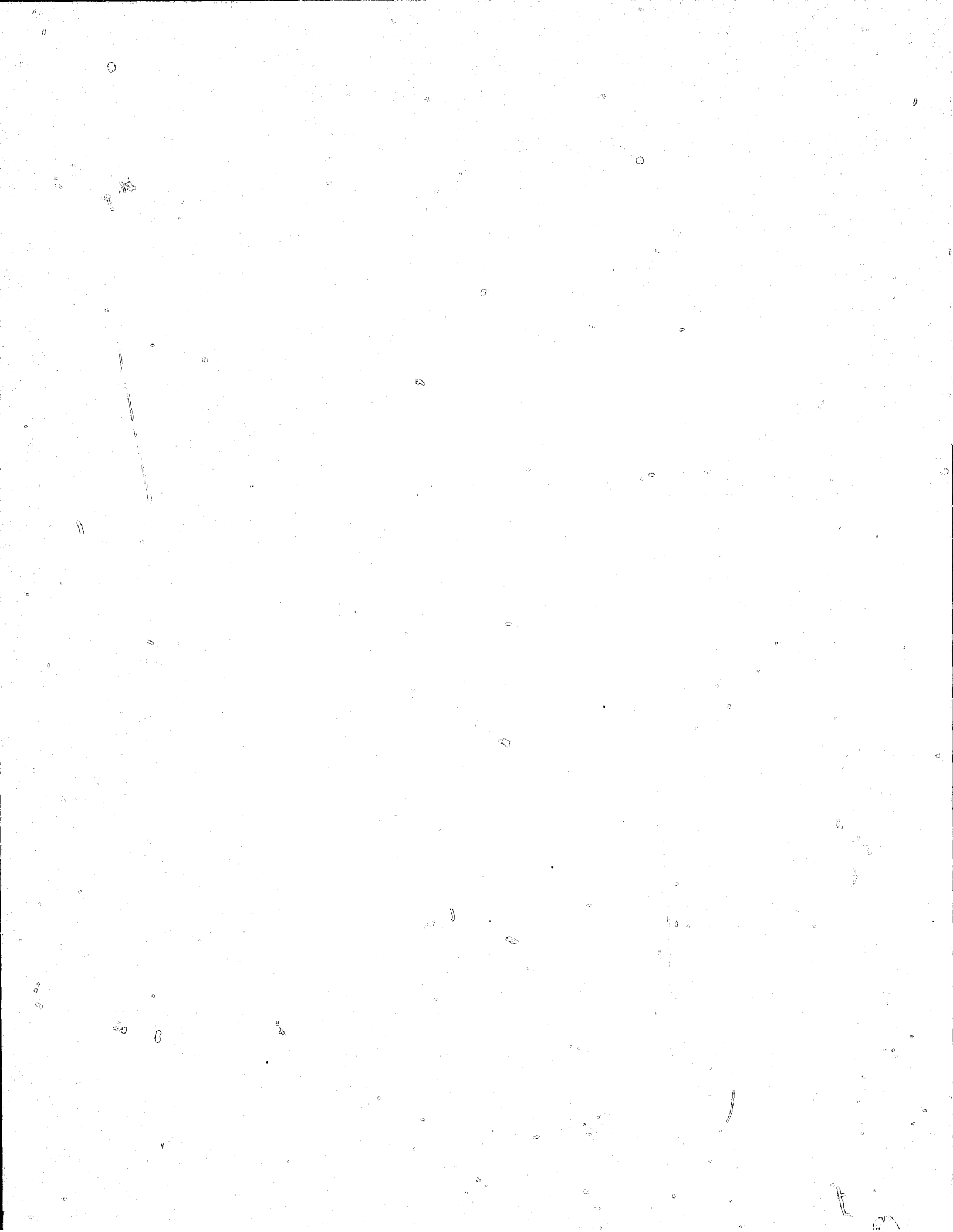ILLUSTRATIONS (DIAGRAMS, GRAPHS)
DEMONSTRATIONS

6-7

THINK AHEAD
ASK YOURSELF
BE PREPARED

6-8

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END

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