Selected economic and demographic associates of fear of crime: a log linear approach

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SELECTED ECONOMIC AND DEMOGRAPHIC ASSOCIATES
OF FEAR OF CRIME: A LOG LINEAR APPROACH

A THESIS
SUBMITTED TO THE FACULTY OF ATLANTA UNIVERSITY
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR
THE DEGREE OF MASTER OF ARTS

Submitted by

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DEPARTMENT OF CRIMINAL JUSTICE ADMINISTRATION
ATLANTA, GEORGIA
JULY 1986
DEDICATION

This thesis is dedicated in loving memory of my brother,
Lance Corporal Milan Elliott Turner
Deceased - Republic of Viet Nam, 1968
ACKNOWLEDGEMENTS

This acknowledgement begins by my giving thanks to GOD who has made this dream a reality. Without guidance, strength and leadership assistance, this task would be incomplete.

First, I would like to express my appreciation to my parents, Mr. and Mrs. Andrew D. Turner, who stressed the importance of obtaining quality education, while providing continuous love, support and encouragement.

Secondly, I would like to thank my second family who extended support through many long hours and months. To Dr. Julius Debro, Mrs. Estella Funnye' and all my fellow classmates who extended kindness and patience daily.

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Finally, I would like to thank special friends, Major W. W. Holley (Atlanta City Police), and Mrs. Jacqueline H. Barrett (Fulton County Sheriff's Department), who provided statistics, editing and criticisms.
ABSTRACT

CRIMINAL JUSTICE ADMINISTRATION

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Atlanta, Georgia  1983

Selected Economic and Demographic Associates of Fear of
Crime: A Log Linear Approach

Advisor: Dr. Komanduri S. Murty
Thesis Dated: July 7, 1986

This research attempts to show the relationship be-
tween the independent and dependent variables, through
various social statuses on the fear of crime.

The purpose of the study was to measure the frequen-
cy of the fear of crime during the day, and the fear of
crime during the night. The data used in the study is
based on a city wide surveys conducted by Debro et.
al., the Department of Criminal Justice Administration,
Atlanta University.

The study consisted of a number of selected variables
which were separated into two categories. The categories
included: (1) economic variables such as, occupation, em-
ployment, social class and income; (2) demographic
variables, included age, sex and marital status. The two categories were then formulated into a working model in which each became an element of the model. All of the elements were defined as independent variables, and fear of crime served as the dependent variable. Once the dependent variable was established, log linear models were used to test the relationship between the independent and dependent variables for each group in the study. The study was conducted by submitting the model to descriptive and analytical procedures.

The major findings support the hypotheses that, among the selected economic and demographic variables, these variables had a significant effect on the fear of crime.
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CHAPTER I

INTRODUCTION
CHAPTER I

INTRODUCTION

The long lasting debate on causal determinants on the fear of crime can broadly be divided into two factors: economic factors and demographic factors. Studies focusing on economic factors usually account for such variables as income and occupation. Studies focusing on demographic factors usually account for such variables as age and sex.

Other studies suggest that the fear of crime may be proportionate to the objective chances of being victimized. Lee (1982) suggests that the problems created by the fear of crime or victimization are largely independent of the incidence or distribution of crime.

Still other studies focus upon the economic cost of crime. The indirect cost of crime may result when businesses close "early", which gives citizens fewer reasons to be on the streets. Balkin (1979) and Butler (1975) established personal victimization as a determinant of the fear of crime. Biderman et. al. (1967), reported that personal victimization had no effect on fear. On the other hand, both Reynolds and Blyth (1976), and Lawton and Yafie (1980)
reported previous victimization experiences to be a strong predictor of the fear of crime.

Crime alone brings fear to many individuals. Others have a greater concern of fear when victimization is an additive, indicating the frequency with which the fear of crime is cited as a justification for crime-reduction measures. Garofalo (1979) holds that the fear of crime is strongly and directly related to the risk or experiences of criminal victimization. Garofalo (1979), lists the following five factors affecting fear:

1. The actual risk of being victimized by a criminal act;
2. past experiences of being victimized;
3. the content of the socialization processes connected with particular social roles;
4. the content of media presentations about crime and victimization; and
5. the perceived effectiveness of official barriers that are placed between potential offenders and victims.

The association between the fear of crime and group differences is clearly emphasized by Braungart et al.
(1980), Hartnagel (1979), and Skogan and Maxfield (1981), with the concept of "vulnerability" being a transcending factor among the fearful. According to these researchers, the fear of crime is differentially correlated with demographic characteristics such as age, sex and marital status.

Statement of the Problem

The above discussion indicates the importance of determining the factors contributing to the fear of crime. This study, therefore, attempts to measure the relative strengths of economic and demographic factors in measuring the fear of crime.

Purpose of the Study

The purpose of this study is to illustrate the relationship between the independent (economic and demographic), and dependent (fear of crime) variables. Essentially, the study presumes that individuals in selected economic and demographic groups will experience a greater fear of crime during the day and night than other groups.
Source of the Data

The source of data for the present research was selected from the study completed by Debro et al. (1980), based on income criteria and the extent of criminal occurrences. Census tracts were utilized for the selection process. The sample selection includes four selected communities:

(1) Middle-income, low crime;
(2) middle-income, high crime;
(3) low-income, low crime; and
(4) low-income, high crime.

Site Selection

The process of selecting the four communities involved the following major steps:

(1) Using census tracts and zoning information procured from the planning department of the respective cities, communities were arbitrarily and operationally defined into census tracts.

(2) Using local and regional census information, the racial composition of each tract was determined. Only
tracts with a majority of black residents (60 percent and above) were selected for further consideration.

(3) Using the most recent U.S. census figures on national incomes, indexes for lower and middle-income families were devised. The 1978 figures classified as "poor" a non-farm family with earned income of $8,000 or less. Thus for each of the predominantly black tracts all reported incomes were grouped as follows:

(a) Low-income, $8,000 or less;
(b) middle-income, $8,001 to $25,000; and
(c) upper-income, $25,001 and above.

(4) Using local and regional police statistics on number of reported crimes, crime rates per 1,000 population were calculated for each tract. All of the predominantly black census were then designated in terms of "high" and "low" rates of crime -- depending on their deviation (in standard deviation units) from the mean crime rate for the city as a whole.

(5) Four tracts which met the required combinations (i.e., in terms of income and crime rate) were then selected. In cases where more than one tract met a particular combination (such as having identical highest/lowest crime
rates and similar incomes), final selection was arbitrarily based on external considerations -- e.g., proximity to research personnel.

The Sampling Procedure

In order to insure representativeness, a total of 100 respondents -- stratified by age -- per community (i.e. per census tract) was needed. The actual sampling involved a five-stage systematic procedure which may be summarized as follows:

(1) A listing of all streets and household addresses in each of the chosen tracts was procured from local and regional planning agencies.

(2) From a list of randomly generated numbers, each street was assigned a number.

(3) Every third street within each tract was then systematically chosen.

(4) From a list of chosen streets, every fifth house was then systematically selected until a maximum of 300 addresses was reached (we over sampled by a factor of three to allow for refusals and unsuccessful follow-up attempts).

(5) Interviewers assigned to particular tracts were instructed to find their respondents from the list of 300
addresses given them. (Their job also entailed filling the
needed age quotas, 27, fifteen to eighteen years old; 2b,
nineteen to twenty-five years old; and 47 adults, twenty-
six years old and over.) See Appendix B for examples of
survey questions used.

Scope and Plan of the Study

The present study covers the material gathered from
the most recent studies. The unit of observation is an
individual’s response in the black community in Atlanta,
Georgia. The major objective of the study is to examine the
differential effect of the economic and demographic factors
on the fear of crime.

Limitations of the Study

The data utilized in this study were extracted from
the Race and Crime Study conducted by Debro et al., in
1980. The present study utilized data from the 1980 study.
The data were collected specifically for this study and low
income areas in Atlanta, Georgia. Other populations may
differ from the findings of the present study.
Organization of The Thesis

This thesis consists of five chapters. Following this introductory chapter, a review of the selected literature on the fear of crime and observed impacts of economic and demographic indicators will be presented in Chapter II. Chapter III constitutes the conceptual framework, the hypotheses and the measurement of variables and the methodology. Chapter IV consist of the data analysis. Chapter V summarizes the major findings of the research and gives implications for future research. A selected bibliography and appendices are provided at the end of the thesis.
CHAPTER II

REVIEW OF THE LITERATURE
A large body of research on the fear of crime has consistently demonstrated a meaningful relationship between the fear of crime and two sets of independent variables: economic variables and demographic variables. The argument behind economic variables as being responsible factors for the fear of crime is that the perpetrator takes the risk of performing an illegal act in terms of burglary, robbery, and assault with an expectation of economic returns, and therefore, his target is toward those who are economically well off. Other studies support demographic variables as responsible factors for the fear of crime, interpreting the perpetrator's intention to victimize vulnerable population such as the elderly and women (e.g. Antunes et. al. 1977; Balkin; Dubow et. al. 1979; Garofalo, 1981; Garofalo and Laub, 1978; Lawton and Yafre, 1980; Lee, 1982; Liska et. al. 1982; Ollenburger, 1981; Yin, 1980).
In analyzing the effects of these variables on the fear of crime, the studies did not distinguish the relative effect of economic and demographic variables. Indeed these two sets of variables may occur simultaneously and may have concomitant variation.

**Economic Variables**

(A) Employment

Sampson and Castellano (1982) related unemployment and crime in the neighborhood with rates of victimization. Victimization, they hold, is higher in neighborhoods having lower unemployment rates. Because blacks tend to live in high unemployment neighborhoods in greater proportions than whites, a higher victimization rate for blacks may create a spurious relationship between unemployment and victimization in black neighborhoods. While area unemployment is not conceptually as strong an indicator of economic status as the percentage of total families in a neighborhood with less than $5,000 family income, researchers and theorists have argued that unemployment is an important variable that also measures the economic opportunities present in local communities. Violent victimization and theft were the
two most recurring crimes in neighborhoods where high unemployment increased. The crimes also occurred more in the urban neighborhood than rural areas. Furthermore, the neighborhood unemployment rate is related to personal victimization.

(B) **Social Class**

Social class interacts with the rate of crime in our society. Tittle and Viliemez (1977) demonstrated this by conducting a study on social class and criminality from using data samples of adults in three states (see Appendix A). Tittle and Viliemez indicated that social class has always been a fundamental variable in the sociological study of crime/delinquency, and practically every theory has given socio-economic status a prominent explanatory role.

(C) **Income**

Low income groups express more fear of crime than high income groups. Biderman *et. al.* (1967), found scores on their anxiety index to be lowest among Washington, D.C. residents with the highest income. They concluded that people with greater financial resources are
better able to protect themselves from harm and, therefore, have less fear of being victimized. In a study conducted by the Law Enforcement Assistance Administration (LEAA) (1976), lower socio-economic respondents express more fear than high socio-economic respondents.

**Demographic Variables**

**A. Age**

Glaser and Rice (1959), from their data on juveniles and adults, found that no relationship existed between unemployment and crime. The two subpopulations were then separated.

The data between age and the fear of crime show that the older one is, the higher the fear. Stinchcombe et al. (1977), gives two categories of fear among the elderly:

1. Vulnerability to attack; and
2. Lack of resources to cope with threat.

The elderly, due to declining physical strength and ability, are especially vulnerable to personal attacks when alone on the streets. Skogan's (1978) research indicates that the elderly are more frail, making even minor injuries
threatening; and they are more likely to live alone, indicating a possible lack of emotional support. Garofalo and Laub (1978) agree that, among the most consistent findings are that the fear of crime is higher among females and blacks than among males and whites, and that the fear of crime is positively associated with age and community size, but negatively associated with income.

(B) Sex

Sex consistently emerges as one of the most powerful indicators of the fear of crime. Clemente and Kleiman (1977) found women to be considerably more fearful than men. Yin (1981), found through his research, seven elements in women's fear of crime:

1. Women perceived more chances of being held up;
2. Women believed that crime rates had increased in their neighborhoods and the U.S.;
3. Women were more afraid of certain areas in the metro area;
4. Women believe that the crime situation is more serious than the T.V. reports;
5. Women believe that other people have limited their own activities because of crime;
(6) Women worry more about crime than men; and
(7) Women felt less capable of defending themselves against crimes.

Garofalo (1977) suggest that higher levels of fear among women may be partially due to passive sex role socialization.

(C) Marital Status

The literature on marital status is somewhat mixed. Braungart et. al. (1980), and Hindelang et. al. (1978), indicate that unmarried persons are more fearful, and are more likely to be victims of crime. Braithwaite and Biles (1984), in their studies on marital status indicated that separated or divorced persons are likely to be more fearful and also are more likely to be victims of crime than other marital groups.

Although the studies reviewed in this chapter contributed considerably to our understanding of the fear of crime, the independent variables were not viewed as one factor. These studies have explained how each variable on the whole is related to the perceptions of fear, yet they could not establish the relative strength of economic and demographic factors.
CHAPTER III

CONCEPTUAL FRAMEWORK, HYPOTHESIS, MEASUREMENT OF VARIABLES AND METHODOLOGY
CHAPTER III

CONCEPTUAL FRAMEWORK

The purpose of this chapter is primarily to justify the selection of the economic and demographic factors; and secondly, to show how these factors are interrelated to the fear of crime.

Conceptual Model

The conceptual model shows that the fear of crime is the function of two sets of characteristics; economics and demographics. Although several economic characteristics can be listed for the purpose of the study, only four are considered. They are occupation, employment, social class and income. Demographic characteristics are age, sex and marital status. The interrelationship of these characteristics are presented in Figures 3.1, 3.2 and 3.3.

Hypothesis

This study, specifically tests the following hypotheses:

(1) Demographic characteristics have less impact on the fear of crime than economic characteristics.

(2) Occupation has a significant effect on the fear of crime.
FIGURE 3.1: ECONOMIC FACTORS AND THE FEAR OF CRIME

ECONOMIC FACTORS

OCCUPATION

EMPLOYMENT

SOCIAL CLASS

INCOME

FEAR OF CRIME
FIGURE 3.2: DEMOGRAPHIC FACTORS AND FEAR OF CRIME

DEMOGRAPHIC FACTORS

AGE
SEX
MARITAL STATUS

FEAR OF CRIME
FIGURE 3.3: ECONOMIC & DEMOGRAPHIC FACTORS AND FEAR OF CRIME
(3) Employment status has a significant effect on the fear of crime.

(4) Social class has a significant effect on the fear of crime.

(5) Income has a significant effect on the fear of crime.

(6) Age has a significant effect on the fear of crime.

(7) Sex has a significant effect on the fear of crime.

(8) Marital status has a significant effect on the fear of crime.

**Measurement of Variables**

This section consists of the operational procedures for measuring each variable in both categories; independent variables and dependent variables. These operational definitions are organized in the following manner:


(2) Measurement of dependent variable: the fear of crime.

The independent variables in the present study are measured as follows:
(A) **Age (V7)** - Age is measured in terms of years completed since the respondent was born. The age groups are listed below:

1. Teenage (15-18)
2. Young adult (19-25)
3. Adult (26-64)
4. Senior (65+)
5. Don't know/no answer

(B) **Sex (V261)** - Sex is coded as (1) for male and (2) female. All the don't know/no answer categories are coded as (3).

(C) **Social Class (V324)** - Social class is measured by the following class classifications:

1. Lower working class
2. Middle working class
3. Lower middle class
4. Middle class
5. Upper middle class
6. Lower upper class
(7) Upper class

(9) Don't know/no answer

(D) Marital Status (V245) - Marital status is measured in seven categories:

(1) Single (Under 18 years old)

(2) Single (19 and over)

(3) Married

(4) Separated

(5) Divorced

(6) Widowed

(7) Living together

(9) Don't know/no answer

(E) Income (V325) - Income is measured in terms of the respondents annual earnings:

(1) No income

(2) $100 to $3,000

(3) $3,001 to $5,000

(4) $5,001 to $8,000

(5) $8,001 to $12,000

(6) $12,001 to $18,000

(7) $18,001 to $25,000
(8) $25,001 and over
(9) Don't know/no answer

(F) Employment (V30b) - Employment is measured by the working status of employee:
(1) Work for someone else
(2) Self-employed
(9) Don't know/no answer

(G) Occupation (V304) - For the purpose of Log Linear modeling, the occupations are grouped into high status and low status occupations. Specially, the categories include:
(1) Professional, technical and kindred workers/managers, officials and proprietors (except farm)

(2) Farmers, clerical and kindred workers, sales workers, craftsmen, foreman and kindred workers, brick masons, stone masons and tilesetters, tailors and tailoresses, operatives and kindred workers, private household workers,
laundresses-private household, service workers (except private household) and laborers.

(3) Student
(4) Don't know/no answer.

The dependent variable, fear of crime, is measured by the respondents' ratings to the degree of their feeling "safe alone" during the day (V41) and during the night (V42).

The ratings involved a five point scale:

(1) Very safe
(2) Reasonably safe
(3) Somewhat unsafe
(4) Very unsafe
(9) Don't know/no answer

Methodology

The methodology discusses the theoretical aspects of various statistical methods performed for the purpose of analyzing the data. Since this study is a secondary analysis, that is, utilizing the data from a study, a test of reliability was not conducted. The data analysis has been
conducted on two levels: descriptive and analytical procedures.

**Descriptive Procedures**

The descriptive procedures include frequencies, percentages, mean and standard deviation. Levin (1983) gives a simplistic definition to each of these descriptive procedures:

1. **Frequency (f)** - indicates the number of cases in each category of responses. Symbolically, \( N = 100 \) represents that the total number of all cases in the sample equal to 100.

   \[ N = \sum f = 100 \]

2. **Percentage** - is the frequency of occurrence of a category per 100 cases. The formula for percentage is:

   \[ \text{Percentage} = \left( \frac{f}{N} \right) \times 100 \]

3. **Mean** - is obtained by adding up a set of scores and dividing by the number of scores. The formula to compute the mean is:
\[ X = \frac{\sum x}{N} \]

where,

- \( X \) = The mean
- \( \sum \) = The sum
- \( x \) = A raw score in a set of scores
- \( N \) = The total number of scores in a set

(4) **Standard deviation** - is the square root of the squared deviations from the mean of a distribution. The following formula is used to obtain standard deviation:

\[ SD = \frac{\sum (x_i - x)^2}{N} \]

where,

- \( SD \) = The standard deviation
- \( (x_i - x) \) = The sum of the squared deviations from the mean
- \( N \) = The total number of scores

Measuring Significance: T-test

Nie (1975), mention five stages that are commonly used to test sample differences:
(1) A null hypothesis and a corresponding alternative hypothesis are formulated. The null hypothesis (Ho) must be a precise statement for which the investigator's t-statistic (and probability) can be computed.

Typically, Ho is what the researcher is trying to disprove or reject so that the alternative hypothesis (H1) can be accepted. Most often Ho states that the population means are the same (Ho: u1 = u2). Another possible statement for Ho is that the population means differ by a specific amount, for example, Ho: u1 - u2 = 5.2. H1 is usually the set of all other possible outcomes (for example, H1: u1 = u2.

(2) A "significant level" (also known as alpha) for testing Ho is chosen. Since sampling is being used, a decision to accept or reject Ho cannot be made with absolute certainty; the decision must be based on probabilities. The significance level is the smallest probability that will be accepted as reasonable, i.e., due to chance or sample variability.
(3) The samples are taken and the two sample means and variances are computed.

(4) Assuming Ho is true, the t-statistic is computed. From the frequency distribution of the statistic, the probability of getting a more extreme value of the statistic is computed. Intuitively, this is the probability of drawing two samples that differ more than the pair actually drawn.

(5) If the probability computed in the step 4 is smaller than the significance level chosen in step 2, Ho is rejected. If the probability is larger, Ho is accepted. However, this does not necessarily imply that Ho is true, only that the situation is not significantly different.

Typical values for the significance level chosen in step 2 are .05 or .01. The specific value of the significance level chosen is based on the seriousness of the type I error (rejecting Ho when it is true) as opposed to type II error (accepting Ho when it is false). The significance level is exactly the probability of rejecting Ho when it is
true. Thus, if type I error is very serious, the significance level would be set correspondingly low (.001 is sometimes used). On the other hand, if type II error has the worse consequence, the significance level could be raised, e.g., .10.

**Analytical Procedures**

Log linear analysis is employed to examine variables which relate economic and demographic characteristics of individuals to their fear of crime. A brief description of this method is given below:

Nie (1975) presented a systematic description of log linear analysis as a general procedure which does model fitting, hypothesis testing, and parameter estimation for any model that has categorical variables as its major components. As such, log linear analysis subsumes a variety of related techniques, including general models, logistic regression, quasi-independent models, and so on. Babbie (1983) describes the interrelations among variables and then compares expected and observed table-cell frequencies. Reynolds (1977) describes the process: at the outset of log linear analysis, as in most statistical procedures,
the investigator proposes a model that he feels might fit those data. The model is a tentative statement about how a set of variables is interrelated. After choosing the model, he next estimates the frequencies expected in a sample of a given size, if the model were true. He then compares these estimates, \( F \), with the observed values.

Babbie (1983) describes two shortcomings in this technique:

1. Its logic makes certain mathematical assumptions that may not be satisfied by a particular set of data, though this issue is far too complex to be pursued here.

2. As with other summary techniques we have discussed, the results of log linear analysis do not permit the immediate, intuitive grasp possible in simple comparisons of percentages or means. So log linear methods would not be appropriate (even if statistically justified) in cases where the analysis can be managed through simple percentage tables. It
is best reserved for complex situations in which tabular analyses are not powerful enough.

Goodman (1984) has an additional description of log-linear models in analyzing a two-way cross-classification table for two qualitative (dichotomous and/or polytomous) variables for three purposes:

(1) To examine the joint distribution of the variables:

-for the two-way table, the corresponding two variables will be called variables A and B: This distribution can sometimes be expressed conveniently in terms of the following components

-a component pertaining to the univariate distribution of variable A

-a component pertaining to the univariate distribution of variable B

-a component pertaining to the association between variables A and B.

Expressing the joint bivariate distribution of variables A and B in this way is useful when the association between the variables is of special interest. When the
association between the variables is of interest but their univariate distributions are not, the log linear models for the analysis of association are particularly useful.

(2) To assess the possible dependence of a response variable upon an explanatory or regressor variable:

-Joint bivariate distribution of variable A and B can also be expressed in the following two components: a component pertaining to the univariate distribution of variable A and a component pertaining to the possible dependence of variable B and variable A. Expressing the joint bivariate distribution in this way is useful when the possible dependence of variable B and variable A is of special interest. When this possible dependence is of special interest but the univariate distribution variable A is not, the log linear models for the analysis of dependence are particularly useful.

(i) To study the association between two response variables:
log linear models for the analysis of the association between variables A and B cannot be used to shed light (either directly or indirectly) upon the univariate distribution of variable A or variable B. Similarly, log linear models for the analysis of the dependence of variable B on variable A cannot be used to shed light (either directly or indirectly) upon the univariate distribution of variable B. When the interest in the joint bivariate distribution of variable A and B is not confined to the association between the two variables, or the possible dependence of one of the variables on the other, then other log linear models for the analysis of the joint distribution will be useful.

**Log linear Analysis: Some Methodological Issues**

The analytical procedures employed in this study include the log linear analysis, likelihood ratio, estimated expected values and estimated u-terms. Feinberg (1977) gives an illustration of each of these methods through simple formulas.
(1) **Goodness-of-Fit Statistic**

Once we have estimated expected values under one of the log linear models, the goodness-of-fit model can then be checked using either of the following statistics:

\[
X^2 = \sum \frac{(OBSERVED - EXPECTED)^2}{EXPECTED}
\]

\[
G^2 = 2 \sum \frac{(OBSERVED) \log \{(OBSERVED) / EXPECTED\}}{EXPECTED}
\]

Expression (1.1) is the general form of the Pearson chi-square statistic, and expression (1.2) is two times the logarithm of the likelihood ratio test statistic used for unrestricted alternative. If the model fitted is correct and the total sample size is large, both \(X^2\) and \(G^2\) have approximate \(X^2\) distributions with degrees of freedom given by the following formula:

\[
d.f. = \text{number of cells} - \text{number of parameters}
\]

where, \(d.f.\) = degrees of freedom. (1.3)

(2) **Estimated Expected Values**

Feinberg (1983) uses five models to explain the estimated expected values:
(a) Poisson Model— A procedure in which observed cell counts are viewed as having independent poisson distributions with the expected counts as their means.

(b) Multinomial— A sample of N individuals or objects is cross-classified according to the categories of the three variables.

(c) Product-

Multinomial— Situations where one or more can be thought of as explanatory variables, and the remainder as response variables.

(d) Model of Complete Independence—

\[ M_{ijk} = \frac{X_{1i} X_{2j} X_{3k}}{N} \]

(e) General Log Model—

\[ \log M_{ijk} = u + u_1(i) + u_2(j) + u_3(k) + u_{12}(ij) + u_{13}(ik) + u_{23}(jk) + u_{123}(ijk) \]

The following general rules for obtaining the estimated expected values for all five models are listed:
(i) For each variable, look at the highest-order effect in the log linear model involving that variable;

(ii) Compute the observed marginal totals corresponding to the highest-order effects in (1) - e.g.,
\{X_{ij+} | i = 1, 2; j = 1, 2\} corresponds to
\{u_{12(ij)} | i = 1, 2; j = 1, 2\}; and

(iii) Estimate the expected values for the model using only the sets of observed marginal totals in (2), or totals that can be computed from them.

(3) **Estimated U-Terms**

Estimated U-terms in log linear models can be expressed as a linear combination of the logarithms of the expected values (or equivalently the logarithms of the cell probabilities), where the weights or coefficients used in the linear combination add to zero. Such linear combinations are referred to as linear contrasts. For example, if we set \( Z_{ijkl} = \log P_{ijkl} \) or \( Z_{ijkl} = \log M_{ijkl} \) in a four-dimensional table, then
\[ u_{1234}(ijkl) = Z_{ijkl} - 1Z + 1Zi + kl - lZij + lZijk + \]
\[ IJ K L \]
\[ + 1Z++kl + 1Z+j+1 + 1Z+jk+ + 1Z++l + lZi+k \]
\[ JK IK IL JK JL \]
\[ + 1Zij++ - 1Z+++ - 1Z++k+ - 1Z+j++ \]
\[ KL IJK IJL IKL \]
\[ - 1Zi+++ + LZ++++ \]
\[ JKL IJKL \]

Other u-terms for the $2 \times 2 \times 2 \times 2$ table have the same form with coefficients $B_{ijkl} = +/- 1/16$, just as in the conventional analysis of variance.

This completes chapter III.
CHAPTER IV

DATA ANALYSIS
This chapter will discuss empirical results of the selected economic and demographic factors as they influence the fear of crime. The two levels of statistical methods used include descriptive and analytical techniques. The descriptive statistics will describe the sampled respondents in a convenient and understandable form. Secondly, the analytical statistics will establish certain statistical relationships between the variables and test hypotheses (Runyon et al. 1894).

**Descriptive Analysis**

This section reflects descriptive aspects of the data, which include frequencies, percentages, mean and standard deviation. Table 4.1 shows the distributions of the sampled respondents by selected characteristics:

1. **Fear of Crime** - There are two items to measure fear of crime:
   
   (a) Fear of crime when alone during the day
   
   (b) Fear of crime during the night.
TABLE 4.1 DISTRIBUTION OF RESPONDENTS BY SELECTED CHARACTERISTICS

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>NUMBER</th>
<th>PERCENT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(N=621)</td>
<td></td>
</tr>
<tr>
<td><strong>Fear of Crime</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Safe Alone During Day</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very safe</td>
<td>436</td>
<td>70.2</td>
</tr>
<tr>
<td>Reasonably safe</td>
<td>133</td>
<td>21.4</td>
</tr>
<tr>
<td>Somewhat unsafe</td>
<td>19</td>
<td>3.1</td>
</tr>
<tr>
<td>Very safe</td>
<td>16</td>
<td>2.6</td>
</tr>
<tr>
<td>Don't know/no answer</td>
<td>17</td>
<td>2.7</td>
</tr>
<tr>
<td>Safe Alone During Night</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very safe</td>
<td>210</td>
<td>33.8</td>
</tr>
<tr>
<td>Reasonably safe</td>
<td>164</td>
<td>26.4</td>
</tr>
<tr>
<td>Somewhat unsafe</td>
<td>112</td>
<td>18.0</td>
</tr>
<tr>
<td>Very safe</td>
<td>112</td>
<td>18.0</td>
</tr>
<tr>
<td>Don't know/no answer</td>
<td>23</td>
<td>3.7</td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>258</td>
<td>41.5</td>
</tr>
<tr>
<td>Married</td>
<td>209</td>
<td>33.7</td>
</tr>
<tr>
<td>Separated, Divorced, Widowed</td>
<td>132</td>
<td>21.3</td>
</tr>
<tr>
<td>Living together</td>
<td>7</td>
<td>1.1</td>
</tr>
<tr>
<td>Don't know/no answer</td>
<td>15</td>
<td>2.4</td>
</tr>
</tbody>
</table>
TABLE 4.1 CONT'D

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>NUMBER</th>
<th>PERCENT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>(N=621)</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non elderly (-65)</td>
<td>535</td>
<td>86.2</td>
</tr>
<tr>
<td>Elderly (65+)</td>
<td>78</td>
<td>12.6</td>
</tr>
<tr>
<td>Don't know/no answer</td>
<td>8</td>
<td>1.3</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>256</td>
<td>41.2</td>
</tr>
<tr>
<td>Female</td>
<td>357</td>
<td>57.5</td>
</tr>
<tr>
<td>Don't know/no answer</td>
<td>8</td>
<td>1.3</td>
</tr>
<tr>
<td>Social Class</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower class</td>
<td>164</td>
<td>26.4</td>
</tr>
<tr>
<td>Middle class</td>
<td>46</td>
<td>7.4</td>
</tr>
<tr>
<td>Upper class</td>
<td>348</td>
<td>56.0</td>
</tr>
<tr>
<td>Don't know/no answer</td>
<td>63</td>
<td>10.2</td>
</tr>
<tr>
<td>Occupation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed (high status)</td>
<td>116</td>
<td>18.1</td>
</tr>
<tr>
<td>Employed (low status)</td>
<td>282</td>
<td>45.4</td>
</tr>
<tr>
<td>Unemployed</td>
<td>130</td>
<td>20.9</td>
</tr>
<tr>
<td>Don't know/no answer</td>
<td>93</td>
<td>14.9</td>
</tr>
<tr>
<td>VARIABLE</td>
<td>NUMBER</td>
<td>PERCENT</td>
</tr>
<tr>
<td>--------------------------</td>
<td>--------</td>
<td>---------</td>
</tr>
<tr>
<td></td>
<td>(N=621)</td>
<td></td>
</tr>
<tr>
<td>Income</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No income to $8,000</td>
<td>146</td>
<td>23.5</td>
</tr>
<tr>
<td>$8,001 to $18,000</td>
<td>103</td>
<td>16.6</td>
</tr>
<tr>
<td>$18,001 to $25,000</td>
<td>61</td>
<td>9.8</td>
</tr>
<tr>
<td>$25,001 and over</td>
<td>121</td>
<td>19.5</td>
</tr>
<tr>
<td>Don't know/no answer</td>
<td>190</td>
<td>30.6</td>
</tr>
<tr>
<td>Employment Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work for someone</td>
<td>218</td>
<td>35.1</td>
</tr>
<tr>
<td>Self - Employed</td>
<td>31</td>
<td>5.0</td>
</tr>
<tr>
<td>Don't know/no answer</td>
<td>372</td>
<td>59.9</td>
</tr>
</tbody>
</table>
These two items exhibit the following patterns:

(1) During the day - Of the total respondents, seventy percent felt very safe, twenty-one percent reasonably safe, three percent felt somewhat unsafe and the remaining felt very safe. Approximately, five percent did not answer the question.

(2) During the night - Thirty-three percent of the respondents felt very safe, twenty-six percent reasonably safe, eighteen percent somewhat unsafe and eighteen percent very unsafe. Nearly three percent did not answer the question.

(2) Marital Status - There are five categories of marital status:

(a) Single

(b) Married

(c) Separated, divorced or widowed

(d) Living together

(e) Don't know/no answer.

Table 4.1 indicates that the sample consisted of: forty-one percent - single, thirty-three percent married, twenty-one percent - separated, one percent - living together and one percent who did not answer the question.
(3) **Age** - Many of the respondents were found to be non-elderly with age less than 65 years (86 percent), while only twelve percent of the respondents were elderly or senior citizens.

(4) **Sex** - The sample distribution indicates that forty-one percent were males and fifty-seven percent were females.

(5) **Social Class** - The respondents were separated into three categories in terms of their social class:
   
   (a) Lower class
   
   (b) Middle class
   
   (c) Upper class.

Table 4.1 shows that twenty-six percent belonged to the lower class, seven percent middle class and fifty-six percent belonged to the upper class.

(b) **Occupation** - Nearly eighteen percent were employed in high status occupations and forty-five percent were employed in low status occupations. About twenty percent were unemployed and fourteen percent did not answer the question.
(7) **Income** - There were five categories of income:

(a) No income to $8,000

(b) $8,001 to $18,000

(c) $18,001 to $25,000

(d) $25,001 and over

(e) Don't know/no answer.

No income to $8,000 - twenty-three percent, $8,001 to $18,000 - sixteen percent and thirty percent did not answer the question.

(8) **Employment Status** - There were three categories of employment status:

(a) Work for someone

(b) Self-employed

(c) Don't know/no answer.

Work for someone - thirty-five percent, self-employed - five percent and fifty percent did not answer the question.
Table 4.2 presents information for each variation for the mean, standard deviation and coefficient of variation. The mean values varied between the lowest mean for employment status and the highest for income. Standard deviation is the lowest as well for employment status. The highest standard deviation is found for the dependent variable, the fear of crime during the night.

Analytical Procedures

Table 4.3 presents the likelihood ratio and the corresponding significance level of the fear of crime by the economic and demographic variables. The likelihood ratio for the fear of crime during the day/night, can be seen through the economic and demographic variables. The statistical significance is found in the economic variable as related to the fear of crime during the night. On the other hand, demographic variables are found to be significantly related to both day and night.

The estimated effects of four economic factors on the fear of crime during the day and the night are presented in Table 4.4. The expected odds are larger for the fear of crime during the night (.669) compared to the day (.061).
TABLE 4.2 MEAN, STANDARD DEVIATION AND COEFFICIENT OF VARIATION OF SELECTED CHARACTERISTICS

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>MEAN</th>
<th>STD. DEV.</th>
<th>COFF/VAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fear of crime (D)</td>
<td>1.363</td>
<td>.674</td>
<td>.49450</td>
</tr>
<tr>
<td>Fear of crime (N)</td>
<td>2.211</td>
<td>1.116</td>
<td>.50475</td>
</tr>
<tr>
<td>Marital Status</td>
<td>1.815</td>
<td>.810</td>
<td>.44628</td>
</tr>
<tr>
<td>Age</td>
<td>1.127</td>
<td>.334</td>
<td>.29636</td>
</tr>
<tr>
<td>Sex</td>
<td>1.582</td>
<td>.494</td>
<td>.31226</td>
</tr>
<tr>
<td>Social Class</td>
<td>1.789</td>
<td>.576</td>
<td>.32197</td>
</tr>
<tr>
<td>Occupation</td>
<td>1.709</td>
<td>.455</td>
<td>.26024</td>
</tr>
<tr>
<td>Income</td>
<td>2.364</td>
<td>1.214</td>
<td>.51354</td>
</tr>
<tr>
<td>Employment Status</td>
<td>1.124</td>
<td>.331</td>
<td>.29448</td>
</tr>
</tbody>
</table>

STD. DEV. = Standard Deviation

COFF/VAR. = Coefficient of Variation

D = Represents Day

N = Represents Night
TABLE 4.3
STATISTICS FOR LOG-LINEAR ANALYSIS OF FEAR OF CRIME BY
ECONOMIC AND DEMOGRAPHIC VARIABLES

<table>
<thead>
<tr>
<th>MODEL</th>
<th>V41</th>
<th>V42</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$L^2$</td>
<td>$X^2$</td>
</tr>
<tr>
<td>ECONOMIC</td>
<td>39.04</td>
<td>32.23</td>
</tr>
<tr>
<td>DEMOGRAPHIC</td>
<td>53.02*</td>
<td>47.88*</td>
</tr>
</tbody>
</table>

* = Significance Level of at least .05
V41 = Fear of Crime during the day
V42 = Fear of crime during the night
$L^2$ = Likelihood Ratio
$X^2$ = Chi Square
DF = Degree of Freedom
<table>
<thead>
<tr>
<th>EFFECTS</th>
<th>SAFE v/s UNSAFE DURING DAY</th>
<th>SAFE v/s UNSAFE DURING NIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expected Odds</td>
<td>.06141</td>
<td>.66998</td>
</tr>
<tr>
<td>Overall Effects</td>
<td>.00900</td>
<td>.52912</td>
</tr>
<tr>
<td>Fear of Crime, Occupation</td>
<td>12.7364</td>
<td>.57962</td>
</tr>
<tr>
<td>Fear of Crime, Employment</td>
<td>.83611</td>
<td>8.51713</td>
</tr>
<tr>
<td>Fear of Crime, Social Class</td>
<td>.28441</td>
<td>.50985</td>
</tr>
<tr>
<td>Fear of Crime, Income</td>
<td>6.20990</td>
<td>.47564</td>
</tr>
<tr>
<td>Fear of Crime, Occupation, Employment</td>
<td>.75368</td>
<td>1.08131</td>
</tr>
<tr>
<td>Fear of Crime, Occupation, Employment, Social Class, Income</td>
<td>.50777</td>
<td>.97815</td>
</tr>
</tbody>
</table>
This indicates that out of every 100 persons, 67 have a fear of crime during the night, while only 6 "fear for crime during the day" for specific economic reasons.

Income and occupation are the leading factors that affect the fear of crime during the day. This pattern provides evidence from the estimated individual effects of occupation (12.7364) and income (6.2099). Employment showed the next most significant effect on the fear of crime during the night (8.51%). The two and three way interactions have a larger effect on the fear of crime during the night than during the day. See Table 4.4.

Table 4.5 continues with the demographic factors and their overall effects on the fear of crime. Age ranges have a larger individual effect on the fear of crime during day (8.440) and night (10.358). The next largest effect is gender, (2.4208) in that women showed more fear of crime during the day. The interactions (both two and three-way) have larger estimated effects on the fear of crime during the day as well as the night, compared to economic variables. See Table 4.5.

The estimated U-term and standardized values for the economic factors are presented in Table 4.6 as related to
### TABLE 4.5

**ESTIMATED EFFECTS OF DEMOGRAPHIC FACTORS ON FEAR OF CRIME**

<table>
<thead>
<tr>
<th>EFFECTS</th>
<th>SAFE v/s UNSAFE DURING DAY</th>
<th>SAFE v/s UNSAFE DURING NIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expected Odds</td>
<td>.29356</td>
<td>.86768</td>
</tr>
<tr>
<td>Overall Effects</td>
<td>.00996</td>
<td>.01044</td>
</tr>
<tr>
<td>Fear of Crime, Age</td>
<td>8.44014</td>
<td>10.35825</td>
</tr>
<tr>
<td>Fear of Crime, Sex</td>
<td>2.42083</td>
<td>1.71559</td>
</tr>
<tr>
<td>Fear of Crime, Marital Status</td>
<td>.92313</td>
<td>1.02405</td>
</tr>
<tr>
<td>Fear of Crime, Age, Sex</td>
<td>1.20636</td>
<td>2.03498</td>
</tr>
<tr>
<td>Fear of Crime, Age, Sex, Marital Status</td>
<td>1.29452</td>
<td>2.24428</td>
</tr>
</tbody>
</table>
TABLE 4.6

ESTIMATED U-TERM AND STANDARDIZED VALUES - ECONOMIC FACTORS

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>DAY TIME</th>
<th></th>
<th>NIGHT TIME</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ESTIMATE</td>
<td>Z-VALUE</td>
<td>ESTIMATE</td>
<td>Z-VALUE</td>
</tr>
<tr>
<td>Grand Mean</td>
<td>10.334</td>
<td>.011</td>
<td>.399</td>
<td>2.720*</td>
</tr>
<tr>
<td>Fear of Crime, Occupation</td>
<td>-4.950</td>
<td>-.007</td>
<td>-.272</td>
<td>-3.175*</td>
</tr>
<tr>
<td>Fear of Crime, Employment</td>
<td>1.153</td>
<td>3.959*</td>
<td>1.0710</td>
<td>7.850*</td>
</tr>
<tr>
<td>Fear of Crime, Social Class</td>
<td>.097</td>
<td>.447</td>
<td>-.337</td>
<td>-3.911*</td>
</tr>
<tr>
<td>Fear of Crime, Income</td>
<td>4.301</td>
<td>.007</td>
<td>-.371</td>
<td>-2.255*</td>
</tr>
<tr>
<td>Fear of Crime, Occupation, Employment</td>
<td>-.141</td>
<td>-1.021</td>
<td>.039</td>
<td>.304</td>
</tr>
<tr>
<td>Fear of Crime, Occupation, Employment, Social Class, Income</td>
<td>-.339</td>
<td>-3.548*</td>
<td>-.011</td>
<td>-.133</td>
</tr>
</tbody>
</table>

* = Significance Level of at least .05
the fear of crime during the day and night. The level of significance is also presented. The Z-value for the grand mean for the fear during the night (2.720) is significant. Occupation (-3.175) shows a significant higher correlation estimated for fear during the night. Employment is significant during the day (3.959) and night (7.850). Social class and income are significant only during the night. While this two-way interaction (social class and income) did not show any significant impact on the fear of crime during the day or night time, the effect of the three-way interaction (employment, social class and income) during the day (-3.548) was found to be significant.

Table 4.7 provides the U-term and standardized values for the demographic factors as associates for the fear of crime during the day and night time. The grand mean of the model is significant both during the day (7.907) and night (2.130) time. The individual effects for sex are also significant during the day and night time. Marital status is significant only during the night (2.053) time. Among the interactions, only the three-way interaction (age, sex and marital status) is significant during the day (2.691) and night time.
TABLE 4.7

ESTIMATED U-TERM AND STANDARDIZED VALUES – DEMOGRAPHIC FACTORS

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>DAY TIME</th>
<th></th>
<th>NIGHT TIME</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ESTIMATE</td>
<td>Z-VALUE</td>
<td>ESTIMATE</td>
<td>Z-VALUE</td>
</tr>
<tr>
<td>Grand Mean</td>
<td>1.573</td>
<td>7.907*</td>
<td>.190</td>
<td>2.130*</td>
</tr>
<tr>
<td>Fear of Crime, Age</td>
<td>1.066</td>
<td>6.449*</td>
<td>1.168</td>
<td>13.117*</td>
</tr>
<tr>
<td>Fear of Crime, Sex</td>
<td>-.476</td>
<td>-3.001*</td>
<td>-.188</td>
<td>-3.480*</td>
</tr>
<tr>
<td>Fear of Crime, Marital Status</td>
<td>.092</td>
<td>.809</td>
<td>.105</td>
<td>2.053*</td>
</tr>
<tr>
<td>Fear of Crime, Age, Sex</td>
<td>-.041</td>
<td>.475</td>
<td>.017</td>
<td>.189</td>
</tr>
<tr>
<td>Fear of Crime, Age, Sex,</td>
<td>.129</td>
<td>2.691*</td>
<td>.109</td>
<td>2.243*</td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* = Significance Level of at least .05
This chapter has presented the data analysis. The following chapter will focus on the summary, conclusions and implications.
CHAPTER V

SUMMARY, CONCLUSIONS AND IMPLICATIONS
CHAPTER V

SUMMARY, CONCLUSIONS AND IMPLICATIONS

Summary

This chapter summarizes the materials presented in previous chapters and draws crucial conclusions from the research.

The study reviewed the earlier findings focusing on factors affecting the fear of crime. Many of these studies did not measure the relative strengths of economic and demographic variables. In explaining the dynamics of the fear of crime at the individual level, this study has undertaken such assignment to bridge the gap in the present level of understanding.

Conclusions

As a result of this study, conclusions were drawn for eight hypotheses.

Hypothesis I

The first hypothesis proposed in this study was that demographic characteristics have less impact on the fear of crime compared to economic characteristics. Table 4.3 indicated that the likelihood ratios for demographic
variables were significantly associated with the fear of crime both during the day (53.02*) and night (57.33*), while economic variables were significant only during night (78.20). The corresponding chi-square values exhibited similar patterns 47.88* and 50.12* for demographic factors and 71.12* for economic factors; therefore, our first hypothesis can be accepted as proposed.

Hypothesis II

The second hypothesis tested was that occupation had a significant effect on the fear of crime. Table 4.6 illustrates that among the economic factors, occupation (-3.175*) has the maximum effect on the fear of crime during the night time. Occupation has no significant effect on the fear of crime during the day time; therefore, this hypothesis has been confirmed.

Hypothesis III

The third hypothesis tested was that employment status has a significant effect on the fear of crime. Table 4.6 indicated that among the economic factors, employment status shows significance during the day (3.959*) as well as the night (7.850*) time. This hypothesis has been confirmed.
**Hypothesis IV**

The fourth hypothesis proposed was that social class had no significant effect on the fear of crime. Social Class had no significance on the fear of crime during the day time. As shown in Table 4.6, the economic factors Social Class (-3.911*) had a significant effect on the fear of crime during the night time. This hypothesis has been confirmed.

**Hypothesis V**

The fifth hypothesis tested in this study was that income had a significant effect on the fear of crime. Income was not significant on the fear of crime during the day time. Table 4.6 indicated that among the economic variables, income (-2.255*) did have a significant effect on the fear of crime during the night time. This hypothesis can be accepted as stated.
Hypothesis VI

The sixth hypothesis tested was that age had a significant effect on the fear of crime. Table 4.7 shows that among the demographic factors, age is significantly associated with the fear of crime during the day (6.449*) and night (13.117*) time. This hypothesis can be accepted as proposed.

Hypothesis VII

The seventh hypothesis to be tested was that gender (sex) had a significant effect on the fear of crime. Table 4.7 provides the association for the fear of crime both during the day and night. Among the demographic factors, gender (sex) does have a significant effect during the day (-3.001*) and night (-3.448*) time. This hypothesis can be accepted as proposed.

Hypothesis VIII

The eighth hypothesis tested in this study was that marital status had a significant effect on the fear of crime. Marital status had no significant effect on the fear of crime during the day. As shown in Table 4.7, the
demographic factor marital status has a significant effect during the (2.053*) night time. This hypothesis has been confirmed.

Implications

The study has reviewed several findings to enhance the understanding of the fear of crime. Although the study had a clear focus on the fear of crime, the statistical analysis yielded a higher level of fear for age and females. Future studies may attempt to focus on other cultural factors.

This study has viewed the fear of crime at two levels: the fear of crime during the day and the fear of crime during the night. In the eight hypotheses proposed in the study, three hypotheses were fully confirmed for day and night, and the remaining five have gained partial support as they impact for day and night for fear of crime. Of the economic factors, occupation, employment, social class and income and the demographic factors, age sex and marital status reviewed, all are factors that have impact on the fear of crime.
Although this study has made an attempt to analyze the certain variables influencing one's fear of crime, there are areas left open for future research. One area for future research may include the age at which the fear of crime can be said to arise, and what behaviors change once the fear is solidified.
BIBLIOGRAPHY
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Debro, Julius et al. "Race and Crime Study." Criminal Justice Institute, Atlanta University, Atlanta, Georgia (1980).


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APPENDICES
APPENDIX A

The data was taken from a survey conducted in 1972 of the age group ranging from fifteen years and older in New Jersey, Iowa and Oregon. The sample size of 1,933 was selected. The indexes included social class, social mobility and criminality. The social class index includes family, income, occupation and education of the individual. Social mobility was indexed into four categories:

(1) Laborers;
(2) skilled blue-collar workers, foreman, and craftsmen;
(3) clerical, sales, and other white-collar workers; and
(4) professional or managerial workers.

Criminality indexed by comparing the occupational level of the respondent or the head of the respondents household with the occupation of the head of the respondents household when growing up. There are six criminal acts considered in criminality:

(1) Taking something that does not belong to you worth about $5.00.
(2) Taking something that does not belong to you worth about $50.00.
(3) Gambling illegally.
(4) Cheating on your income tax.
(5) Physically harming somebody on purpose.
(6) Smoking marijuana.

Respondents registered the frequency with which they had done each of these acts over the past five years ("past offenses"), and they estimated the probability that they would engage in the behavior in the future ("If you were in a situation tomorrow, where you had an extremely strong desire or need to behavior, what are the chances that you actually would do it?"). The results of the study show;

(1) In most cases, there are no significant differences at all among the status groups;

(2) Where significant differences among the groupings are revealed, the variations are opposite in direction to those generally assumed; and

(3) There are consistent patterns of status variation
across the six offenses only when non-white females estimate the future probability of crime, and then the pattern is not what most theories would lead us to expect.
APPENDIX B

(1) Serious Crime

Sometimes in residential areas there are crimes such as burglary, robbery and assaults. I'd like to talk a bit about burglary, i.e., people breaking into your house and stealing things.

On the street, how frequently do burglaries happen?
What would be your best guess about how often burglaries happen on your street?

Never
Very rarely
Once in a while
Fairly often
Repeatedly
Don't know/no answer

On your street, how frequently do robberies happen? i.e., someone holding up another person or place of business with a gun or a knife for the purpose of getting money or some other goods. What would be your best guess?
Never
Very rarely
Once in a while
Fairly often
Repeatedly
Don't know/no answer

On your street, how frequently do assaults happen? i.e., someone, or a group, attacking or beating up someone else for no apparent reason. What would be your best guess?

Never
Very rarely
Once in a while
Fairly often
Repeatedly
Don't know/no answer

(2) Crime and Fear of Crime

Now, I'd like to ask you a few additional questions about crime or the fear of crime. Within the last year or two do you think that crime in the United States has increased, decreased, or remained about the same?
Increased
Same
Decreased
Don't know/no answer

Within the past year or two do you think that crime in your community has increased, decreased, or remained about the same?

Increased
Same
Decreased
Don't know/no answer

How about any crime that may be happening in your community. Would you say they are committed mostly by the people who live here in this community or mostly by outsiders?

No crime happen in community
Outsiders
Equally by both
People living here
Don't know/no answer
How do you think your community compares with others in this metropolitan area in terms of crime? Would you say it is (just give me your best guess.)

Much more dangerous
More dangerous
About average
Less dangerous
Much less dangerous
Don't know/no answer

How do you feel (or would you feel) being out alone in your community during the day?

Very safe
Reasonably safe
Somewhat unsafe
Very unsafe
Don't know/no answer

How about at night—how safe do you feel (or would you feel) being alone in your community at night?
Very safe
Reasonably safe
Somewhat unsafe
Very unsafe
Don't know/no answer

Do you think that people in this community have limited or changed their activities in the past few years because they are afraid of crime?

Yes
No
Don't know/no answer

(a) In general, have you limited or changed your activities in the past few years because of crime?

Yes
No
Don't know/no answer

(b) If yes, can you give me an example or two of these changes in activities?