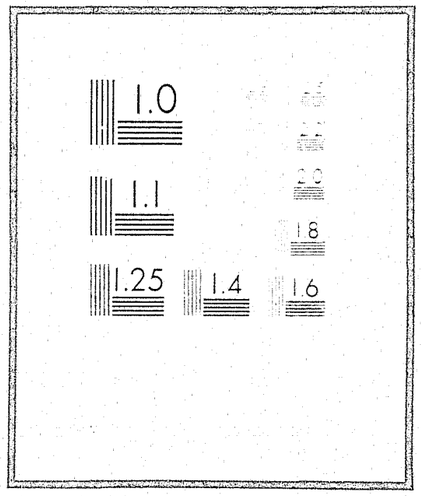


TRAINING WORKBOOK ON
"THE CRIME ANALYSIS PROCESS"

A TRAINING WORKBOOK ON
"THE CRIME ANALYSIS PROCESS"

PRESENTED BY
THE CALIFORNIA CRIME TECHNOLOGICAL RESEARCH FOUNDATION
UNDER LEAA GRANT #75TN-99-0002

CO-SPONSORED BY
THE OFFICE OF TECHNOLOGY TRANSFER
OF
THE NATIONAL INSTITUTE OF LAW ENFORCEMENT
AND CRIMINAL JUSTICE
AND
LEAA REGIONAL OFFICES
1975

WELCOME

WE HOPE YOUR PARTICIPATION IN THE CRIME ANALYSIS PROCESS SEMINAR WILL BE A MEANINGFUL EXPERIENCE. WE REALIZE THAT ALL DEPARTMENTS HAVE USED CRIME ANALYSIS IN SOME FORM. OUR OBJECTIVE IS TO INTRODUCE CONCEPTS, TECHNIQUES AND OPERATIONAL FACTORS TO ASSIST YOU TO FORMALIZE THE PROCESS IN ORDER TO MAXIMIZE THE POLICE EFFORT. CRIME, BEING WHAT IT IS TODAY, REQUIRES US TO DIRECT OUR EFFORTS TOWARDS COST EFFECTIVE USE OF MANPOWER AND EQUIPMENT RELATING TO SPECIFIC LOCAL FACTORS. PLEASE FEEL FREE TO ASK QUESTIONS AND TAKE AN ACTIVE PART IN CLASS DISCUSSIONS.

CALIFORNIA CRIME TECHNOLOGICAL RESEARCH FOUNDATION

BACKGROUND AND GENERAL DESCRIPTION

In 1967 the California Crime Technological Research Foundation was created. Thus California became the first state to recognize the importance of technological research and development in combatting crime.

CCTRF's goals are to stimulate, encourage, conduct, evaluate, and sponsor research and development in the field of scientific and technological aids for the prevention and detection of crime, the apprehension and treatment of criminals, and the improvement of the administration of law enforcement in California.

While CCTRF's primary goal is to reduce crime in California, it is almost unlimited in its means to accomplish this goal, because of its nature as both a public corporation and a State agency.

The unique character gives CCTRF the following powers, to:

1. Hold, invest, reinvest and use real or personal property.
2. Accept contributions.
3. Enter into contracts with the Federal and State Governments, political subdivisions of the State, educational institutions, and private industry.
4. All the powers of a State agency. These powers permit CCTRF to attack any problem facing California's criminal justice system.

CCTRF is guided by a 20-member Board of Directors made up of leaders from all sectors of the State government, law enforcement, academic, business and industry, and the general public. The Board has the responsibility to guide CCTRF in its short term goals and develop its long term objectives. Members of the Board are appointed by the Governor with the advice and consent of the Senate.

CCTRF is nationally and internationally recognized as a forerunning agency in the field of advanced research and development for the criminal justice system. CCTRF's work in advanced laser technology for prison security, as well as construction site security; its work in building security; and its participation in Project SEARCH have been among some of the projects responsible for CCTRF's reputation.

CCTRF's efforts thus far have been responsible for an influx of federal dollars and national and international expertise into California. However, the potential of scientific and technological research and development to solve problems facing the criminal justice system has just barely been exploited. CCTRF's ultimate goal is to derive every possible benefit that science and technology has to offer criminal justice and thereby the people of California.

TABLE OF CONTENTS

CRIME ANALYSIS SEMINAR

SESSION NO. 1

Title: Class Introduction & Organization
Description: Representatives from the regional LEAA office and the Project Staff will welcome the students to the Crime Analysis Unit program, describing LEAA's interests and role in such training. Each student will briefly introduce himself to the class. Basic matters regarding logistics will be cared for.

SESSION NO. 2

Title: Course Overview
Description: A general introduction to crime analysis will be presented including discussion of its utility; its input, processing and output requirements; and considerations in organizing and evaluating a Crime Analysis Unit.

SESSION NO. 3

Title: Introduction to Basic Crime Analysis Techniques
Description: Students will be introduced to simple, but practical crime analysis techniques; including descriptive statistics, map methods, data enrichment, M.O. analysis, resource management, ratio analysis and prediction techniques. This session will be a mix of lectures and in-class practexes.

SESSION NO. 4

Title: Crime Analysis Unit Organizational Factors
Description: Types and levels of skills required to meet the objectives of a Crime Analysis Unit will be discussed. Factors such as automation, sworn-unsworn personnel mixes and unit location with the sponsoring agency will be covered. Operational examples will be presented.

SESSION NO. 5

Title: CAU Evaluation Techniques
Description: The necessity and means for evaluating the operational effectiveness of a CAU will be discussed. Both the internal and external impact of the unit will be examined. Quantitative approaches to the evaluation of performance will be addressed.

SESSION NO. 6

Title: Justifying A Crime Analysis Unit
Description: Successful methods for "selling" a CAU to a parent organization will be discussed. Pertinent data and other considerations necessary to justify a CAU will be delineated. An operational unit will be used as the basis of this session.

SESSION NO. 7

Title: Summary
Description: This session will provide a review of the major issues developed in furtherance of course objectives. Closing discussions, questions and answers and course critique will be elicited.

CRIME ANALYSIS TRAINING STAFF

BRUCE B. BIRD - As Criminal Justice Specialist for the State of California, he had managed and worked on other national projects such as the Interstate Organized Crime Index, the Offender Based State Corrections Information System and the Criminalistics Laboratory Information System, etc., prior to being assigned as the Project Director of the Crime Analysis Training Project.

Prior to working at CCTRF, Bruce was a Field Deputy for the California State Attorney General assigned to the Crime Prevention Division. He has a total of approximately 12 years experience in the Criminal Justice field including planning, consulting, and probation.

WILLIAM "PETE" PETERSEN - Prior to being hired as the Assistant Project Director, Pete managed five criminal intelligence courses for the Organized Crime and Criminal Intelligence Branch of the California Department of Justice. In addition to his involvement in the intelligence and training field, he has over 18 years experience with the California Highway Patrol.

SHELDON I. ARENBERG - Shel possesses a Ph.D. in Applied Mathematics and has an interesting and varied background of involvement. In the past 6 years, however, he has concentrated his work in the Criminal Justice field and is recognized as an expert in the analysis, collection and utilization of crime information. He has experience in crime prevention and apprehension, organized crime control, management of riots and disorders and the design of information systems for law enforcement agencies.

In addition to working for CCTRF he has served as a consultant and instructor for universities, industry, governmental agencies and private consultant firms.

RAPHAEL J. DUBROVNER - Rafe's primary expertise is in human factors relating to the development of information systems. He is presently a faculty member of the University of Southern California's Safety and Systems Management Center, teaching graduate level courses in statistics, systems development, man-environment interaction effects, and principles of psychology for managerial application.

He also lectured for the Organized Crime and Criminal Intelligence Data Collection Training Course presented by the California Department of Justice. He has a Ph.D.in Experimental Psychology from the University of Iowa and is a certified Psychologist in the State of California.

INTRODUCTION TO CRIME ANALYSIS

CRIME ANALYSIS: A FORMAL DEFINITION

Crime analysis is a set of systematic analytical processes directed towards predicting criminal trends (in both individual and aggregate situations) for the purpose of reducing crime in a cost - effective manner.

CRIME ANALYSIS: BASIC APPLICATIONS

- Increase the number of cases cleared by arrest
- Provide investigative leads to detectives
- Improve operational data for patrol
- Furnish support data to public awareness and involvement programs
- Supply law enforcement related data to urban planning, building permits and codes, transportation systems, construction, etc.
- Identify evolving or existent crime patterns
- Yield substantive data for effectiveness measures of specific programs and/or agency's policies and/or procedures
- Provide supporting data for recommended crime control programs
- Furnish trend data for law enforcement planning, targeting, budgeting, and resource allocation

CRIME ANALYSIS: THE ELEMENTS

- Data Collection - the gathering of specified raw data including, but not limited to, crime reports and known offenders
- Data Collation - the indexing, sorting and storage of raw data to support direct retrieval and data analysis
- Data Analysis - various data processes and organizational schemes to identify patterns
- Recommendations and Dissemination - advice founded on the data analysis and the distribution of same, either written or verbally, within the parent and other organizations on a timely basis
- Implementation - the process of putting the recommendations into operation
- Evaluation - the detailed assessment of change resulting from the implementation and identification of the controllable factors causing the change

CRIME ANALYSIS: REASONS FOR A FORMAL PROCESS

- Increases objectivity
- Enables better coordination between operational units
- Centralizes analytic function with assigned responsibility
- Facilitates intra & inter-agency communication
- Reduces time required to determine patterns
- Improves capability to identify trends

DATA COLLECTION

A limited list of sources of data*

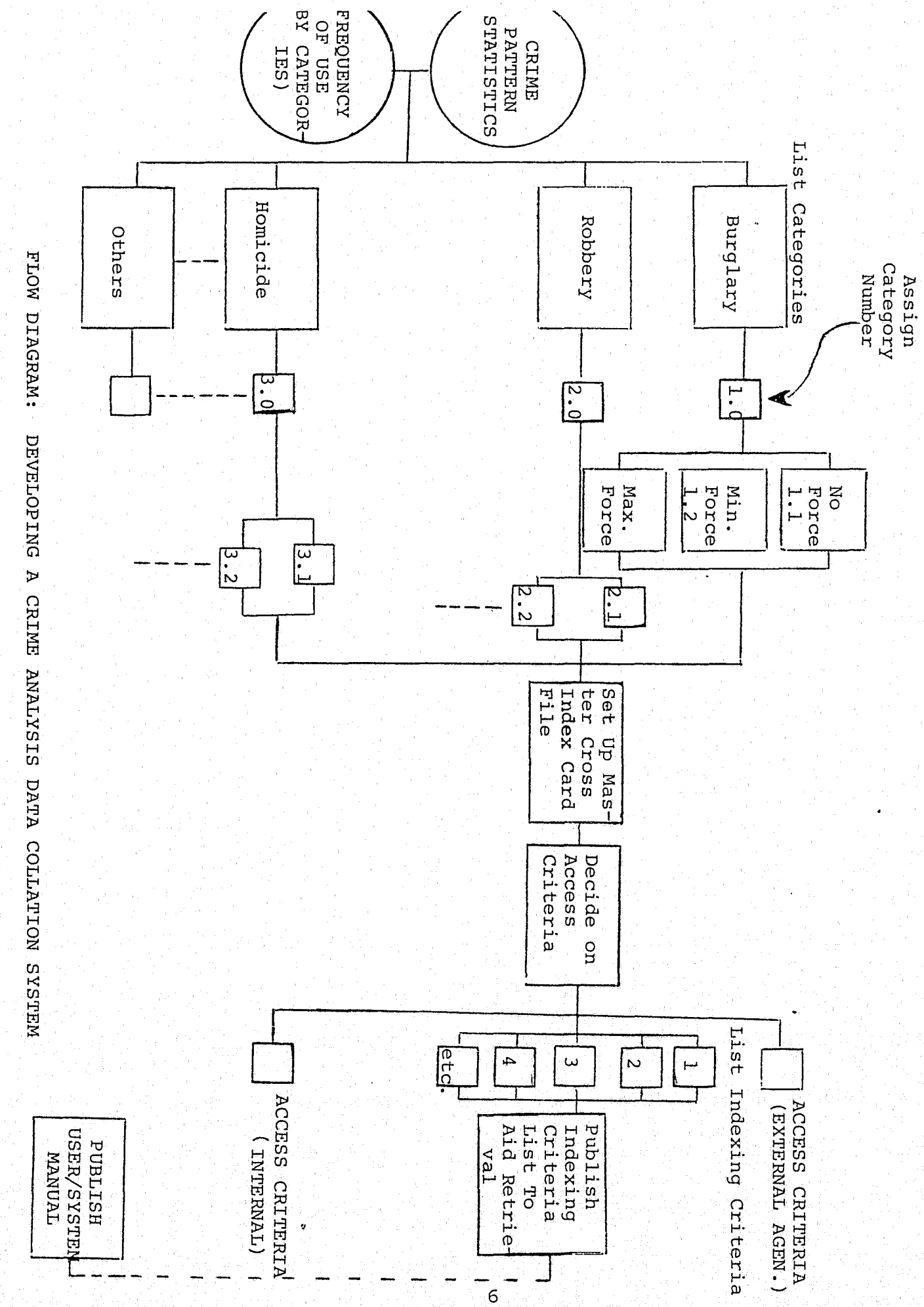
INTERNAL TO THE LAW ENFORCEMENT AGENCY

- Crime reports
- Field interviews
- Communication records
- Intelligence
- Administrative data

EXTERNAL TO THE LAW ENFORCEMENT AGENCY

- Other law enforcement agencies
- Other criminal justice agencies
- Social data
- Economic data
- Census data
- Planning data

*The student is urged to expand this list to meet his/her agency's needs



FLOW DIAGRAM: DEVELOPING A CRIME ANALYSIS DATA COLLATION SYSTEM

BASIC ANALYTICAL TOOLS*

- Statistical
- Probabilistic
- Logic
- Correlations
- Graphical
- Allocations
- Factor Analysis
- Extrapolations

* The analytical tools listed here are considered basic to any crime analysis unit. However, there are many more and the student is encouraged to expand this list of tools to meet his/her personal and/or agency needs

VENN DIAGRAMS, FREQUENCY TABLES AND PROBABILITY

To develop some important notions related to the manipulation of probabilities, consider the following simple example while keeping in mind the similarity of techniques in establishing M.O. or clearing cases by analysis. A group consists of ten people, four men and six women. Three of the four men smoke, as do two of the six ladies. In formal terms, we can call the group a sample space which includes ten elements. The sample space (or another term, universal set, U) can be broken down into four subsets, men, women, smokers, and non-smokers. Note that the subsets "men" and "women" are non-intersecting and may be defined as mutually exclusive; in practical terms this means that there can be no single element that has both the characteristics "male" and "female". The same is true of the subsets "smokers" and "nonsmokers". However, other subsets such as "male" and "smoker", for example, are not mutually exclusive since one person can possess both characteristics.

The situation described above can be seen more readily by drawing a Venn diagram which shows the relationships among the subsets, or by constructing a table showing the number of people in each category. See Figure A and Table I.

Persons 1,2, and 3 in the Venn diagram can be identified as the three male smokers in the M,S cell of the frequency table. Similarly, person number 6 is the one male nonsmoker in the M,NS cell, etc. It is not necessary to identify each element in the Venn diagram with a specific number, but using such a procedure here will help you understand the following.

MARGINAL PROBABILITY

From the frequency table one can easily find, for example, the probability of choosing a male from the group by a method where every person in the group has an equal chance of being chosen. Since four of the ten people are males, the probability is 4 in 10 that a person, so selected, would be made. To familiarize you with the common symbols that are used in such calculations, let's summarize the previous sentence as:

$$P(M) = \frac{n(M)}{n(U)} = \frac{4}{10}$$

where n is read as "the number of"

Thus, the probability of a male is the number of elements in the subset M divided by the number of elements in the universal set U. This probability, and any other one that includes

	SMOKERS (S)	NON SMOKERS (NS)	
MALES (M)	3	1	4
FEMALES (F)	2	4	6
	5	5	10

TABLE 1

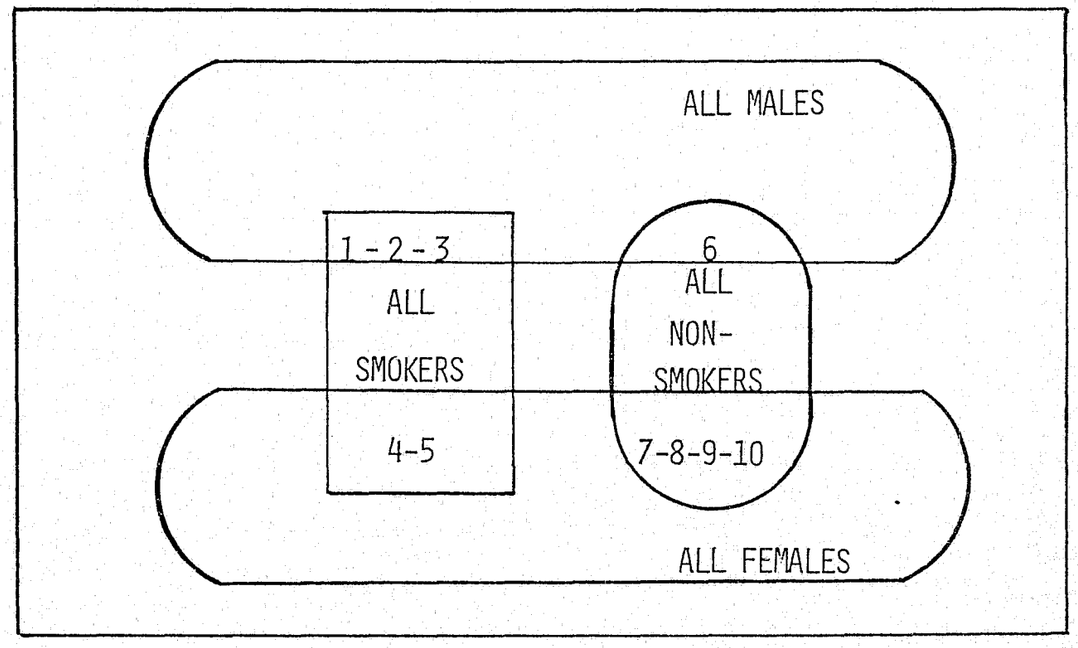


FIG. A

the number of elements in a single category of classification is known as the marginal probability. The term relates to the fact that the numbers in the numerator are to be found in the margins of the frequency table. Other marginal probabilities from the table are:

$$P(F) = \frac{n(F)}{n(U)} = \frac{6}{10}$$

$$P(S) = \frac{n(S)}{n(U)} = \frac{5}{10}$$

$$P(NS) = \frac{n(NS)}{n(U)} = \frac{5}{10}$$

JOINT PROBABILITY

A joint probability is one that relates to more than one category of classification. The probability of M and S is the number of individuals who are male and smokers divided by the number in the universal set. Since there are three male smokers:

$$P(M \text{ and } S) = \frac{n(M \text{ and } S)}{n(U)} = \frac{3}{10}$$

Similarly:

$$P(F \text{ and } S) = \frac{n(F \text{ and } S)}{n(U)} = \frac{2}{10}$$

$$P(M \text{ and } NS) = \frac{n(M \text{ and } NS)}{n(U)} = \frac{1}{10}$$

$$P(F \text{ and } NS) = \frac{n(F \text{ and } NS)}{n(U)} - \frac{4}{10}$$

CONDITIONAL PROBABILITY

A conditional probability is contingent upon or conditioned by prior knowledge. Suppose someone picked a person from the group of ten and said, "The person I picked is a male what's the probability that he's a non-smoker?" Looking at the frequency table down the column headed "male", one observes that only one of the four males is a non-smoker. Therefore, the probability that the person picked would be a non-smoker given that he was a male would be:

$$P(NS \mid M) = \frac{n(NS \text{ and } M)}{n(M)} = \frac{1}{4}$$

The vertical line dividing NS from M is read "given". Thus, the probability of a non-smoker given male is equal to the number of elements in the intersection of "non-smoker" and "male" divided by the number of elements in "male".

Similarly:

$$P(NS \mid F) = \frac{n(NS \text{ and } F)}{n(F)} = \frac{4}{6}$$

$$P(M \mid S) = \frac{n(M \text{ and } S)}{n(S)} = \frac{3}{5}$$

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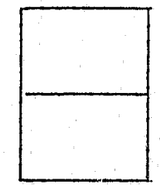
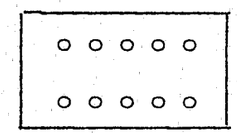
A DO-IT-YOURSELF PUNCHED CARD DATA SORTING SYSTEM

Cut sixteen 3x5 cards in half like this.



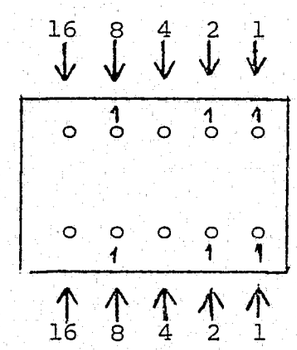
Take one of the 32 cards produced and punch a row of five holes along each of the two longer edges. The holes should be spaced about half an inch apart.



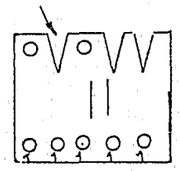
Using this card as a stencil, punch the other 31 cards to match it. Three cards can easily by punched at a time. Number the cards from 0 through 31. The five holes in each row represent the first five numbers of the binary sequence:

16 8 4 2 1.

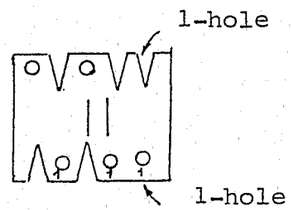
Write the number 1 above the appropriate holes along the upper edge and below the corresponding holes along the lower edge of each numbered card to represent the matching binary numeral. For example, on card number 11, write "ones" at the holes representing 1,2, and 8.



Along the top edge of each card, cut out the space above each hole marked with a "one".



Then do just the opposite along the lower edge, that is, cut out the space below the holes that are not marked with a "one".



The cards are now ready to use. Shuffle them up, being careful that none get turned upside-down. Make two hooks something like this, out of paper clips.

Stick the hooks through the 1-holes (on the upper and lower right) and lift up slowly. Half of the cards will be pulled up by one hook and the other will be held back by the other. Slide the cards that came up off the hook. Put these cards on top of the other cards that had remained behind. Now stick the two hooks through the 2-holes and carry out the same procedure. Repeat with the remaining thee pairs of holes (going from right to left) and you should end up with the cards in correct order from 0 to 31.

DEFINITION OF AN EVENT

Let us consider an urn containing six balls, of which two are white. Let the balls be numbered 1 to 6, the white balls being numbered 1 and 2. Let two balls be drawn from the urn, one after the other; the first ball drawn is not returned to the urn before the second ball is drawn. The resultant possibilities (technically called the "set") are:

(1,2)	(1,3)	(1,4)	(1,5)	(1,6)
(2,1)	(2,3)	(2,4)	(2,5)	(2,5)
(3,1)	(3,2)	(3,4)	(3,5)	(3,5)
(4,1)	(4,2)	(4,3)	(4,5)	(4,6)
(5,1)	(5,2)	(5,3)	(5,4)	(5,6)
(6,1)	(6,2)	(6,3)	(6,4)	(6,5)

Now some events are (i) the event that the ball drawn on the first draw is white, (ii) the event that the ball drawn on the second draw is white, (iii) the event that both balls drawn are white, (iv) the event that the sum of the numbers on the balls is 7, (v) the event that the sum of the numbers on the balls drawn is less than or equal to 4.

The mathematical formulation that we shall give of the notion of an event depends on the following fact. For each of the events just described, there is a set of descriptions such that the event occurs if and only if the observed outcome of the two draws has a description that lies in the set. For example, the event that the ball drawn on the first draw is white can be reformulated as the event that the description of the outcome of the experiment belongs to the set (1,2), (1,3), (1,4), (1,5), (1,6), (2,1), (2,3), (2,4), (2,5), (2,6). Similarly, events (ii) to (v) described above may be reformulated as the events that the description of the outcome of the experiment belongs to the set (ii) (2,1), (3,1), (4,1), (5,1), (6,1), (1,2), (3,2), (4,2), (5,2), (6,2); (iii) (1,2), (2,1); (iv) (1,6), (2,5), (3,4), (4,3), (5,2), (6,1); (v) (1,2), (2,1), (1,3), (3,1).

DEFINITION OF SIMPLE PROBABILITY

$$\text{Probability of an event} = \frac{\text{number of ways in a set an event can occ}}{\text{number of ways all events in a set can oc}}$$

To illustrate this simple rule, let's refer to the urn above and compute the probability of (i) through (v):

Probability that event (i) occurs $= \frac{10}{30} = \frac{1}{3}$

Probability that event (ii) occurs $= \frac{10}{30} = \frac{1}{3}$

Probability that event (iii) occurs $= \frac{2}{30} \quad \frac{1}{15}$

Probability that event (iv) occurs $= \frac{6}{30} \quad \frac{1}{5}$

Probability that event (v) occurs $= \frac{4}{30} = \frac{2}{15}$

Note that the value of a probability never exceeds the value 1 or is less than 0. When the value is 1, the event is called certain--a sure bet. When the value is 0, the event is called null--a sure bet that it will never happen. Note also that the sum of the probabilities of an event occurring and the event not occurring is always equal to 1--a sure bet that something will happen.

THE AVERAGE

Beware the term "average" which is not described. It is a trick commonly used, sometimes in innocence (often on oneself) but, frequently in guilt. When you are told that something is an average, you still don't know very much about it unless you can find out which of the common kinds of averages it is--mean, median, or mode.

Rather than belabor you with mathematical definitions of each kind of average, let's try to exemplify each to give you a feeling for the differences. Suppose that you belong to an organization that had the following salary distribution among its staff of 25:

Number of people receiving a salary of	Salary
1	$45,000
1	15,000
2	10,000
1	5,700
3	5,000
4	3,700
1	3,000
12	2,000

The boss might like to express the situation as "average wage $5,700--using the deceptive mean. (He added up all the salaries and divided by 25). The mode, however, is more revealing: most common rate of pay in this organization is $2,000. As usual, the median tells more about the situation than any single figure; half the people get more that $3,000 and half get less.

To compute each of the above averages, apply the following:

- The mean average of a group of items may be obtained by adding all items together and dividing the total by the number of items used.
- The median average is the value of the middle item when the items are arranged according to size. If there is an even number of items, the midpoint is taken as the mean average of the two central items. Note that the mean is a calculated average whereas the median is an average of position.
- The mode is the most frequent, or most common value, of a set of items.

TRENDS

A continuous demand placed on law enforcement is to establish trends based on present and past data. In other words, where are things going? What can we expect? Are things getting better or worse?

The utility of such predictions are many. The basic uses are budget oriented, allocation of resources, and measuring operational effectiveness.

Statisticians have developed many techniques to estimate trends over time. The more commonly employed techniques, within law enforcement, are:

- Freehand
- Semi-average
- Moving average
- Least squares

FREEHAND

To fit a trend by the freehand method, draw a line through a graph of the data in such a way as to describe what appears to the eye to be the long period movement. The drawing of this line need not be strictly freehand but may be accomplished with the aid of a straight edge or a "French" curve.

SEMI-AVERAGE

In this procedure, the data are split into two equal parts and the figures in each half are mean averaged. The mean averages, thus obtained, are plotted at the center of their respective periods and a straight line is then drawn through the two points.

MOVING AVERAGE

In the moving average method, the trend is described by smoothing out the fluctuations of the data. The moving average is a series of successive averages secured from a series of items by dropping the first item in each group (mean) averaged and including the next in the series--thus obtaining the next average. As an example, let's look at a three item moving average shown below (you may use any number of items dependant on the smoothness of the average desired). The first three numbers (3,5,7) are added (the total is entered in column 2 next to the middle item of the group). The first number (3) is then replaced by the next number (in this case, 10) and the process is continued until the entire series has been included. Each total is then divided by three (because we chose a 3 item interval) and the resulting mean averages are placed in column 3.

(1) Values	(2) 3 Item Moving Total	(3) 3 Item Moving Average
3		
5	15	5.00
7	22	7.33
10	29	9.67
12	36	12.00
14	41	13.67
15	46	15.33
17		

The fluctuations caused by seasonal cycle in a crime-time series (such as summer-burglary or Christmas-shoplifting) may be removed or partially eliminated by including in the moving average a number of items (years) equal to the length of the cycle which is evident in the data. The cyclical fluctuations will thus be smoothed out and a better measure of trend obtained.

LEAST SQUARES

The least squares method is not explained here because of the required mathematical exposition. However, any trained statistician is aware of the method and you are urged to seek him/her out and get some personal training. The method has three decided advantages over the previous techniques. The method expresses the trend in the form of a mathematical formula which may be easily interpreted. Results obtained under the method are definite and independent of any subjective estimate on the part of the statistician. The resulting equation is in convenient form for extrapolation (future or past).

President Straightarrow has applied his firm hand in attempting to stop the flow of heroin from Mexico. He has ordered the U.S. Customs, the Postal Service, Department of Defense, and FAA to stop everything and everybody moving from Mexico and conduct a thorough search for this dangerous narcotic. His goal is to drive the street price up and out of reach and force the users to seek medical help. The going price, at the start of the program, was $50/gram.

After three months of this intense blockade, law enforcement officers were sent into the streets to make "buys". The following prices were paid throughout the state:

City A - $40/gram

City B - $60

City C - $48

City D - $45

City E - $70

City F - $45

City H - $61

City I - $65

City J - $80

City K - $45

City L - $49

Was President Straightarrow's goal achieved using the "average" price as a measure of effectiveness?

Median Average = _____

Modal Average = _____

Mean Average = _____

INFORMATION INPUT FOR TIME-SERIES ANALYSIS

During the year 1973, the average number of burglaries reported each month on Erie's Island was 100.

On January 1, 1973, the Erie Island Police Department initiated a program of registering and identifying personal property. The program was initiated in selected sections of the city on an experimental basis.

Participation in the program by property owners increased steadily through the first nine months of 1973.

The number of burglaries reported each month through the first nine months of 1973 is shown below:

January	95
February	102
March	88
April	90
May	73
June	94
July	85
August	75
September	69

1. What is your estimate of the general trend of burglaries for the last quarter of 1973?

2. What is your estimate for burglaries in November 1973?

EXAMPLES OF MOST COMMONLY EMPLOYED GRAPHICAL TECHNIQUES TO ILLUSTRATE TABULAR DATA

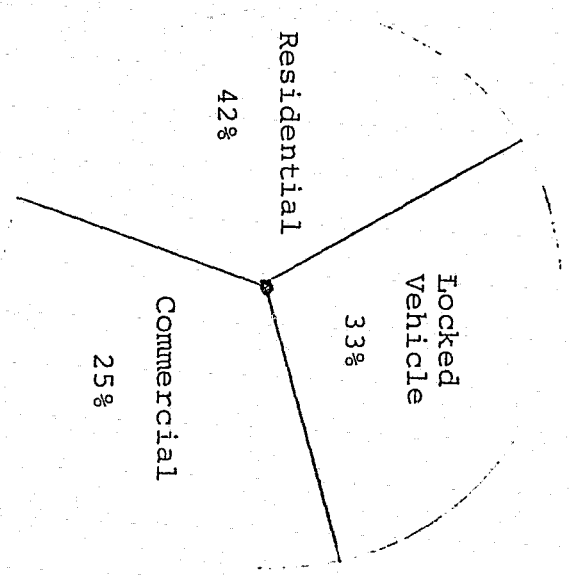


Fig. 1 Pie chart representing fictitious burglary in an American community

GRAPHICS A

Fig. 2 Frequency table of felonies by day and shift

Shift \ Day	Sun	Mon	Tues	Wed	Thurs	Fri	Sat	Totals	Percentage
0001 - 0800	36	42	46	54	54	62	66	360	20.5
0801 - 1600	60	69	77	90	92	103	109	600	34.1
1601 - 2400	80	92	103	120	122	138	145	800	45.4
Totals	176	203	226	264	268	303	320	1760	
Percentage	10	11.5	12.8	15	15.3	17.2	18.2		

GRAPHICS B

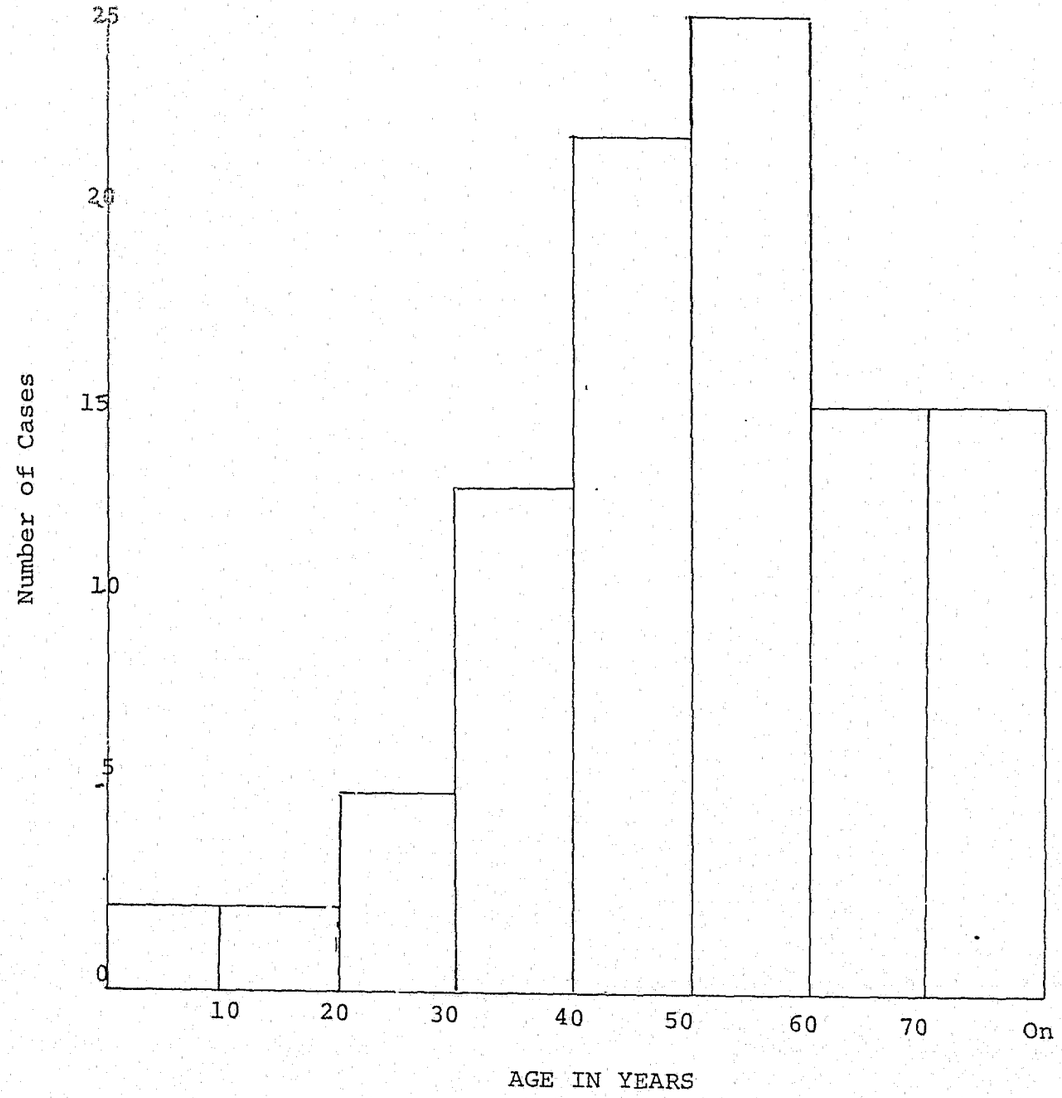


FIG. 3 A TYPICAL BAR CHART

GRAPHICS C

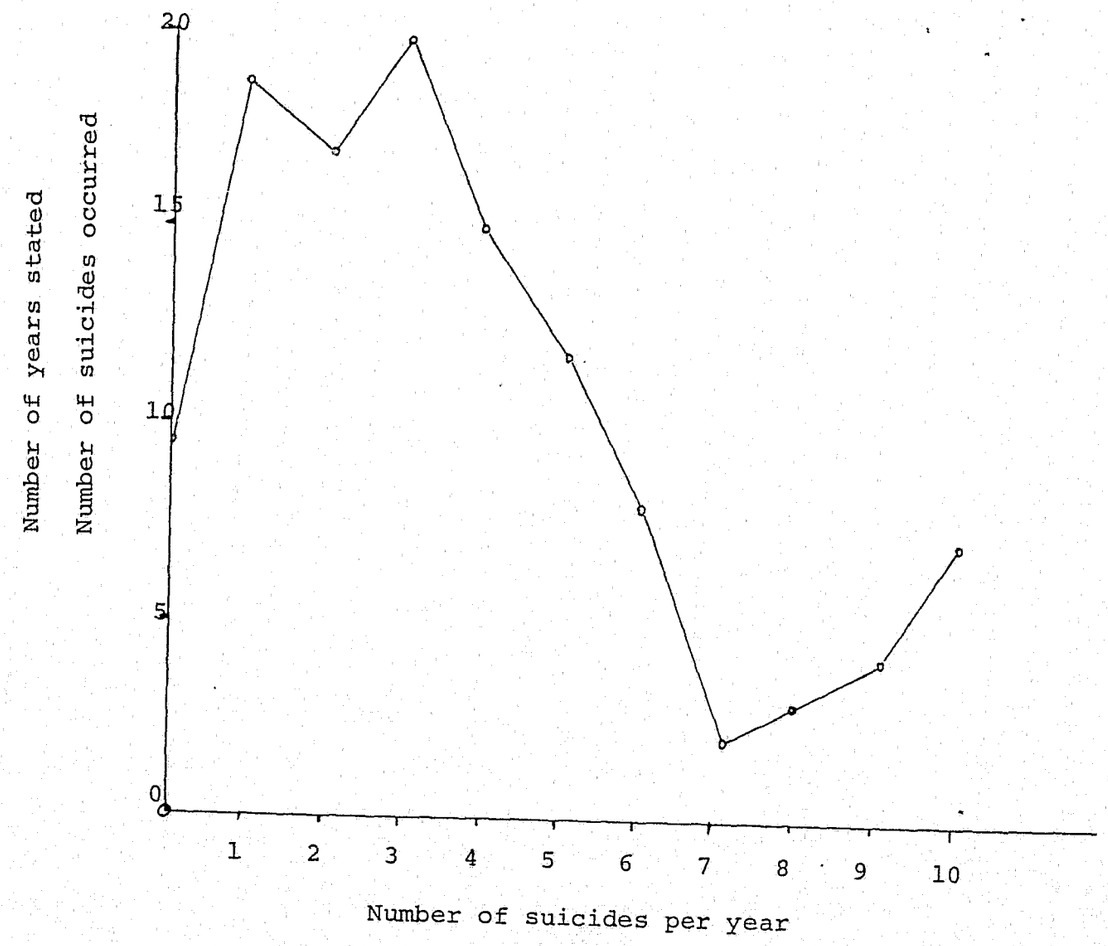
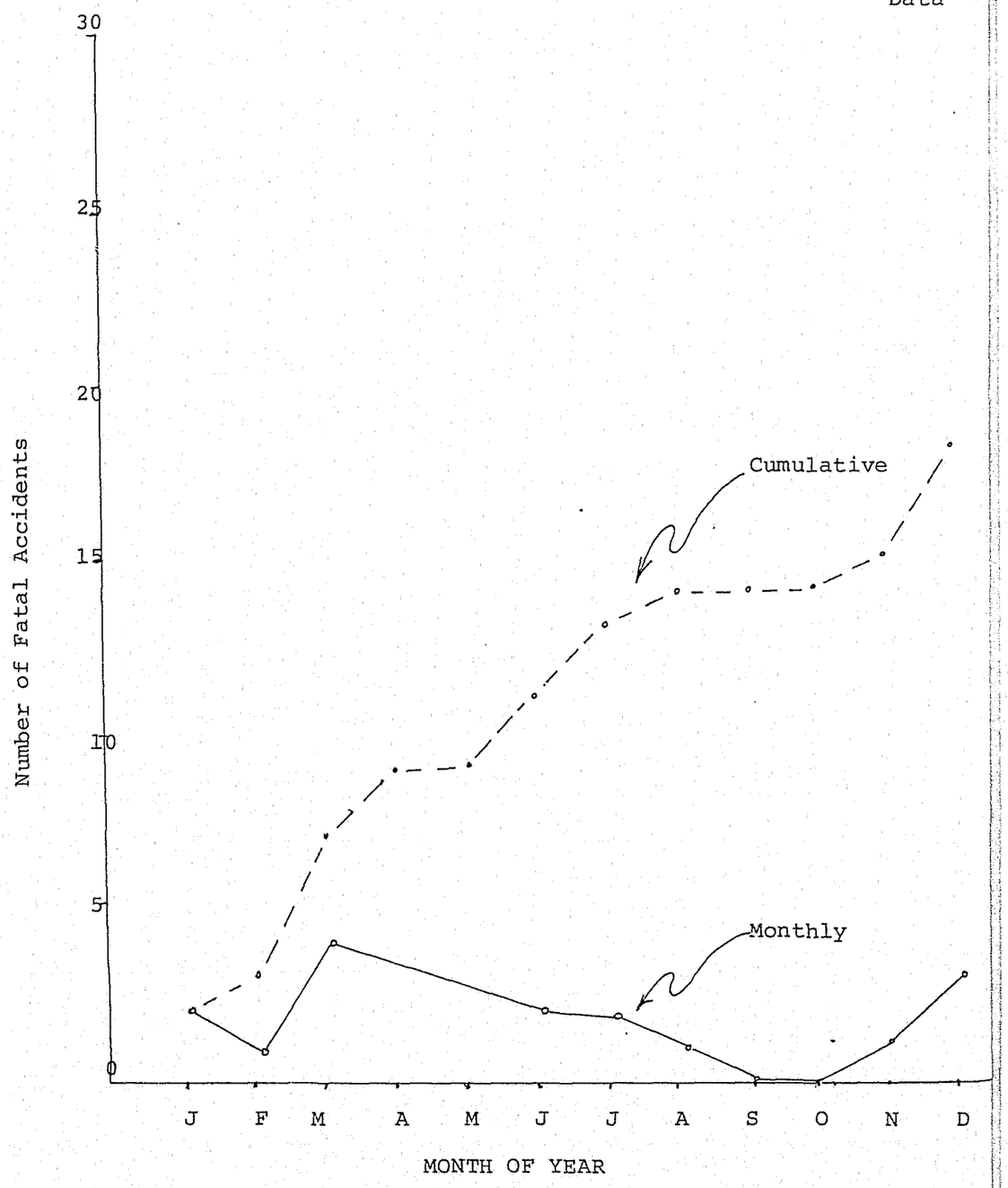


Fig. 4 Frequency Polygon

GRAPHICS D

Fig. 5 Compound Graph
Data



GRAPHICS E

SUGGESTED READINGS FOR THE
NON-MATHEMATICIAN

Croxton, F.E., and Cowden, D.J.; Applied General Statistics; Englewood Cliffs, NJ: Prentice-Hall

Freund, J.E.; Modern Elementary Statistics; Englewood Cliffs, NJ: Prentice-Hall

Huff, D.; How To Lie With Statistics; New York: W.W. Norton, 1954

Moroney, M.J.; Facts From Figures; London: Penguin Books, 1951

EXERCISE I

TAXICAB HITS

TAXICAB HITS

STATEMENT OF PROBLEM

The Centerville community has been hit by a rash of taxicab robberies over a period of several months. The three cab companies in town have demanded better protection. Their business is sizable. Yellow has 90 units, Checker has 50, and Veterans 24.

The Chief has decided to allocate six cars to an abatement project and has directed your Crime Analysis Unit team to recommend a strategy for deployment.

The data with which you have to work are provided on the punched cards and is typical of data collected by law enforcement agencies for this kind of crime.

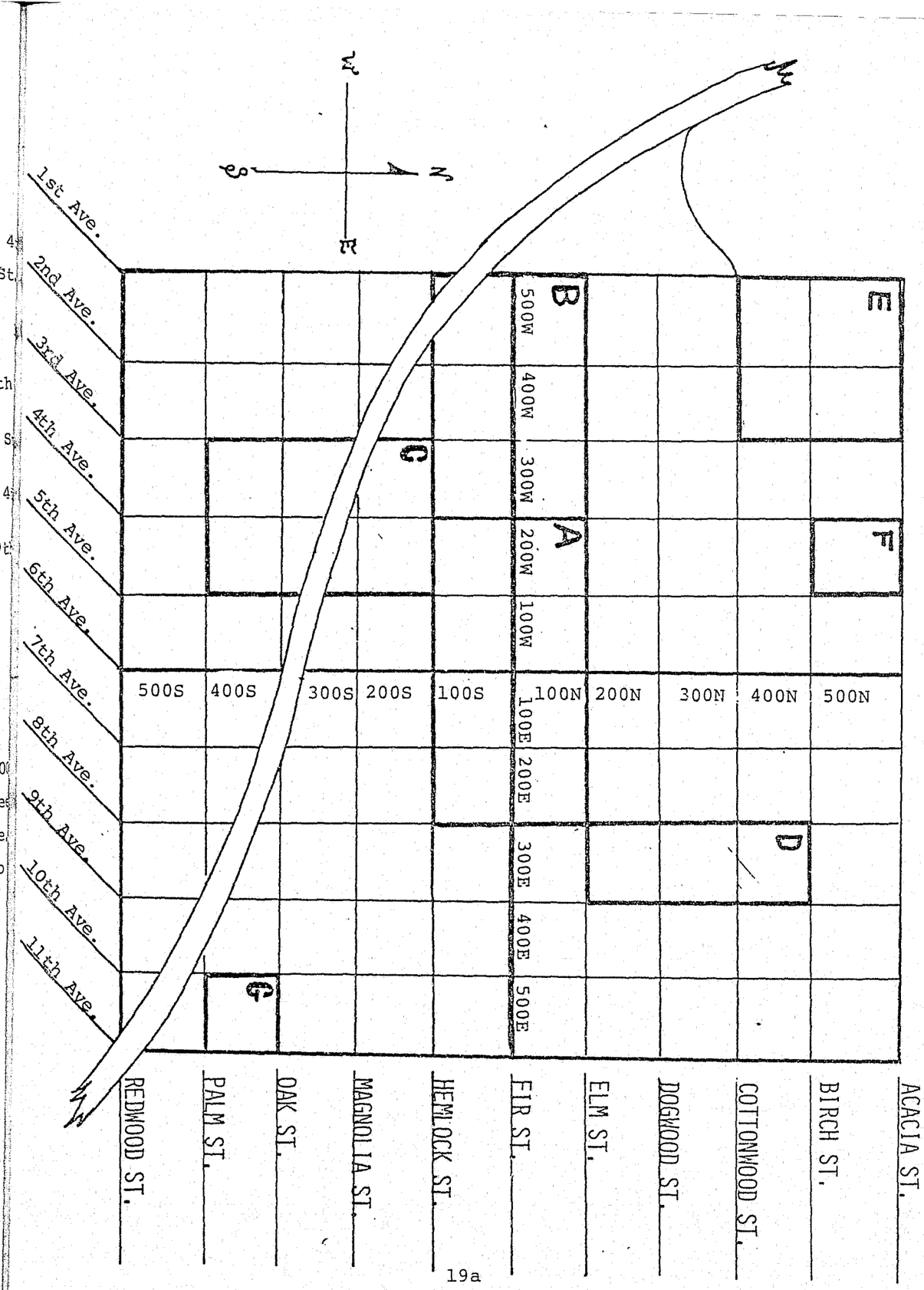
Your team has one hour to develop an initial deployment plan. As a hint, look for geographical and time clusters and taxicab preferences if any. Base your deployment on the tightest patterns, which, after all, promise to be most effective.

CENTERVILLE, USA

A.	DOWNTOWN COMMERCIAL	Bounded by Elm St., 8th, Hemlock St., 4
B.	INDUSTRIAL AREA (Kaiser Industrial Park)	Bounded by Elm St., 4th Ave., Hemlock St
C.	LOW INCOME RESIDENTIAL (Emerson Park)	Bounded by Hemlock St., 5th, Palm St.,
D.	LOW INCOME RESIDENTIAL (Byron Square)	Bounded by Birch St., 9th, Elm St., 8th
E.	HIGH INCOME RESIDENTIAL (Waverly Hills)	Bounded by Acacia St., 3rd, Cottonwood S
F.	SHOPPING AREAS (Northgate Shopping Ctr)	Bounded by Acacia St., 5th, Birch St., 4
G.	SHOPPING AREAS (Sunrise Shopping Ctr)	Bounded by Oak St., 11th, Palm St., 10t

All other areas are middle class residential, mostly single-family homes. Some apartments. Neighborhood stores, principally single proprietorship.

Centerville has a city-owned bus company. All routes originate at 10 W Fir St. Route 1 runs north to Dogwood, east on Dogwood to 9th Stre south on 9th to Oak, west on Oak to 6th, north on 6th to Circle Drive Route 2 runs south on 6th to Oak, west on Oak to 3rd, north on 3rd to Dogwood, east on Dogwood to 6th, south on 6th to 100 W Fir Street.



EXERCISE II

PURSE SNATCHINGS

1	Feb. 3	550 W. Cottonwood	250 W. Fir	Yellow	Male	None	6'3"	180	White	Dark	Gun	.38	0600
2	Feb. 4	250 S. Eighth	150 E. Elm	Checker	Male	None	6'5"	210	White	Light	Knife	Pocket	2300
3	Feb. 6	350 S. Fourth	250 E. Fir	Checker	Female	Female	5'6"	120	White	Dark	Gun	.32	1450
4	Feb. 8	250 S. Third	150 E. Elm	Yellow	Male	Female	5'7"	160	Black	Dark	Knife	Switch-Blade	2000
5	Feb. 10	350 E. Cottonwood	250 W. Fir	Veterans	Male	None	4'11"	110	White	Light	Gun	.45	1600
6	Feb. 15	350 W. Fifth	150 E. Elm	Yellow	Male	Male	6'	180	Asian	Light	Knife	Bowie	2400
7	Feb. 22	250 N. Second	250 W. Fir	Yellow	Female	None	5'5"	120	White	Light	Gun	.38	0900
8	Feb. 25	350 N. Eighth	250 E. Fir	Checker	Female	None	5'8"	150	Native Amer.	Light	Gun	.38	0200
9	Feb. 26	250 S. Tenth	250 E. Fir	Yellow	Male	Female	5'3"	130	Black	Dark	Body	Fist	2400
10	Feb. 28	450 E. Palm	250 E. Fir	Veterans	Female	Female	5'9"	140	White	Light	Gun	.32	0530
11	Mar. 7	250 W. Oak	150 E. Elm	Yellow	Male	Female	6'7"	210	White	Light	Other	Rope	1700
12	Mar. 13	250 W. Magnolia	250 W. Fir	Veterans	Male	Female	6'3"	195	White	Dark	Gun	Unknown	1700
13	Mar. 20	450 S. Fifth	150 E. Elm	Yellow	Male	Female	6'5"	185	White	Dark	Knife	Pocket	1450
14	Mar. 27	350 S. Third	250 E. Fir	Veterans	Male	None	5'3"	100	Black	Dark	Gun	.38	0930
15	Apr. 5	350 E. Birch	250 W. Fir	Checker	Male	None	5'8"	160	White	Dark	Gun	Unknown	2300
16	Apr. 12	350 N. Ninth	150 E. Elm	Veterans	Male	Male	5'3"	180	White	Light	Gun	Unknown	1450
17	Apr. 19	250 E. Palm	150 E. Elm	Checker	Male	None	6'5"	185	White	Dark	Gun	.32	2000
18	Apr. 26	450 S. Fourth	250 E. Fir	Veterans	Female	Female	5'5"	130	Asian	Dark	Gun	.32	1700
19	May 1	250 S. Fourth	250 W. Fir	Yellow	Female	None	5'1"	100	Brown	Light	Gun	.38	1900
20	May 2	350 W. Oak	250 W. Fir	Yellow	Male	None	5'7"	150	White	Light	Knife	Switch-Blade	1650

EXERCISE II

Centerville has been plagued by a major epidemic of purse snatching. The City Manager has directed the Chief of Police to place primary emphasis on the abatement of this problem. The Chief directs his crime analysis unit to recommend a strategy which will be cost-effective.

The CAU's analysts gather all the purse snatching related crime reports for last month. One-hundred purse snatchings were reported. The associated data is attached.

If your team was Centerville P.D.'s Crime Analysis Unit, what would you recommend?

CENTERVILLE, USA

A. DOWNTOWN COMMERCIAL — Bounded by Elm St., 8th, Hemlock St., 4th

B. INDUSTRIAL AREA (Kaiser Industrial Park) — Bounded by Elm St., 4th Ave., Hemlock St.,

C. LOW INCOME RESIDENTIAL (Emerson Park) — Bounded by Hemlock St., 5th, Palm St., 3rd

D. LOW INCOME RESIDENTIAL (Byron Square) — Bounded by Birch St., 9th, Elm St., 8th

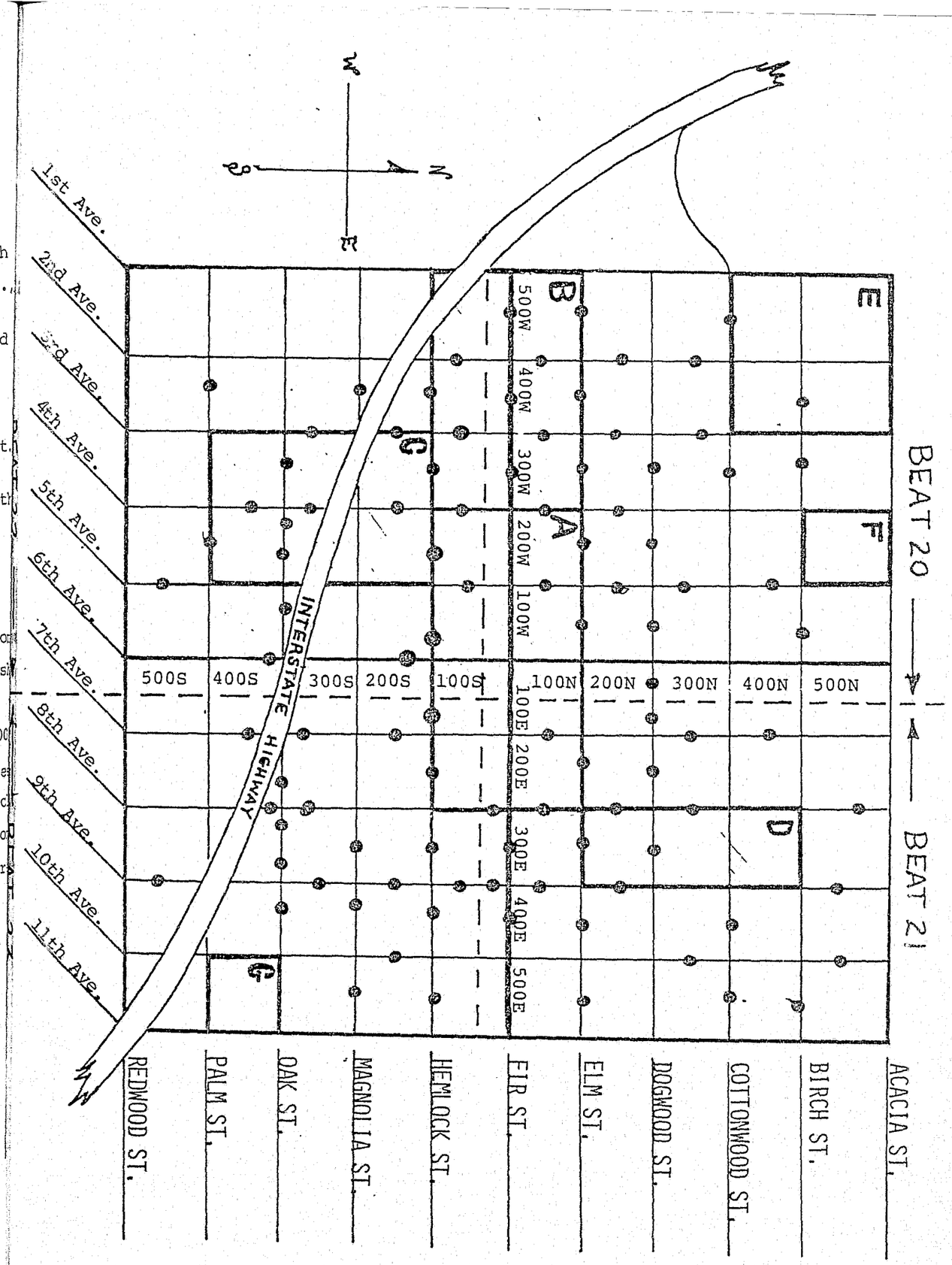
E. HIGH INCOME RESIDENTIAL (Waverly Hills) — Bounded by Acacia St., 3rd, Cottonwood St.

F. SHOPPING AREAS (Northgate Shopping Ctr) — Bounded by Acacia St., 5th, Birth St., 4th

G. SHOPPING AREAS (Sunrise Shopping Ctr) — Bounded by Oak St., 11th, Palm St., 10th

All other areas are middle class residential, mostly single-family ho
Some apartments. Neighborhood stores, principally single proprietors

Centerville has a city-owned bus company. All routes originate at 100
W Fir St. Route 1 runs north to Dogwood, east on Dogwood to 9th Stre
Street, south on 9th to Oak, west on Oak to 6th, north on 6th to Circ
Drive. Route 2 runs south on 6th to Oak, west on Oak to 3rd, north o
3rd to Dogwood, east on Dogwood to 6th, south on 6th to 100 W Fir Str



				CRIME						VICTIM		SUSPECT				
ASE #	FORCE	TYPE OF WEAPON	WEAPON OR GUN DESC.	PLACE OF ATTACK-- STREET LOCATION	BEAT	DATE	DAY	TIME	VEHICLE USED	SEX	AGE	SEX	RACE	HT.	WT.	AGE
21	None	None		450 W. Birch	20	2/2	M	2230	None	F	50	M	CAU	67"	160	17
22	Injury	Body	Fist	550 W. Cottonwood	20	2/2	M	0430	Chevy	F	59	M	CAU	72"	195	19
23	None	None		350 S. Eighth	23	2/2	M	0900	None	F	63	M	CAU	73"	210	18
24	None	None		550 S. Fifth	22	2/3	TU	1100	None	F	72	M	CAU	68"	150	19
25	None	None		250 W. Palm	22	2/3	TU	0530	Ford	F	56	M	ASIAN	65"	125	20
26	Injury	Knife	Pocket	150 W. Birch	20	2/3	TU	1400	Ford	F	54	M	CAU	70"	180	20
27	Threat	Gun	.32	150 W. Hemlock	22	2/3	TU	1100	None	F	66	M	CAU	66"	150	20
28	None	None		150 S. Fifth	22	2/3	TU	1330	Ply	F	70	M	CAU	77"	210	25
29	None	None		150 W. Oak	22	2/3	TU	0900	GMC	F	73	M	CAU	60"	100	25
30	Injury	Knife	Pocket	550 N. Ninth	21	2/4	W	2400	Chevy	F	61	M	ASIAN	65"	140	22
31	None	None		150 W. Elm	20	2/4	W	0930	Chevy	F	61	M	CAU	68"	160	20
32	None	None		350 W. Dogwood	20	2/4	W	1230	None	F	63	M	CAU	68"	190	19
33	None	None		350 N. Third	20	2/4	W	0800	None	F	68	M	CAU	67"	175	18
34	None	None		350 N. Second	20	2/4	W	1300	Ford	F	67	M	CAU	67"	150	18
35	Injury	Body	Feet	150 N. Fourth	20	2/4	W	1200	None	F	70	M	CAU	69"	170	18
36	Injury	Knife	S. Blade	550 W. Fir	20	2/4	W	1000	None	F	69	M	CAU	70"	180	17
37	None	None		550 S. Ninth	23	2/4	W	0400	None	F	72	M	CAU	71"	185	16
38	Injury	Body	Fist	550 E. Magnolia	23	2/4	W	0900	None	F	60	M	CAU	71"	185	17
39	None	None		350 E. Dogwood	21	2/4	W	1500	Chevy	F	22	M	CAU	60"	98	17
40	None	None		150 N. Seventh	21	2/4	W	1330	Chevy	F	65	M	BLACK	64"	110	35
41	Injury	Body	Fist	250 E. Hemlock	23	2/5	TH	0900	Chevy	F	39	M	CAU	68"	160	17
42	Injury	Body	Fist	250 S. Seventh	23	2/5	TH	2300	Chevy	F	70	M	ASIAN	70"	180	22
43	Injury	Knife	Pocket	380 S. Seventh	23	2/5	TH	1900	Ford	F	71	M	BLACK	65"	140	18
44	None	None		420 S. Eighth	23	2/5	TH	0500	None	F	68	M	CAU	65"	130	28
45	Threat	Gun	Unknown	110 S. Eighth	23	2/5	TH	1100	None	F	58	M	CAU	75"	230	20
46	None	None		350 S. Ninth	23	2/5	TH	1030	None	F	59	M	CAU	69"	180	19
47	None	None		250 W. Oak	22	2/6	F	0100	None	F	63	M	BLACK	61"	140	18
48	None	None		450 W. Hemlock	22	2/6	F	1600	GMC	F	30	M	BLACK	71"	170	30

49	None	None		250 W. Dogwood	20	2/6	F	0900	Chry	F	62	M	CAU	72"	170	17
50	None	None		250 N. Fifth	20	2/7	SAT	0930	None	F	76	M	ASIAN	67"	150	16
51	Injury	Knife	S. Blade	350 N. Seventh	21	2/7	SAT	2400	None	F	66	M	CAU	66"	160	15
52	None	None		250 E. Elm	21	2/7	SAT	1300	None	F	80	M	BLACK	67"	165	29
53	None	None		450 W. Palm	22	2/7	SAT	0200	None	F	40	M	CAU	62"	120	20
54	None	None		150 S. Fourth	22	2/7	SAT	1700	None	F	42	M	CAU	67"	155	19
55	None	None		250 N. Second	20	2/7	SAT	1800	None	F	29	M	BLACK	63"	160	26
56	None	None		450 E. Oak	23	2/8	SUN	1130	None	F	73	M	CAU	67"	170	18
57	None	None		550 N. Tenth	21	2/8	SUN	1500	Chevy	F	41	M	CAU	63"	130	40
58	None	None		450 E. Cottonwood	21	2/9	M	2330	None	F	25	M	BLACK	71"	180	16
59	None	None		250 N. Ninth	21	2/9	M	0800	None	F	60	M	CAU	66"	145	15
60	None	None		450 N. Fifth	20	2/10	TU	2400	None	F	37	M	CAU	70"	180	37
61	Injury	Body	Fist	250 N. Third	20	2/10	TU	1930	Ford	F	38	M	CAU	65"	140	22
62	Injury	Knife	Pocket	350 W. Cottonwood	20	2/10	TU	0900	None	F	83	M	CAU	74"	195	25
63	None	None		180 E. Dogwood	21	2/11	W	0230	None	F	45	M	CAU	69"	165	14
64	None	None		120 E. Dogwood	20	2/11	W	0930	Chevy	F	67	M	ASIAN	64"	130	30
65	None	None		280 W. Oak	22	2/11	W	0100	None	F	65	M	CAU	78"	230	13
66	None	None		250 W. Hemlock	22	2/11	W	1600	None	F	26	M	CAU	73"	210	27
67	Injury	Body	Fist	380 E. Oak	23	2/11	W	1000	Ford	F	62	M	CAU	79"	240	12
68	Threat	Gun	.38	320 E. Oak	23	2/12	TH	1700	None	F	40	M	CAU	68"	170	28
69	None	None		150 S. Third	22	2/12	TH	1030	Ply	F	70	M	CAU	69"	170	16
70	None	None		450 W. Magnolia	22	2/12	TH	1100	Chevy	F	39	M	CAU	76"	210	17
71	None	None		450 W. First	20	2/13	F	1800	None	F	74	M	BLACK	67"	160	18
72	None	None		350 W. Elm	20	2/13	F	1130	Ford	F	43	M	CAU	69"	180	18
73	None	None		350 W. Birch	20	2/13	F	1300	Chevy	F	73	M	CAU	72"	200	16
74	None	None		400 E. Fir	21	2/14	SAT	2300	Chevy	F	42	M	BLACK	75"	220	18
75	None	None		550 N. Eighth	21	2/14	SAT	0500	Ford	F	72	M	BLACK	63"	140	30
76	None	None		550 E. Birch	21	2/16	M	0630	Ply	F	63	M	CAU	66"	160	26

CASE #	FORCE	TYPE OF WEAPON	WEAPON OR GUN DESC.	PLACE OF ATTACK-- STREET LOCATION	BEAT	DATE	DAY	TIME	VEHICLE USED	VICTIM SEX	VICTIM AGE	SUSPECT SEX	SUSPECT RACE	SUSPECT HT.	SUSPECT WT.	SUSPECT AGE
77	None	None		450 N. Seventh	21	2/16	M	1300	Chry	F	65	M	CAU	72"	180	16
78	Injury	Body	Fist	550 E. Cottonwood	21	2/16	M	1130	None	F	74	M	CAU	63"	130	27
79	None	None		550 E. Elm	21	2/16	M	2330	None	F	70	M	CAU	71"	260	24
80	None	None		150 N. Ninth	21	2/16	M	1330	None	F	68	M	BLACK	64"	150	17
81	None	None		150 N. Eighth	21	2/16	M	0900	Chevy	F	76	M	CAU	66"	150	17
82	None	None		300 E. First	21	2/16	M	0800	Chevy	F	69	M	CAU	65"	150	17
83	None	Gun	Unknown	450 E. Elm	21	2/17	TU	0530	Ford	F	80	M	CAU	70"	190	32
84	None	None		450 S. Seventh	23	2/17	TU	0930	Ford	F	75	M	CAU	69"	170	18
85	None	None		250 E. Oak	23	2/17	TU	0730	Ply	F	73	M	CAU	68"	170	28
86	Injury	Body	Fist	170 E. Hemlock	23	2/17	TU	0200	Chry	F	68	M	CAU	74"	230	16
87	None	None		350 E. Magnolia	23	2/17	TU	0930	None	F	72	M	BLACK	67"	180	30
88	None	None		450 E. Magnolia	23	2/17	TU	2300	None	F	67	M	CAU	65"	140	33
89	None	None		250 S. Tenth	23	2/18	W	1000	None	F	66	M	CAU	73"	180	15
90	None	None		250 S. Ninth	23	2/18	W	1030	None	F	67	M	CAU	67"	145	17
91	Injury	Knife	Pocket	550 E. Hemlock	23	2/18	W	0700	None	F	66	M	CAU	68"	150	12
92	Injury	Body	Fist	450 E. Hemlock	23	2/18	W	1100	None	F	71	M	CAU	64"	155	25
93	None	None		150 N. Fifth	20	2/18	W	0630	None	F	37	M	CAU	62"	130	25
94	None	None		450 W. Elm	20	2/18	W	0700	None	F	62	M	CAU	68"	170	16
95	None	None		150 N. Second	20	2/18	W	0100	None	F	67	M	CAU	67"	170	21
96	None	None		250 N. Eighth	21	2/18	W	1000	None	F	70	M	CAU	65"	190	18
97	None	None		250 E. Dogwood	21	2/18	W	0200	Chevy	F	73	M	CAU	66"	160	17
98	None	None		350 N. Tenth	21	2/19	TH	0900	None	F	66	M	CAU	68"	160	20
99	None	None		350 N. Eighth	21	2/19	TH	0400	Foreign	F	75	M	CAU	70"	180	17
100	None	None		350 E. Elm	21	2/19	TH	1030	None	F	38	M	CAU	67"	150	18
101	None	None		110 S. Ninth	21	2/20	F	0530	Ford	F	69	M	CAU	65"	140	17
102	None	None		160 S. Ninth	23	2/20	F	1100	None	F	74	M	CAU	74"	230	16
103	None	None		450 S. Fourth	22	2/20	F	2300	None	F	39	M	CAU	69"	150	15
104	None	None		360 S. Fourth	22	2/20	F	0800	None	F	64	M	CAU	70"	190	14

CASE #	FORCE	TYPE OF WEAPON	WEAPON OR GUN DESC.	PLACE OF ATTACK-- STREET LOCATION	BEAT	DATE	DAY	TIME	VEHICLE USED	VICTIM SEX	VICTIM AGE	SUSPECT SEX	SUSPECT RACE	SUSPECT HT.	SUSPECT WT.	SUSPECT AGE
105	Injury	Body	Fist	150 W. Dogwood	20	2/20	F	1330	Foreign	F	76	M	CAU	64"	130	16
106	None	None		350 N. Fifth	20	2/24	TU	1100	None	F	68	M	CAU	72"	220	17
107	Injury	Knife	Pocket	550 W. Elm	20	2/24	TU	1130	Rec.Veh.	F	72	M	CAU	69"	120	16
108	None	None		350 E. Hemlock	23	2/24	TU	0830	None	F	65	M	CAU	66"	150	19
109	None	None		230 S. Sixth	22	2/25	W	1200	Ford	F	71	M	CAU	71"	190	12
110	None	None		410 S. Sixth	22	2/25	W	0730	Ford	F	63	M	CAU	63"	140	18
111	Injury	Body	Fist	250 N. Fourth	20	2/25	W	0930	None	F	85	M	CAU	63"	130	16
112	None	None		150 N. Third	20	2/25	W	1000	None	F	77	M	CAU	67"	150	18
113	None	None		350 W. Fir	20	2/25	W	1000	None	F	70	M	CAU	69"	170	17
114	Injury	Body		180 S. Second	22	2/25	W	1300	None	F	74	M	CAU	73"	180	18
115	None	None		350 W. Hemlock	22	2/26	TH	1330	None	F	38	M	CAU	65"	150	18
116	None	None		250 S. Fourth	22	2/26	TH	0730	None	F	73	M	CAU	74"	200	17
117	Injury	Knife		250 S. Third	22	2/26	TH	1100	None	F	82	M	CAU	70"	200	13
118	None	None		350 S. Third	22	2/27	F	1200	None	F	42	M	CAU	66"	170	16
119	None	None		250 W. Oak	22	2/27	F	1300	None	F	63"	M	CAU	68"	180	15
120	None	None		250 W. Elm	20	2/27	F	1130	None	F	47"	M	CAU	64"	140	12

EXERCISE III

GAS STATION HOLDUPS

FEBRUARY

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
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

GAS STATION HOLDUPS

STATEMENT OF THE PROBLEM

On December 31 at 10:00 p.m., a pair of youthful, white holdup men were apprehended during a chase after robbing a filling station in a metropolitan city. While "A" remained in their vehicle to serve as lookout, "B" entered the office, carrying a .38 nickel-plated gun, and wearing a hat and topcoat. He pointed the gun at the victim, and told the victim to put his head between his legs. The suspect then emptied the cash register money into a canvas bag which he had brought with him. On the basis of a thorough analysis of the M.O., revealed in this crime, your team should be able to clear a number of similar cases attributable to the arrested pair. (Hints: if some data patterns appear to be ambiguous, you may ask relevant questions of the instructor to elicit further information. A maximum of 25 cases can be cleared).

CRIME REPORT 530-251 5/74

17. NO. PER. ARR. 2	18. EXTRA COPIES	19. BEAT-CENSUS	3. COMPLAINANT'S RESIDENCE ADDRESS: George Beaker, 1902 Bowling; CITY
4. RESIDENCE PHONE: 777-3395			
20. COMP. OCCUP.: Serv.Stn Attendant	21. HRS. OF EMPLOY.: 1600-2300	22. SOURITY	5. WHERE COMPLAINANT IS EMPLOYED OR SCHOOL HE ATTENDS: Don's Chevron-330-1st Centerville; CITY
6. BUSINESS PHONE: 775-0359			
23. VEHICLE USED BY SUSPECTS: Chevy; LICENSE NO.: EAU 130; STATE: CA; YEAR: 75			7. COMP'S SEX - RACE - D.O.B.: 1-20-50,white,male
8. LOCATION OF OFFENSE - ADDRESS OR BLOCK NUMBER: 330-1st Centerville			
24. VEH. YR.: 73; MAKE: Chevy; MODEL: Impal; BODY TYPE: Conv; COLOR: Blue			9. REPORTING PERSON: same; SEX; RACE; AGE
10. RESIDENCE PHONE			
25. IDENTIFYING CHARACTERISTICS OF VEHICLE: Chrome rims			11. REPORTING PERSON'S ADDRESS; CITY
12. BUSINESS PHONE			
26. HOLD PLACED ON VEHICLE ☐ NO ☒ YES FOR: TOWED TO			13. DATE OCCURRED: Friday,Dec. 31,1975; TIME OCCURRED: 2200
14. DATE REPORTED: Dec. 31; TIME REPORTED: 2205			
27. BURG. - POINT OF ENTRY	28. METHOD TO EFFECT ENTRY		15. CRIME: Armed Robbery - Gas Station
16. CLASSIFICATION			
29. DESCRIBE WEAPON OR MEANS USED: 38 Nickel -Plated			30. WORDS USED BY SUSPECT: Sit down and put your head between your legs.
31. VEHICLE FROM WHICH THEFT OCCURED; LICENSE NO.; STATE; YEAR; VEHICLE YEAR; MAKE; MODEL; BODY TYPE; COLOR			32. STOLEN: 1 ☒ CASH NOTES 2 ☐ CLOTHING FURS 3 ☐ JEWELERY, PRECIOUS METALS 4 ☐ FIREARMS
33. PREMISES: 1 ☐ STREET 2 ☒ GAS STATION 3 ☐ CHAIN STORE 4 ☐ BANK 5 ☐ RESIDENTIAL 6 ☐ OTHER COMM. 7 ☐ SAFE 8 ☐ TELEPHONE BOOTH 9 ☐ OTHER			5 ☐ OFFICE EQUIPMENT 6 ☐ TELEVISION RADIOS CAMERAS ETC 7 ☐ HOUSEHOLD GOODS 8 ☐ CONSUMABLE GOODS 9 ☐ LIVESTOCK 10 ☐ OTHER
1	34. WITNESSES: NAME, SEX, RACE, AGE, ADDRESS, RESIDENCE PHONE, BUSINESS PHONE - IF JUVENILE SCHOOL HE ATTENDS: Same as complainant		36. THEFT INSIDE BLDG. ☐ YES ☒ NO
2	35.		37. A.B.C. PREM. INVOLVED
1	38. SUSPECT: NAME, SEX, RACE, AGE, ADDRESS, RES. AND BUS. PHONE (IF JUVENILE, SCHOOL) HT. WGT. BLD. HAIR, EYES, COMP, CLOTHING, IDENT. CHARACT.: Dave Brown-male,CAU,24 yrs. of age-522 Jay St.,Centerville		IN CUSTODY ☒ YES ☐ NO
39. ARR. NO. OR DISP.	6'1" tall,average weight,Black hair,Brown eyes,overcoat, hat		
2	IN CUSTODY ☒ YES ☐ NO; Mike Raum,male,CAU 27 years of age - 702 Spring Street		
ARR. NO. OR DISP.	5'10"tall, average, weight, blue eyes, blond hair		

40 A. ADDITIONAL SUSPECTS - IDENTIFY AS OUTLINED ABOVE
B. ADDITIONAL WITNESSES - IDENTIFY AS OUTLINED ABOVE.
C. LOSS -- ITEMIZE, DESCRIBE IN DETAIL, GIVE VALUE, AGE, TOTAL VALUE
D. EVIDENCE – ITEMIZE, WHERE FOUND, BY WHOM FOUND, DISPOSITION.
E. SUMMARIZE DETAILS OF CRIME
F. STATEMENTS – FROM WHOM TAKEN, BY WHOM, WHAT REPORT FORM USED.
G. WHAT INSTRUCTIONS WERE GIVEN TO COMPLAINANT
H. OTHER INFORMATION – TECHNICIAN CALLED? WHO SECURED PREMISES? ETC.

Received call at 2005 hour, arrived at scene 2007 hours. Talked to Service station attendant (George Beaker) who stated he was on duty at about 10 pm when a man in a funny looking hat and big brown overcoat entered the station (Suspect #1). Suspect #1 pointed a gun at the complainant, made hir sit down and put his head between his legs. Suspect #1 then emptied the cash box of all the money that was there (approx. $230.00). Suspect #1 then ran to a blue 1973 Chevy convertible where a second suspect #2 was waiting for him. They then took off at a high rate of speed at which time the complainant called the police. The suspects were apprehended by Unit 3, one-half mile from the scene of the crime during a chase for excessive speed. While writing a citation for speed, radio indicated that the suspects were wanted for armed robbery. Suspects were then arrested at scene without offering any resistance.

41. REPORTING OFFICER OR CLERK; SERIAL NO.	42. SECOND OFF. SER. NO.	43 APPROVING SUPERVISOR/WATCH & DISTRICT	44 ADD'L INFO. RPT ☐ YES ☐ NO
46. CORRECTED LOSS	47. DATE FILED	48. PROPERTY RELEASE FORWARDED ☐ YES ☐ NO ☐ NO PROPERTY	49. INVESTIGATOR'S NAME: Capt. Moore; SER. NO.
50. APPROVING SUPERVISOR; SER. NO.			

FEBRUARY

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
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

EXERCISE IV

INFORMATION ENRICHMENT

INFORMATION ENRICHMENT

STATEMENT OF THE PROBLEM

You are the assigned investigator for the complaint attached. Probably your initial steps will consist of requests for pertinent information. Please indicate on the check list provided, the items of information you would need and your estimate of the time you would spend in getting them.

INVESTIGATION CHECK LIST

CRIME: _____

COMPLAINANT: _____ Reporting District # _____

		Time Required
1._____	Vehicle Registration	_____
2._____	Warrant Information	_____
3._____	Crime File Search - Person	_____
4._____	Crime File -- Vehicle	_____
5._____	Field Contact Information	_____
6._____	Crime Re-cap Logs	_____
7._____	Driver's License Physical Data	_____
8._____	Stolen Article File Search	_____
9._____	Query Central File -Property Loss*	_____
10._____	Geographic Data (e.g., pin map)	_____
11._____	Firearms Query	_____
12._____	Corpus Information	_____
13._____	Vehicles Registered to Suspect	_____
14._____	Firearms Registered to Suspect	_____
15._____	Other	_____
16._____	Other	_____
17._____	Other	_____

*Probably at State level

TOTAL TIME _____

Supplementary Information:

_____

_____

_____

_____

_____

_____

_____

_____

_____

CRIME REPORT 536-251 8/74

17. NO. PER. ARR.	18. EXTRA COPIES	19. BEAT-CENSUS	3. COMPLAINANT'S RESIDENCE ADDRESS / CITY	4. RESIDENCE PHONE
1	3	212	1249 WATT AVENUE - UNION CITY	273-4920
20. COMP. OCCUP.	21. HRS. OF EMPLOY.	22. SORRIETY	5. WHERE COMPLAINANT IS EMPLOYED OR SCHOOL HE ATTENDS / CITY	6. BUSINESS PHONE
N/A	8 hrs.	N/A	---	491-0324

LITE ELECTRIC COMPANY 74-84961

45 EXTRA COPIES

23. VEHICLE USED BY SUSPECTS — LICENSE NO. — STATE — YEAR: CHEV HIE234 CAL 74

7. COMP'S SEX - RACE - D.O.B.: N/A

8. LOCATION OF OFFENSE - ADDRESS OR BLOCK NUMBER: 4320 2

24. VEH. YR. MAKE MODEL BODY TYPE COLOR: 55 CHEV 2 DR SD RED

9. REPORTING PERSON — SEX — RACE — AGE: DON COWEL M CAUC 37

10. RESIDENCE: 280-19

25. IDENTIFYING CHARACTERISTICS OF VEHICLE: PRIMER SPOTS

11. REPORTING PERSON'S ADDRESS / CITY: 431 ELM STREET UNION CITY

12. BUSINESS: 491-17

26. HOLD PLACED ON VEHICLE — TOWED TO: ☐ NO ☒ YES FOR: ANGELINI'S

13. DATE OCCURRED — TIME OCCURRED: 4-7-74 2309

14. DATE REPORTED — TIME REP: 4-7-74 2315

27. BURG. - POINT OF ENTRY: ROOF

28. METHOD TO EFFECT ENTRY: BROKE SKYLITE

15. CRIME: BURGLARY-CARRYING A CONCEALED WEAPON

16. CLASSIFICATION:

29. DESCRIBE WEAPON OR MEANS USED: .357 MAGNUM

30. WORDS USED BY SUSPECT: NONE

31. VEHICLE FROM WHICH THEFT OCCURED — LICENSE NO. — STATE — YEAR — VEHICLE YEAR MAKE MODEL BODY TYPE COLOR

32. STOLEN: 1 ☐ CASH NOTES 2 ☐ CLOTHING, FURS 3 ☐ JEWELERY, PRECIOUS METALS 4 ☐ FIREARMS

33. PREMISES: 1 ☐ STREET 2 ☐ GAS STATION 3 ☐ CHAIN STORE 4 ☐ BANK 5 ☐ RESIDENTIAL 6 ☒ OTHER COMM. 7 ☐ SAFE 8 ☐ TELEPHONE BOOTH 9 ☐ OTHER

5 ☐ OFFICE EQUIPMENT 6 ☐ TELEVISION RADIOS CAMERAS, ETC 7 ☐ HOUSEHOLD GOODS 8 ☐ CONSUMABLE GOODS 9 ☐ LIVESTOCK 10 ☐

1 — 34. WITNESSES: NAME, SEX, RACE, AGE, ADDRESS, RESIDENCE PHONE, BUSINESS PHONE - IF JUVENILE, SCHOOL HE ATTENDS: DON COWEL - MWA 37 (SEE REPORTING PERSON)

36. THEFT INSIDE BLDG: ☐ YES ☒ NO

2 — 35: ---

37. A.B.C. PREM. INVOL: NO

1 — 38. SUSPECT: NAME, SEX, RACE, AGE, ADDRESS, RES. AND BUS. PHONE (IF JUVENILE, SCHOOL) HT. WGT. BLD. HAIR, EYES, COMP, CLOTHING, IDENT. CHARACT. — IN CUSTODY ☒ YES ☐ NO: GEO. GREEN - 431 2ND STREET, UNION CITY

39. ARR. NO. OR DISP.: #67-038-491 AGE 18 28-7724 BRN - BRN - 5'4" - 135 BLUE DENIMS

2 — IN CUSTODY ☐ YES ☒ NO: UNKNOWN ADDRESS

ARR. NO. OR DISP.: 18? BRN BRN - 140 - 150 4'4" to 5'6" BLUE DENIMS

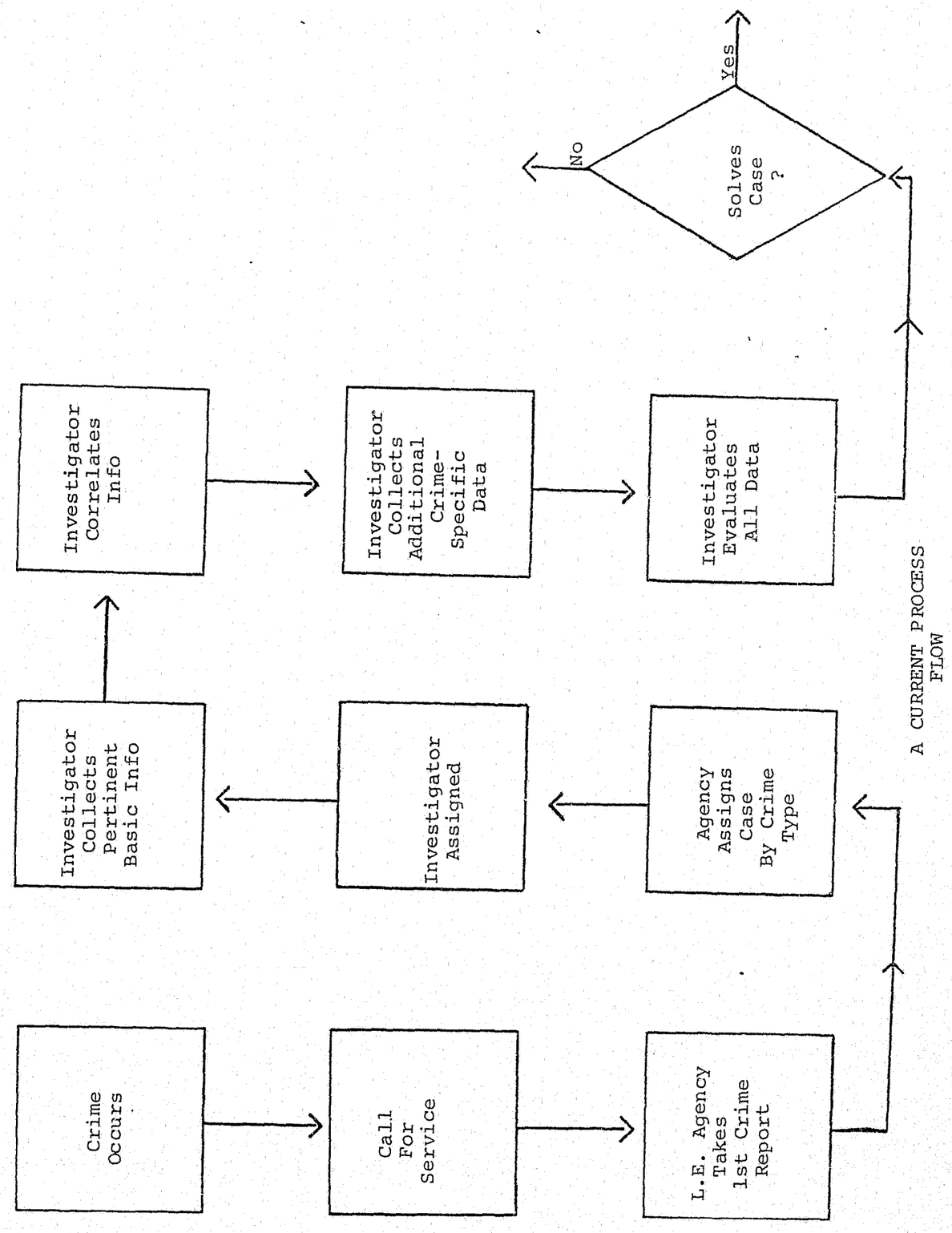
40. A. ADDITIONAL SUSPECTS - IDENTIFY AS OUTLINED ABOVE.
B. ADDITIONAL WITNESSES - IDENTIFY AS OUTLINED ABOVE.
C. LOSS – ITEMIZE, DESCRIBE IN DETAIL, GIVE VALUE, AGE, TOTAL VALUE
D. EVIDENCE – ITEMIZE, WHERE FOUND, BY WHOM FOUND, DISPOSITION.
E. SUMMARIZE DETAILS OF CRIME
F. STATEMENTS – FROM WHOM TAKEN, BY WHOM, WHAT REPORT FORM USED
G. WHAT INSTRUCTIONS WERE GIVEN TO COMPLAINANT.
H. OTHER INFORMATION – TECHNICIAN CALLED? WHO SECURED PREMISES?

Suspects were seen climbing onto roof top by reporting person (Don Cowe.
Received call 2316, arrived at scene 2318. Upon arrival, suspects were
lowering small safe down the side of one-story building (Lite Electric
Approach of patrol vehicle caused them to drop safe to ground. Suspect
left Suspect #1 (Geo. Green) on roof and jumped into vehicle and drove
Suspect #1 offered no resistance. Patrol unit back up car stated they
head off vehicle as they were near scene but were unable to spot vehicl
Suspect #1 was searched and was carrying concealed .357 magnum. Suspec
was advised of his rights and booked for burglary and carrying a concea
weapon.

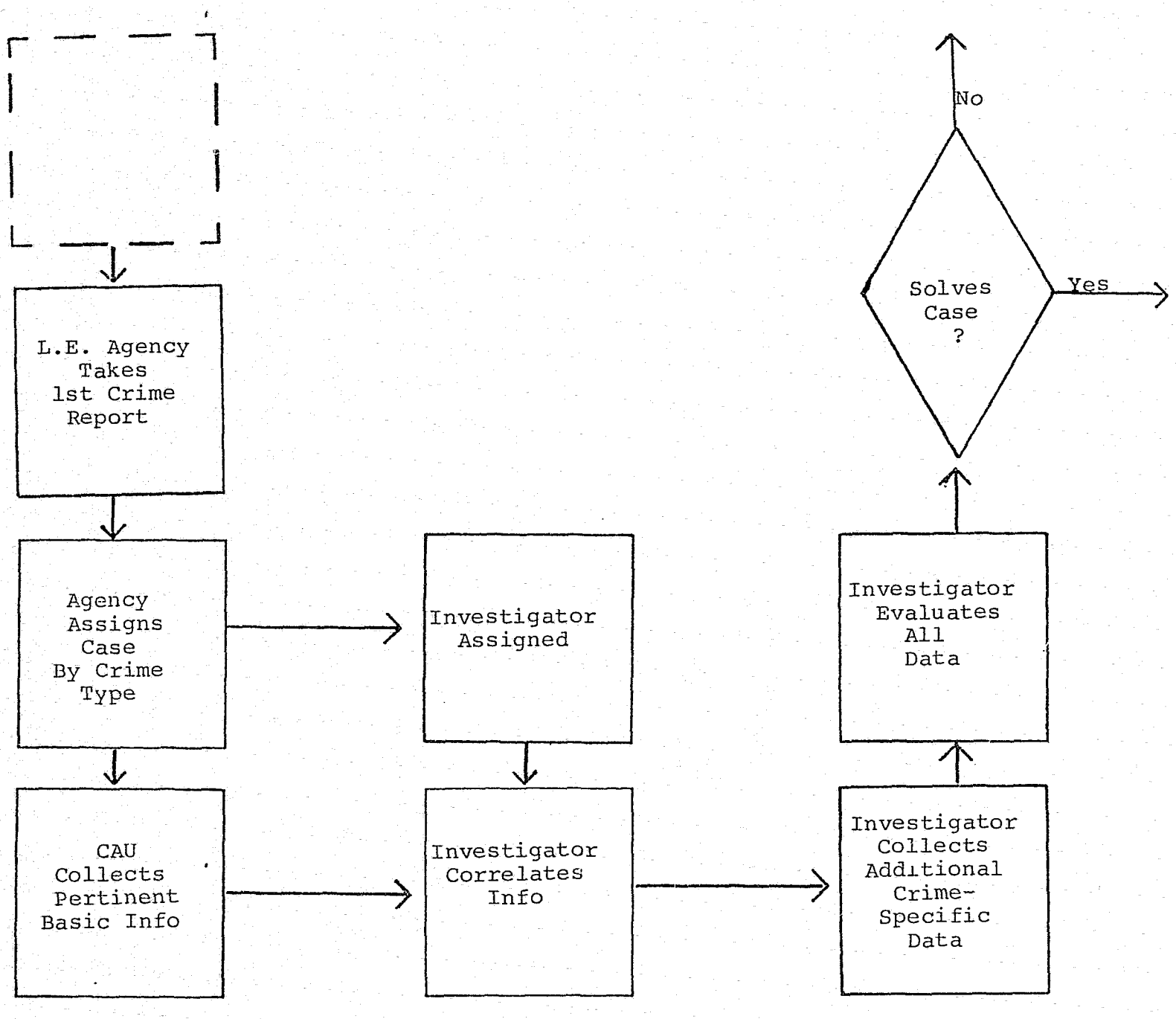
☐ INTELLIGENCE ☐ INTERNAL AFFAIRS ☐ YOUTH SERV. DIV. ☒ PATROL DIV. ☐ PROPERTY SECTION ☐ SECURITY SECTION ☐ RECORDS SECTION ☐ TECHNICIANS ☐ VICE CONTROL ☐ A.B.C. ☐ CHIEF. ☐ DEPUTY F.O. ☐ DEPUTY INV. ☐ DEPUTY SERV. ☐ A.P.P. ☐ BOARD OF EDUC. ☐ HEALTH DEPT. ☐ CITY ATTY. ☐ OTHER

41. REPORTING OFFICER OR CLERK	SERIAL NO.	42. SECOND OFF. SER. NO.	43. APPROVING SUPERVISOR/WATCH & DISTRICT	44. ADD'L INFO
WILLIAM BIRK	431	501	CAPT. MOORE	☒ YES

46. CORRECTED LOSS	47. DATE FILED	48. PROPERTY RELEASE FORWARDED	49. INVESTIGATOR'S NAME / SER. NO.	50. APPROVING SUPERVISOR
		☐ YES ☐ NO ☐ NO PROPERTY		



A CURRENT PROCESS FLOW



MOD IN PROCEDURE

ORGANIZATIONAL CONCEPTS

LESSON GUIDE

TOPIC: Organizational Concepts

SESSION: 2.2

OBJECTIVES:

1. Discuss the role of crime analysis in law enforcement.
2. Provide a police view of systems management.
3. An overview of problems and manual vs. computerized operation.

SUBTOPICS:

1. Introduction
   a. Present day crime problems
   b. Computerization and systems in information handling.
   c. Crime analysis process
      - collection
      - collation
      - analysis
      - dissemination
   d. Attitudes towards system management.

2. Why Crime Analysis?
   a. Professional approach to police problems.
   b. Informational volume demands it.
   c. Predictive tool for manpower deployment.
   d. Systematic effort towards crime prevention and criminal apprehension.
   e. Furnishes current crime information to users.
   f. Allows for evaluation of on-going programs.

3. Implementing the crime analysis process
   a. Three combinations:
      - manual
      - semi-computerized
      - computerized
   b. Dependent on volume.
   c. Department involvement in Planning & Designing of systems.
   d. Department orientation to crime analysis.
   e. Correct vs. incorrect usage.
      - Human and mechanical problems

4. Crime analysis placement
   a. Administrative support.
   b. Location of crime analysis.

5. Staffing the crime analysis operation
   a. Personnel considerations.
   b. Uniform vs. non-uniform analysts.

6. Information Handling
   a. Consideration of sources.

      - within the department
      - outside the department

   b. Formal outlining of tasks.
   c. Crimes designed for crime analysis.

      - homicide
      - robbery
      - auto theft
      - crimes of violence
      - burglary

7. Social applications in crime analysis

CRIME ANALYSIS PRIORITY LIST

THE FOLLOWING PRIORITIES HAVE BEEN ESTABLISHED TO ASSIST PERSONNEL IN DETERMINING INVESTIGATIVE RESPONSIBILITY. I EMPHASIZE THAT INVESTIGATORS ARE NOT "LOCKED IN" BY THESE RECOMMENDATIONS. I AM SURE THAT OFTEN TIMES INVESTIGATORS, DUE TO THEIR KNOWLEDGE AND PROFESSIONAL EXPERIENCE, WILL FIND A NEED TO VARY FROM THESE PRIORITIES:

A. THE INVESTIGATION OF OFFENSES INVOLVING GREAT BODILY INJURY AND OTHER MAJOR OR SERIOUS CRIMES AGAINST THE PERSON WHEN:

   1. THE CRIME IS OF EXTREME SERIOUSNESS.

   2. WHEN THE POSSIBILITY OF REOCCURRENCE EXISTS.

   3. WHEN EVIDENCE MAY BE LOST IF INVESTIGATION IS DELAYED.

   4. WHEN THE SUSPECT MAY ATTEMPT TO FLEE OUR JURISDICTION.

B. IN CUSTODY FELONY SUSPECTS.

C. NAMED SUSPECTS NOT IN CUSTODY FOR FELONY OFFENSES THAT HAVE RECENTLY OCCURRED AND IT IS NECESSARY FOR THE PROTECTION OF LIVE AND PROPERTY THAT THE INDIVIDUAL BE REMOVED FROM SOCIETY AS SOON AS POSSIBLE.

D. WHERE THERE IS A MAJOR PROPERTY LOSS.

E. IN CUSTODY MISDEMEANOR SUSPECTS.

F. NAMED FELONY SUSPECTS ACCUSED OF CRIMES WHERE SUBSTANTIAL DELAY IN REPORTING HAS OCCURRED AND THERE IS NO PRESSING NEED TO IMMEDIATELY REMOVE THE SUBJECT FROM SOCIETY.

G. OTHER FELONY OFFENSES.

H. MISDEMEANOR OFFENSES IN WHICH THE LOSS IS GREATER THAN $50.00.

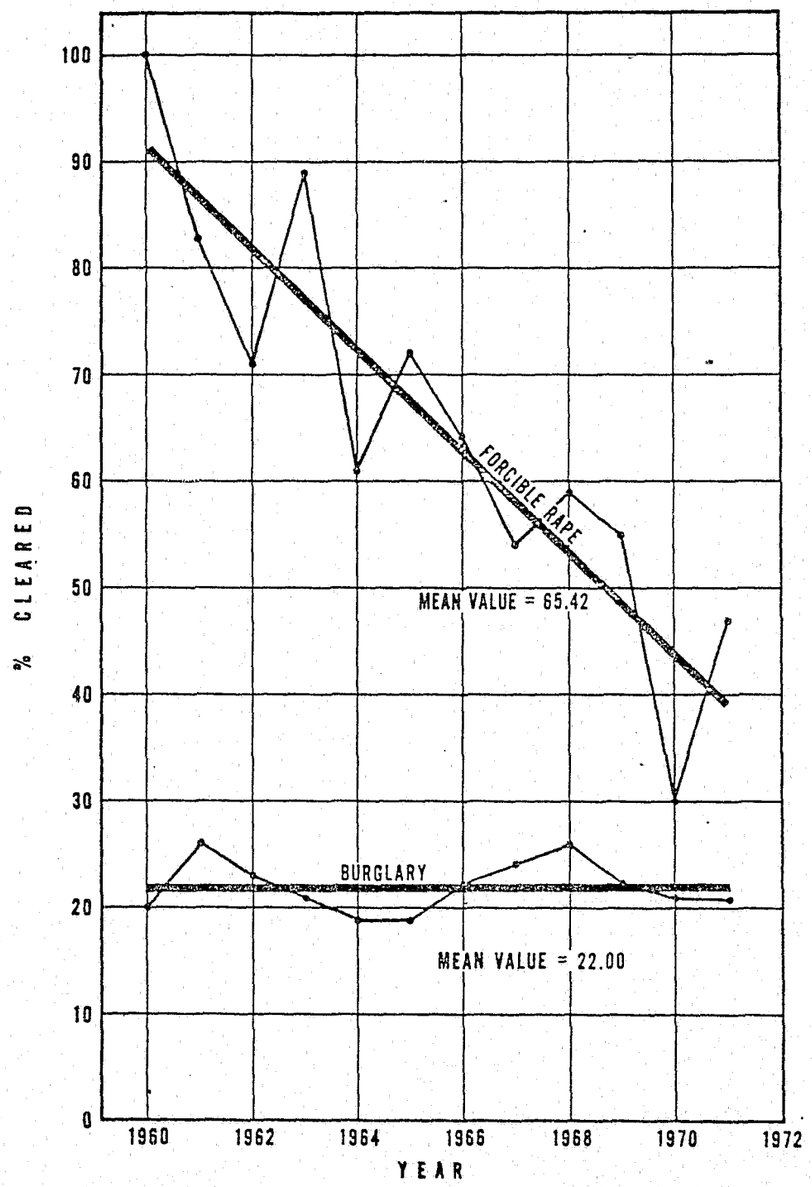
I. MISDEMEANOR OFFENSES IN WHICH THE LOSS IS $50.00 OR LESS.

J. INVESTIGATION OF VIOLATION OF LOCAL REGULATORY ORDINANCES.

<u>CRIME ANALYSIS TO PRIORTIZE</u>

UPON RECEIPT OF REPORTS, PRIOR TO REPRODUCING, CRIME ANALYSIS OFFICERS SHALL REVIEW ALL DOCUMENTS AND SET A TENTATIVE PRIORITY. HE SHALL PLACE THE CORRESPONDING ALPHABETICAL INDICATOR ON THE CRIME REPORT TO THE RIGHT OF THE TITLE OF THE REPORT.

WHEN THE REPORT IS RECEIVED BY THE INVESTIGATIVE DETAIL, THE PRIORITY MAY BE CHANGED BY THE INVESTIGATOR AT HIS DISCRETION.



CLEARANCE RATES
(FORCIBLE RAPE & BURGLARY)

Oakland Police Department

REPORTING OFFICER'S NAME	DIVISION	DATE OF REPORT	R.D. NUMBER

REPORT TYPE

This notice is submitted for the reason stated below.

- ☐ Illegible handwriting
- ☐ Failure to complete required boxes
- ☐ Failure to state elements of the offense
- ☐ Improper offense report
- ☐ Improper classification of crime
- ☐ Spelling
- ☐ Good reporting procedure
- ☐ Report reveals possible training deficiencies, not necessarily in the area of report writing
- ☐ Complete supplementary report stating: _____
- ☐ Other:

Comments:

NOTICE ISSUED FROM– ☐ C.I.D. ☐ D.A.'s OFFICE ☐ OTHER:	ISSUED BY	DATE ISSUED	APPROVED BY

FOLLOW-UP ASSIGNED TO: _____ Attention: _____

- ☐ Deliver report to the officer for his information.
- ☐ Retain the report and initiate necessary training measures.
- ☐ Inform the reporting officer of the deficiency and take action to preclude further deficiencies, consistent with the officer's past perfomance recorded below.

Officer's Previous Report Review Notices

ENDORSEMENT:

162 (7/70)

INVESTIGATIVE INFORMATION SHEET

CRIME: _____

Complainant: _____ RD#: _____

1. _____ 1028 Registration
2. _____ Warrant Information
3. _____ Crime File Run - Person
4. _____ Crime File - Vehicle
5. _____ Field Contact Information
6. _____ Crime Re-cap Logs
7. _____ Driver's License Physical Data
8. _____ Stolen Article Run
9. _____ Teletype (property loss) to DOJ
10. _____ Pin Map Data
11. _____ Firearms Query
12. _____ Corpus Information
13. _____ Vehicles Registered to Suspect
14. _____ Firearms Registered to Suspect
15. _____ Other _____

☐ Report review notice has been sent to the Reporting Officer.

DATE TIME INVESTIGATIVE FOLLOW-UP INFORMATION

Crime Analysis Section personnel will provide the above listed information to investigators if applicable.

REMARKS:

OAKLAND POLICE DEPARTMENT *WEEKLY* CRIME SUMMARY
Reported Select Part I Offenses
TF-292 (9/72)

Bulletin # 74-44

Week Of: 28 Oct-3 Nov 74

ISTRICT Beat	211 ARMED	211 STRONG	487 PURSE	459 COMM	459 RESID	459 AUTO	484 CLOUT	484 ACCESS	10851 V.C.	TOTAL
1	1				1					2
2	1	2		4		2	1		2	12
3	2	2	2	3	2	4	1	1	6	23
4	2	1		4	3	5	2	3	1	21
5	3	2			7	5		1	2	20
ubtotal I	9	7	2	11	13	16	4	5	11	78
6	1	1		1	2	1		2	3	11
7	1	2	2		8	3		2	3	21
8		2			2		1	1	2	8
9	3		1	2	3	1			1	11
10	3	3	1	1	10	3			3	24
11	1				11	4		2		18
12	1				3	2				6
ubtotal II	10	8	4	4	39	14	1	7	12	99
13		1	1		6	3	1	1	6	19
14	1	3	1	3	17	2		4	3	34
15	3			4		2	1	1	1	12
16					2	2			3	7
17		1		2	13	4	1	5	4	30
ubtotal III	4	5	2	9	38	13	3	11	17	102
18	1			1	2	1		2		7
19	1			1	1	3		1	3	10
20	1	1		1	15			4	4	26
21			1	3	14	2	1	2	3	26
22	1	2	1	2	11	1	1		12	31
23	2			1	9	1		4	3	20
ubtotal IV	6	3	2	9	52	8	2	13	25	120
24	3	1		3	11	1	2	2	5	28
25	1			2	19	2			4	28
26	1			2	9	5			3	20
27		1	2	3	3	3		1	4	17
28	2			3	9	5	1	2	2	24
29				1	8				1	10
ubtotal V	7	2	2	14	59	16	3	5	19	127
RAND TOTAL	36	25	12	47	201	67	13	41	84	526

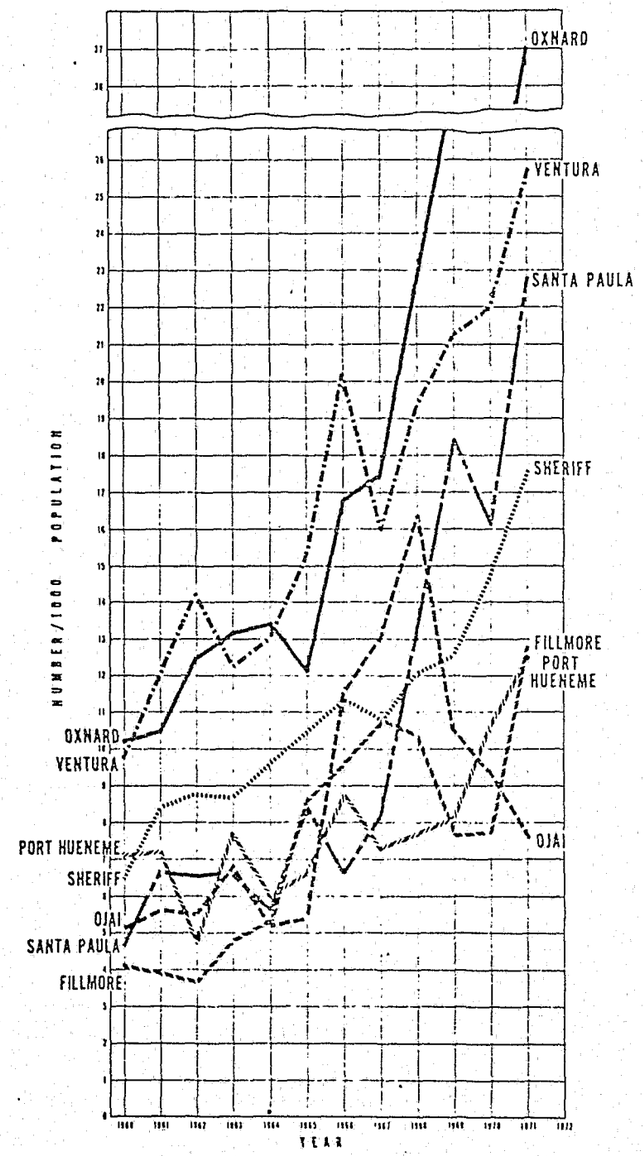
I BAROMETER ted Offenses	Last Year To Date	This Year To Date
ery, Armed	1,467	1,229
ery, Strongarm	1,093	1,005
esnatch	488	496
lary	11,415	11,239
lary, Auto	3,507	2,887
Clout	619	568
Accessory	1,375	1,510
Theft	3,914	3,188
le Theft	1,023	1,278
Theft	7,702	7,537
vated Assault	1,102	1,138
L	33,705	32,075

SUMMARY OF REPORTED SELECT PART I OFFENSES:

COMMERCIAL BURGLARY decreased 21% last week with 47 offenses reported. District V was the high district with 14; Beats 1, 4, 15 each reported 4.

RESIDENTIAL BURGLARY decreased also with 201 reported entries. District V was the high district with 59; Beat 25 the high beat with 19.

ROBBERY (in aggregate) decreased 30% during the past week with 73 incidents. District II, with 22, was high; Beat 10 was high with 7.



CITY COMPARISONS

'PROPERTY' INDEX CRIME RATES

HIGHEST-CRIME LOCATIONS OF SPECIFIC CRIMES

CRIME RATE	1ST	2ND	3RD	4TH	5TH
Robbery (offenses/ 1000 pop)	75.0	3.26	2.25	2.10	2.04
Beat #	7	3	16	19	4
Aggravated Assault	3.85	3.46	3.37	3.09	2.98
Beat #	9	5	11	8	22
Forcible Rape	75.0	5.40	2.10	0.96	0.71
Beat #	7	16	14	9	15
Simple Assault	75.0	23.3	10.8	9.07	8.52
Beat #	7	12	16	10	13
Burglary	>1000.0	191.9	87.7	63.3	47.9
Beat #	7	16	4	12	8
Theft	750.0	271.6	110.8	108.2	56.2
Beat #	7	12	16	4	o
Auto Theft	25.0	13.5	10.2	8.52	7.24
Beat #	7-12	16	4	18	17
NSF/Forgery	130.0	65.3	50.0	28.0	27.8
Beat #	12	4	7	21	8
Drugs	525.0	41.7	21.2	21.0	14.3
Beat #	7	12	13	19	4
Sex	5.00	4.08	3.64	2.10	1.93
Beat #	12	4	15	13	7
Drunk	50.0	38.3	19.9	18.2	14.6
Beat #	7	12	2	14	17
Delinquent	28.3	27.5	24.6	18.8	15.2
Beat #	12	7	14	17	3
Drunk Driving	50.0	17.8	16.3	15.0	12.5
Beat #	7	5	4	12	9

CRIME ANALYSIS UNIT
EVALUATION TECHNIQUES

BASIC DEFINITIONS

EVALUATION - The assessment of the impact of program activities upon the target problem. Evaluation is principally "ends" oriented rather than "means" oriented. That is, evaluation relates to what is ultimately desired, not the way in which it is attained.

EFFICIENCY - The assessment of a program in terms of its execution in accordance with its plan - - - in terms of time, allocation of manpower and equipment, program activities, and funds expended. Thus, efficiency is principally "means" oriented. I.e., given that two programs result in similar results, efficiency is concerned with identifying which of the two is most conservative in the expenditure of resources.

GOAL - A general, hopefully quantified statement of an overall targeted accomplishment.

OBJECTIVE - A specific, quantified target which will contribute to the goal.

PROJECT - An activity directed towards meeting an objective.

PROGRAM - A set of integrated projects and objectives which, together, are directed towards a goal.

Example: Program goal - habilitate 400 known drug abusers in two years.

Project (1) objective - enroll 500 known heroin abusers in methadone maintenance treatment over the next two years.

Project (2) objective - reduce the unemployment rate for known drug abusers to 6%.

EVALUATION ELEMENTS

Phase	Steps
Planning	Quantify goals and objectives
Planning	Establish goal/objective relationship
Planning	Identify evaluation measures
Planning	Determine data needs
Planning	Determine methods of analysis
Monitoring	Monitor evaluation of project or program
Analysis	Perform Analysis

AN EXAMPLE OF ESTABLISHING A GOAL/OBJECTIVE RELATIONSHIP

Suppose that the police, courts, prosecution, defense attorneys, and other elements of the law enforcement and criminal justice system of an American city perceives that an estimated 50% of the city's 8,000 stranger-to-stranger crimes and burglaries per year are drug related. If a drug control program aimed at reducing the drug user population 400 (assuming all other factors constant) in two years was met, then crime and burglary would be reduced. The amount of the reduction would depend on the number of habilitated drug users who were involved in crime and burglary and the per capita number of incidents. Suppose that 80% of the reformed drug abusers had committed an average (mean) of two crimes and/or burglaries per user over the two year period of the grant. What percentage reduction in burglaries and stranger-to-stranger crimes could we expect in a year?

ESSENTIALS FOR AN EFFECTIVE EVALUATION

Each of the following attributes are essential for a successful project evaluation. Each attribute builds and follows upon those which precede it. As a result, all of the attributes must be present in order to obtain an overall picture of the chances for a successful evaluation.

(1) Statement of Goals and Objectives:

Does the evaluation component offer a clear statement of the objectives of the project? Goals or objectives are simply summary statements which highlight what the program or project is designed to achieve. In order to be most useful, they should attempt to quantify desired results. As such, they provide the basis both for the evaluation planning and the evaluation analysis surrounding the program or project.

(2) Identification of Evaluation Measures:

Does the evaluation component clearly identify those measures appropriate to the project's stated objectives? A project's objectives are the key to the development of the overall evaluation component. Hence, the evaluation measures appropriate to a given project should follow the project's objectives.

(3) Specification of Data Requirements:

Does the evaluation component exhaustively specify the data required for developing the evaluation measures? Data from a variety of sources and dealing with diverse aspects of a project will often be required to form a single evaluation measure. The specification of data requirements, therefore, involves the explicit determination of the data elements required for the evaluation.

(4) Statement of Data Collection Approach:

Does the evaluation component state how the data will be collected? Responsibility must be assigned for reporting various required data elements. Specific reporting periods ought to be established, and designs for simplified, standardized forms should be included.

(5) Statement of Data Analysis Approach:

Does the evaluation component present a data analysis plan? The project's objectives and their associated evaluation measures must drive any data analysis efforts. The data analysis plan, then, should summarize how the data elements are to be combined to determine project results.

(6) Presentation of Evaluation Reporting Schedule:

Does the evaluation component present an appropriate evaluation reporting schedule in terms of report timing and content? It is essential to have a project evalua- reporting schedule to work from. There is a need for timely reporting for project monitoring and continuation purposes. There is a managerial need to know what the results of project operation have been and how these results relate to project objectives.

THE PLAN

Goals and Objectives

-Establishment of baseline values

Goal-Objective Relationship

-Direct relationship
-Relationship through program/project structure
-Commonly held assumptions

Evaluation Measures

-Effectiveness measures
-Efficiency measures
-Attitudinal measures

Data Needs

-Define data requirements
-Determine data constraints
-Develop data collection system
-Determine data management requirements
-Establish process for data validation

Analysis Methods

MONITORING

-Project or program implementation

-Evaluation component implementation

-Project and program scope

-Evaluation plan scope

ANALYSIS

-Responsibilities

-Timing and Extent of Analysis

-Uses of Analysis

CALIFORNIA CRIME TECHNOLOGICAL RESEARCH FOUNDATION
4343 Williamsbourgh Drive, Suite 100
Sacramento, California 95823

AGREEMENT - CRIME ANALYSIS TRAINING

Name: _____ Address: _____

Position: _____ _____

Agency: _____

Student shall attend a training session sponsored by the California Crime Technological Research Foundation (CCTRF). Student will attend without compensation. Enrollment will necessitate student's attendance and participation in a training session during the period April 21, 1975 through December 31, 1975.

For travel at the request of CCTRF, student will be paid per diem and reimbursed for transportation costs in accordance with California State Board of Control Rules. Student shall select the method of transportation which is the most economically practical and in the best interest of CCTRF. Expenses will be paid to student upon receipt of a signed Crime Analysis Training Expense Claim in triplicate. Payments under this agreement shall not in the aggregate exceed the sum of $5,000. Student's signature and return of all three copies of this agreement will constitute acceptance. A copy will be returned when signed by CCTRF.

_____ _____
Student Signature Date

I hereby certify that all conditions for exemption have been complied with and this contract is exempt from Department of General Services' approval.

_____ _____
Approved Date

----------Funding Information----------

Agency: California Crime Technological Research Foundation
Payable From: General Fund
Grant No.: 75TN-99-0002

CAT#11 Rev. 4/30/75

CRIME ANALYSIS TRAINING EXPENSE CLAIM
CALIFORNIA CRIME TECHNOLOGICAL RESEARCH FOUNDATION

Grant No. 75TN-99-0002

Claimant's Name:	Residence Address:

The following per diem and travel expenses were incurred for attendance at the Crime Analysis Unit Seminar on _____

at _____

Date and time of departure from residence _____

Date and time of return to residence _____

Private transportation (_____miles @ 15¢) $ _____

License No. _____

Public Transportation (attached voucher) $ _____

Taxi or Limousine (attached voucher) $ _____

Parking (receipt if over $2.50) $ _____

Other (receipt if over $1.00; explain on reverse side) $ _____

Lodging (attached voucher) $ _____

TOTAL EXPENSES $ _____

Per Diem Computation

Office Use Only

_____ days @ $28/day plus _____hrs. @ $_____ = $ _____

Alternate: _____day(s) @ $14/day plus

_____hrs. @ $_____ = $ _____

TOTAL CLAIM $ _____

Claimant's Signature:

Approved for Payment:

Complete in duplicate and forward all copies signed with attached vouchers to Pete Petersen, California Crime Technological Research Foundation, 4343 Williamsbourgh Drive, Suite 100, Sacramento, California 95823.

CAT#12 Rev. 4/30/75

Account No. 942 635 720 002 00

CRIME ANALYSIS PROCESS EVALUATION

1. Was the course administration satisfactory?

   Yes ☐ No ☐

2. Will the course material be of some benefit?

   Useful ☐ Limited ☐ None ☐

3. What features of the course impressed you most?

   _____

4. Session 2 (Arenberg).

   Instructor

   Excellent ☐ Good ☐ Fair ☐ Need Improvement ☐

   Knowledgeable ☐ Lacks Knowledge ☐

   Comments (voice, vocabulary, preparation, visual aids, overall effect): _____

   Material

   Value: Good ☐ Limited ☐ None ☐ Long Enough ☐

   Too Long ☐ Too Short ☐ Appropriate ☐ Not Appropriate ☐

   Too Basic ☐ Did it hold your interest? Yes ☐ No ☐

   Comments (improvements, if any): _____

CONTINUED

1 OF 2

5. Session 3 (Arenberg and Dubrovner)

Instructor - Arenberg

Excellent / / Good / / Fair / / Needs Improvement / /

Knowledgeable / / Lacks Knowledge / /

Comments (voice, vocabulary, preparation, visual aids, overall effect): _____

_____

_____

Instructor - Dubrovner

Excellent / / Good / / Fair / / Needs Improvement / /

Knowledgeable / / Lacks Knowledge / /

Comments (voice, vocabulary, preparation, visual aids, overall effect): _____

_____

_____

_____

Material

Value: Good / / Limited / / None / / Long Enough / /

Too Long / / Too Short / / Appropriate / / Not Appropriate

Too Basic / / Did it hold your interest? Yes / / No / /

Comments (improvements, if any): _____

_____

_____

_____

6. Session 4 (Petersen)

Instructor

Excellent / / Good / / Fair / / Needs Improvement / /

Knowledgeable / / Lacks Knowledge / /

Comments (voice, vocabulary, preparation, visual aids, overall effect): _____

_____

_____

Material

Value: Good / / Limited / / None / / Long Enough / /

Too Long / / Too Short / / Appropriate / / Not Appropriate / /

Too Basic / / Did it hold your interest? Yes / / No / /

Comments (improvements, if any): _____

_____

_____

_____

7. Session 5 (Arenberg)

Instructor

Excellent / / Good / / Fair / / Needs Improvement / /

Knowledgeable / / Lacks Knowledge / /

Comments (voice, vocabulary, preparation, visual aids, overall effect): _____

_____

_____

7. Session 5 (Arenberg) Cont.

Material

Value: Good / Limited / None / Long Enough /

Too Long / Too Short / Appropriate / Not Appropriate /

Too Basic / Did it hold your interest? Yes / No /

Comments (improvements, if any): _____

8. Session 6 Justifying a Crime Analysis Unit

Instructor

Excellent / Good / Fair / Needs Improvement /

Knowledgeable / Lacks Knowledge /

Comments (voice, vocabulary, preparation, visual aids, overall effect): _____

Material

Value: Good / Limited / None / Long Enough /

Too Long / Too Short / Appropriate / Not Appropriate /

Too Basic / Did it hold your interest? / No /

Comments (improvements, if any): _____

9. Session 7 (Bruce Bird) Summary

Instructor

Excellent / Good / Fair / Needs Improvement /

Knowledgeable / Lacks Knowledge /

Comments (voice, vocabulary, preparation, visual aids, overall effect): _____

Material

Value: Good / Limited / None / Long Enough /

Too Long / Too Short / Appropriate / Not Appropriate /

Too Basic / Did it hold your interest? Yes / No /

Comments (improvements, if any): _____

10. Briefly give overall impression of course and improvements you would recommend.