

at the set of the set of the

and the second second second and the second second

Burgan of the subject of subject

Chiversity of Chiefenia.

Norman. Oklahama 73069

911715

Criminal Justice Policy and Administration Research Series Bureau of Government Research University of Oklahoma Norman, Oklahoma 73069

A MICROANALYSIS OF ASSAULTS ON POLICE IN AUSTIN, TEXAS

Patton N. Morrison

C. Kenneth Meyer

University of Oklahoma Norman, Oklahoma 73069

This project was supported by Grant Numbers 73-TA-06-0004 and 73-DF-06-0053 awarded the University of Oklahoma, Office of Research Administration by the United States Department of Justice, Law Enforcement Assistance Administration, National Institute of Law Enforcement and Criminal Justice, under the Omnibus Crime Control and Safe Streets Act of 1968, as amended. Points of view, research techniques and methodologies, and opinions stated in this document are those of the authors and research associates and do not necessarily represent the official position or policies of the U.S. Department of Justice.

June, 1974

One Dollar and Fifty Cents

# ABSTRACT

The purpose of this exploratory study is to determine which environmental and police activity factors have the greatest impact on police assaults and to test a hypothetical model of assault causation. Five variables were found to explain 85 percent of the variation in assault frequency. These were percent of families with female heads, percent total police activity, percent of arrests for auto theft, percent of arrests for sex offenses other than rape and prostitution, and percent of the population 65 and older. A causal model is constructed based on the hypothesized model, using police activity, percent of families with female heads, and assault frequency as variables. Tested in this manner, the hypothesized model shows a degree of causality that establishes its feasibility for use in similar analyses on a larger scale.

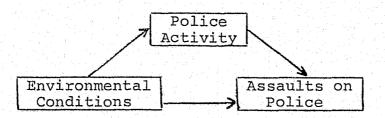
# A MICROANALYSIS OF ASSAULTS ON POLICE IN AUSTIN, TEXAS

# Introduction

Assaults on police officers appear to be related to several factors which can be divided into two basic categories: (1) those representing environmental conditions, i.e., socio-economic and demographic characteristics; and (2) those involving the police agency itself. It would appear that assaults are most likely influenced by performance of the law enforcement function, i.e., the nature and frequency of police-public interactions. However, environmental conditions must also receive serious consideration in explaining assaults. It seems that environmental conditions may have considerable influence on overall police activities as well as assaults on policemen. Intuitively, one can envision an explanatory model as shown in Figure 1. In this instance environmental conditions are conceptualized as attributes which act independently on overall police activity and assaults on The amount of police activity in any given geographic police. area is predicated on activities and factors within that environment. Environmental conditions are also expected to have a direct effect on assaults against police, as well as an indirect effect through their impact on the level of police activity. The activities of the police agency are considered to have a direct effect on assaults on policemen; however, this effect is, to a considerable extent, influenced by the environment.

# FIGURE 1

Hypothetical Model of Causative Factors Related to Police Assaults



Research into assaults on law enforcement officers has utilized several levels of analysis: aggregate analysis on regional and state configurations; attitudes of policemen toward assaults, assailants, and the police agency; and attitudes of police assailants toward the police.<sup>1</sup> The research described in this report is designed to evaluate assaults on police officers in a single community: Austin, Texas. Austin provides a desirable analytical feature in that police reporting boundaries almost universally coincide with the census tract enumeration boundaries utilized by the U.S. Bureau of the Census.<sup>2</sup> Thus, the researcher has a basic unit for analysis and evaluation which facilitates the comparison of a number of police activity measurements with environmental indicators obtained for the same local geographic area. Through the comparison of assaults on law enforcement officers with other shared or disparate community characteristics, it may be possible to isolate those factors which may provide increased understanding of the phenomenon of assaults on police. The results of this research are suggestive in nature and apply only to the single community studied.

# Data and Methodology

Statistical analysis of data is often used to assist the researcher in developing reasonable explanations of the phenomena under exploration. Under most circumstances, the researcher desires to explain a single phenomenon, termed the dependent variable, through analyzing the effects which several explanatory or predictor variables may have on it. This procedure is used in the study of assaults on police in Austin. The dependent variable, assaults on law enforcement officers, is studied in relationship to environmental and police activity indicators. This study uses multiple regression analysis -- step-wise regression -- and causal modeling techniques as the principal methods of analysis.

# Variables

The explanatory variables selected for this study are designed to develop a comprehensive set of environmental and police activity indicators which are theoretically suggestive in explaining the incidence of assaults on police.<sup>3</sup>

# Environmental Indicators

The environmental variables included in this analysis are those which have been isolated in earlier studies and shown to be related to the incidence of crime. The indicators include age, family stability, minority population, education, population stability, and factors associated with measures of affluence, i.e., family income, employment and housing.<sup>4</sup> These indicators are hypothesized to also have influence on police assaults.

Evaluation of the age indicator is directed toward two age groupings: (1) males between the ages of 15 and 19; and (2) elderly persons (65 years of age and older). The younger age group, whose members are disproportionately represented in the commission of violent crimes,<sup>5</sup> is explored to determine whether its members also commit a disproportionate number of assaults on police. The older age group is examined to determine whether a high concentration of elderly persons in a given geographic area may serve as a predictor of police assaults. It is hypothesized that many elderly persons, due to their lack of income, restricted mobility, and strong community ties, reside in deteriorating areas of the city.<sup>6</sup> Thus, an area with a high concentration of the elderly may be subject to more criminal activity, and, concomitantly, more assaults on police.

As examined and reported in previous studies, family stability is a variable with a high explanatory value relative to the incidence of crime.<sup>7</sup> The principal indicators which comprise this variable are: (1) the percentage of households with female heads; and (2) the percentage of males 14 years of age and older who have been divorced or separated.

A high concentration of a minority population has often been correlated with a high incidence of crime in previous studies. In Austin, there are two relatively large minority groups, the Blacks (11.8 percent of the population) and persons of Spanish descent (15.6 percent of the population). The Black population of Austin is, for the most part, concentrated in one single geographic area. On the other hand, persons of Spanish descent are comparatively more diffused throughout the city, although they are heavily concentrated in several major enclaves. National statistics have shown that the Black population, while comprising only 11 percent of the total U, S. population, accounts for a much higher percentage of crime.<sup>8</sup> The Spanish descent minority has been selected because of its size as well as the speculation that these persons may suffer many of the disadvantages experienced by other cultural and racial groups in American society, and the resulting deprivation may be manifested in criminal behavior.

A study of education achievement levels is undertaken to determine whether assaults on police are related to this factor. This indicator explores the premise that census tracts with a lower educational level are more likely to have a higher incidence of assaultive behavior directed against law enforcement personnel.

Population stability is included as an environmental indicator since earlier studies have shown it to be positively correlated with crime rate.<sup>9</sup> Since the incidence of crime should lead to increased police-citizen interactions, it is possible that population stability, or lack of it, may also influence assaults on police.

Measures of affluence are also evaluated in a quest for an explanation of assaults. The measures of affluence under consideration are family income, employment and housing. Previous studies have shown that, to a certain extent, degrees of negative affluence (poverty) have had some influence on crime; however, its influence does not stem from absolute values but from relative values, perceptions and deprivations.<sup>10</sup> Therefore, measures of individual and family income inequalities were incorporated in the analysis.

# Police Activity Indicators

The police activity indicators are based on the frequency and type of police-public interactions rather than on crime rates. While the crime rate, per se, is a standard means of describing the direction or trend of crime in a community, it is not a reliable predictor of assaults on police. The crime rate is based on reported crime, irrespective of police involvement. However, a recent study dealing with the magnitude of both reported and unreported crime indicates that 12 of the 13 cities studied "experienced two or three times more crime than was reported by the police."<sup>11</sup> Assaults on police, on the other hand, must be predicated on interactions between the citizen and the police.

A major consideration among the various indicators of police activity is the total amount of police activity. In this instance, an aggregate of all police activity, e.g., investigation of Part I and Part II crimes, "custody arrests," answering calls on miscellaneous incidents and complaints, and traffic citations, is utilized as a surrogate measure of police-citizen interactions.

The second police activity indicator is that ascribed to Part I crimes, those "serious offenses" considered by the Federal Bureau of Investigation to be most likely reported to police and which occur with sufficient frequency to provide an adequate basis for comparison.<sup>12</sup> In this research, the percentage of each type of serious crime -- as a proportion of its total occurrence for the city of Austin -- is used as a measure of police activity within each census tract. Therefore, each of these offenses is considered individually in attempting to assess its influence on police assaults. For example, it is hypothesized that individuals arrested for the crime of aggravated assault may also readily exhibit assaultive behavior toward the arresting officer. A census tract which includes a high percentage of Part I crimes may be expected to exhibit a correspondingly high number of assaults on police.

The FBI, through its Uniform Crime Reporting program, collects data not only on Part I offenses, but also on those offenses classified as Part II -- those offenses encompassing all other crime classifications not specifically reserved as Part I or "serious" crimes.<sup>13</sup> The incidence of arrests for Part II crimes is also examined to ascertain its impact on police assaults. The suggested hypothesis is that the percentage of arrests for Part II crimes, e.g., simple assault, forgery, vandalism and liquor violations, is positively related with assaults on police. Here, as with other police activity indicators, it is hypothesized that police-citizen interaction, as manifested by arrests for Part I and Part II crimes, should facilitate an explanation of assaults on police.

# Analysis Techniques

The analysis of assaults on police in Austin is based primarily on step-wise regression, a form of multiple regression analysis. The step-wise regression computation develops a coefficient of determination, R<sup>2</sup>, a value describing the amount of variation in the dependent variable which can be attributed to the explanatory variables. An additional technique, causal modeling through use of path analysis, is used to test the explanatory model (Figure 1) described earlier in the report, by discerning the directional interrelationships among the explanatory variables as well as with the dependent variable.

# Findings

# Step-Wise Regression Analysis

The Austin study represents an attempt to explain total assaults on police officers through an evaluation of assaults in relation to the environment in which they occur and the level of police activity which may impact on them. The use of step-wise multiple regression permitted the isolation of those explanatory indicators which most adequately explained variations in the dependent variable.<sup>14</sup> Even though it is possible to gain a rudimentary evaluation of the interactions among the variables through simple correlation analysis, it appears that such analysis does not, at least in this instance, provide sufficient explanatory power.

Through step-wise regression several strong explanatory variables were identified. Of the 55 variables considered, 15 of them explained more than 99 percent of the variation in the dependent variable. Of substantial interest, however, is the finding that only five variables explained almost 85 percent of the variation in the assault frequency. Table 1 displays the summary statistics of the regression analysis relating to assaults on police. The principal explanatory variables reflect both environmental and police activity characteristics.

It is interesting to note that one single variable, percent of families with female heads, explains more than 55 percent of the variation. This particular finding complements previous studies which demonstrated that a high percentage of families with female heads is positively associated with crime rates within a community. The second explanatory variable, percent of total police activity, increases the explained variation by more than 15 percent. Thus, only two indicators, one environmental and the other police activity, explain more than 71 percent of the variation in assaults on police. Three additional variables -- percent of arrests for auto theft, percent of arrests for sex offenses (other than rape and prostitution), and percent of population 65 years of age and older --

MULTIPLE REGRESSION ANALYSIS OF ASSAULTS ON POLICE

<u>Variable</u>	Multiple R	<u>R-Squared</u>	RSq Change	Simple r
Percent of Families with Female Head	.745	• 555	.000	.745
Percent Total Police Activity	.843	.711	.156	.601
Percent Arrests for Auto Theft	.875	.765	.054	.648
Percent Arrests for Sex Offenses (excluding rape and prostitution)	.898	.806	.040	.144
Percent Population 65 Years of Age and Older	.919	.845	.039	. 312

increase the explanatory value to almost 85 percent. The remaining ten explanatory variables increase the explanatory power to almost 100 percent.<sup>15</sup>

Why would these particular variables provide more explanation than any other potential indicators? Perhaps their explanatory power can be more readily understood if they are considered in conjunction with the physical configuration of the city of Austin. An extensive examination reveals that the census tract recording the greatest number of assaults on police also has the greatest percentages of families with female heads, of arrests for auto theft and of persons 65 years of age and older, as well as the fourth highest percentage of total police activity and the fifth highest percentage of arrests for sex offenses. These considerations suggest that the five variables are strong predictors.

A second, and probably equally valid, explanation can be found through a comparison of the correlations of the five principal predictors with other potential explanatory variables. The mathematical procedures used in step-wise regression analysis may result in a very strong explanatory variable obscuring another strong variable because the two variables exhibit a high degree of intercorrelation. Tables 2 through 6 illustrate those variables, and their correlation coefficients, which have a high intercorrelation with the five major explanatory variables. Table 2 compares the possible explanatory variables with the strongest single explanatory variable, percent of families with female heads. This variable is selected by the mathematics of the regression analysis for just that reason -- it is the strongest. Consideration of Table 2 shows that several significant environmental indicators, as well as two police activity indicators, are highly correlated with the percentage of families with female heads. Of particular interest are those : dicators considered explanatory factors in crime variation: ethnicity, measures of poverty and housing characteristics. The other four variables, illustrated in Tables 3 through 6, which most adequately account for the remaining portion of the unexplained variation in the dependent variable, tend to obscure many of the relatively strong police activity explanatory variables. Thus, one may infer that the selected variables have excluded from consideration many variables often considered important in explaining crime and police assault activities.

7.

# TABLE 2

POTENTIAL EXPLANATORY VARIABLES WHICH CORRELATE HIGHLY WITH PER-CENT OF FAMILIES WITH FEMALE HEADS

Variable	<u>Correlation</u>
Percent of Population White	82
Percent of Population Black	.81
Percent of Families with Income	
Less Than \$3,000	.77
Percent of Families Receiving Public	
Assistance or Welfare	.81
Percent of Families with Income Less	
Than 50 Percent of Poverty Level	.78
Percent of Families with Income Equal	
to or Greater Than Poverty Level	80
Housing Units with Air Conditioning	80
Percent of Population with No	
Available Automobile	.87
Median Rent	79
Percent Arrests for Robbery	• 74
Percent Arrests for Gambling	.79
가지 그는 것같은 물건을 가장 여름이 가지 않는 것이 가지 않는 것이 많이 많이 많이 많이?	

# TABLE 3

# POTENTIAL EXPLANATORY VARIABLES WHICH CORRELATE HIGHLY WITH PER-CENT TOTAL POLICE ACTIVITY

# VariableCorrelationPercent Part I Offenses.75Percent Part II Offenses.98Percent Part I and Part II Offenses.92Total Arrests.84Miscellaneous Incidents.99Percent Traffic Citations.94

# TABLE 4

POTENTIAL EXPLANATORY VARIABLES WHICH CORRELATE HIGHLY WITH PER-CENT OF ARRESTS FOR AUTOMOBILE THEFT

Variable	Correlation
Percent Arrests for Homicide	.75
Percent Arrests for Robbery	.84
Percent Arrests for Aggravated	
Assault	.73
Percent Arrests for Burglary	.85
Percent Arrests for Theft	.80
Percent Arrests for Forgery	.81
Percent Arrests for Vandalism	.76
Percent Arrests for Weapons Law	
Violations	.77
Percent Arrests for Gambling	.72
Percent Arrests for Disorderly	
Conduct	.81
Percent Total Arrests	.75
그는 것 같아? 지수는 것은 것 같아요. 지수는 것 같아. 가지 않는 것 같아. 한 것 같아. 나는 나는 것 같아. 나는 한 것 같아. 나는 것 않아. 나는 않아. 나는 것 않아.	

TABLE 5

POTENTIAL EXPLANATORY VARIABLES WHICH CORRELATE HIGHLY WITH PER-CENT OF ARRESTS FOR SEX OFFENSES (EXCLUDING RAPE AND PROSTITUTION)

Variable Co:	rrelation	n
		77.
Population	•70	
Percent Other Assaults	.71	
Percent Arrests for Driving While		
Intoxicated	.77	

# TABLE 6

# POTENTIAL EXPLANATORY VARIABLES WHICH CORRELATE HIGHLY WITH PER-CENT OF POPULATION 65 YEARS OF AGE AND OLDER

# Variable

Correlation

.76

Percent of Males 14 Years of Age or Older Who Are Separated or Divorced

# Causal Inference .

Often, in the course of research, it is desirable to evaluate the manner in which data interact. For example, given a group of predictor variables all acting upon a single dependent variable, the researcher may desire to determine how the predictor variables interact with one another as well as how they affect the dependent variable. Additionally, it is desirable to determine if the variables, representing events, occur in a definite sequence and, if so, to delineate that sequence. Thus, the researcher is interested in determining the causality among the variables.

Of considerable interest in the Austin study was the possibility of inferring causality from the data. It is necessary, at this point, to explain that it is not possible to demonstrate causality from empirical information. However, the researcher can infer the causal adequacy of models, at least to the extent of rejecting those models which are not consistent with the data. 16 In the case of the Austin study, a model was proposed espousing two premises: (1) environmental variables act independently on both the police activity predictor variables and the dependent variable, yet are not themselves affected by the other variables in the system; and (2) police activity variables act upon the dependent variable. The model infers that the environmental variables are essential for both police activity and assaults on police to occur. Thus, the environment affects assaults on police in two ways -- directly and indirectly through police activity -- while police activity has only a direct effect on police assaults.

The model was tested through the use of path analysis, 1/ an analytical technique designed to ascertain causality and to ascribe causal direction in a model. The technique involves solution of simultaneous regression equations to detect strength of association. In the analysis of data using path analysis techniques, research must be guided by several assumptions: (1) the data are at least an interval-level of measurement, i.e., the data can be arrayed in a numerical sequence; (2) the relationships are linear and additive, i.e., they can be represented by a linear regression equation, Y = a + bX; (3) causation is hierarchical or one way, i.e., if the model A>B>C is hypothesized, C cannot affect either A or B, and B cannot affect A; (4) "error" terms or data are uncorrelated, i.e., only one of the predictor variables is affected by outside factors.<sup>18</sup> In addition, causal research must be guided by the understanding that an excessive number of variables, when exposed to a limited number of observations, can tend to obscure the direction and degree of causation.

Procedures utilized in evaluating the prediction model were: (1) the two principal explanatory variables developed in the step-wise regression analysis -- percent families with female heads and total police activity -- and the dependent variables were included in the model; (2) causal ordering was established with complete independence assigned to "percent families with female heads" followed by "total police activity" as an intervening variable, with both variables acting on the dependent variable, "assaults on police;" (3) simultaneous regression equations were solved comparing the regression coefficients against their standard errors and eliminating any causal paths in which the standard error exceeded the regression coefficient since such paths are considered "weak" and undesirable; <sup>19</sup> (4) the model is modified and equations are again solved for the remaining variables. Analysis continues in this manner until the final model is developed.

This evaluation process provides for the identification of sequential relationships among the variables. Since the model is designed to show paths of causality and causal direction, arrows showing direction are constructed connecting the predictor variables with one another and with the dependent variable. The direction arrows are then identified by "path coefficients" which indicate the strength of the relationships. The path coefficients are normally standardized regression coefficients.

The "Austin model" confirms the explanatory model conceptualized earlier in the study. It is important to note that all three projected causal paths were retained, as indicated in Figure 2 and Table 7, although the environmental variable does not show the anticipated causal effect on the police activity variable  $(R^2 = .09)$ . On the other hand, the two paths from the explanatory variables to the dependent variable appear relatively strong  $(R^2 = .71)$ .

The model forces the question, "Why the apparent weakness in the path between the explanatory variables when intuitively, environmental conditions should be expected to have considerable effect on police activity?" A careful consideration of the explanatory variables used in the model indicates that such a disposition should be expected. These two variables were the principal explainers of the variations in the dependent variable. They were selected by the step-wise regression procedure because they

# FIGURE 1

Path Model for Assaults on Police

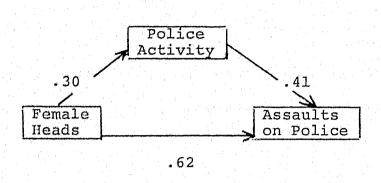


TABLE 7

REGRESSION EQUATIONS FOR PATH MODEL FOR ASSAULTS ON POLICE

Dependent Variable	Female Heads	Police Activity	<u>R</u> <sup>2</sup>
Police Activity			.09
regression coef	.13		
standard error	.09	$(1-1)^{-1} \sum_{i=1}^{n-1} \frac{1}{i} \sum_{i=1}^{$	n a shi a shi sa shi Shi shi shi shi shi shi shi shi shi shi s
path coefficient	.30		
Assaults on Police			.71
regression coef	.26	.41	
standard error	.05	.13	
path coefficient	.62	.41	

had a lower level of intercorrelation. Had the situation been otherwise (as, for example, the intercorrelations among variables shown in Table 2), only one of the variables would have been selected by the step-wise regression procedures. The model presents, in essence, a verification of the step-wise regression analysis.

The model is significant, however, in that it permits the researcher to infer that a causal correlation or a series of correlations does exist between the environment of the assault, police activity, and the assault incident itself. Even though the environmental variable used in this analysis does not exert a tremendous influence on the police activity variable, the model does demonstrate a degree of causality and it is possible to infer that the initial causal assumptions of correlation among the selected variables is largely substantiated.

# Summary and Conclusion

This study examines the premises that assaults on police are primarily influenced by the interaction between the police and the public, and that those interactions develop, to a great extent, as a result of environmental conditions. It was hypothesized that environmental conditions acted independently on both police activities and assaults on police, and that police activities also influenced assault frequencies.

The environmental indicators used in the study were selected on the basis of their relationship to the incidence of crime. These indicators included age distribution, family stability, minority population, education measures, population stability, and factors associated with measures of affluence, e.g., family income, employment, and housing. It was also hypothesized that these factors would affect the incidence of assaults on police.

The police activity indicators selected were based on publicpolice interactions. Therefore, a factor which aggregates all police activity, i.e., investigation of Part I and Part II crimes, custody arrests, answering calls on miscellaneous incidents and complaints, and traffic citations, was considered as an essential explanatory variable. In addition, the study included specific consideration of all Part I and Part II crimes as delineated by the Federal Bureau of Investigation.

Two relatively similar analysis techniques were utilized in this study to determine which environmental and police activity factors had the greatest impact on police assaults, and to ascertain whether the explanatory variables interacted among themselves as well as with the dependent variable. In the attempt to isolate the most important explanatory indicators, the technique of stepwise regression was used. To determine the manner in which all of the variables interacted, as well as the timing of those interactions, causal modeling techniques, incorporating path analysis, were utilized. Path analysis was considered most likely to provide an adequate explanation of the strength and direction of causation.

The step-wise regression analysis isolated 15 explanatory variables -nine environmental and six of police activity -- as those making the largest contribution toward explaining variations in assaults on police. Of those 15, five variables -- percent of families with female heads, percent total police activity, percent of arrests for auto theft, percent of arrests for sex offenses (other than rape and prostitution), and percent of population 65 years of age and older -- were found to explain almost 85 percent of the variation. Several potential explanatory variables, as displayed in Tables 2 through 6 of this study, were obscured by the selected variables due to their relatively high intercorrelation. Even though several potentially valid explanatory variables are obscured in the regression process, the study concludes that the five variables are the principal explainers of police assaults in Austin.

The causal model proposed for examination in the Austin study is simple in design, yet it provides increased understanding of those factors most clearly associated with police assaults in that city. The model was not designed to be all-encompassing. On the contrary, the intent was to present a basis for study, an exploratory effort, to determine the feasibility of conducting similar analyses on a more comprehensive scale. The model, using percent of families with female heads, percent total police activity, and assaults on police, is supportive of the hypothesis that environmental conditions have the greatest effect on police assaults, yet they also affect the incidence of police activity in the community, and through that activity, further affect the incidence of assaults on police. Police activity, acting independently from environmental conditions, also provides additional explanation of assaults on police.

# FOOTNOTES

See for example: Keith D. Harries, "The Geography of American Crime, 1968," The Journal of Geography, 70 (April, 1971), pp. 204-213; R. M. Stobart, "Serious Assaults on Police," Police Journal, 45 (April-June, 1972), pp. 108-126; Federal Bureau of Investigation, Uniform Crime Report - 1972, Washington, D.C.: U.S. Government Printing Office, 1973; Preston L. Horstman, "Assaults on Police Officers: How Safe Are You?" The Police Chief, 40 (December, 1973), pp. 44-53; James L. Regens, C. Kenneth Meyer, Cheryl G. Swanson and Samuel G. Chapman, "An Analysis of Assaults on Municipal Police Officers in 46 South Central Cities, " in Samuel G. Chapman, Charles D. Hale, C. Kenneth Meyer, Cheryl G. Swanson and Patton N. Morrison, Perspectives on Police Assaults in the South Central United States, Norman, Oklahoma: The University of Oklahoma, June, 1974; Joel Lefkowitz, Job Attitudes of Police, New York: Baruch College, 1971; Patton N. Morrison and Charles D. Hale, "Perceptions of the Police Organization: A Sociometric Analysis," and Denise L. Heller, Samuel G. Chapman, Daniel C. Kieselhorst and C. Kenneth Meyer, "An Analysis of Police Assailants in Albuquerque," in Chapman, et al., Perspectives on Police Assaults in the South Central United States, op. cit.

<sup>2</sup>See Samuel G. Chapman, C. Kenneth Meyer, Charles D. Hale, Cheryl G. Swanson and Patton N. Morrison, <u>Operations Research</u> <u>Manual</u>, Norman, Oklahoma: The University of Oklahoma, June, 1974, pp. 248-249, for maps delineating the boundaries of the Bureau of the Census enumeration tracts and the reporting districts of the Austin Police Department. In some instances, the boundaries of the police reporting districts are not codeterminous with the boundaries designating the limits of the census tracts used by the Bureau of the Census. To insure as much uniformity between the two as possible, some police reporting districts and some census tracts were combined in the following manner:

Austin Study Designation		Police Reporting District
13	13.01, 13.02	13
15	15.01, 15.02, 15.03	15
16	16.01, 16.02	16
17	17.01	17
18	18.01, 18.02, 18.03	18
21	21.01, 21.02	21, 22, 40
23	23.01, 23.02	23, 24

<sup>3</sup>The environmental indicators were obtained from demographic and socio-economic data reported in: U.S. Department of Commerce, U.S. Bureau of the Census, <u>Census of Population and Housing: 1970</u>, <u>Census Tracts</u>, Final Report PHC (1)-17, Austin, Texas SMSA, <u>Washington</u>, D.C.: U.S. Government Printing Office, 1972. The police activity data were obtained from: Austin, Texas, Police Department, <u>Statistical Report</u>, 1972, Austin, Texas: Austin Police Department, 1972. See the Appendix of this study for a tabular presentation, by census tract, of selected environmental and police activity factors for Austin.

<sup>4</sup>For a discussion of the effects of population stability, age, minority population, and poverty on crime see: The Council on Municipal Performance, Municipal Performance Report, 1 (May-June, 1973), pp. 9-12. For discussions of the poor, minority population, the family and education, see: James S. Campbell, Joseph R. Sahid and David P. Stang, Law and Order Reconsidered: Report of the Task Force on Law and Law Enforcement, New York: Bantam, 1970, chapters 3, 4, 5, 9, 10. For discussions of the problems facing the city regarding employment, education, poverty, crime and housing see: David M. Gordon, ed., Problems in Political Economy: An Urban Perspective, Lexington, Massachusetts: D. C. Heath, 1971, chapters 2, 3, 4, 5, 7. See also Herbert A. Bloch and Gilbert Geis, Man, Crime, and Society, 2nd ed., New York: Random House, 1970, chapter 6. See Federal Bureau of Investigation, Uniform Crime Reports - 1972, op. cit., p. vii, for a listing of potential crime factors. Ramsey Clark has noted that crime is prevalent ". . . where there are slums, poor schools, high unemployment, widespread poverty; where sickness and mental illness are common, housing is decrepit and nearly every sight is ugly -- . . . Poverty, illness, injustice, idleness, ignorance, human misery and crime go together. That is the truth. We have known it all along. We cultivate crime, breed it, nourish Little wonder we have so much . . . " Crime in America: it. Observations on its Nature, Causes, Prevention and Control, New York: Simon and Schuster, 1970, p. 66.

<sup>5</sup>Federal Bureau of Investigation, <u>Uniform Crime Reports</u> -<u>1972</u>, <u>op. cit.</u>, p. 34; Bloch and Geis, <u>op. cit.</u>, pp. 146-150; Robert W. Winslow, <u>Crime in a Free Society: Selections from</u> <u>the President's Commission on Law Enforcement and Administration</u> of Justice, Belmont, California: Dickenson, 1969, p. 108.

<sup>6</sup>John C. Bollens and Henry J. Schmandt, <u>The Metropolis</u>: <u>Its People, Politics and Economic Life</u>, 2nd ed., New York: Harper and Row, 1970, pp. 67-69. The authors note that both the young and the elderly are more prevalent in the central city. See also Anthony Downs, "Who Are the Urban Poor?", a selection in Gordon, <u>op. cit.</u>, p. 236, who notes that the elderly (2.876 million persons) comprise 18.9 percent of the urban poor. <sup>7</sup>See <u>Report of the National Advisory Commission on Civil</u> <u>Disorders</u>, New York: Bantam Books, 1968, pp. 260-262, for a discussion of "fatherless" homes and female heads of household. See also Winslow, <u>op. cit.</u>, pp. 123-127, for a discussion of the importance of the family in countering crimes.

<sup>8</sup>Federal Bureau of Investigation, <u>Uniform Crime Report - 1972</u>, <u>op. cit.</u>, p. 131. In 1972 Blacks constituted 27.5 percent of the total (6,706,950) reported arrests. Also see Bloch and Geis, <u>op. cit.</u>, pp. 154-159, for a discussion of minority groups and crime.

<sup>9</sup>The Council on Municipal Performance, <u>op. cit</u>., pp. 9 and 10.

<sup>10</sup>For discussions of values and expectations see: James C. Davies, "The J-Curve of Rising and Declining Satisfaction as a Cause of Some Great Revolutions and a Contained Rebellion," in Hugh D. Graham and Ted R. Gurr, The History of Violence in America, New York: Bantam Books, 1969, pp. 716-725; Report of the National Commission on Civil Disorders, op. cit., pp. 284-285; Donald R. Cressey and David A. Ward, Delinquency, Crime, and Social Process, New York: Harper and Row, 1969, pp. 286-288, 309.

<sup>11</sup>David Burnham, "New York is Found Safest of 13 Cities in Crime Study," <u>New York Times</u>, April 15, 1974, pp. 1, 51. For additional discussions of unreported crime see: Cressey and Ward, <u>op. cit.</u>, pp. 11-15; Bloch and Geis, <u>op. cit.</u>, pp. 113-117; and Albert J. Reiss, Jr., "Assessing the Current Crime Wave," in Barbara N. McLennan, ed., <u>Crime in Urban Society</u>, New York: Dunellen, 1970, pp. 23-42.

<sup>12</sup>Part I Crimes are: murder and non-negligent manslaughter, forcible rape, robbery, burglary, larceny, auto theft, and aggravated assault.

<sup>13</sup>Examples of Part II crimes are: arson, forgery and counterfeiting, fraud, embezzlement, vandalism, prostitution and commercialized vice, driving under the influence, drunkenness, and vagrancy.

<sup>14</sup>For a more complete discussion of regression analysis as used in this study see: Chapman, <u>et al.</u>, <u>Operations Research</u> <u>Manual</u>, <u>op. cit.</u>, pp. 39-43. For a general discussion of multiple regression techniques see: Hubert M. Blalock, Jr., <u>Social</u> <u>Statistics</u>, 2nd ed., New York: McGraw-Hill, 1972, pp. 361-376 and 397-407.

<sup>15</sup>The 15 variables found, through use of step-wise regression, to provide most explanation for the dependent variable are:

	Variable	R-Squared	R-Sq Change	Simple r
	Percent of Families			
	with Female Head	.555	.000	.745
	Percent Total			
•	Police Activity	.711	.156	.601
	Percent Arrests for	.765	054	.648
	Auto Theft Percent Arrests for	•/05	,054	.048
	Sex Offenses			
	(excluding rape			
	and prostitution)	.806	.040	.144
	Percent of Population			
	65 Years of Age			
	and Older	.845	.039	.312
	Percent Arrests for			
	Violation of			
	Narcotics Laws	.865	.021	.024
	Percent Arrests for			
	Violation of			407
	Liquor Laws	.899	.024	.421
	Percent of Population			
	Spanish Speaking or	011	.021	207
	with Spanish Surnames Median Rent	.911 .943	.021 .033	.297 579
	Percent of Families	• 943	.033	5/9
	with Annual Income	an shi ka shekara shi Bara shekara		
	Less Than \$3,000	.962	.019	.646
	Percent of Males 16-21	• • • • • • • • • • • • • • • • • • • •	• • • •	• • • • •
	Unemployed and Not			
	High School Graduates	.975	.014	.322
	Percent Arrests for			
	Forgery	.981	.006	.457
	Percent of Population			•
	with No Available Auto	.984	.003	.701
	Percent Black	.990	.006	.649
	Percent of Population			
	Which Moved into			
	Present Home During	0.07	~~7	7 – 0
	the Period 1968-1970	.997	.007	158
			(a) A set of the se	

<sup>16</sup>Hubert M. Blalock, Jr., <u>Causal Inferences in Nonexperimental</u> <u>Research</u>, New York: W. W. Norton, 1972, p. 62.

17 For discussion of path analysis see: Earl R. Babbie, Survey Research Methods, Belmont, California: Wadsworth, 1973, pp. 324-327 and David R. Heise, "Problems in Path Analysis," in Edgar Borgetta, ed., Sociological Methodology, San Francisco: Jossey Boss, 1969, pp. 38-73. For examples of use of path analysis see: Thomas R. Dye and Neuman Pollack, "Path Analytic Models in Policy Research," <u>Policy Studies Journal</u>, 2 (Winter, 1973), pp. 123-130 and David R. Morgan and Cheryl G. Swanson, <u>Correlates of Selected Police Policies in Large U.S. Cities</u>, Norman, Oklahoma: The University of Oklahoma, 1974, (paper presented to the Annual Meeting of the Midwest Political Science Association in Chicago, April 25-27, 1974), pp. 21-24.

<sup>18</sup>David R. Heise, <u>op. cit</u>.

19 Thomas R. Dye and Neuman Pollack, op. cit., p. 124.

APPENDIX

## Selected Police Activity Factors

Percent Total Police Activity: 1.5 Rank (Lowest to Highest): 3

Percent Total Arrests: 0.8 Rank (Lowest to Highest): 2

Percent Violent Crime	Percent Property Crime	
Homicide: 0.0	Burglary: 0.0	
Rape: 0.0	Theft: 0.6	
Robbery: 0.0	· Auto Theft: 0.0	
Aggravated Assault: 0.0		

### Selected Environmontal Factors

Population: 6862 Migration/Population: 23.4 Black Population/Population: 0.1 Spanish Population/Population: 4.8 Families with Female Heads/All Families: 8.4 Males 15-19 years/Population: 4.8 Males 14 years old and over, Separated and Divorced/ Population: 2.0 Median School Years Corpleted: 14.7 Percent of Labor Force Unemployed: 1.0 Laborers, except farm/Total Employed: 1.4 Mean Family Income: \$18,411 Poverty: Percent of Families With Income Less Than Poverty Level: 3.4 Median Value Owner Occupied Housing: \$23,000 Median Rent Renter Occupied Housing: \$141 Median Rooms/House: 5.5 Housing Unit Lacking Some or All Plumbing Facilities/ Total Housing Units: 0.3 Percent Housing Units Built Prior to 1940: 4.1

# CENSUS TRACT 2

### Selected Police Activity Factors

Percent Total Police Activity: 5.7 Rank (Lowest to Highest): 14

Percent Total Arrests: 5.8 Rank (Lowest to Highest): 16

Percent Violent Crime Per	cent Property Crime	
Homicide: 0.0	Burglary: 3.9	
Rape: 0.0	Theft: 3.5	
Robbery: 5.1	Auto Thaft: 12.1	
Aggravated Assault: 1.6		

20

### Selected Environmental Factors

Population: 11,670 Migration/Population: 24.9 Black Population/Population: 5.3 Spanish Population/Population: 7.6 Families with Female Heads/All Families: 11.5 . Males 15-19 years/Population: 4.4 Males 14 years old and over, Separated and Divorced/ Population: 9.1 Median School Years Completed; 12.0 Percent of Labor Force Unemployed: 2.1 Laborers, except farm/Total Employed: 2.3 Mean Family Income: \$10,131 Poverty: Percent of Families With Income Less Than Poverty Level: 7.0 Median Value Owner Occupied Housing: \$13,400 Median Rent Renter Occupied Housing: \$125 Median Rooms/House: 4.4 Housing Unit Lacking Some or All Plumbing Facilities/ Total Housing Units: 0.7 Percent Housing Units Built Prior to 1940; 19.0

### Selected Police Activity Factors

- Percent Total Police Activity: 5.3 Rank (Lowest to Highest): 12
  - Percent Total Arrests: 4.0 Rank (Lowest to Highest): 12

Per	cent Violent Crime	Percent Property Crime
	Homicide: 0.0	Burglary: 1.9
	Rape: 0.0	Theft: 4.9
	Robbery: 3.8	Auto Theft: 1.7
	Aggravated Assault:	3.3

### Selected Environmental Factors

Population: 12,937 Migration/Population: 31.3 Elack Population/Population: 1.1 Spanish Population/Population: 11.4 Function with Female Reads/All Families: 12.7 Buies 19-19 years/Population: 4.3 Males 14 years old and over, Separated and Divorced/ Population: 4.4 Median School Years Completed: 12.1 Percent of Lator Force Unemployed; 2.9 Laborers, except farm/Total Employed: 3.5 Mean Family Income: \$8,241 Poverty: Percent of Pamilies With Income Less Than Poverty Level: 13.9 Med.an Value Owaer Occupied Housing: \$12,800 Median Rint Renter Occupied Housing: \$124 Median Rooms/House: 4.2 Housing Unit Lacking Some or All Plumbing Facilities/ Total Housing Units: 0.4 Percent Housing Units Built Prior to 1940: 24.3

### CENSUS TRACT 4

### Selected Police Activity Factors

- Percent Total Police Activity: 3.7 Rank (Lowest to Highest): 11
- Percent Total Arrests: 3.3 Rank (Lowest to Highest): 11

Per	cent Violent Crime	Percent Property Crime
	Homicide: 5.7	Burglary: 4.2
	Rape: 0.0	Theft: 5.1
	Robbery: 2.5	Auto Theft: 0.0
	Aggravated Assault: 3.3	

### Selected Environmental Factors

Population: 8448 Migration/Population: 31.5 Black Population/Population: 32.7 Spanish Population/Population: 6.4 Familics with Female Heads/All Families: 15.2 Males 15-19 years/Population: 5.9 Males 14 years old and over, Separated and Divorced/ Population: 4.5 Median School Years Completed: 12.3 Percent of Labor Force Unemployed: 2.2 Laborers, except farm/Total Employed: 4.1 Mean Family Income: \$8171 Poverty: Percent of Families With Income Less Than Poverty Level: 9.7 Median Value Owner Occupied Housing: \$12,500 Median Rent Renter Occupied Housing: \$121 Median Rooms/House: 4.3 Housing Unit Lacking Some or All Plumbing Facilities/ Total Housing Units: 1.5 Percent Housing Units Built Prior to 1940: 23.0

## Selected Police Activity Factors

Percent Total Police Activity: 1.2 Rank (Lowest to Highest): 2

Percent Total Arrests: 1.2 Rank (Lowest to Highest): 5

Percent Violent Crime	Percent Property Crime
Homicide: 0.0	Burglary: 1.0
Rape: 0.0	Theft: 2.7
Robbery: 0.0	, Auto Theft: 0.0
Aggravated Assault: 1.6	

### Selected Environmental Factors

Population: 4112 Migration/Population: 54.9 Black Population/Population: 1.4 Spanish Population/Population: 9.3 Families with Female Heads/All Families: 12.0 Males 15-19 years/Population: 6.0 Males 14 years old and over, Separated and Divorced/ Population: 2.4 Median School Years Completed: 15.1 Percent of Labor Force Unemployed: 8.9 Laborers, except farm/Total Employed: 3.0 Mean Family Income: \$8536 Poverty: Percent of Families With Income Less Than Poverty Level: 10.3 Median Value Owner Occupied Housing: \$17,100 Median Rent Renter Occupied Housing: \$120 Median Rooms/House: 3.6 Housing Unit Lacking Some or All Plumbing Facilities/ Total Housing Units: 1.1 Percent Housing Units Built Prior to 1940: 42.0

### CENSUS TRACT 6

Selected Police Activity Factors

Percent Total Police Activity: 5.6 Rank (Lowest to Highest): 13

Percent Total Arrests: 3.0 Rank (Lowest to Highest): 10

Pet	rcent Violent Crime	Percent Property Crime
	Homicide: 2.9	. Burglary: 2.9
	Rape: 0.0	Theft: 5.1
	Robbery: 0.0	Auto Theft: 0.9
	Aggravated Assault: 0.0	

### Selected Environmental Factors

Population: 13,700 Migration/Population: 67.2 Black Population/Population: 0.7 Spanish Population/Population: 6.1 Familics with Female Heads/All Families: 14.3 Males 15-19 years/Population: 19.4 Males 14 years old and over, Separated and Divorced/ Population: 1.1 Median School Years Completed: 16.1 Percent of Labor Force Unemployed: 4.7 Laborers, except farm/Total Employed: 2.6 Mean Family Income: \$8238 Poverty: Percent of Families With Income Less Than Poverty Level: 14.5 Median Value Owner Occupied Housing: \$22,300 Median Rent Renter Occupied Housing: \$109 Median Rooms/House: 2.9 Housing Unit Lacking Some or All Plumbing Facilities/ Total Housing Units: 9.5 Percent Housing Units Built Prior to 1940: 41.0

## Selected Police Activity Factors

### Percent Total Police Activity: 3.4 Rank (Lowest to Highest): 10

Percent Total Arrests: 0.7 Rank (Lowest to Highest): 1

Percent Violent Crime P	ercent Property Crime
Homicide: 0.0	Burglary: 0.7
Rape: 6.7	Theft: 1.2
Robbery: 0.0	Auto Theft: 0.0
Aggravated Assault: 0.0	

## Selected Environmental Factors

Popula	ation: 2714
Migrat	tion/Population: 41.4
Black	Population/Population: 2.1
	sh Population/Population: 12.0
	ies with Female Heads/All Families: 14.5
	15-19 years/Population: 3.7
Males	14 years old and over, Separated and Divorced/
Po	opulation: 4.9
	n School Years Completed: 14.4
Percer	nt of Labor Force Unemployed: 3.5
Labord	ers, except farm/Total Employed: 1.5
Mean 1	Family Income: \$13,349
Pover	ty: Percent of Families With Income
	ess Than Poverty Level: 10.8
Media	n Value Owner Occupied Housing: \$29,800
Media	n Rent Renter Occupied Housing: \$117
Media:	n Rooms/House: 3.2
	ng Unit Lacking Some or All Plumbing Facilities, otal Housing Units: 7.6
	nt Housing Units Built Prior to 1940: 45.4
~~~~~~~	en inducation and a proper of the second second

### Selected Police Activity Factors

Percent Total Police Activity: 6.4 Rank (Lowest to Highest): 18

Percent Total Arrests: 12.1 Rank (Lowest to Highest): 21

Percent Violent Crime	Percent Property Crime
Homicide: 22.9	Burglary: 17.5
Rape: 13.3	Theft: 16.7
Robbery: 36.7	Auto Theft: 20.7
Aggravated Assault: 21.2	2 <sup>-1</sup>

N G

### Selected Environmental Factors

Population: 13.361 Migration/Population: 7.2 Black Population/Population: 84.0 Spanish Population/Population: 14.8 Families with Female Heads/All Families: 34.5 Males 15-19 years/Population: 5.0 Males 14 years old and over, Separated and Divorced/ Population: 9.6 Median School Years Completed: 9.8 Percent of Labor Force Unemployed: 3.5 Laborers, except farm/Total Employed: 8.3 Mean Family Income: \$5897 Poverty: Percent of Families With Income Less Than Poverty Level: 33.7 Median Value Owner Occupied Housing: \$9700 Median Rent Renter Occupied Housing: \$64 Median Rooms/House: 4.3 Housing Unit Lacking Some or All Plumbing Facilities/ Total Housing Units: 6.6 Percent Housing Units Built Prior to 1940: 35.9

### CENSUS TRACT 8

### CENSUS TRACT 9

### Selected Police Activity Factors

P

Percent Total Police Activity: 6.2 Rank (Lowest to Highest): 15

Percent Total Arrests: 12.3 Rank (Lowest to Highest): 22

ercent Violent Crime	Percent Property Crime	
Homicide: 8,6	Burglary: 9.7	
Rape: 6.7	Theft: 8.1	
Robbery: 11.4	Auto Theft: 5.0	
Aggravated Assault: 10.3		

### Selected Environmental Factors

Population: 10,229 Migration/Population: 5.1 Black Population/Population: 22.5 Spanish Population/Population: 69.6 Families with Female Heads/All Families: 22.6 Males 15~19 years/Population: 5.2 Males 14 years old and over, Separated and Divorced/ Population: 7.1 Median School Years Completed: 6.9 Percent of Labor Force Unemployed: 6.9 Laborers, except farm/Total Employed: 11.1 Mean Family Income: \$5683 Poverty: Percent of Families With Income Less Than Poverty Level: 32.0 Median Value Owner Occupied Housing: \$7700 Median Rent Renter Occupied Housing: \$61 Median Rooms/House: 4.1 Housing Unit Lacking Some or All Plumbing Facilities/ Total Housing Units: 12.3 Percent Housing Units Built Prior to 1940: 46.0

### Selected Police Activity Factors

Percent Total Police Activity: 2.1 Rank (Lowest to Highest): 6

Percent Total Arrests: 6.7 Rank (Lowest to Highest): 18

Percent Violent Crime Per	cent Property Crime
Homicide: 5.7	Burglary: 6.8
Rape: 6.7	Theft: 3.9
Robbery: 5.1	Auto Theft: 5.2
Aggravated Assault: 7.1	

24

Selected Environmental Factors

Population: 5463 Migration/Population: 3.7 Black Population/Population: 0.6 Spanish Population/Population: 76.7 Families with Female Heads/All Families: 14.5 Males 15-19 years/Population: 5.6 Males 14 years old and over, Separated and Divorced/ Population: 5.2 Median School Years Completed: 7.1 Percent of Labor Force Unemployed: 4.9 Laborers, except farm/Total Employed: 18.2 Mean Family Income: \$5612 Poverty: Percent of Families With Income Less Than Poverty Level: 35.5 Median Value Owner Occupied Housing: \$2000 Median Rent Renter Occupied Housing: \$68 Median Rooms/House: 4.4 Housing Unit Lacking Some or All Plumbing Facilities/ Total Housing Units: 9.4 Percent Housing Units Built Prior to 1940: 53.4

### Selected Police Activity Factors

Percent Total Police Activity: 12.2 Rank (Lowest to Highest): 22

Percent Total Arrests: 5.1 Rank (Lowest to Highest): 15

Percent Violent Crime Percent Property Crime	
Homicide: 2.9	Burglary: 1.6
Rape: 0.0	Theft: 1.9
Robbery: 1.3	Auto Theft: 0.9
Aggravated Assault: 2.2	

### Selected Environmental Factors

Population: 2307 Migration/Population: 25.0 Black Population/Population: 2.6 Spanish Population/Population: 27.1 Families with Female Heads/All Families: 16.0 Males 15-19 years/Population: 3.3 Males 14 years old and over, Separated and Divorced/ Population: 11.6 Median School Years Completed: 12.3 Percent of Labor Force Unemployed: 3.3 Laborers, except farm/Total Employed: 4.1 Mean Family Income: \$8679 Poverty: Percent of Families With Income Less Than Poverty Level: 22.1 Median Value Owner Occupied Housing: \$17,500 Median Rent Renter Occupied Housing: \$78 Median Rooms/House: 3.0 Housing Unit Lacking Some or All Plumbing Facilities/ Total Housing Units: 14.8 Percent Housing Units Built Prior to 1940: 48.5

### CENSUS TRACT 12

### Selected Police Activity Factors

Percent Total Police Activity: 1.8 Rank (Lowest to Highest): 4

Percent Total Arrests: 2.6 Rank (Lowest to Highest): 8

Percent Violent Crime Per		cent Property Crime	
	Homicide: 0.0	Burglary: 3.2	
	Rape: 0.0	Theft: 3.3	
	Robbery: 1.3	Auto Theft: 2.6	
	Acgravated Assault: 0.5		

### Selected Environmental Factors

Population: 3492 Migration/Population: 28.1 Black Population/Population: 10.9 Spanish Population/Population: 25.2 Families with Female Heads/All Families: 15.7 Males 15-19 years/Population: 4.4 Males 14 years old and over, Separated and Divorced/ Population: 5.1 Median School Years Completed: 11.7 Percent of Labor Force Unemployed: 5.6 Laborers, except farm/Total Employed: 4.8 Mean Family Income: \$7133 Poverty: Percent of Families With Income Less Than Poverty Level: 18.5 Median Value Owner Occupied Housing: \$11,300 Median Rent Renter Occupied Housing: \$95 Median Rooms/House: 4.0 Housing Unit Lacking Some or All Plumbing Facilities/ Total Housing Units: 0.0 Percent Housing Units Built Prior to 1940: 56.9

### Selected Police Activity Factors

Percent Total Police Activity: 7.0 Rank (Lowest to Highest): 20

Percent Total Arrests: 7.7 Rank (Lowest to Highest): 19

Fercent Violent Crime	Percent Property Crime
Homicide: 5.7	Burglary: 7.8
Rape: 0.0	Theft: 4.1
Robbery: 2.5	Auto Theft: 4.3
Aggravated Assault: 6.0	

### Selected Environmental Factors

Population: 17,936 Migration/Population: 18.0 Black Population/Population: 3.2 Spanish Population/Population: 31.3 Families with Female Heads/All Families: 14.0 Males 15-19 years/Population: 4.6 Males 14 years old and over, Separated and Divorced/ Population: 4.1 Median School Years Completed: 11.3 Percent of Labor Force Unemployed: 3.7 Laborers, except farm/Total Employed: 4.2 Mean Family Income: \$8088 Poverty: Percent of Famil es With Income Less Than Poverty Leve , 14.2 Median Value Owner Occupied Housing: \$12,056 Median Rent Renter Occupied Housing: \$110 Median Rooms/House: 4.5 Housing Unit Lacking Some or All Plumbing Facilities/ Total Housing Units: 1.6 Percent Housing Units Built Prior to 1940: 13.0

## CENSUS TRACT 14

### Selected Police Activity Factors

Percent Total Police Activity: 1.9 Rank (Lowest to Highest): 5

Percent Total Arrests: 1.9 Rank (Lowest to Highest): 6

Percent Violent Crime	Percent Property Crime
Homicide: 0.0	Burglary: 2.6
Rape: 0.0	Theft: 1.3
Robbery: 0.0	Auto Theft: 1.7
Aggravated Assault: 1.1	

### Selected Environmental Factors

Population: 5740 Migration/Population: 27.2 Black Population/Population: 0.2 Spanish Population/Population: 10.1 Families with Female Heads/All Families: 9.3 Males 15-19 years/Population: 3.3 Males 14 years old and over, Separated and Divorced/ Population: 3.0 Median School Years Completed: 12.6 Percent of Labor Force Unemployed: 5.2 Laborers, except farm/Total Employed: 2.5 Mean Family Income: \$9402 Poverty: Percent of Families With Income Less Than Poverty Level: 11.7 Median Value Owner Occupied Housing: \$15,100 Median Rent Renter Occupied Housing; \$124 Median Rooms/House: 4.5 Housing Unit Lacking Some or All Plumbing Facilities/ Total Housing Units: 0.1 Percent Housing Units Built Prior to 1940: 35.3

### Selected Police Activity Factors

Percent Total Police Activity: 6.2 Rank (Lowest to Highest): 15

Percent Total Arrests: 4.3 Rank (Lowest to Highest): 14

Percent Violent Crime Per	cent Property Crime
Homicide: 5.7	Burglary: 3.2
Rape: 6.7	Theft: 3.5
Robbery: 0.0	Auto Theft: 3.5
Aggravated Assault: 4.4	

### Selected Environmental Factors

Population: 21.917 Migration/Population: 20.1 Black Population/Population: 0.2 Spanish Population/Population: 8.7 Families with Female Heads/All Families: 6.5 Males 15-19 years/Population: 4.6 Males 14 years old and over, Separated and Divorced/ Population: 2.6 Median School Years Completed: 12.9 Percent of Labor Force Unemployed: 1.4 Laborers, except farm/Total Employed: 2.3 Mean Family Income: \$12,145 Poverty: Percent of Families With Income Less Than Poverty Level: 3.4 Median Value Owner Occupied Housing: \$17,023 Median Rent Renter Occupied Housing: \$134 Median Rooms/House: 5.0 Housing Unit Lacking Some or All Plumbing Facilities/ Total Housing Units: 0.0 Percent Housing Units Built Prior to 1940; 1.6

# CENSUS TRACT 16

### Selected Police Activity Factors

Percent Total Police Activity: 3.0 Rank (Lowest to Highest): 8

Percent Total Arrests: 2.5 Rank (Lowest to Highest): 7

Percent Viclent Crime Percent Property Crime		
	Homicide: 0.0	Burglary: 0.7
	Rape: 0.0	Theft: 2.7
	Robbery: 0.0	Auto Theft: 2.6
	Aggravated Assault: 1.6	

# Selected Environmental Factors

Population: 18,378 Migration/Population: 24.4 Black Population/Population: 1.7 Spanish Population/Population: 7.0 Families with Female Heads/All Families: 9.9 . Males 15-19 years/Population: 0.9 Males 14 years old and over, Separated and Divorced/ Population: 2.4 Median School Years Completed: 15.6 Percent of Labor Force Unemployed: 2.2 Laborers, except farm/Total Employed: 1.0 Mean Family Income \$15,357 Poverty: Percent of Families With Income Less Than Poverty Level: 7.1 Median Value Owner Occupied Housing: \$23,214 Median Rent Renter Occupied Housing: \$108 Median Rooms/House: 5.0 Housing Unit Lacking Some or All Plumbing Facilities/ Total Housing Units: 0.0 Percent Housing Units Built Prior to 1940: 20.9

### telected Police Activity Factors

- Percent Total Police Activity: 2.6 Rank (Lowest to Highest): 7
- Percent Total Arrests: 1.1 Rank (Lowest to Highest): 4

Percent Violent Crime	Percent Property Crime	
Homicide: 0.0	Burglary: 1.6	
Rape: 6.7	Theit: 0.7.	
Robbery: 2.5	Auto Theft: 5.2	
Aggravated Assault: 1.1		

### Selected Environmental Factors

Population: 6957 Migration/Population: 50.3 Bleck Population/Population: 0.2 Spanish Population/Population: 4.1 Families with Female Heads/All Families: 3.4 Males 15-19 years/Population: 5.3 Males 14 years old and over, Separated and Divorced/ Population: 1.0 Median School Years Completed: 16.2 Percent of Labor Force Unemployed: 0.6 Laborers, except farm/Total Employed: 1.0 Mean Family Income: \$22,567 Poverty: Percent of Families With Income Less Than Poverty Level: 1.6 Median Value Owner Occupied Housing: \$41,100 Median Rent. Renter Occupied Housing: \$209 Median Rooms/House: 7.3 Housing Unit Lacking Some or All Plumbing Facilities/ Total Housing Units: 0.1 Percent Housing Units Built Prior to 1940: 0.2

CENSUS TRACT 18

### Selected Police Activity Factors

Percent Total Police Activity: 6.8 Rank (Lowest to Highest): 19

Percent Total Arrests: 4.1 Rank (Lowest to Highest): 13

Percent Violent Crime	Per	cent Property Crime
Homicide: 8.6		Burglary: 4.5
Rape: 0.0		Theft: 5.3
Robbery: 5.1		Auto Theft: 7.8
Aggravated Assaul	t: 1.6	

Selected Environmental Factors

Population: 20,916 Migration/Population: 38.7 Black Population/Population: 5.2 Spanish Population/Population: 5.1 Families with Female Heads/All Families: 6.1 Males 15-19 years/Population: 3.6 Males 14 years old and over, Separated and Divorced/ Population: 2.6 Median School Years Completed: 12.7 Percent of Labor Force Unemployed: 1.7 Laborers, except farm/Total Employed: 2.1 Mean Family Income: \$11,245 Poverty: Percent of Families With Income Less Than Poverty Level: 4.8 Median Value Owner Occupied Housing: \$18,164 Median Rent Renter Occupied Housing: \$167 Median Rooms/House: 4.9 Housing Unit Lacking Some or All Plumbing Facilities/ Total Housing Units: 1.1 Percent Housing Units Built Prior to 1940: 1.6

### Selected Police Activity Factors

Percent Total Police Activity: 0.9 Rank (Lowest to Highest): 1

Percent Total Arrests: 0.9 Pank (Lewest to Highest): 3

Po	rcent Violent Crime Per	cent Property Crime
	Nomicide: 0.0	Burglary: 1.6
	Rape: 0.0	Theft: 0.7
	Robbary: 0.0	Auto Theft: 0.9
	Aggravated Assault: 0.5	

# Selected Environmental Factors

Ponulation: 2790 Migration/Population: 29.1 Black Population/topulation: 0.0 Spanish Population/Population: 2.0 Families with Female Heads/All Families: 6.2 Males 15-19 years/Population: 4.2 Males 14 years old and over, Separated and Divorced/ Population: 2.0 Holian School Years Completed: 14.5 Percent of Labor Force Unemployed: 1.7 Laborers, except farm/Total Employed: 2.3 Mean Family Income: 516,490 Poverty: Percent of Families With Income. Less Than Poverty Level: 5.1 Median Value Gamer Occupied Housing: \$25,400 Median Rent Ronter Occupied Housing: \$172 Mollan Reems/Rouse: 5.4 Housing Unit Lacking Some or All Plumbing Facilities/ Total Housing Units: 0.0 Percent Housing Units Built Prior to 1940: 0.2

### Selected Police Activity Factors

Percent Total Police Activity: 3.1 Rank (Lowest to Highest): 9

Percent Total Arrests: 2.7 Rank (Lowest to Highest): 9

Percent Violent Crime	Percent Property Crime
Homicide: 0.0	Burglary: 2.3
Rape: 13.3	Theft: 2.7
Robbery: 2.5	Auto Theft: 0.9
Aggravated Assault: 4.4	en e

CENSUS TRACT 20

### Selected Environmental Factors

Population: 6809 Migration/Population: 17.1 Black Population/Population: 0.2 Spanish Population/Population: 10.4 Families with Female Heads/All Families: 7.6 Males 15-19 years/Population: 4.1 Males 14 years old and over, Separated and Divorced/ Population: 1.5 Median School Years Completed: 12.2 Percent of Labor Force Unemployed: 0.2 Laborers, except farm/Total Employed: 2.5 Mean Family Income: \$10,208 Poverty: Percent of Families With Income Less Than Poverty Level: 7.1 Median Value Owner Occupied Housing: \$13,400 Median Rent Renter Occupied Housing: \$122 Median Rooms/House: 5.0 Housing Unit Lacking Some or All Plumbing Facilities/ Total Housing Units: 0.2 Percent Housing Units Built Prior to 1940: 3.4

# Sologici Police Activity Factors

Percent Total Police Activity: 7.5 Runk (Nowest to Highest): 21

Percent Jotal Arrests: 10.7 Rank (Lowest to Highest): 20

Percent Violent Crime	Percent Property Crime
Horicide: 25.7	Eurglary: 13.3
Rape: 26.7	Theft: 15.0
Robbery: 17.7	Auto Theft: 12.1
Aggravated Assault: 23.4	· 사람이 가 같은 것은 그 가 말했다. 이가 - 사람이 가 가 가 가 다 나는 것을 했다.

# Solected Invironmental Factors

Permilation: 32,756 Migration/Population: 24.8 Black Schulation/Population: 27.4 aparish Deputation, Population: 10.8 Figulies with Pecale Heads/All Families: 11.2 Moled 15-10 years/Population: 4.9 Males 14 years old and over, Separated and Divorced/ Population: 2.7 Median School Years Completed: 12.2 Percent of Lator Force Unemployed: 2.5 Laborers, except farm/Total Employed: 4.3 Moan Pumily Income: \$3043 Poverty: Percent of Families With Income Long Thom Foverty Level: 10.5 Malian Value Comer Occupied Nousing: \$16,500 Relian Pont Senter Gecapied Housing: \$107 Median Rooms/Rouse: 5.1 Housing Gait Lacking Some or All Plumbing Facilities/ Total Housing Units: 0.9 Percent Housing Units Built Prior to 1940: 3.3

Selected Police Activity Factors

Percent Total Police Activity: 6.2 Rank (Lowest to Highest): 15

Porcent Total Arrests: 6.5 Rank (Lowest to Highest): 17

Percent Violent Crime	Percent Property Crime
Homicide: 5.7	Burglary: 9,1
Rape: 13.3	Theft: 7.1
Robbery: 2.5	Auto Theft: 11.2
Aggravated Assault: 4.9	

CENSUS TRACT 22

### Selected Environmental Factors

Population: 14,150 Migration/Population: 36.8 Black Population/Population: 6.4 Spanish Population/Population: 25.3 Families with Female Heads/All Families: 10.2 Males 15-19 years/Population: 5.4 Males 14 years old and over, Separated and Divorced/ Population: 2.9 Median School Years Completed: 11.1 Percent of Labor Force Unemployed: 1,4 Laborers, except farm/Total Employed: 4.7 Mean Family Income: \$8385 Poverty: Percent of Families With Income Less Than Poverty Level: 15.4 Median Value Owner Occupied Housing: \$12,500 Median Rent Renter Occupied Housing: \$154 Median Rooms/House: 4.0 Housing Unit Lacking Some or All Plumbing Facilities/ Total Housing Units: 2.8 Percent Housing Units Built Prior to 1940: 3.8

