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# AN ANALYSIS OF GENDER DIFFERENCES IN PROPERTY CRIME ARREST RATES

A Dissertation

Submitted to the Graduate Faculty of the Louisiana State University and Agricultural and Mechanical College In partial fulfillment of the Requirements for the degree of Doctor of Philosophy

> In The Department of Sociology

> > by

Chanika Renee Jones B.A., Louisiana State University, 2002 M.A., Louisiana State University, 2003 M.A., Louisiana State University, 2005 December 2007

# Dedication

To the true loves of my life,

Terry and Victoria

#### Acknowledgements

First and foremost, I must thank the creator of all things and people alike, Jehovah God, for endowing me with the necessary intelligence, patience, and diligence to complete the arduous task of earning a doctoral degree. His generosity and grace did not end there. He further placed me in the protective care of family and friends, without whom, this goal would have been unattainable.

Family. Thank you to my husband Terry who always sought to provide the necessary support to ensure the successful completion of my doctoral degree. His unwavering love comforted and sustained me throughout the graduate process. Thank you to my daughter Victoria for always reminding me that my graduate school experiences were not mine alone but that they were shared with my family. Thank you to my mother Lydia who always expressed great pride in my accomplishments as a student, wife, and mother. Thank you to my aunt Carolyn, who is like a second-mother, for believing in me. Thank you to my Grandmother Mildred whom we affectionately refer to as "Mal" for providing many prayers and meals for my family when I was unable to do so. Thank you to Latrika just for being my sister. Thanks also to my Aunts Evelyn, Anner Jean, and Charlotte, Cousin Angela, and "friends" Jennifer, Jeffery, Joyce, James, Jarren, Gerald, Leah, Claudia, Ronnie, and Betty for being my personal cheering section.

Friends. Thank you to Orlando Green, my little "brother", for his steadfast support. Thank you to Monique Norris for not getting frustrated when I just needed to vent. Thank you to Hagi Bradley for always being there when I needed him and making me laugh when I forgot to. Thank you to Michael and Michelle Boutte for rendering practical assistance with my analysis. Thank you to Dr. T. Elon Dancy, my Theo, for demonstrating greatness. Thank you to Dr. Francesca Mellieon-Williams for the healthy

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competition. Thank you to Kenyetta Nelson-Smith for not giving up. Thank you to Jennifer Fabre for being in my circle. Thank you to Dr. Ashley Reich, for being my confidante. Thank you to Dr. Jospeter Mbuba for the constant encouragement. Thank you to Dr. Amanda Abraham and Michael Bisciglia for rendering aid when I needed it. Thank you to Dr. Joyce M. Jackson for being my inspiration and the first to encourage me to pursue a terminal degree. Thank you to Dr. Huel D. Perkins for the mentorship. Thank you to Dean Marie Hamilton and SREB for the financial support and guidance.

Thanks also to Dr. Edward Shihadeh, Dr. Susan Dumais, Dr. Matthew Lee, and Dr. Elsie Michie for serving on my committee. Additionally, I would like to thank the Sociology Department at Louisiana State University for providing me with a solid academic foundation.

Special Thanks to my dissertation chair, Dr. Thomas Durant, Jr., who in many ways is a father to me. This achievement was possible because he was in my corner. As if I were his daughter, he taught me, he advised me, he mentored me, he counseled me, he disciplined me, and he loved me. At this stage in my life, I never imagined being adopted and having a father to love. While, I never had the benefit of knowing my biological father, having Thomas Durant in my life over the past five years goes a long way towards making up for it! I am forever indebted.

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#### Abstract

This dissertation examines the relationship between employment conditions and property-crime arrest rates of working aged individuals, using gender-specific state-level data from 1979-2001, complied from raw arrest data of the FBI's Uniform Crime Reports and the Census Bureau's annual March Current Population Survey. These data were analyzed using Ordinary Least Squares Regression. The data was disaggregated by gender and underemployment indicators such as percent unemployed, percent subunemployed, percent low wages, and percent low hours, were utilized to test the unemployment-crime relationship. Controls for race (percent minority), age (percent juvenile and percent young adult), and region (State is in the South) were included in this analysis, as they may influence the U-C relationship.

Although some of the findings from this dissertation were unexpected, the analysis revealed labor market indicators influence male and female property crime arrest rates differentially. Specifically, none of the labor market indicators were significant for males, while two labor market indicators were significant for females, namely, percent unemployed and percent low wages. This indicates increases in unemployment and low wages has a more detrimental effect on females. The control variable, percent minority, in the analysis proved to be significant in multiple models for males and females. This indicates that areas with substantial minority populations will have increased property crime arrest rates for both male and female offenders. These findings verify the supporting literature as well as some of the theoretical assumptions of this dissertation.

This dissertation also empirically illustrated that the gender gap in property crime arrest rates between 1980 and 2000 has narrowed. Specifically, during the period of 1980, the mean property crime arrest rate for males 3.8 times more than that of females.

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During the period of 1990, the mean property crime arrest rate for males was 3.14 times more than that of females. During the period of 2000, the mean property crime arrest rate for males was 2.37 times more than that of females. Essentially, a trend was detected. This indicates the mean difference between male and female property crime arrest rates declined between 1980 and 2000. Thus, the primary research question of this dissertation, concerning trends, has been empirically satisfied.

While the analysis for this dissertation yielded mixed and inconclusive results, as far as identifying key predictors for property crime arrests rates for male and female offenders, this study established the groundwork for developing a working model in order to conduct gender difference research in criminology.

# Chapter 1 Introduction

# 1.1 An Overview

During the year of 2005, the Bureau of Justice Statistics (BJS) reported that property crime<sup>1</sup> made up nearly three-quarters of all crime committed in the United States, thereby making property crime the single most common category of criminal offenses. Accordingly, an estimated 10.2 million property crimes<sup>2</sup> were reported during 2005, with just over 1.5 million resulting in arrests (Uniform Crime Report (UCR) 2005). Property crime is the crime category of choice for male and female offenders alike. More recently though, there has been a dramatic shift or decrease in property crime participation by males that has resulted in arrest. For example, between the years of 1996 and 2005 property crime arrests for males decreased by 26.6 percent; during that same period, property crime arrest rates for females decreased by only 10.7 percent. The total number of property crime arrests for males decreased from 886,798 in 1996 to 651,352 in 2005. During the same period the total number of property crime arrests for females decreased from 351,879 in 1996 to 314,090 in 2005 (UCR Annual Report 2005). In 2005, males accounted for 68 percent of all property crime arrests, with the remaining 32 percent being attributed to females. The descriptive figures cited above provide some insight as to the importance of examining trends of gender differences for property crime arrest rates.

The prevalence of property crimes ensures that they are not relegated to a specific region of the United States. In fact, all communities of the U.S., regardless of geographic location, socio-economic status and racial composition, to varying degrees, are affected,

<sup>&</sup>lt;sup>1</sup> Property crimes are those offenses where the would-be offenders are in search of economic gain and succeed in their attempts of unlawfully taking the property of another or the willful destruction of the property of another (Gaines and Miller, 2003). The Bureau of Justice Statistics only includes burglary, larceny/theft and motor vehicle theft in its estimation of property crime arrest rates.

<sup>&</sup>lt;sup>2</sup> The Uniform Crime report includes burglary, larceny/theft, motor vehicle theft and arson in its estimation of property crime arrest rates.



Source: The National Crime Victimization Survey, 2005

directly or indirectly, by criminal behaviors and the resultant crime rate. As a result of the pervasiveness of property crime, social scientists and other crime-related professionals have collaborated to systematically study the nature, extent, cause, control and treatment of criminal behavior through varied analytical techniques (Siegel 2004). Additionally, in an effort to provide explanations for this social problem, researchers have attempted to empirically identify key indicators of property crime, which vary by level of analysis (Smith, Devine, and Sheley 1992; Devine, Sheley and Smith 1988; Cantor and Land 1985). The purpose of the current research is to examine predictors of property crime arrest rates for both males and females for three specific periods that span three years each: 1979, 1980, and 1981 (to represent the decade of the 1980s), 1989, 1990, and 1991 (to represent the decade of the 1990s), and 1999, 2000, and 2001 (to represent the decade of the 2000s).

## **1.2 Problem Statement**

Critical to studying property crime, which is primarily motivated by economic return, is understanding how labor market conditions, principally unemployment, influence crime. There

are two prevailing schools of thought with respect to the unemployment-crime relationship. A fraction of criminological scholars have found that unemployment reduces suitable crime targets because residential dwellings are occupied, thereby decreasing property crime and subsequent property crime arrest rates (Fagan and Freeman 1999; Cantor and Land 1985). However, the vast majority of scholars believe that property crime is economically motivated and, hence, increases when legitimate income opportunities, such as employment, have waned (Thornberry and Christenson 1984; Hughes and Carter 1981; Long and Witte 1981). This research serves to lend support to the latter perspective as it is related to the guiding theory, namely, anomie, for this dissertation.

The extant literature on property crime and the unemployment-crime relationship spans several decades and yet it is an ongoing area of exploration in criminological literature. The research in this area suggests that unemployment increases inducements to commit property crime because of economic need (Burdett et al 2003; Young 1993; Smith et al 1992; Chricos 1987, Long and White 1981; Orsagh 1979). While these findings are based on varying levels of analyses, economic factors such as employment and unemployment continue to serve as predictors for property crime and the resultant property crime arrest rates (Devine, Sheley, and Smith 1988).

Scholarship on the unemployment-crime relationship tends to focus primarily on one demographic variable, race, according to Ralston (1999), and rarely, if ever on gender, therefore neglecting to apply this relationship to the female criminal. This research study seeks to address this current deficiency and identify the influence of this relationship on female criminality as compared to male criminality; more specifically the unemployment-crime relationship was utilized in comparing and contrasting both male and female participation in property crime and the subsequent arrest rates for three specific periods during the interval between 1979 and 2001.

It is widely held that crime is an overwhelmingly male enterprise. In fact, roughly 90 percent of violent crimes are committed by males. However, in recent years a very different picture of property crime has emerged. Females are making gains in terms of participation in specific property offenses and are not experiencing the current degree of decline in arrests as male offenders are (see Figure 2).



Figure 2: Number of Property Offenses by Gender Source: The Uniform Crime Reports, 1979 – 2001

The gender gap, however, is less pronounced for current property crime arrest rates in that 68 percent of property crime arrests are attributed to males with the remaining 32 percent being attributed to females (BJS 2005). The reduction in property offenses for males and the increased female participation in property crime have led scholars to pursue a more comprehensive examination of the female criminal and the consequences of her actions, namely, arrest and subsequent incarceration (Chesney-Lind 1999). And, although the gender gap in property crime trends nationwide has narrowed in recent decades, female offenders have been excluded from research on the unemployment-crime relationship.

To reiterate, this study attempted to improve on the existing research that explores property crime by distinctly applying the unemployment-crime relationship to all property offenders, males and females. More specifically, this study contributed to the criminological discourse on the unemployment-crime relationship by providing a comparative study on gender differences in property crime arrest rates. Explicitly, this study focuses on property crime, property crime arrest rates, and the subsequent trends for male and female offenders for three specific periods; 1979, 1980, and 1981 (to represent the decade of the 1980s), 1989, 1990, and 1991 (to represent the decade of the 1990s), and 1999, 2000, and 2001 (to represent the decade of the 2000s). The categorical selection of this crime type is based on the prevalence of property crime in this country. Since property crimes are the most common category of criminal offenses for both males and females, there are enough cases nationally and sufficient data for the selected time frame to make a just assessment of gender differences in property crime arrest rates between 1979 and 2001. Therefore, this study utilized labor market indicators, namely, unemployment, subunemployment, low wages and low hours, to test and apply the unemployment-crime relationship to male and female property offenders.

#### **1.3 Research Objectives and Supporting Rationale**

This analysis utilized the framework of Allan and Steffensmeier's (1989) work entitled Youth, Underemployment, and Property Crime: Differential Effects of Job Availability and Job Quality on Juvenile and Young Adult Arrest Rates. This earlier study tested the relationship of employment, job availability (percent (%) unemployed, percent (%) subunemployed) and job quality (percent (%) low hours, percent (%) low wages) on males. These four labor market indicators are the focal variables of this dissertation. For the purpose of this dissertation, the independent variables are conceptualized as follows; percent (%) unemployed is defined as the percent of the labor force without work but looking for work, percent (%) subunemployed is defined as the percent of the labor force that is without work and has been without work for at least twelve months, percent (%) low hour is the percent of the labor force that is employed part-

time (below 31 hours) but would like full-time employment, and percent (%) low wage is the percent of the labor force that works full-time but earns sub-poverty level wages as established by the Social Security Administration. The independent variable percent unemployed is a standard measure of underemployment which measures the availability of employment. The other independent variables measure quality of employment and are included because they "may have structural effects on the level of crime" (Allan and Steffensmeier 1989: p. 107). Although, all of these variables are labor market indicators, they combine to represent different dimensions of economic risk and therefore, affect property crime arrest rates differentially. Specifically, the variables percent unemployed and percent subunemployed speak to the issue of job availability. These variables refer to individuals who are without work but are desirous of work. High concentrations of individuals in a given area who fall into one of these two categories would not have enough monetary resources to legitimately support basic needs, which could, in turn, increase the likelihood of crime in that specific area. Similarly, the variables percent low hour and percent low wage speak to the issue of job quality. These variables refer to individuals who are marginally employed. High concentrations of individuals who fall into one of these two categories may fare better than the previously described individuals; however, they too lack the necessary resources to escape the consequences of poverty, including the increased likelihood of crime in that given area. Based on Allan and Steffensmeier (1989), this dissertation considered those same variables and attempted to determine whether those variables predict female property crime arrest rates. This research effort added to the current body of knowledge by empirically testing and identifying key predictors (employment-whether or not an individual is working, job availability- whether or not employment is available to an individual who is searching for work, and job quality- whether or not employment opportunities meet basic needs of an employee) for female participation in property crime. Modifying the work of Allan and Steffensmeier (1989),

this research study provided an analysis of the influence of unemployment on property crime arrest rates for both males and females and then contrasted and compared those findings for three specific periods between 1979 and 2001.

Finally, building on additional research collections that center on gender and crime such as Milovanovic and Schwartz (1999), and Heimer and Kruttschnitt (2006), this current study explored the contemporary discussion of gender differences in criminality and contributed to this body of knowledge by providing empirical evidence on the question of predictors of female criminality. In essence, this study determined the extent to which the same variables used in male-centered studies, specifically, Allan and Steffensmeier (1989), also serve as predictors of female property crime. This study demonstrated the usefulness of an androcentric structural theory (i.e., a theory that was developed to study male phenomena), specifically anomie, in explaining female criminality, by providing insight on property crime arrest rates by gender from three specific periods between 1979 and 2001.

1. To compare trends in property crime and property crime arrest rates averaged for males and females for three periods, (1979, 1980, 1981 to represent the decade of the 1980s), (1989, 1990, 1991 to represent the decade of the 1990s), and (1999, 2000, 2001 to represent the decade of the 2000s) while controlling for percent (%) minority, age, and region.

The categorical selection of property crime and property crime arrest rates is based on the prevalence and frequency of this particular crime type for male and female offenders alike. Unlike violent crime, there are sufficient data sources on property crime and property crime arrest rates to support an equitable gender-based trend analysis. There are two important aspects regarding the selected time intervals; 1) the selected data sources (UCR/CPS) for this analysis are compatible for this specific time period and 2) an analysis over a twenty-two year period

(1979 to 2001) would allow trend detection; that is, demonstrable evidence of the property crime gender gap can be illustrated through such an analysis.

2. To determine the influence of unemployment and selected independent (percent unemployed, percent subunemployed, percent low hours, and percent low wages) and control variables (minority=percent (%) black and Hispanic, age, and region) on male and female property crime arrest rates averaged for three periods, (1979, 1980, 1981 to represent the decade of the 1980s), (1989, 1990, 1991 to represent the decade of the 1990s), and (1999, 2000, 2001 to represent the decade of the 2000s ) while controlling for percent (%) minority, age, and region.

The unemployment-crime relationship is a viable area of research in criminological literature. As a result of such research, it has been concluded that labor market conditions, such as employment, unemployment, and underemployment, have an effect on crime rates and subsequent arrests. The model for this analysis used specific labor market indicators as independent variables (percent unemployed, percent subunemployed, percent low hours, and percent low wages) and control variables (percent minority=percent black and Hispanic, percent juvenile and percent young adult=age, and state is in the South=region) with a gender-specific research agenda. The earlier model study that was referenced yielded significant results with an all male sample. While this study is also concerned with labor market conditions, it differs in that the research agenda is gender-specific and not age-specific. This analysis sought to determine whether these same labor market indicators also predicted female property crime arrest rates, compared to male property crime arrest rates. The data drawn from the UCR and CPS for this analysis are compatible for the period 1979 to 2001.

Additionally, it has been empirically demonstrated that unemployment influences both violent and property crime rates and subsequent arrests for males (Britt 1994). However, this

relationship has not been explicitly applied to females. Therefore, before this study, it is unknown whether unemployment influences property crime rates and subsequent arrests for females. This study sought to include females in the discourse of the unemployment-crime relationship in order to draw inferences about this relationship and compare and contrast the findings of males to females in three different periods between the years of 1979 and 2001. The UCR and CPS data files that were utilized for this analysis are compatible during this specified time frame.

The two research objectives cited above were used to organize and present the literature review. The research objectives also guided the survey of the extant literature on the theoretical approaches to the unemployment-crime relationship as well as the discussion on gender differences in crime.

# Chapter 2 Literature Review

# **2.1 Introduction**

This chapter highlighted the importance of this study to contemporary criminological literature in its discussion of the unemployment-crime relationship. The primary focus of this study is to determine how labor market indicators, such as employment, influence property crime arrest rates for both male and female offenders. Gender and labor market indices are the two focal variables in this analysis, and, therefore much of the following chapter consists of a review of the theoretical approaches toward these key variables. The organization of the literature review follows this format: a review of the theoretical discussion surrounding gender and crime, the relationship between employment and crime, and a discussion of the deficiencies in current theoretical perspectives regarding gender, employment, and crime.

#### 2.2 Theoretical Explanations of Gender and Crime

#### 2.2.1 Historical View

Classical studies on crime date back to the work of Cesare Beccaria (1738-1797) and Jeremy Bentham (1748-1832), which was concerned primarily with law making and legal processes rather than crime itself. Their combined efforts centered on legal definitions for crime committed by males with no mention of females. The study of female criminality began with the work of Cesare Lombroso in 1895. This work was an early attempt, though nonscientific, at the inclusion of females in studies on crime, with particular emphasis on comparative assessments of the female criminal with the traditional male criminal. Lombroso's contentions were largely based on the idea that gender differences in crime were embedded in physical, emotional, or psychological abnormality. Lombroso posited that females were passive by nature, thereby making them less criminally inclined than their aggressive male counterparts. Under this

theoretical assumption, the small minority of females, who lacked this 'natural' quality of passiveness, were considered abnormal and would be prone to criminal behavior. According to Lombroso's hypothesis, the small number of women who committed crime was regarded as unattractive and closely resembled males in excessive body hair and cranium size, thereby making them physically distinguishable from the non-criminal woman (Lombroso 1895). These physical attributes were considered evidence of a woman possessing a criminally-prone disposition. This nonscientific approach to the study of female criminality was generally accepted, and, as a result, it was widely held that a female criminal was a less evolved female, which implied a female criminal was incomplete because she lacked the totality of the evolutionary process (Lombroso 1903). Around the same period, Sir Francis Galton, half-cousin of Charles Darwin, was also concerned with the physical appearance of female criminals (1911). He attempted to scientifically link physical appearance and psychological traits. That is, Galton believed there was a recognizable crime trait of female criminals. He captured images and studied them through a technique he called composite portraiture, which entailed viewing images and recording physical traits (www.galton.org). These early attempts to study the female criminal remained dominant for several decades despite there being no empirical evidence to substantiate such claims.

#### 2.2.2 Mid-Twentieth Century

Nearly fifty years elapsed between the first and second attempt at the inclusion of females in the scholarly discussion on crime. By 1950, females were participating (to a noticeable degree) in petty theft and prostitution. Research of this era began to reject the ideas of Lombroso in favor of more empirically testable findings, such as the paternalism of the justice system. Paternalism of the justice system is the idea that females needed the protection of male judiciaries. A specific research finding suggested that female offenders were protected by the criminal justice system, which served as an explanation of why females often went unpunished for criminal violations. This protection occurred simply on the basis of their traditionally assigned gender roles as wives and mothers (Pollack 1950). Certainly, it was not that females did not engage in criminal activity but rather that their criminal behavior was obscured because officials were disinclined to arrest and convict them for their crimes. Pollack asserted that society's compassionate feelings toward women in their roles as wives and/or mothers made it difficult to prosecute them for criminal offenses. This eventually came to be known as the "chivalry hypothesis", the idea that low offense rates for females reflect leniency on the part of judicial officials and not limited participation in the criminal enterprise (Pollack 1950).

### 2.2.3 Precedents to Contemporary Theory

The Civil Rights era of the 1960's ushered in unprecedented efforts for equality and justice in this country. While the primary focus of this movement was racial equality, gender equality was a close second. This concern with equality spilled over into the sociological literature just over two decades after the work of Pollack (1950). Researchers of this era, assumed the female criminal 'metamorphosed'; she was regarded as the 'new female criminal' who was more violent than her predecessors (Adler 1975; Smart 1976). The female criminal was no longer viewed as a sexual deviant or a petty thief but one whose criminal offenses began to mirror those of the male criminal (Rothman and Simon 1975). Particularly, researchers noted increased participation in crimes ranging from larceny to embezzlement (Steffensmeier 1985) and even violent crimes (Mannie and Hirschel 1982).

In an attempt to understand this change and move toward gender equality in terms of discourse on crime, researchers began looking at juvenile delinquency as a starting point. It was then discovered that, unlike adult crime patterns, criminal offenses for juvenile females paralleled criminal offenses for juvenile males (Chesney-Lind 1973, 1977). This conclusion led

to discussion on nature versus nurture, that is to say, "is crime a consequence of biological traits or sociological exposure?" Gender differences in crime were then explained merely in terms of socialization, which is to say girls were closely supervised and protected from competition while boys were encouraged to be both adventurous and aggressive. Girls were taught to be kind and passive while males were taught to be tough and destructive (Mirowsky and Ross 1995). Some believed the idea of socialization was overly simplified; therefore it could not adequately explain the complexities of the female criminal (Klein 1973).

Other attempts at understanding the change in female criminality were made, such as but not limited to, the belief that the women's movement was responsible for increased job opportunities for females and their subsequent participation in crime (Adler 1975; Rothman and Simon 1975; see Giordano and Cerkovich 1979 for critique). Such research ultimately concluded that the social roles of women had changed so that females emulated males in being breadwinners, but that change was not relegated to the realm of employment only; women also imitated men in engaging in criminal activity. It was also during this period that liberal feminist theory emerged. This theoretical perspective viewed the absence of women in criminological studies as an extension of their "second-class" citizenship in American society. Further, their lower socio-economic status relegated them to positions associated with traditional gender roles and norms. To the extent that gender roles would change, rates of offending for women would also change (Chesney-Lind 1977).

While some of these perspectives are no longer revered, it is important to note that the researchers who study gender differences in crime do not conclude that one particular theory can explain female criminality and therefore diversified approaches to understanding this social issue continue.

#### 2.2.4 Contemporary Perspectives

Women as criminal offenders in American society were an established fact by the 1980's. In fact, the U. S. Department of Justice 1988 reported, women were now committing more serious property offenses than in previous decades. This statement did not escape the attention of scholars in this area. Researchers began to reject early attempts at integrating the female into criminological discourse in search of a more equitable treatment of the subject. Such contemporary perspectives began with criticisms of Freda Adler's (1975) work *Sisters in Crime*.

Adler (1975) essentially blamed the women's liberation movement for increased female participation in crime. She argued that increased workforce opportunities and participation contributed to changes in gender roles. Under this assumption, to the extent that women occupy historically male dominated occupations the more they will assume masculine characteristics, including but not limited to, aggression and crime. Contemporary scholars not only reject this early assumption but also provide statistical support for their criticisms. For an example, findings from a 1979 study of women between the ages of 17 and 29 found that those women who believed that they had a right to participate in the workforce and that women were not relegated to the roles of wives and mothers were least delinquent (Giordano and Cerkovich, 1979). Further, from an economic marginalization perspective, Naffine (1987) reported that absence of work opportunities, not increased opportunities due to the women's liberation movement, contributed to increases in crime. Additionally, due to the impoverished state of female offenders, motivations for their participation in crime seem to be based on the hope of economic gain rather than "seeking to compete with the criminal male" (Naffine 1987: p. 99). Adler saw increased labor force participation as an inducement to crime. While her work continues to be cited, there is no empirical evidence to substantiate her claims (Steffensmeier and Steffensmeier 1979; Radosh 1990).

Rita Simon (1975) attempted to improve on Adler's 1975 work by including employment opportunities available to females in the discussion of the women's liberation movement. This theoretical assumption purports that the essence of the female criminal was created by the "social, familial, and occupational structures of the lives of women" (Williams and McShane 2004: p. 256). As a result of the women's liberation movement and increased employment opportunities, the traditional roles of women as wives and mothers will evolve with newfound freedoms associated with occupations outside the home. Therefore women would become involved in employment related crimes such as, fraud, embezzlement and grand larceny; under this assumption, the commission of such crimes would be impossible were it not for increased employment opportunities. On the basis of its narrow application, which asserted that women became criminally-prone due to employment opportunities outside the home, Simon's approach was later advanced by Feinman (1986). By 1986, this perspective was improved upon with the notion that the women's liberation movement did little to place most women, particularly those women from lower and working-class backgrounds, in white collar occupations (Feinman 1986). This theoretical assumption would only be applicable to those women who, in fact, benefited from women's liberation, namely middle-class women; therefore, the observed increases in property crime would have to be attributable to those females. However, official statistics indicate that women from working and lower-class backgrounds are responsible for the greater proportion of crime attributed to females (BJS, 2005). However, Simon's approach was not altogether discarded.

Claire Feinman (1986) and Ngaire Naffine (1987) built on the employment opportunities approach. Their theory of economic marginalization argues that "it is the absence of real meaningful opportunities" and not pink collar occupations "for women that lead to increases in crime" (Williams and McShane 2004: p. 257). While it is true that the women's liberation

movement helped some, the majority of women remain relegated to pink collar occupations, those occupations that are underpaid, in terms of low hours and low wages. According to the Bureau of Justice Statistics (BJS), the vast majority of female offenders are unemployed or underemployed (1999). The BJS and the Uniform Crime Reports (UCR) confirm that women are mostly committing property offenses. That statement provides further credence to economic marginalization theory, in that female participation in property crime is regarded as a rational response to poverty and the absence of meaningful job opportunities. The work of Feinman and Naffine opened the door to gender-based theories of criminality, which consider the variable gender critical to criminological analyses for both male and female offenders, alike.

#### 2.2.5 Gender Roles and Socialization

Socialization is a lifelong process that shapes individuals for roles that they are or that they will be assuming. From infancy, boys are socialized to be tough, aggressive, and outspoken, whereas, girls are socialized to be feminine, passive, and demure. This lifelong process is reinforced by the types of toys and activities which each group is exposed to. Current research findings indicate that toys and activities can direct career paths (Newman 2006). Telescopes, rock collections, and building blocks are regarded as "boy toys", which help to develop analytical thinking. Such a skill is associated with science and engineering occupations. Easy-bake ovens, dolls, and kitchen sets are regarded as "girl toys", which help to develop nurturing qualities. Such qualities are associated with homemaking. Researchers believe that socialization is responsible for the perpetuation of the notion of man's work and woman's work (Newman 2006). Males and females, alike, are essentially obligated to assume traditional gender roles. Traditional gender roles recognized men as breadwinners (i.e., earning the majority of the family's income) and women as homemakers (i.e., caring for the needs of the family and home). Socialization serves as a stabilizing force for traditional roles. Before the women's liberation

movement, this strict division of labor precluded women from certain male activities, such as crime.

As gender roles began to change, males were joined by their female counterparts in the workforce. No longer was woman's work confined to the home. This added secular responsibility of employed women combined with criminal opportunity became manifest during the women's liberation movement. That is not to say that female crime was caused by the women's liberation movement. Women began to commit crimes that were reminiscent of their traditional roles. That is to say, the crimes that they committed reflected their ties to the home and family. For example, women began to commit shoplifting, which is consistent with their duties of procuring the necessary goods for her family; they also took to writing worthless checks, which is consistent with their duties of maintaining and managing the household budget. During the 1960s, women emerged not only as secular employees but also as petty criminals. Therefore, the most common explanations for gender differences in crime are attributed to socialization. This gave way to the equality hypothesis. This hypothesis asserts, with more equal opportunity, women are more likely to imitate men in all respects, including criminal conduct.

# 2.3 Theoretical Explanations of Unemployment and Crime

The unemployment-crime relationship became critical to criminological studies with Becker's economic approach to crime, according to Allan and Steffensmeier (1989). Becker's rational choice model was developed through personal experiences whereby he reasoned that individuals make rational decisions as to whether or not they will engage in criminal conduct (1968). Individuals experience internal debates where they determine their course of action based on the consideration of the costs and benefits of certain actions. When the benefits of

certain behaviors outweigh the costs, then individuals rationally opt to engage in the certain behavior. If legitimate opportunities for economic gain wane, then individuals are more likely to consider criminal opportunities as a viable option for economic gain. This approach was supported and advanced by Stigler (1970) and Ehrlich (1973), who determined that individuals rationally split their time between legal and illegal activities. During times of economic depression, when legitimate opportunities, such as work, become scarce, then individuals devote more time to illegal pursuits. While these early studies do not directly apply to this dissertation because they examined individual motivations, they indirectly apply because, they provided empirical support for a positive and significant relationship between unemployment and crime (Allan and Steffensmeier 1989).

In the years following those early micro-level studies, the unemployment-crime relationship became controversial. By 1978, opposing evidence was provided and a counter explanation for the unemployment-crime relationship was posited. Fox, in his study entitled Forecasting Crime Data, found that unemployment did not impact rates of crime. The next year, Orsagh found that if unemployment effects crime rates at all, its effects are too minimal to be measured (Orsagh 1979). The next year or so, Long and Witte (1981) found a positive relationship between unemployment and crime. Researchers began to conclude that the unemployment-crime relationship was not as simple as previously thought. This line of reasoning might serve as an explanation for the contrasting evidence (Sviridoff and Thompson 1983; Wilson 1983b). In 1985, researchers concluded that the earlier U-C studies that were empirically proven positive and statistically significant were no longer a basis for establishing universals. That is to say, unemployment everywhere does not always translate into higher property crime rates (Cantor and Land 1985). During the same year, these very researchers concluded that unemployment could have both a positive and negative impact on crime rates by

simultaneously increasing motivation and decreasing opportunity for criminal activity. This idea fostered a host of articles that echoed the same premise (Land and Felson 1976; Cohen et al. 1979, 1981; Allen 1996; Fagan and Freeman 1999). From this perspective, when unemployment rises, there are fewer economic goods (crime targets) in circulation, and those that exist are better protected (Cantor and Land 1985; Cook and Zarkin 1985; Wilson and Cook 1985). The interaction of these competing forces - increased motivation and decreased opportunity – is used by the "consensus of doubt" to help explain why the U-C relationship has been identified as either "hard to detect" (Wilson and Cook 1985) or "weak and very often negative" (Cantor and Land 1985). Other explanations that resulted in inconsistent findings focused on methodological issues (Wilson 1983b).

While much of the research of this era contributed to what is referred to as the "consensus of doubt", there were efforts underway to unravel the confusion. For an example, Gillespie (1978) organized his discussion around the distinction between times-series and cross-sectional research, and between levels of aggregation (intra-city, city, SMSA, state, nation). As a result he concluded that "the strength of the relationship...can best be characterized as neither trivial nor substantial, but modest. When specific crime rates were used rather than total rates, property crimes tended more frequently to show the predicted relationship with unemployment than did crimes of violence"(Gillespie 1978: p.602-603). In a similar vein, Long and Witte (1981) tried to further clarify the "consensus of doubt" by reviewing several U-C studies and focusing on methodology. Like Gillespie, they identified the conditional U-C relationship but went further to say "the findings of the studies using aggregate data imply that there is a positive, generally insignificant relationship between the level of unemployment and criminal activity...(which) tends to be most strongly supported with respect to property crimes..."(Long and Witte, 1981: p. 126).

In 1983, Freeman examined 18 U-C relationship studies with data from the 1970s. His findings led him to the conclusion that "rises in unemployment and/or declines in labor participation rates are connected with rises in the crime rate" and additionally those studies "show significant results, all are in the expected direction and the majority show a positive relation" (Freeman 1938: p. 98). This study too failed to fully clarify the U-C relationship but added fuel to the "consensus of doubt". As a result, Chiricos (1987) attempted to provide conclusive statistical evidence to describe the conditional U-C relationship.

Chiricos (1987) examined 63 studies selected from journals in economics, sociology, and criminology, concerning the U-C relationship. He examined structural level studies. After his assessment, he concluded that the U-C relationship is three times more likely to be positive than negative and fifteen times more likely to be significant/positive than significant/negative. More meaningful conclusions were reached when specific types of crimes were considered. Chiricos (1987) concluded that when considering the U-C relationship, property crimes are more likely than violent crimes to produce positive/significant results. This, however, did not definitively conclude the U-C discussion.

In 1991, Cantor and Land, in their work entitled Exploring Possible Temporal Relations to Unemployment and Crime, joined forces again to examine the U-C relationship. Once again they concluded the U-C relationship is conditional and most pronounced for property offenses. In 1998, two separate research efforts yielded positive, significant results, but their emphasis was on male property crime arrest rates (Kapuscinski, Braithwaite, and Chapman 1998; Elliot and Ellingworth 1998). As late as 2001, researchers continued to find positive, significant results for unemployment on property crime (Raphael and Winter-Ebmer 2001). While the unemployment-crime relationship is described as controversial, the preponderance of evidence supports a

positive/significant relationship. As a result, the U-C relationship remains a viable area of scholarship to contemporary criminological studies on property crime.

# 2.3.1 Economic Marginality and Opportunity

It is traditionally held that with greater equal opportunity the more likely gender roles will become equalized (Sutherland and Cressey 1978). When that occurs, criminal motivation, as well as opportunity is increased for females (Nettler 1978). While it is true that women's liberation produced employment opportunities for some women, many of those opportunities yielded low wage jobs. These low wage jobs were often referred to as "pink collar" jobs because they offered low pay and were performed, most often, by women. Pink collar jobs served to place women at the lower limits of the economic spectrum (Newman 2006). Though employment opportunities increased, many women remained financially strained.

Sociologists use the term economic marginality to refer to lower economic status or almost insufficient economic resources. Research indicates that more women than do men fall into this classification. Women were, and still are, earning less relative to men. In fact, during 2005, the Bureau of Labor Statistics reported that women earned 77 percent as much as men for the same occupations. Though laws were passed to ensure equal pay (Equal Pay Act – EPA of 1963), this wage gap persists. This wage gap is not only unfair, but it is also harmful in that it further perpetuates the poverty of women and their dependent children. Therefore, if property crime is truly motivated by economic need, it seems plausible that a logistical relationship would exist between property crime and impoverished females. Further still, even if an economic need is present, in order for a crime to be committed there must be an opportunity, not necessarily equal, but an opportunity nonetheless. Hence, that is why the women's liberation movement is associated with female crime for providing the said opportunity.

### 2.3.2 Synopsis of the Background Literature

The extant literature reviewed for this dissertation reported controversial and competing perspectives regarding the validity of the unemployment-crime relationship. As Cantor and Land (1985) suggests, there are two main perspectives addressing this relationship, the motivational perspective and the opportunity perspective. The motivational perspective purports a positive relationship between crime and poor economic conditions. There are two common sources of motivation. One source of motivation is related to strain. That is, frustration often occurs when individual are unable to acquire or maintain suitable employment while simultaneously attempting maintain an improved standard of living (Cloward and Ohlin 1960; Greensberg 1977, 1985; Merton 1938). According to this micro-level perspective, as economic conditions worsen, individuals will experience more strain and property crime should increase. The other source of motivation is related to rational choice, that is, individuals compare the consequences of illegitimate opportunities, such as criminal involvement, with legitimate opportunities, such as rightful employment. This view also asserts criminal involvement would be more likely for unemployed persons because the gains (assets from crime) would outweigh the losses (loss of income due to imprisonment). In either case, the motivational perspective states poor economic conditions will produce increased participation in property crime by the unemployed portion of the population (Britt 1994).

The opportunity perspective considers supply of potential offenders and suitable targets for victimization in connection with variation in property crime (Cohen 1981; Cohen and Felson 1979; Cohen and Land 1987; Cohen and Land 1980, 1981; Cook 1986; Hindelang 1979; Freeman 1983). This perspective contrasts with the motivational perspective in that, poor economic conditions are seen as a major contributor in reducing property crime. During times of economic recession, employment rates are higher. When individuals are not gainfully

employed, they are generally at their residence. Official reports have concluded that property offenses often occur when people are away from their homes (BJS, 1991), and increased rates of unemployment will increase the level of guardianship in a neighborhood or given area and therefore lower the risk of property offense. This reduction takes place because neighborhoods have more capable guardians, that is, individuals who can supervise the property of their neighbors. This function of guardian is performed by individuals who are unemployed. Therefore, the more unemployment in a given area the more guardians that will be present which will result in a reduction of property crime.

As stated above, some researchers have concluded that, with poor economic conditions and increased unemployment, property crimes will increase because property crime is economically driven (Greenburg 1987). Therefore, during periods of economic drought or uncertainty, inflated rates of property crime are expected. Yet, other research findings reported that an increase in unemployment has the propensity to reduce property crime, with capable guardians of the principle property crime target, homes (Cohen and Land 1987). While, there is empirical evidence for these competing perspectives, this study sought to compliment and test the argument that, as unemployment increases property crime. Consequently, the major expectations or hypotheses for this study evolved as a result of the literature surrounding this argument with anomie as the guiding theory.

# **2.4 Literature Deficiencies**

Of the more than 80 studies pertaining to the U-C relationship that were reviewed for this analysis, 100 percent focused on either adult or juvenile male offenders, not a single one of the studies reviewed for this research project included female offenders. This is particularly interesting since more recent research findings have concluded that increases in rates of unemployment induce increases in property crime. Despite its ambiguous legacy in terms of

direction of influence as well as the significance of the U-C relationship, in general researchers find increases in unemployment serve as an indicator that points to increases in property offenses. Since female offenders largely commit property offenses, it seems logical that females should be included in the U-C discourse surrounding property offenses. This study addresses the U-C relationship with respect to gender differences in property crime arrest rates and to add to the current body of knowledge with the inclusion of both male and female offenders.

# **2.5 Theoretical Framework**

As stated earlier, anomie is the theory that was used in this study to explain gender differences in property crime arrest rates. The term anomie was coined by Emile Durkheim in 1893 (Williams and McShane 2004). Durkheim defined anomie as a condition of deregulation in society. Deregulation, which is sometimes referred to as normlessness, occurs when the regular governance of a society has broken down and individuals do not know what to expect from others and do not know how to conduct themselves civilly. This normlessness then in turn, according to Durkheim, leads to increased deviance and crime (Williams and McShane 2004).

Robert Merton (1938) advanced Durkheim's theory of anomie with the inclusion of shared goals and means. According to Merton, individual members of a given society share a system of beliefs, in terms of goals and values (1938). This system of beliefs includes very specific goals which can only be obtained in very specific ways, such as but not limited to, the components of The American Dream via education and hard work. However, when goals and means are unequally accessible, an anomic condition is developed. That is, normlessness ensues, and opens the door to deviance and crime. Disorganized societies or those states/regions that are unable to satisfy the needs of their citizens are considered anomic. By this definition then, many southern states/regions of the United States with inflated unemployment and underemployment rates

would be considered anomic. Therefore, one could expect higher rates of deviance and crime in southern states, which is statistically confirmed (UCR 2005).

In the United States, there is an enormous emphasis on material goals. While this statement represents reality in America, not all members of American society have equal access to the means to realize such goals. Particularly, southern states have a persistent legacy of discrimination and segregation, which has placed and maintained minorities in a disadvantaged socio-economic position. Minorities residing in southern states are disproportionately poor, uneducated, and more likely to be labeled a criminal.

Anomie is a structural theory that is not gender specific but rather serves to explain societal conditions and not individual characteristics. Therefore, this theory would operationalize the same for both males and females. In an anomic society, males and females alike, will find a means to acquire the desired material goals and alleviate the pressure to achieve them by developing an alternative strategy, which could be deviant or even criminal. This development, for Merton, is referred to as modes of adaptation (Williams and McShane 2004).

In Merton's description of responses to an anomic condition, four specific modes of adaptation are delineated that served the interest of this study, as they highlight the consequences of such a condition. Merton's model asserts that most individuals accept or conform to the socially approved goals and means (Williams and McShane 2004). However, there is a minority that chooses to reject either society's goals or means or both, and the modes of adaptation apply to that minority group. The modes of adaptation include innovation (individuals accept societal goals but attempt to achieve them by illegitimate means), ritualism (societal goals are rejected but legitimate means are accepted and applied), retreatism (rejection of both societal goals and means), and rebellion (substitution of societal goals and means with new ones, which are generally nonapproved) (Williams and McShane 2004).

These modes of adaptation are exemplified in states/regions of the United States where there is a sizeable, at least 10 percent, minority population. Southern regions/states have a higher proportion of minority citizens residing in anomic conditions, which may serve to explain the increased rates of property crime arrests in southern states/regions. A key component of anomie is a society's inability to provide adequate resources, like legitimate work opportunities, for its citizens. That is, an inability to provide the means to obtain the socially accepted goals. Southern states/regions have persistently demonstrated characteristics of this key component by simultaneously having higher rates of unemployment and property crime arrest rates. This is the primary reason that the theory of anomie was selected as the most appropriate framework for analyzing gender differences in property crime arrest rates, while controlling for percent (%) minority, age, and region. Additionally, the inclusion of this theoretical framework demonstrates the effectiveness of an androcentric structural or non-gendered theory in explaining female phenomena.

A number of theoretical perspectives were used for the interpretation of findings in the model study of Allan and Steffensmeier, 1989. The primary theoretical perspective, however, was anomie. Allan and Steffensmeier (1989) identified anomie as the most common theoretical perspective used in the examination of the U-C relationship because underemployment conditions cause frustration while simultaneously increasing criminal motivations. Testing the U-C relationship by way of job availability and job quality measures fits succinctly within the framework of anomie. The link between job availability and anomie is apparent because the theory posits the inability of any community to satisfy the economic needs of its citizens, such as providing legitimate employment opportunities, results in increased deviance and crime. The link between job quality and anomie, however, may not be as easily discernible. Job quality is indirectly related to the theory of anomie, in that, employment opportunities that offers low

wages and low hours "seldom provides health insurance, retirement funds, or other fringe benefits, or even unemployment compensation in case of lay off" (Allan and Steffensmeier 1989: p. 119). Consequently, these deficiencies present costly challenges and prevent individuals who fall into one of these categories, from attaining socially approved goals because of their marginal employment status.

High levels of underemployment with high levels of anomie, as are present in southern states, "may undermine normative structures and thus weaken the capacity of communities both to guide the behaviors of people and mobilize themselves against crime" (Allan and Steffensmeier 1989: p. 119). As anomic conditions persists, formal and informal community controls are weakened (McGahey 1986), by plummeting family values and stability (Sampson 1987), by nurturing subcultural adaptations which promote a deviant way of life (Cloward and Ohlin 1960), by changing patterns of criminal opportunity (Cantor and Land 1985), and routine activities (Cohen and Felson 1979). Based on the foregoing information, anomie was determined to be the most appropriate theory to guide and interpret the findings of this dissertation.

#### 2.6 Hypotheses Statements and Supporting Rationale

Like Allan and Steffensmeier (1989), this dissertation sought to test the effect of poor labor market conditions on crime by utilizing four specific labor market indicators, namely, percent (%) unemployed and percent (%) subunemployed, when combined represent job availability, and percent (%) low wage and percent (%) low hours, when combined represent job quality, along with official property crime statistics. Based on a comprehensive review of the literature from the past forty years concerning the unemployment-crime relationship and official statistics related to property crime arrest rates for both male and female offenders (UCR) coupled with labor market data for unemployment (CPS), the following hypotheses were developed:
$H_1$  As unemployment increases, property crime (burglary, larceny, and motor vehicle theft) will increase for both male and female offenders.

H<sub>2</sub> As subunemployment increases, property crime (burglary, larceny, motor vehicle theft) will increase for both male and female offenders.

H<sub>3</sub> As low hours increase, property crime (burglary, larceny, and motor vehicle theft,) will increase for both male and female offenders.

H<sub>4</sub> As low wages increase, property crime (burglary, larceny, motor vehicle theft) will increase for both male and female offenders.

It is generally held that property crimes are primarily driven by desires of economic gain. Based on Becker's (1968) economic model of rational choice, when legitimate work opportunities for economic gain are decreased, then individuals are more likely to consider illegitimate opportunities, such as property crime, for economic gain. However, there is no evidence to suggest this model is applicable to adult female offenders; therefore, the inclusion of females in this analysis will provide empirical evidence to verify or nullify the hypotheses stated above.

H<sub>5</sub> When examining race by way of the variable used to control for race, percent minority, property crime arrest rates will be higher in regions with a substantial minority population.
Empirical evidence suggests that minorities are more likely to engage in property crime (U.S.
Census Bureau 2000). Therefore, in regions with a substantial minority population, at least 10 percent, property crime arrest rates will be higher. The findings of this study will either verify or nullify the hypothesis stated above.

 $H_6$  When examining age by way of the variables used to control for age, percent juvenile and percent young adult, property crime arrest rates will be higher in regions with a substantial juvenile or young adult population.

Empirical evidence suggests that individuals under the age of twenty-four are responsible for the greater proportion of property crimes. Therefore, in regions with a substantial juvenile population, at least 10 percent, property crime arrest rates will be higher. The findings of this study will either verify or nullify the hypothesis stated above.

 $H_7$  When examining region by way of the variable used to control for region, state is in the South, property crime in southern states will be higher than other regions of the United States.

There are differences in unemployment rates throughout the nation, just as there are differences in property crime arrest rates throughout the regions (Northeast, Midwest, South, and West) of the United States. Official statistics conclude that the South has higher rates of unemployment as well as higher rates of property crime arrest rates. This study sought to make inferences about specific regions of the United States, in terms of gender differences in property crime arrest rates, and explain the variation for the specified time periods, 1979, 1980, 1981 (to represent the decade of the 1980s), 1989, 1990, 1991 (to represent the decade of the 1990s), and 1999, 2000, 2001 (to represent the decade of the 2000s). The findings of this study will either verify or nullify the hypothesis stated above.

# Chapter 3 Data and Methods

## 3.1 Uniform Crime Report

# 3.1.1 General Overview

The Uniform Crime Reporting (UCR) Program is a voluntary program that provides a nationwide view of crime based on the submission of reports, including statistics regarding individual crimes, by law enforcement agencies throughout the United States (Uniform Crime Report Handbook 2004). The UCR Program was started in 1929 by order of the U.S. Attorney General, and the Federal Bureau of Investigation (FBI) is responsible for administering the program. The FBI has been collecting data through the UCR Program since 1930 in order to indicate fluctuations in the level of crime in this country.

More than 17,000 law enforcement agencies (city, county, state) report to the FBI monthly the number of crimes known to them in their respective jurisdictions. The intended objective of this program is that the UCR would enable intra-state and international comparisons and also serve as an indicator of the nation's well-being when it comes to crime. The FBI publishes crime data throughout the year through both monthly and annual Uniform Crime Reports.

#### 3.1.2 UCR Data

Since each law enforcement agency is responsible for reporting offenses, the FBI's *Uniform Crime Reporting Handbook* provides definitions of the crimes to ensure uniform reporting and consistency in identifying an offense for all agencies reporting data. Most agencies submit crime reports monthly to a centralized crime records facility within their state. The state UCR Program then forwards the data to the FBI's national UCR Program. In states that do not have a state program, agencies submit their statistics directly to the national program. The

FBI compiles, publishes, and distributes the data to participating agencies, state UCR programs, and other agencies with an interest in the nation's crime data. The FBI reports crimes as rates, which is generally the number of crimes per unit of population. For larger areas, such as SMSAs, states, or the nation as a whole, the crime rate may be expressed per 100,000 people, while for smaller areas the crime rate may be expressed per 1,000 people.

#### 3.1.3 Offenses Included

The UCR Program collects offense information for what are considered Part I offenses – murder, forcible rape, robbery, aggravated assault, burglary, larceny-theft, motor vehicle theft, and arson – which are serious crimes by nature and/or volume. The UCR Program limits the reporting of offenses to these eight crime classifications because they are the most likely to be reported and to occur with sufficient frequency to provide an adequate basis for comparison. Of the eight Part I offenses, four are considered violent crimes – murder, forcible rape, robbery, and aggravated assault – while the remaining four – burglary, larceny-theft, motor vehicle theft, and arson – which were included in this analysis, are considered property crimes.

# 3.1.4 Variables in this Analysis

For the purposes of this analysis, UCR data were utilized to obtain statistics on the four Part I offenses that are property crimes. Those crimes include burglary (the unlawful entry of a structure to commit a felony or theft), larceny-theft (the unlawful taking, carrying, leading, or riding away of property from the possession or constructive possession of another), motor vehicle theft (the theft or attempted theft of a motor vehicle), and arson (any willful or malicious burning or attempting to burn, with or without intent to defraud, a dwelling house, public building, motor vehicle or aircraft, personal property of another, etc.). This analysis only utilized data on the four crimes identified as property crimes because these crimes occur with the greatest frequency and allow for a more comprehensive comparison by gender. Specifically, the Bureau

of Justice Statistics reports that three-fourths of all crimes committed in the United States are property crimes, thereby making property crime the most common criminal offense for both males and females. Further, property crime has been central to past studies that have examined the U-C relationship (Burdett, Lagos, and Wright 2003; Doyle, Ahmed, and Horn 1999; Fagan and Freeman 1999; Ralston 1999; Allen 1996; Steffensmeier and Allan 1996; Young 1993; Smith, Devine, and Sheley 1992; Thornberry and Christenson 1984; Steffensmeier 1979).

#### 3.1.5 Limitations of UCR Data

Critics of the UCR note that it does not accurately reflect crime rates in that it only lists crimes reported to law enforcement agencies (known crimes). Crimes that go unreported do not make it into the UCR. Since the program is voluntary, not all law enforcement agencies report crimes to the FBI; therefore not even all of the reported property offenses are included in the report. Also, for a given year, a large municipality or a law enforcement agency that handles a large amount of crime may not report crimes to the FBI, which could present an inaccurate picture of overall crime for any given year.

A second limitation of UCR data is that, when a number of crimes occur during one criminogenic episode, often, only the most serious crime is reported. This is referred to as the Hierarchy Rule, which mandates only the most serious offense in a multiple-offense criminal incident is reported. For instance, if an individual were murdered during a car theft, according to this rule, UCR reporting standards would only permit the murder to be recorded.

Another limitation has to do with the lack of details provided in the UCR. For example, specifics about the victims, offenders, and arrestees are not included in the annual reports. As a means of compensating for this limitation, the FBI has initiated the National Incident-Based Reporting System (NIBRS). The NIBRS, like the UCR, is a completely voluntary program, and, at present, there are not enough participating agencies to provide a sufficient amount of data for a

national trend analysis of gender differences in property crime arrest rates. However, NIBRS would eventually permit more comprehensive analyses within group comparisons, such as, black male offenders compared to white male offenders and black female offenders compared to white female offenders.

Finally, since UCR data are based on police reports, the data are subject to bias. Research indicates that UCR data may be skewed by police response to crime as opposed to actual crime rates (Shihadeh and Maume 1997). Although there are a number of limitations to the UCR, criminologists generally agree that the UCR provides fairly valid estimates of comparative frequencies of serious (Part I offenses) crimes.

# **3.2 Current Population Survey**

## 3.2.1 General Overview

The Current Population Survey (CPS) is the source of official governmental statistics on employment and unemployment. The CPS is conducted monthly by the U.S. Census Bureau for the Bureau of Labor Statistics. The CPS serves as the primary source of information on the labor force characteristics of the U.S. population. The survey has been conducted for more than 50 years.

The CPS sample is a probability sample that is based on the civilian non-institutional population of the United States. Approximately 47,000 households are interviewed monthly of the 60,000 assigned for an interview. Interviews are conducted by one of two ways, either by face-to-face contact or via telephone. Households are selected based on area of residence so that the nation as a whole is represented. Each household is interviewed once a month for four consecutive months during one year and again for the corresponding time period one year later.

# 3.2.2 CPS Data

The primary purpose of the CPS is to collect information on the labor market, specifically, employment conditions, of the country. Other important demographic information (e.g., age, race, sex) is also collected and serves to update similar information collected in the decennial census, hence, it is administered only once every ten years. During the month of March, the CPS collects additional demographic data to generate the "Population Profile of the United States". The March CPS is known as the "Annual Demographic File". The March CPS was used in my study to provide data for the analysis of the unemployment-crime relationship. The Census Bureau provides weights so that data obtained from the CPS can be accurately estimated to reflect and match the entire population of a given geographic area (e.g., county, state, and nation).

# 3.2.3 Variables in this Analysis

The CPS contains the labor market data collected during the reference period of 1979 to 2001, which are necessary to include multiple dimensions of employment and unemployment, which are the focal points of this research paper– that is, the unemployment-crime relationship. Four dimensions of employment were included in this analysis – percent unemployed, percent subunemployed, percent low wages, and percent low hours. The CPS collects data that allowed me to incorporate each of these dimensions into a model that looks at the relationship between unemployment and crime.

The percent of individuals that are unemployed is defined as the percent of individuals without work that are currently looking for work. The percent of individuals that are subunemployed is defined as the percent of people who have been without work for so long that they stop looking for a job. The percent of individuals with low hours is defined as the percent of the labor force employed part time only because they cannot find full time work. The percent

of individuals with low wages is defined as the percent of the labor force with sub-poverty level wages. These variables were used in this analysis primarily because they were used by Allan and Steffensmeier (1989) in order to test the unemployment-crime relationship. They found these variables to be statistically significant for males; however, females were not included in the analysis. This current analysis sought to determine whether these variables would prove to be statistically significant for females, as well as males.

#### 3.2.4 Limitations of CPS Data

According to the U. S. Census Bureau, although the CPS is a state-based design, the CPS sample size is sufficient to produce reliable monthly estimates at the national level only. Also, there may be some issues with sampling error in that, of the 60,000 households assigned for interviews, only about 47,000 are actually surveyed. There may be any reason that 13,000 of the selected households are not included in the CPS, but that reason is unspecified. However, if there is a correlation between not being included and the characteristics of those not included, then the sample may not be representative of the entire population after all. Additionally, CPS data collection techniques often utilize phone interviews; however, not everyone in the sample has a home telephone. Therefore, the CPS data collection process has systematically excluded those households without home telephone service, which are usually of lower socio-economic backgrounds. In an effort to control for this possible error, individuals are assigned to administer face-to-face interviews.

#### **3.3 Analysis**

For this state level analysis, aggregated data collected from all fifty states was utilized in order to conduct a trend analysis to capture the decrease in the gender gap for property crime arrest rates from the past three decades. The data was then disaggregated to make inferences about specific regions and states. A trend analysis examines data over a period of time and

attempts to identify any changes in social patterns – in this case, property crime – for three specific time periods, 1979, 1980, 1981 (to represent the decade of the 1980s), 1989, 1990, 1991 (to represent the decade of the 1990s), and 1999, 2000, 2001 (to represent the decade of the 2000s). The state is the most practicable unit of analysis for this examination because, for the two data sets that were employed in this analysis- Uniform Crime Report and Current Population Survey – the boundaries of the state remain consistent over the time period of the present analysis, and the data sets are compatible and can be merged. For smaller units of analysis (e.g., standard metropolitan statistical areas [SMSAs] or census tracts), cross-walk files of UCR and FBI data are available for compatibility.

Since CPS data is collected at the household level and UCR data is collected by individual law enforcement agencies, the data sets can be aggregated at the state level and combined so that the unit of analysis was the state. UCR data and CPS data are each collected monthly. UCR data are aggregated and crime rates are calculated by the year. On the other hand, CPS data provide a monthly snapshot of the U.S. population. Although the reporting periods differ for the two data sets, both are estimating the entire population for a particular unit of analysis (in this case, the state). The merging of UCR and CPS data has been successfully accomplished (see Allan and Steffensmeier 1989).

#### **3.4 Data Gathering Procedures**

After requesting the special tabulation of UCR data from the FBI for the years 1979, 1980, 1981 (to represent the decade of the 1980s), 1989, 1990, 1991 (to represent the decade of the 1990s), 1999, 2000, 2001 (to represent the decade of the 2000s) by gender, I received it by mail on CD. Then the data was imported to SPSS using the data definitions provided by the FBI for each of the respective years. This process resulted in the creation of nine tables (one for each year of data) of UCR data.

I obtained the CPS data from the Inter-university Consortium for Political and Social Research (ICPSR). Louisiana State University's affiliation permitted access and downloadable files of the annual report for 1980, 1990, and 2000. This file is called the March demographic supplement because it is used to create the Annual Population Profile of the United States, reports on geographical mobility and educational attainment, and detailed analysis of income and poverty status. Also, the labor force and work experience data from this survey are used to profile the U.S. labor market and to make employment projections. Then the data were imported into SPSS based on the data definitions provided in the codebook produced by the U. S. Census Bureau.

In order to merge the UCR and CPS data for respective years by state, I recoded the state variable in the CPS to match the state codes used by the UCR. This provided a common variable upon which the data could be merged. See the following sections on creating and defining variables for further details on merging the two data sets.

#### **3.5 Dependent Variable**

Following the framework of Allan and Steffensmeier (1989), I utilized the FBI's Uniform Crime Reports (UCR) as the source of crime data. The arrest data for property crimes was aggregated by state and disaggregated by sex for this analysis. To be consistent with earlier criminological analyses, I took the average property crime rate over the following three periods (i.e., 1979, 1980, and 1981 to represent the decade of the 1980s; 1989, 1990, and 1991 to represent the decade of the 1990s; 1999, 2000, and 2001 to represent the decade of the 2000s) for inclusion in this trend analysis. That value was then used as the crime rate in order to control for any year that might not be a true reflection of the actual crime rate. Since crime is a "rare" occurrence, any small change in reporting can skew the data. Taking the average reduces the effect that a large municipality or police department not reporting might have on the yearly crime

rate. The resulting crime rate, based on the average as discussed above, is my dependent variable. Since a goal of this research project is to identify the trends in male and female property crime arrest rates for the three specified time periods from 1979 to 2001, I used the predictors of male criminality, i.e. labor market indicators, and applied those to females in an attempt to predict the resulting crime rate.

#### **3.6 Independent Variables**

The data obtained from the Current Population Survey (CPS) includes the independent variables, which are percent unemployed, percent subunemployed, percent with low wages, and percent with low hours. I used a specific portion of the CPS, namely the March Supplement. The March Supplement was used for the respective years (i.e., 1979, 1980, 1981, 1989, 1990, 1991 and 1999, 2000, 2001) because it contains the demographic data necessary to conduct a thorough analysis and because these years correspond with the UCR data for the same years. The CPS contains the labor market data necessary to include multiple dimensions of unemployment, which is one of the focal points of this research study, that is, the unemployment-crime relationship. Four dimensions of employment, as described above, are included in this analysis. The CPS collected data that allowed me to incorporate each of these dimensions into a model that examined the relationship between unemployment and crime.

#### **3.7 Control Variables**

The data that was obtained from the Current Population Survey (CPS) also included a race variable coded as percent (%) minority population (black and Hispanic). While race is of secondary importance to this analysis, this control is included because minorities are disproportionately overrepresented in participation in Part I offenses, namely property crime, as well as in higher levels of unemployment (Allan and Steffensmeier 1989). This control allowed inferences to be made respectively regarding the group of males and females included in this

analysis. More specifically, this control, percent (%) minority, provided details regarding the racial composition of the group under study. Region is also important to this study. The UCR reports higher property crime arrest rates in the South. Additionally, since the UCR data are reported by state, a control variable allowed inferences to be made about specific regions of the United States, such as Northeast, Midwest, South and West. Property crime arrest rates and trends may vary by geographic location, therefore, a control variable for region, called State is in the South, was included in this analysis.

The merged data sets for this study were analyzed using a series of ordinary least squares (OLS) regression analyses because the dependent variable (property crime arrest rate) is an interval level variable and an OLS model is appropriate. Regressions were run separately for males and females for each of the four property offenses to capture the effects of percent minority, age, percent (%) unemployed, percent (%) subunemployed, percent (%) low hours and percent (%) low wages, while controlling for percent (%) minority, age, and region.

#### 3.8 Measurement of Variables and Analytic Strategy

#### 3.8.1 Dependent Variables

The primary dependent variables for this study are measures of property crime as measured by the FBI's Uniform Crime Reports (UCR). The dependent variables measure the arson, burglary, larceny, and motor vehicle theft rates among all male and female offenders. These four property crimes are considered type 1 (or index) property crimes by the FBI's UCR Program. A gender specific aggregate property crime arrest rate is used for each of the four property crimes.

To construct the property crime arrest rates, I obtained data from the FBI's UCR Program with the number of arrests for all property crimes for the years 1979 - 1981, 1989 - 1991, and 1999 - 2001. The data obtained were aggregated by gender and broken down by age groups for

each reporting agency that participates in the UCR Program. The data were structured so that only agencies that reported data consistently throughout each of the individual years are included. This is done so that arrests can be fairly consistent and the reporting or not reporting of a particular agency for a particular month will not skew the number of arrests and therefore impact the arrest rates.

In order to produce state level counts of arrests for each of the four index property crimes, the UCR data were aggregated from the originating agency to the state level when the offense type was one of the four index crimes. The resulting file contained the number of arrests for each of the four index property crimes by state disaggregated by sex.

I then calculated the estimated population for 1980, 1990, and 2000 based on the March demographic supplement of the CPS for the corresponding year by using the weights accompanying the file provided by the Census Bureau. By aggregating the data by state, I obtained the total population for each year as well as the total male population and total female population by state. Gender specific populations were calculated so that I could generate gender specific arrest rates. Next, I merged the summarized CPS data with the UCR data using state as the unit of analysis so that I had total crimes and total population (both overall and gender specific) so that I could calculate the total arrest rate.

I calculated the arrest rate for each year of UCR data separately for males and females by using male arrests and male population for each of the years and by using female arrests and female population for each of the years. For 1979, 1980, and 1981 arrests, I used the 1980 gender-specific population estimate as the base. For 1989, 1990, and 1991, I used the 1990 gender-specific population estimate as the base. For 1999, 2000, and 2001, I used the 2000 gender-specific population estimate as the base. Each of the rates was calculated per 100,000 individuals. I then averaged the 1979, 1980, and 1981 rates and used the result as the 1980 crime

rate. I did the same for 1990 (average of 1989, 1990, and 1991 rates) and 2000 (average of 1999, 2000, and 2001 rates). By averaging the rates this eliminates any year to year fluctuations. I also calculated the natural log of the average arrest rate for the three year period. Previous studies have substituted the natural log of the arrest rate for the arrest rate in order to increase the homogeneity of the variances which reduces standard error. (NOTE: I ran the regression models using both versions [average arrest rate and natural log of the average arrest rate] of the arrest rate.). Using the natural log did reduce the standard errors and did not have an effect on the significance of the variables. For that reason, I only present the aggregate and individual property crime rate models. An analysis including the natural log of the average arrest rate as the dependent variables was run and can be provided upon request.

After running the models using the individual property crimes as dependent variables, I recalculated the dependent variable to be the property crime arrest rate, which combines burglary, larceny, and motor vehicle theft. I excluded arson from this measure because generally arson is not accurately reported and an overwhelming majority of the arson cases do not result in an arrest. Arson crimes are investigated by fire departments, which do not participate in the UCR Program. Therefore for arson crimes to be included in UCR statistics, police departments must rely on fire departments for accurate and reliable information. This is a limitation in the UCR data.

In order to recalculate the dependent variable, I aggregated the UCR data to the state level by adding the total number of arrests for burglary, larceny, and motor vehicle theft for each year of UCR data (1979, 1980, 1981, 1989, 1990, 1991, 1999, 2000, and 2001). I maintained the gender disaggregation while summing the total number of arrests. The resulting files contained the total number of arrests for the three property crimes combined disaggregated by gender and

summarized by state. I then merged the UCR data to the existing CPS data so that I could calculate crime rates.

I again calculated the arrest rate for each year of UCR data separately for males and females by using male arrests and male population for each of the years and by using female arrests and female population for each of the years following the same procedure used for calculating the original dependent variables. For 1979, 1980, and 1981 arrests, I used the 1980 gender-specific population estimate as the base. For 1989, 1990, and 1991, I used the 1990 gender-specific population estimate as the base. For 1999, 2000, and 2001, I used the 2000 gender-specific population estimate as the base. Each of the rates was calculated per 100,000 individuals. I then averaged the 1979, 1980, and 1981 rates and used the result as the 1980 crime rate. I did the same for 1990 (average of 1989, 1990, and 1991 rates) and 2000 (average of 1999, 2000, and 2001 rates). I also calculated the natural log of the average arrest rate for the three year period.

#### 3.8.2 Independent Variables

The focal independent variables used in this analysis are measures of labor market conditions. The unemployment – crime relationship has been studied by several researchers. Specifically, Allan and Steffensmeier (1989) have studied the link between underemployment and crime in juvenile and young adult males. I use the same four dimensions of underemployment – unemployment, subunemployment, low wages, and low hours - that Allan and Steffensmeier used in their analysis of the relationship between unemployment and crime for juvenile and young adult males. This study differs from Allan and Steffensmeier in that it does not limit the population of interest to just males between the ages of 14 and 24. This study goes a step further and looks at the entire population with a particular emphasis on gender differences in crime.

The first labor market indicator that is included is unemployment. Unemployment is defined as the percent of the labor force without work but looking for work. Using the CPS, I calculated gender-specific unemployment for the individuals that were without work but looking for work as a percentage of the gender-specific part of the labor force. The labor force is calculated as the total of those persons working, persons with jobs but not at work or persons looking for work. Several research studies use unemployment as the sole labor market condition for the unemployment-crime relationship. Generally, as unemployment increases, the level of crime increases.

Subunemployment is the second labor market indicator included in the models. This variable is defined as the percent of the population that has given up on looking for work. An individual is classified as subunemployed if the reason for not working for the past year is that the person "could not find work." This variable is calculated as the percent of the labor force that has not worked in the past 12 months because they could not find work.

The third labor market indicator is low wages. Low wages means the person works fulltime and earned sub-poverty level wages. This variable is calculated by summing up the total work related earned income for those individuals that work full-time (i.e., wage or salary income, non-farm self employment income, and farm self employment income) and comparing that total to the poverty thresholds developed by the Social Security Administration for the given year. The number of those individuals with a wage below the poverty threshold as a percentage of the labor force is used in the models. This calculation of low wages differs slightly from that of Allan and Steffensmeier (1989) since part-time workers are not taken into account. Only fulltime workers that do not fall into any of the other three underemployment measures are included in this calculation.

Low hours is the fourth labor market indicator included. Low hours means that the person is working part-time for economic reasons. In other words the individual wants full-time work but can only find part-time work. The variable is expressed as the percentage of the labor force that is working part-time but would like full time employment.

#### 3.8.3 Control Variables

Percent minority is used as a control variable because previous research has shown a link between the percent minority and level of crime. Generally, as the percentage minority rises, the level of crime tends to rise. Percent minority is defined as the percent of the population that is non-white. This variable is a gender specific calculation. Percent male minority is the total number of non-white males divided by the total number of males, and percent female minority is the total number of non-white females divided by the total number of females for each state.

Living in the South is used as a control variable. The CPS contains a region variable that classifies states into regions. Those states that are classified as being in the South are coded into the dummy variable South. Previous criminological research has shown a link between living in the South and crime rates. Although this link is difficult to explain, it does exist, and therefore, I use it as a control variable for this analysis.

Age is also used as a control variable. Using the CPS, I created two variables to control for age by aggregating individual level data up to state level data for a percentage. The first variable is a dummy variable indicating that the individual was between the ages of 13 and 17. The second variable is also a dummy variable indicating that the individual was between the ages of 18 and 24. Since young juveniles and young adults are the most crime prone age group, these two variables control for these two age categories having an influence on the crime rate. Allan and Steffensmeier used these two populations as their universe in a study of unemployment and

crime and found a relationship between several dimensions of employment characteristics and crime.

# 3.9 Specification of Models

The following sample models were run for each year included in this analysis, (1979, 1980, 1981 to represent the decade of the 1980s), (1989, 1990, 1991 to represent the decade of the 1990s), and (1999, 2000, 2001 to represent the decade of the 2000s), for all fifty states of the United States.

Each model was estimated using ordinary least squares regression because a normal distribution was assumed. Since the dependent variable (property crime arrest rates) is an interval level variable, an OLS model is appropriate. Further, OLS was most appropriate because the dependent variables were continuous rates of crime. By running each model for each period by gender, this study was able to detect gender differences in property crime arrest rates in four specific regions of the United States for three specific time periods 1979, 1980, 1981 (to represent the decade of the 1980s), 1989, 1990, 1991 (to represent the decade of the 1980s), 1999, 2000, 2001 (to represent the decade of the 2000s). What is more important, this study was able to determine whether the known predictors, such as labor market indicators, for male criminality operationalize the same for females committing similar offenses.

# Males

Property Crime Arrest Rate<sub>(Male)(Burglary)(Larceny Theft)(Motor Vehicle Theft)</sub>=percent (%) Unemployed + percent (%) Subunemployed + percent (%) low hours + percent (%) low wages + percent (%) Minority + Age + Region

Property Crime Arrest Rate<sub>(Male)(Burglary)</sub>=percent (%) Unemployed + percent (%) Subunemployed + percent (%) low hours + percent (%) low wages + percent (%) Minority + Age + Region

Property Crime Arrest Rate<sub>(Male)(Larceny-theft)</sub>=percent (%) Unemployed + percent (%) Subunemployed + percent (%) low hours + percent (%) low wages + percent (%) Minority + Age + Region

Property Crime Arrest Rate<sub>(Male)(Motor Vehicle Theft)</sub>=percent (%) Unemployed + percent (%) Subunemployed + percent (%) low hours + percent (%) low wages + percent (%) Minority + Age + Region

# Females

Property Crime Arrest Rate<sub>(Male)(Burglary)(Larceny Theft)(Motor Vehicle Theft)</sub>=percent (%) Unemployed + percent (%) Subunemployed + percent (%) low hours + percent (%) low wages + percent (%) Minority + Age + Region

Property Crime Arrest Rate<sub>(Female)(Burglary)</sub>=percent (%) Unemployed + percent (%) Subunemployed + percent (%) low hours + percent (%) low hours + percent (%) Minority + Age + Region

Property Crime Arrest Rate<sub>(Female)(Larceny-theft)</sub>=percent (%) Unemployed + percent (%) Subunemployed + percent (%) low hours + percent (%) low wages + percent (%) Minority + Age + Region

Property Crime Arrest Rate<sub>(Female)(Motor Vehicle Theft)</sub>=percent (%) Unemployed + percent (%) Subunemployed + percent (%) low hours + percent (%) low wages + percent (%) Minority + Age + Region

Figure 3: Aggregate and Individual Models

# Chapter 4 Descriptive Statistics

## 4.1 1980 Aggregate Property Crime Arrest Rates

Table 1 presents the descriptive statistics for 1980 property crime arrest rates for males and females. Of particular interest is the difference in the mean crime rate for males and females. In 1980, males were arrested at an average of 1069.22 property crimes per 100,000 males while females were arrested at an average of 280.83 property crimes per 100,000 females. This indicates that males were arrested approximately 3.8 times more than females for property crimes. For both males and females there is a large amount of variation in the rate among the states with the property crime arrest rate for males having a range of 433.37 arrests per 100,000 males to 1747.93 arrests per 100,000 males and females having a range of 65.66 arrests per 100,000 females to 570.69 arrests per 100,000 females. This gap in the level of arrests for property crimes by gender is the primary focus of this research paper.

The next section includes Table 1 which provides the descriptive statistics for the labor market predictor variables included in this analysis. For the independent variable, percent unemployed, the mean for males is 6.8060 with a standard deviation of 2.27118. The rate for females is slightly lower with a mean of 6.3751 and a standard deviation of 1.67252. The average for both males and females is below the 1980 national unemployment rate of 7.1percent (source - <u>http://www.bls.gov/cps/cpsaat1.pdf</u>). For the independent variable percent subunemployed, the mean for males is 0.7063 with a standard deviation of 0.47522. This indicates on average, less than one percent of the male labor force is subunemployed. On the other hand, the mean percent subunemployed for females is 1.3665 with a standard deviation of 0.83923 indicating that on average, approximately 1.4 percent of the female labor force is subunemployed. That is, nearly double the percent of that for males indicating that a larger

	Males				Females			
Variable	Mean	Std. Deviation	Min	Max	Mean	Std. Deviation	Min	Max
Dependent Variables								
1980 Property Crime Arrest Rate	1069.216	340.232	433.370	1747.930	280.826	112.695	65.660	570.690
Predictor Variables								
Unemployed	6.806	2.271	3.010	12.890	6.375	1.673	2.550	10.550
Subunemployed	0.706	0.475	0.000	1.750	1.366	0.839	0.140	3.400
Low Wage	5.799	1.496	3.560	9.480	11.242	2.310	6.490	16.560
Low Hours	3.163	1.141	0.940	7.260	4.227	1.464	1.930	8.110
<b>Control Variables</b>								
Minority	13.368	14.064	0.690	71.190	13.955	14.206	0.420	69.770
Juvenile	9.206	0.935	6.950	11.210	8.507	1.081	5.810	10.750
Young Adult	13.303	1.513	10.540	17.450	13.193	1.356	10.670	16.130
State is in the South	0.333	0.476	0.000	1.000	0.333	0.476	0.000	1.000

# Table 1. Descriptive Statistics for Male and Female Property Crime Arrest Rates, 1980

percentage of the female labor force has given up on looking for work because they could not find a job.

For the independent variable percent low wage, the mean for males is 5.7993 with a standard deviation of 1.49627. This indicates that approximately six percent of the males working full-time make a wage that is below the poverty level. For females, the mean is 11.2422 with a standard deviation of 2.31040 indicating that a little over eleven percent of the females working full-time make a wage that is below the poverty level. Again this is a rate that is nearly double the rate of that for males.

For the independent variable percent low hour, the mean for males is 3.1628 with a standard deviation of 1.14127. These values indicate approximately three percent of the males in the labor force work part-time but would like to work full-time. Similarly, the mean for females is 4.2266 with a standard deviation of 1.46418. Although the differences between the two are not very large, females still have a higher percentage of working part-time when they really want to work full-time.

The next section of Table 2 provides descriptive statistics for the control variables. The mean for male percent minority is 13.3682 with a standard deviation of 14.06398, while the mean female percent minority is 13.9548 with a standard deviation of 14.20682. These values are fairly consistent across all 50 states. Thus, these values indicate that approximately 13 percent of the male population of a given state is minority; and the same is true for females, in a given state, 13 percent of the minority population is female. For the variables that are used as controls for age, percent juvenile and percent young adult, the mean for male percent juvenile is 9.2061 with a standard deviation of 0.93500, while the mean for female percent juvenile is 8.5067 with a standard deviation of 1.08107. For percent young adult, the mean for males is 13.1934 with a

standard deviation of 1.35593. These numbers indicate that the percentage of the male population that is in the most crime prone age group (13 to 24) is larger than that of females. The final control variable is a dummy variable indicating that a state is located in the South. The mean for this variable is .3333 and is the same for both males and females. This indicates that 33 percent of the states in the U. S. are classified as being in the South by the U. S. Census Bureau.

## 4.2 1980 Period Aggregate Rates by Gender

According to the descriptive statistics for property crime arrest rates from 1980, males are arrested at higher rates than females. As shown in Table 2, on average, males are arrested for property crime at statistically significant higher rates than their female counterparts. The difference is such that males are arrested for property crimes an average of nearly four times more than females.

Females tend not to be as well off as males in the labor force. Although there is no significant difference between the average percent of male and females that are unemployed, on average a larger percentage of females are subunemployed compared to males. This indicates that females give up on looking for work because they are unable to find work. Similarly, a larger percentage of females working full-time make less than poverty level wages (an average of 11.24 percent compared to 5.8 percent for males), and, on average, a higher percentage of females work part-time for economic reasons (4.23 percent compared to 3.16 percent for males).

# 4.3 1990 Aggregate Property Crime Arrest Rates

Table 3 presents the descriptive statistics for 1990 property crime arrest rates for males and females. Of particular interest is the difference in the mean crime rate for males and females. In 1990, males were arrested at an average of 1145.64 property crimes per 100,000 males while females were arrested at an average of 364.00 property crimes per 100,000 females.

	Males				Females				
Variable	Mean	T- Value <sup>3</sup>	Lower CI Limit	Upper CI Limit	Mean	<b>T-Value</b>	Lower CI Limit	Upper CI Limit	
Dependent Variables									
1980 Property Crime Arrest Rate	1069.216	22.443	973.525	1164.909	280.826	17.796	249.129	312.522	
Predictor Variables									
Unemployed	6.806	21.401	6.167	7.445	6.375	27.221	5.905	6.846	
Subunemployed	0.706	10.614	0.573	0.840	1.367	11.629	1.131	1.603	
Low Wage	5.799	27.679	5.378	6.220	11.242	34.750	10.592	11.892	
Low Hours	3.163	19.791	2.841	3.484	4.227	20.615	3.815	4.638	
<b>Control Variables</b>									
Minority	13.368	6.788	9.413	17.324	13.954	7.015	9.959	17.951	
Juvenile	9.206	70.315	8.943	9.469	8.507	56.194	8.203	8.811	
Young Adult	13.303	62.800	12.877	13.728	13.193	69.487	12.812	13.575	
State is in the South	0.333	5.000	0.199	0.467	0.333	5.000	0.199	0.467	

Table 2. Means and Confidence Intervals for Male and Female Property Crime Arrest Rates, 1980

 $^{3}$  The T-Values in the charts of this chapter refer to the values that were obtained from a one-tailed t-test. The t-tests were conducted separately for both males and females in each model, which resulted in the production of confidence intervals. The confidence intervals were then compared by gender. If the confidence intervals did not overlap, then a statistical difference between the two means is assumed.

This indicates that males were arrested approximately 3.14 times more than females for property crimes. For both males and females there is a large amount of variation in the rate among the states with the property crime arrest rate for males having a range of 340.48 arrests per 100,000 males to 2300.56 arrests per 100,000 males and females having a range of 87.87 arrests per 100,000 females to 674.95 arrests per 100,000 females.

The next section includes Table 3 which provides the descriptive statistics for the labor market predictor variables included in this analysis. For the independent variable percent unemployed, the mean for males is 4.8863 with a standard deviation of 1.17012. The rate for females is again slightly lower with a mean of 4.7757 and a standard deviation of 1.42405. The average for both males and females is below the 1990 national unemployment rate of 5.6percent of the labor force (source -<u>http://www.bls.gov/cps/cpsaat1.pdf</u>).

For the independent variable percent subunemployed the mean for males is 1.1082 with a standard deviation of .75200. This indicates, on average, approximately one percent of the male labor force is subunemployed. On the other hand the mean percent subunemployed for females is 1.0725 with a standard deviation of 0.80794, indicating that approximately one percent of the female labor force is also subunemployed. This is a change from 1980 where the percent of females that were subunemployed was nearly double that of males.

For the independent variable percent low wage, the mean for males is 4.2114 with a standard deviation of 1.39640. This indicates that approximately 4.2 percent of the males working full-time make a wage that is below the poverty level. For females, the mean is 6.4513 with a standard deviation of 1.82173 indicating that approximately 6.5 percent of the females working full-time make a wage that is below the poverty level. This is a rate that is nearly 1.5 times the rate of that for males.

	Males				Females			
Variable	Mean	Std. Deviation	Min	Max	Mean	Std. Deviation	Min	Max
Dependent Variables								
1990 Property Crime Arrest Rate	1145.636	425.372	340.480	2300.560	364.002	133.179	87.870	674.950
Predictor Variables								
Unemployed	4.886	1.170	2.030	7.810	4.776	1.424	2.550	7.710
Subunemployed	1.108	0.752	0.000	3.470	1.073	0.808	0.000	4.330
Low Wage	4.211	1.396	1.670	8.210	6.451	1.822	3.840	11.170
Low Hours	3.806	1.080	1.850	6.630	4.782	1.868	1.340	10.480
<b>Control Variables</b>								
Minority	14.887	14.313	0.490	72.600	15.477	14.844	0.130	72.890
Juvenile	7.305	1.246	4.470	9.920	6.573	0.992	4.420	9.530
Young Adult	10.242	1.159	7.950	12.770	9.922	1.202	6.960	12.070
State is in the South	0.333	0.476	0.000	1.000	0.333	0.476	0.000	1.000

 Table 3. Descriptive Statistics for Male and Female Property Crime Arrest Rates, 1990

For the independent variable percent low hour, the mean for males is 3.8057 with a standard deviation of 1.08014. These values indicate approximately three percent of the males in the labor force work part-time but would like to work full-time. Similarly, the mean for females is 4.7816 with a standard deviation of 1.86840. This is a rate that is nearly 1.5 times the rate of that for males, with there being a higher percentage of females working part-time when they really want to work full-time.

The next section of Table 3 provides descriptive statistics for the control variables. The mean for male percent minority is 14.8773 with a standard deviation of 14.3128, while the mean female percent minority is 15.4772 with a standard deviation of 14.84402. These values indicate that on average the percent male minority and the percent female minority are fairly consistent across the states, however, there is a lot of variation of percent minority in the states. For the variables that are used as controls for age, percent juvenile and percent young adult, the mean for male percent juvenile is 7.3045 with a standard deviation of 1.24604, while the mean for female percent juvenile is 6.5731 with a standard deviation of 0.99172. For percent young adult, the mean for males is 10.2419 with a standard deviation of 1.15855 and the mean for females is 9.9215 with a standard deviation of 1.20214. These numbers indicate that the percentage of the male population that is in the most crime prone age group (13 to 24) is larger than that of the amount for females. The final control variable is a dummy variable indicating that a state is located in the South. The mean for this variable is .3333 and is the same for both males and females. This indicates that 33 percent of the states in the U.S. are classified as being in the South by the U. S. Census Bureau.

## 4.4 1990 Period Aggregate Rates by Gender

According to the descriptive statistics for property crime arrest rates from 1990, males are still arrested at higher rates than females. As Table 4 shows, on average males are arrested for

property crime at statistically significant higher rates than their female counterparts. The difference is such that males are arrested at a rate 3.14 times more than females. In 1980, this difference was four times. The change is the result of a statistically significant increase in female arrests (from 280.83 in 1980 to 364.00 in 1990) since there was no statistically significant difference between the 1980 and 1990 male property crime arrest rate.

Females still tend not to be as well off as males in the labor force. However, there have been some improvements from 1980. Although there is no significant difference between the average percent of male and females that are unemployed, there is a statistically significant difference between male and female unemployment from the previous decade. Both unemployment rates were reduced with male unemployment decreasing to an average of 4.88 percent (down from 6.80 percent as indicated in Table 2) and female unemployment decreasing to an average of 4.78 percent (down from 6.38 percent as indicated in Table 2). Compared to 1980, there is no significant difference in female subunemployment, however, male subunemployment has increased and is equal to that of females. This indicates that males and females give up on looking for work because they are unable to find work at the same rate. Similarly, a larger percentage of females working full-time make less than poverty level wages (an average of 6.45 percent compared to 4.21 percent for males), and, on average, a higher percentage of females work part-time for economic reasons (4.78 percent compared to 3.80 percent for males).

# 4.5 2000 Aggregate Property Crime Arrest Rates

Table 5 presents the descriptive statistics for 2000 property crime arrest rates for males and females. Of particular interest is the difference in the mean crime rate for males and females. In 2000, males were arrested at an average of 684.6240 property crimes per 100,000 males while females were arrested at an average of 288.4708 property crimes per 100,000

	Males				Females				
Variable	Mean	<b>T-Value</b>	Lower CI Limit	Upper CI Limit	Mean	<b>T-Value</b>	Lower CI Limit	Upper CI Limit	
Dependent Variables									
1990 Property Crime Arrest Rate	1145.636	19.234	1026.998	1265.274	364.002	19.519	326.545	401.459	
Predictor Variables									
Unemployed	4.886	29.822	4.557	5.215	4.776	23.949	4.375	5.176	
Subunemployed	1.108	10.524	.897	1.320	1.073	9.480	.845	1.300	
Low Wage	4.211	21.538	3.819	4.604	6.451	25.290	5.939	6.964	
Low Hours	3.806	25.162	3.502	4.110	4.782	18.276	4.256	5.307	
<b>Control Variables</b>									
Minority	14.877	7.423	10.852	18.903	15.477	7.446	11.302	19.652	
Juvenile	7.305	41.864	6.954	7.655	6.573	47.333	6.294	6.852	
Young Adult	10.242	63.132	9.916	10.568	9.922	58.940	9.583	10.260	
State is in the South	0.333	5.000	0.199	0.467	0.333	5.000	0.199	0.467	

 Table 4. Means and Confidence Intervals for Male and Female Property Crime Arrest Rates, 1990

females. This indicates that males were arrested approximately 2.37 times more than females for property crimes. For both males and females there is a large amount of variation in the rate among the states with the property crime arrest rate for males having a range of 31.49 arrests per 100,000 males to 1292.24 arrests per 100,000 males and females having a range of 2.28 arrests per 100,000 females to 526.43 arrests per 100,000 females.

The next section includes Table 5 which provides the descriptive statistics for the labor market predictor variables included in this analysis. For the independent variable percent unemployed, the mean for males is 3.6650 with a standard deviation of 1.55025. The rate for females is again slightly lower with a mean of 3.6234 and a standard deviation of 1.30918. The average for both males and females is below the 2000 national unemployment rate of 4.0 percent (source - <u>http://www.bls.gov/cps/cpsaat1.pdf</u>). For the independent variable percent subunemployed, the mean for males is 0.8628 with a standard deviation of 0.55408. This indicates, on average, less than one percent of the male labor force is subunemployed. On the other hand the mean percent subunemployed for females is 0.4865 with a standard deviation of 0.41234 indicating that approximately one-half of one percent of the female labor force is also subunemployed.

For the independent variable percent low wage, the mean for males is 3.0683 with a standard deviation of 1.03911. This indicates that approximately three percent of the males working full-time make a wage that is below the poverty level. For females, the mean is 4.2113 with a standard deviation of 0.96207, indicating that approximately 4.2 percent of the females working full-time make a wage that is below the poverty level. This is a rate that is nearly 1.4 times the rate of that for males.

For the independent variable percent low hour, the mean for males is 2.3728 with a standard deviation of 0.84344. These values indicate approximately 2.3 percent of the males in

	Males				Females			
Variable	Mean	Std. Deviation	Min	Max	Mean	Std. Deviation	Min	Max
Dependent Variables								
2000 Property Crime Arrest Rate	684.620	287.129	31.490	1292.240	288.471	117.083	2.280	526.430
Predictor Variables								
Unemployed	3.665	1.550	0.600	8.700	3.623	1.309	1.010	7.750
Subunemployed	0.863	0.554	0.000	2.490	0.487	0.412	0.000	1.590
Low Wage	3.068	1.039	1.390	5.680	4.211	0.962	1.920	6.430
Low Hours	2.373	0.843	0.700	4.730	2.745	1.084	0.790	5.260
<b>Control Variables</b>								
Minority	16.703	14.137	1.960	73.070	17.459	14.500	0.840	74.740
Juvenile	7.767	0.960	5.110	10.080	7.218	1.214	4.840	10.520
Young Adult	10.005	1.396	5.950	12.580	9.491	1.364	5.370	12.090
State is in the South	0.333	0.476	0.000	1.000	0.333	0.476	0.000	1.000

 Table 5. Descriptive Statistics for Male and Female Property Crime Arrest Rates, 2000

the labor force work part-time but would like to work full-time. Similarly, the mean for females is 2.7453 with a standard deviation of 1.08358. This is a rate that is nearly 1.15 times the rate of that for males, with there being a slightly higher percentage of females working part-time when they really want to work full-time.

The next section of Table 5 provides descriptive statistics for the control variables. The mean for male percent minority is 16.7027 with a standard deviation of 14.13719, while the mean female percent minority is 17.4592 with a standard deviation of 14.50047. These values indicate that, on average, the percent male minority and the percent female minority are fairly consistent across the states, however, there is a lot of variation of percent minority in the states. For the variables that are used as controls for age, percent juvenile and percent young adult, the mean for male percent juvenile is 7.7665 with a standard deviation of 0.95970, while the mean for female percent juvenile is 7.2184 with a standard deviation of 1.21393. For percent young adult, the mean for males is 10.0050 with a standard deviation of 1.39575 and the mean for females is 9.4914 with a standard deviation of 1.36382. These numbers indicate that the percentage of the population that is in the most crime prone age group (13 to 24). The final control variable is a dummy variable indicating that a state is located in the South. The mean for this variable is .3333 and is the same for both males and females and has remained consistent throughout all of the years included in this study. This indicates that 33 percent of the states in the U. S. are classified as being in the South by the U. S. Census Bureau.

# 4.6 2000 Period Aggregate Rates by Gender

According to the descriptive statistics for property crime arrest rates from 2000, males are still arrested at higher rates than females. As shown in Table 6, on average, males are arrested for property crime at statistically significant higher rates than their female counterparts. The difference is such that males are arrested at a rate 2.37 times more than females are. In 1980,

this difference was four times and in 1990 the difference was 3.14 times which reduces the gap between male and female crime again. The change is the result of a statistically significant decrease in both male property crime arrests (from 1145.64 (see Table 4) in 1990 to 684.62 (see Table 6) in 2000) and female property crime arrests (from 364.00 (see Table 4) in 1990 to 288.47 (see Table 6) in 2000).

Females still tend not to be as well off as males are in the labor force. However, there have again been some improvements from 1990. Although there is no significant difference between the average percent of male and females that are unemployed, there is a statistically significant difference between male and female unemployment from the previous decade. Both unemployment rates were reduced, with male unemployment decreasing to an average of 3.67 percent (down from 4.88 percent as indicated in Table 4) and female unemployment decreasing to an average of 3.62 percent (down from 4.78 percent as indicated in Table 4). Compared to 1990 females have a lower rate of subunemployment which is statistically significantly lower than that of males for 2000. Finally, the percentage of both males and females working full-time make less than poverty level wages has decreased, and, on average, males and females work part-time for economic reasons at the same rate.

#### 4.7 1980-2000 Individual Property Crime Arrest Rates

Since there can be a large amount of variation in the crimes that are included in the crime rates previously presented, I disaggregated the data by type of property crime (burglary, larceny, and motor vehicle theft) in order to determine whether there was variation between males and females for the individual property crimes. Table 7 presents a summary of the means and confidence intervals for these crimes for each of the decades included in the study.

According to the descriptive statistics for property crime arrest rates from 1980, males are arrested at higher rates than females.

	Males				Females				
Variable	Mean	<b>T-Value</b>	Lower CI Limit	Upper CI Limit	Mean	<b>T-Value</b>	Lower CI Limit	Upper CI Limit	
Dependent Variables									
2000 Property Crime Arrest Rate	684.624	16.860	603.022	766.225	288.471	17.422	255.196	321.745	
Predictor Variables									
Unemployed	3.665	16.883	3.229	4.101	3.623	19.765	3.255	3.992	
Subunemployed	.863	11.121	.707	1.019	.487	8.426	.371	.603	
Low Wage	3.068	21.087	2.776	3.361	4.211	31.261	3.941	4.482	
Low Hours	2.373	20.090	2.136	2.610	2.745	18.093	2.441	3.050	
<b>Control Variables</b>									
Minority	16.703	8.437	12.727	20.678	17.459	8.599	13.381	21.538	
Juvenile	7.767	57.793	7.497	8.036	7.218	42.465	6.877	7.560	
Young Adult	10.005	51.191	9.612	10.398	9.491	49.700	9.108	9.875	
State is in the South	.333	5.000	.199	.467	.333	5.000	.199	.476	

Table 6. Means and Confidence Intervals for Male and Female Property Crime Arrest Rates, 2000

As Table 7 shows, for each property<sup>4</sup> crime, males are arrested for burglary, larceny, and motor vehicle theft on the average at significantly higher rates than their female counterparts. For example males are arrested for burglary an average of nearly 17 times more than females. On the other hand, males are arrested for larceny at an average of only 2.6 times that of females, indicating that females are arrested for larceny more than any other Type 1 property crime.

The next section of Table 7 shows the statistics for property crime arrest rates from 1990. Males are still consistently arrested at higher rates than females. As Table 7 shows, for each property crime, males are arrested for burglary, larceny, and motor vehicle theft on average at statistically significant higher rates than their female counterparts. For example, males are arrested for burglary an average of nearly 12 times more than females are. In 1980, this difference was 17 times. The change is the result of a statistically significant decrease in male burglary arrests (from 324.81 in 1980 to 252.32 in 1990), since there was no statistically significant difference between the 1980 and 1990 female burglary rate. On the other hand, males are arrested for larceny at an average of only 2.3 times that of females. This decrease in the gap from 1980 is the result of a statistically significant increase in female larceny arrests (from 253.42 in 1980 to 331.24 in 1990), indicating that females are increasingly being arrested for larceny more than for any other Type 1 property crime.

Based on the third section of Table 7 for property crime arrest rates from 2000, males are still consistently arrested at higher rates than females. As Table 7 shows, for each property crime, males are arrested for burglary, larceny, and motor vehicle theft on average at statistically significant higher rates than their female counterparts. For example, males are arrested for burglary an average of nearly eight times more than females are. In 1990, this difference was 12

<sup>&</sup>lt;sup>4</sup> Aggregate property crime arrest rates are not included in this table because the same disaggregated male and female population was used as the base for both sets of data.

times. The change is again the result of a statistically significant decrease in male burglary arrests (from 252.32 in 1990 to 138.50 in 2000), and no statistically significant difference between the 1990 and 2000 female burglary arrest rate. On the other hand, males are arrested for larceny at an average of only 1.9 times that of females. This decrease in the gap from 1990 is the result of a statistically significant decrease in male larceny arrest rates (from 775.55 in 1990 to 484.09 in 2000) and female larceny arrest rates (from 331.24 in 1990 to 258.81 in 2000), indicating that females are increasingly being arrested for larceny more than for any other Type 1 property crime, and, based upon these data, it seems as though larceny is the crime females commit most often.

# 4.8 Chapter Summary

The descriptive statistics and means testing for this dissertation revealed that there is a statistical gender difference in property crime arrest rates between 1980 and 2000. During the period of 1980, the mean property crime arrest rate for males 3.8 times more than that of females. During the period of 1990, the mean property crime arrest rate for males was 3.14 times more than that of females. During the period of 2000, the mean property crime arrest rate for males was 2.37 times more than that of females. Essentially, a trend was detected. From 1980 to 2000, the gender gap in property crime arrest rates has narrowed. That is, the mean difference between male and female property crime arrest rates has declined. Therefore, the primary research question of this dissertation has been empirically satisfied.
	Males				Females			
Variable	Mean	T-Value	Lower CI Limit	Upper CI Limit	Mean	<b>T-Value</b>	Lower CI Limit	Upper CI Limit
1980 Crime Rates								
Burglary	324.817	18.469	289.493	360.142	19.108	12.000	15.909	22.308
Larceny	658.169	21.746	597.377	718.962	253.423	683.000	224.638	282.208
Motor Vehicle Theft	86.283	14.177	74.058	98.507	8.295	11.566	6.854	9.735
1990 Crime Rates								
Burglary	252.329	18.396	224.778	279.880	20.079	10.694	16.308	23.851
Larceny	775.554	19.237	694.577	856.531	331.235	19.472	297.068	365.403
Motor Vehicle Theft	117.927	6.147	79.394	156.461	12.693	7.987	9.501	15.885
2000 Crime Rates								
Burglary	138.506	13.395	117.723	159.285	17.746	7.878	13.220	22.273
Larceny	484.091	16.394	424.751	543.432	258.809	17.520	229.123	288.495
Motor Vehicle Theft	62.050	11.392	51.104	73.000	11.916	9.173	9.305	14.526

 Table 7. Means and Confidence Intervals for Disaggregated Male and Female Property Crime Arrest Rates

# Chapter 5 Analysis

# **5.1 Test of Hypothesis**

The purpose of this chapter is to discuss the results of the ordinary least squares regression analysis for this dissertation. The discussion will include the hypotheses that were derived from a comprehensive review of the literature, with anomie as the guiding theory. It will also include the tests for each hypothesis, explanations for findings (significant or not), trends, and gender differences. The corresponding tables for reference are included in the appendix of this dissertation.

### 5.1.1 Expectations and Findings

**Hypothesis 1:** As unemployment increases, property crime arrest rates (burglary, larceny, and motor vehicle theft) will increase for both male and female offenders.

This hypothesis was tested in all three aggregate property crime arrest rate models (see Appendix Tables 8-10). The variable percent unemployed was not significant in either aggregate model, even though property crime arrest rates were higher at the beginning of the study period and lower at the end. Therefore, the above stated hypothesis was not supported by these findings. Additionally, these findings are inconsistent with the literature. The fact that the calculation of this variable is sensitive to subtle labor market shifts (CPS) and the fact that this study is not designed to detect subtle labor market shifts, may explain why the variable, percent unemployed, was not significant in either aggregate model. This finding was similar to the agespecific model study, in that the variable percent unemployed was only significant in one underemployment model, namely for juveniles (Allan and Steffensmeier 1989).

This hypothesis was also tested in nine individual property crime arrest rate models (see Appendix Tables 11-19). The variable percent unemployed was significant in only the motor vehicle theft model, which is similar to the model study, where this variable was only significant in the model for young adults. This hypothesis was marginally supported in the 1990 individual property crime model for motor vehicle theft for females only (see Appendix Table 16). This finding is consistent with the extant literature that states that anomic conditions, such as a poor economy with limited legitimate employment opportunities, increases property crime arrest rates. Additionally, motor vehicle theft arrest rates were higher in 1990 for females than any other period. The independent variable percent unemployed proved significant for females only. With one unit increase in percent unemployed, motor vehicle theft arrest rate increases by a rate of 2.275 for females (see Appendix Table 16). This finding partially supports the hypothesis that states that as percent unemployed increases property crime arrest rates will also increase for males and females. It is probable that this variable was significant for females because females are more susceptible to poor economic conditions. It is also likely that this variable was not significant for males because males are less likely to experience a gap between cultural values and the means of achieving those values. Additionally, during the decade of the 1990s the United States experienced an economic upswing. That is, after recovering from a decade of poor economic conditions, commonly referred to as Reaganomics, technology careers began to emerge in large numbers. Huge sectors of the technology field, at first, were saturated with males. The majority of the unemployed during the decade of the 1990s, were females, because, in part, they were educationally mismatched for the new industry. Therefore, it is reasonable to conclude in 1990 that we would expect higher property crime arrest rates among unemployed females than males.

**Hypothesis 2:** As subunemployment increases, property crime arrest rates (burglary, larceny, and motor vehicle theft) will increase for both male and female offenders.

This hypothesis was tested in all three aggregate property crime arrest rate models (see Appendix Tables 8-10). The variable percent subunemployed was not significant in either aggregate model. The variable percent subunemployment is the percent of the population that

has given up on looking for work because they could not find work. This variable is a proxy for discouraged workers. As stipulated by the theory guiding this dissertation, poor economic conditions increase the likelihood of property crime and the subsequent arrest rate. The findings from the aggregate models did not support the hypothesis stated above, which may be explained by the way the CPS calculates this variable (see rationale cited below).

This hypothesis was also tested in nine individual property crime arrest rate models (see Appendix Tables 11-19). The variable percent subunemployed was significant in only one model, though not in the expected direction. This hypothesis was not supported in the 1980 individual property crime arrest rate model for motor vehicle theft for females (see Appendix Table 13). For females, with one unit increase in percent subunemployed, the motor vehicle theft arrest rate is reduced by a rate of -2.242 (see Appendix Table 13). This finding contradicts the extant literature and does not support the hypothesis that states that increases in percent subunemployed would raise property crime arrest rates. This might have occurred because the overall motor vehicle property crime arrest rate was lower for females in 1980 than in any other period. It is also likely that the variable percent subunemployed was not significant for males because there are more females that are characterized as subunemployed. That is, at any given point, there are more females that have given up on work because they have been without work for at least 12 months. The decade of the 1980s was characterized by high rates of unemployment, with the majority of those unemployed being females. It is unclear if the variable calculation was subject to period effects but it is clear that property crime arrest rates were higher in 1980 for males than any other period (see Table 7 in Chapter 4). However, it may be possible that this variable is measuring those who are without work voluntarily as opposed to those who are without work involuntarily. It is the concentration of the involuntarily subunemployed that is likely to increase property crime arrest rates. Accordingly, Allan and

Steffensmeier reported "...the CPS does not include a measure designed explicitly to reveal discouraged workers..." (Allan and Steffensmeier 1989: p. 115). That is, this variable assumes that there is a desire for work but it does not differentiate between those who choose to work and those who do not, and therefore may produce unexpected findings.

**Hypothesis 3:** As low hours increase, property crime arrest rates (burglary, larceny, and motor vehicle theft) will increase for both male and female offenders.

This hypothesis was tested in all three aggregate property crime arrest rate models (see Appendix Tables 8-10). The variable percent low hours was not significant in either aggregate model. Based on the theoretical framework, this was an unexpected finding in that this variable is a proxy for marginal employment, and marginal employment is associated with increase property crime arrest rates, which was not illustrated in the aggregate models.

This hypothesis was also tested in nine individual property crime arrest rate models (see Appendix Tables 11-19). The independent variable, percent low hours, was not significant in the individual property crime arrest rate models. Therefore, this hypothesis was not supported in either analysis. One plausible explanation for this finding lies in the definition for percent low hours. According to the CPS, percent low hours is characterized as individuals working below 31 hours because they cannot find full-time employment. Hence, there is a lot of variation in this labor market category of low hours. There is no way to determine if individuals are working 30 hours or 10 hours. Perhaps, the individuals included in this study are at the higher end of the continuum and therefore are not as susceptible to economic downturns as individuals at the lower end of the continuum. Another plausible, though simple, explanation is that the independent variable percent low hours may not be a good predictor for the U-C relationship as designed in this study.

**Hypothesis 4:** As low wages increase, property crime arrest rates (burglary, larceny, and motor vehicle theft) will increase for both male and female offenders.

This hypothesis was tested in all three aggregate property crime arrest rate models (see Appendix Tables 8-10). Though the calculation of the independent variable percent low wages varies from year-to-year according to the individual poverty level as established by the Social Security Administration, it was significant in the 2000 aggregate property crime arrest rate model (see Appendix Table 10). This finding serves to partially support the hypothesis that states that, as low wage increases, property crime arrest rates will increase for both males and females. The findings supported the hypothesis stated above for females only. For one unit increase in percent low wages, the aggregate property crime rate will increase by a rate of 51.474 for females (see Appendix Table 10). As the Bureau of Labor Statistics indicate, women earn 77 percent of what men earn, therefore it is reasonable to conclude that increased low wages would have more of an effect on females than males. That is, increased low wages would likely increase property crime arrest rates for females and not males. It is also likely that this variable was not significant for males because they are less likely to rely on kin networks in order to buffer the effects of poor economic conditions (Chesney-Lind and Pasko 2004). Since labor market statistics reveal that men earn more than women, if men experienced an increase in low wages the effect would not be as detrimental, as compared to females, and the male property crime arrest rate may be unaffected.

This hypothesis was also tested in nine individual property crime arrest rate models (see Appendix Tables 11-19). The variable percent low wages was significant in one model. This hypothesis was partially supported in the 2000 individual property crime arrest rate model for larceny-theft for females (see Appendix Table 18). For one unit increase in percent low wage the larceny theft arrest rates increases by a rate of 50.28 for females (see Appendix Table 18). The explanation for this finding in the individual model mirrors the explanation in the aggregate model, which essentially illustrated that women earn less than men and an increased low wage

would be detrimental to females and likely increase the property crime arrest rate. Additionally, larceny-theft is the most common criminal offense and the arrest rate was higher for females in 2000 than in 1980 (see Appendix Table 7), which supplements the explanation of this finding. It is possible that the variable percent low wage was not significant for males because fewer males earn low wages as compared to females. In fact, the steady decline in property crime arrest rates between 1980 and 2000 for males corresponds to the steady decline in the unemployment rates between 1980 and 2000 for males.

**Hypothesis 5:** When examining race by way of the independent variable percent minority, property crime arrest rates will be higher in regions with a substantial minority population.

This hypothesis was tested in all three aggregate property crime arrest rate models (see Appendix Tables 8-10). The variable percent minority was significant in the 1980 aggregate property crime arrest rate model for males and females (see Appendix Table 8). This finding supported the hypothesis stated above. The dependent variable in this model is the aggregate property crime rate of burglary, larceny, and motor vehicle theft for the data representing the decade of 1980. The control variable percent minority yielded significant results for males and females. Specifically, for one unit of increase in percent minority the aggregate property crime arrest rate will increase by the rate of 9.639 for males and the rate of 3.509 for females (see Appendix Table 8). While the same variable, percent minority is significant for both males and females, the variable has different effects on males and females. That is, percent minority has nearly three times a greater influence on the aggregate property crime arrest rate for males as it does for females. This is an important finding in this study because it supports one of the hypotheses of this dissertation which states that regions with a substantial minority population will experience higher property crime arrest rates. Additionally, it speaks to one of the main research objectives of this dissertation, that is, a demonstration of gender differences in property crime arrest rates. Based on this finding, it can be concluded that areas with a substantial

minority population, at least ten percent, are more likely to have a higher property crime arrest rate. That rate would become even more inflated if that minority population is predominately male. In relation to the overall theme of gender differences in property crime arrest rates, it can also be determined that percent minority differentially effects aggregate property crime arrest rates by gender. It is plausible that the control variable percent minority was significant for both males and females because of the social conditions that are often associated with minorities and minority communities, such as but not limited to, low income and inferior education. Additionally, communities with substantial minority populations are socially isolated, that is cutoff from mainstream values and goals, as a result, subcultures develop and crime ensues.

This hypothesis was also tested in nine individual property crime arrest rate models (see Appendix Tables 11-19). The variable percent minority proved significant in several models and provided support for the hypothesis stated above. This hypothesis was supported in the 1980 individual property crime arrest rate model for larceny-theft for both males and females (see Appendix Table 12). This finding indicates that with one unit increase in percent minority larceny-theft arrest increases by a rate of 6.208 for males and 3.140 for females (see Appendix Table 12). This finding supports the hypothesis that states that regions with a substantial minority population will experience higher property crime arrest rates (see rationale cited above). The control variable percent minority was significant in the 1980 individual property crime arrest rate model for motor vehicle theft for males and females (see Appendix Table 13). For one unit increase in percent minority, motor vehicle theft arrests increases by a rate of 1.930 for males and .233 for females (see Appendix Table 13). In this model, percent minority differentially affects the crime rate by gender. That is, the motor vehicle theft arrest rate for minority males is nearly nine times the rate for minority females in 1980. The rationale for this finding is consistent with the literature and fully supports the hypothesis stated above. In the 1990

individual property crime arrest rate model for motor vehicle theft, percent minority is significant for males and females (see Appendix Table 16). Table 16 highlights the motor vehicle theft arrest rate for male and female offenders for the 1990 period. With one unit increase in percent minority, motor vehicle theft arrest rate increases by a rate of 5.270 for males and .494 for females (see Appendix Table 16). In this model, percent minority has differential effects on the dependent variable, by gender. That is, in 1990 being a minority increases the motor vehicle theft arrest rate for males more than 10 times the rate for females. This finding is consistent with literature that reports that areas with a substantial minority population will have inflated rates of crime. It also supports the hypothesis that states that regions with higher minority populations will experience higher property crime arrest rates (see the rationale provided above). Also, in the 2000 individual property crime arrest rate model for motor vehicle theft, the control variable percent minority was significant for females only (see Appendix Table 19). According to the results, with one unit increase in percent minority, motor vehicle theft increases by .272 for females (see Appendix Table 19). This finding verifies the supporting literature and the hypothesis stated above. It is likely that this variable is significant for females because of the rationale cited above, namely, any area occupied by a substantial minority population, has higher crime rates. However, the control variable percent minority was not significant for males in this model. This may have been influenced by the fact that motor vehicle arrest rates decreased from 86.28 in 1980 to 62.05 in 2000 (see Table 7 in Chapter 4).

**Hypothesis 6:** When examining age, by way of the control variables (percent juvenile and percent young adult), property crime arrest rates (burglary, larceny, and motor vehicle theft) will be higher in regions with substantial juvenile or young adult populations.

This hypothesis was tested in all three aggregate property crime arrest rate models (see Appendix Tables 8-10). The control variables for age were not significant in either aggregate model. This finding did not support the hypothesis stated above or the extant literature. In fact,

this finding was the complete opposite of the expectations. It is likely that these control variables, percent juvenile and percent young adult, were not significant in these models because the property crime arrest rate was aggregated. That is, the aggregate rate might not reflect age differences.

This hypothesis was also tested in nine individual property crime arrest rate models (see Appendix Tables 11-19). Percent juvenile, a control variable for age, was significant in two models. However, this hypothesis was not supported by this analysis because it was not in the expected direction (see Appendix Tables 14 and 16). Table 14 highlights the larceny-theft arrest rate for male and female offenders for the 1980 period. According to the results, the control variable percent juvenile was significant in these models for males only. As percent juvenile increases, the burglary arrest rate decreases by a rate of -23.086 (see Appendix Table 14). As percent juvenile increases, motor vehicle theft arrest rates decreases by a rate of -33.77 (see Appendix Table 16). These findings are inconsistent with the literature in that juveniles are responsible for a large portion of property offenses committed in the United States. Additionally, these findings do not support the hypothesis that states that property crime arrest rates will increase with a substantial juvenile population. The fact that this control variable was not significant in either model for females suggests that age has no effect on aggregate property crime arrest rates for females, even though, official statistics indicate that juvenile crime patterns are similar for males and females. The model study analyzed separate models for juveniles and young adults, thereby, controlling for age. This dissertation, however, included all individuals and made no attempt to separate the analysis by age. A plausible explanation for these negative insignificant findings for percent juvenile and percent young adult is that the results may have been different for specific ages within these age groups.

**Hypothesis 7:** When examining region, by way of the control variable for region, state is in the South, property crime arrest rates (burglary, larceny, and motor vehicle theft) will be higher in southern states.

This hypothesis was tested in all three aggregate property crime arrest rate models (see Appendix Tables 8-10). The control variable, state is in the South, was not significant in either aggregate model. This finding did not support the hypothesis stated above. A plausible explanation for this finding is related to official crime statistics. The UCR reports, property crime arrest rates are higher in the South for a specific type of property offense, namely, larceny. The design of this study and the aggregate property crime rate might have masked that finding.

This hypothesis was also tested in nine individual property crime arrest rate models (see Appendix Tables 11-19). The above stated hypothesis was partially supported by this model. The variable used to control for region, state is in the South, was significant in two models. Table 14 reports that for one unit increase in the control variable (state is in the South), the burglary crime rate increases by a rate of 81.051 for males (see Appendix Table 14). That is, burglary arrest rates in 1990 are increased in southern states. This finding is consistent with the hypothesis that says southern states will experience higher property crime arrest rates. However, this variable was not significant for females. A plausible explanation for this finding is that burglary is not a common offense for females; at the state level, burglary is an overwhelmingly male offense. However, the finding for this hypothesis was not in the expected direction (see Appendix Table 19). According to the findings reported in Table 19, the control variable, state is in the South, is significant for females. With one unit increase in the control variable, state is in the South, motor vehicle theft arrest decreases by a rate of -11.543 for females (see Appendix Table 19). That is, in the year of 2000, living in the South reduces motor vehicle theft rates for females. This finding was not in the expected direction, so it did not support the hypothesis stated above. A plausible explanation for this finding is that motor vehicle theft is not a "female

crime". Of the three property offenses included in this dissertation, motor vehicle theft has the least amount of offenses for females, especially in the period for 2000 (see Table 7 Chapter 4). (NOTE: 5.3.4 Figure 4 summarizes the test of the hypotheses).

# 5.2 Model Summaries and Equality Tests for Regression Coefficients

### 5.2.1 R-Square

The R-square values were computed and examined in an effort to determine the fit of the various models, that is, how well each model explained the variance in the outcome or dependent variable. The following is the presentation and interpretation of those values for each model starting with the aggregate models, which are then followed by the individual models.

In the 1980 aggregate property crime arrest rate model, the R-square values were .178 for males and .236 for females (see Appendix Table 8). This means that approximately 18 percent of the variation in the outcome or dependent variable is explained by this model for males and 24 percent for females. The remaining 82 percent of the variation in the model for males and the 64 percent for females can be explained by unknown or inherent variability. These R-square values indicate that this model is better suited for predicting property crime arrest rates for females than males.

In the 1990 aggregate property crime arrest rate model, the R-Square values were .174 for males and .133 for females (see Appendix Table 9). This means approximately 17 percent of the variation in the outcome or dependent variable is explained by this model for males and 13 percent for females. The remaining 83 percent of the variation in the model for males and the 87 percent for females can be explained by unknown or inherent variability. These R-Square values indicate that this model is better suited for predicting property crime arrest rates for males than females.

In the 2000 aggregate property crime arrest rate model, the R-Square values were .094 for males and .182 for females (see Appendix Table 10). This means approximately 9 percent of the variation in the outcome or dependent variable is explained by this model for males and 18 percent for females. The remaining 91 percent of the variation in the model for males and the 82 percent for females can be explained by unknown or inherent variability. These R-Square values indicate that this model was not a good predictor for either males or females, but was a better suited for predicting property crime arrest rates for females than males.

In the 1980 individual property crime arrest rate models for burglary, larceny-theft, and motor vehicle theft, the R-square values were 135, .214, and .398 for males, and, .138, .232, and .507 (see Appendix Tables 11-13). This means approximately 14 percent of the variation in the burglary arrest rate, 21 percent of the variation in the larceny arrest rate, and 40 percent of the variation in the motor vehicle theft arrest rate, is explained by these models for males. The remaining percentage of the variation in the model for males and females can be explained by unknown or inherent variability. For this period, the 1980 motor vehicle theft model was a better fit for predicting male property crime arrest rates than the other two models. Additionally, roughly 14 percent of the variation in the burglary arrest rate, 23 percent of the variation in the larceny-theft arrest rate, and 51 percent of the variation in the motor vehicle theft arrest rate, was explained in these models for females. For this period, the 1980 motor vehicle theft model was a better fit for predicting female property crime arrest rates than the other two models. While the motor vehicle theft arrest rate models explained more of the variation for both males and females, it is also noteworthy that the R-square values were larger for females for all three dependent variables. That is, these individual property crime arrest rate models for the 1980 period were better fit for females than males.

In the 1990 individual property crime arrest rate models for burglary, larceny-theft, and motor vehicle theft, the R-square values were .249, .349, and .403 for males, and, .098, .357, and .490 for females (see Appendix Tables 14-16). This means approximately 25 percent of the variation in the burglary arrest rate, 35 percent of the variation in the larceny-theft arrest rate, and 40 percent of the variation in the motor vehicle theft arrest rate, was explained by these models for males. Additionally, roughly 10 percent of the variation in the burglary arrest rate, 36 percent of the variation in the larceny-theft, and 49 percent of the variation in the motor vehicle theft arrest rate, was explained by these models for females. The remaining percentage of the variation in the model for males and females can be explained by unknown or inherent variability. For the 1990 period, the models for males and females appear to be a better fit than in the other periods because the R-square values are larger. More specifically these models explain more of the variation in the individual property crime arrest rates.

In the 2000 individual property crime arrest rate models for burglary, larceny-theft, and motor vehicle theft, the R-square values were 117, .120, and .104 for males, and, .138, .225, and .381 for females (see Appendix Tables 17-19). This means approximately 12 percent of the variation in the burglary arrest rate, 12 percent of the variation in the larceny-theft arrest rate, and 10 percent of the variation in the motor vehicle theft arrest rate, was explained by these models for males. Additionally, roughly 14 percent of the variation in the burglary arrest rate, 23 percent of the variation in the larceny-theft, and 38% of the variation in the motor vehicle theft arrest rate, was explained by these models for females. The remaining percentage of the variation in the model for males and females can be explained by unknown or inherent variability. For the 2000 period, the models for males do not appear to be a good fit because the R-square values hover around 10 percent. However, for females, these models explain more of the variation in the individual property crime arrest rates.

#### 5.2.2 Equality Tests

The equality test for the regression coefficients was conducted in order to determine if the independent variables in this dissertation had the same effect on males and females. This test was conducted for every independent variable. The results are discussed below beginning with the aggregate tests, followed by the individual tests.

In the 1980, 1990, and 2000 aggregate property crime arrest rate models, there were no significant differences between the coefficients for males and females, even though independent variable values were different. The differences however, were not significant. In the 1980 aggregate model the coefficient for the variable percent minority was positive for males and females, the coefficient for the variable percent unemployed was negative for males and positive for females, the coefficient for the variable percent subunemployed was negative for males and females, the coefficient for the variable percent low wage was negative for males and positive for females, the coefficient for the variable percent low hour was negative for males and females, the coefficient for the variable percent juvenile was negative for males and females, the coefficient for the variable percent young adult was negative for males and positive for females, and the coefficient for the variable state is in the South was negative for males and females. This means that for males and females, these variables do not have the same effect on the dependent variable, aggregate property crime arrest rate. In the 1990 aggregate model, the coefficient for the variable percent minority was positive for males and females, the coefficients for the variable percent unemployed were negative for males and positive for females, the coefficient for the variable percent subunemployed was negative for males and males, the coefficient for the variable percent low wage was positive for males and females, the coefficient for the variable percent low hour was positive for males and negative for females, the coefficient for the variable percent juvenile was negative for males and females, the coefficient for the variable percent

young adult was negative for males and females, and the coefficient for the variable state is in the South was positive for males and negative for females. This means that for male and females, these variables do not have the same effect on the dependent variable, aggregate property crime arrest rate. In the 2000 aggregate model, the coefficient for the variable percent minority was negative for males and positive for females, the coefficients for the variable percent unemployed were positive for both males and females, the coefficients for the variable percent subunemployed were negative for both males and females, the coefficients for the variable percent low wage were negative for males and positive for females, the coefficients for the variable percent low hour were positive for males and negative for females, the coefficient for the variable percent juvenile was positive for males and females, and the coefficient for the variable percent young adult was negative for both males and females, and the coefficient for the variable state is in the South was positive for males and negative for females, the coefficient for the variable and females, these variables do not have the same effect on the dependent variable, aggregate property crime arrest rate (see Appendix Tables 8-10).

In the 1980 individual property crime arrest rate model for burglary, there were no significant differences between the coefficients for males and females, even though independent variable values were different. The differences however, were not significant. The coefficient for the variable percent minority was positive for males and females, the coefficients for the variable percent unemployed were negative for males and positive for females, the coefficients for the variable percent subunemployed were negative for both males and females, the coefficient for the variable percent low wage was negative for both males and females, the coefficient for the variable percent low hour was negative for both males and females, the coefficient for the variable percent low hour was negative for both males and females, the coefficient for the variable percent juvenile was negative for males and females, the coefficient for the variable percent juvenile was negative for males and females, the coefficient for the variable percent juvenile was negative for males and females, the coefficient for the variable percent juvenile was negative for males and females, the coefficient for the variable percent juvenile was negative for males and females, the coefficient for the variable percent juvenile was negative for males and females, the coefficient for the variable percent juvenile was negative for males and females, the coefficient for the variable percent juvenile was negative for males and females, the coefficient for the variable percent juvenile was negative for males and females, the coefficient for the variable percent juvenile was negative for males and females, the coefficient for the variable percent juvenile was negative for males and females, the coefficient for the variable percent juvenile was negative for males and females, the coefficient for the variable percent juvenile was negative for males and positive for females, and the formates and positive for females, and the females and females and females and females a

coefficient for the variable state is in the South was negative for males and positive for females. This means that for male and females, these variables do not have the same effect on the dependent variable, burglary property crime arrest rate (see Appendix Table 11).

In the 1980 individual property crime arrest rate model for larceny-theft, only one significant gender difference appeared with the variable, percent low hour. The coefficient for the variable percent low hour had a negative effect on males and a positive effect on females. The other differences however, were not significant. The coefficient for the variable percent minority was positive for both males and females, the coefficient for the variable percent unemployed was negative for males and positive for females, the coefficient for the variable percent subunemployed was negative for both males and positive for females, the coefficient for the variable percent low wage was negative for males and positive for females, the coefficient for the variable percent juvenile was negative for males and positive for females, the coefficient for the variable percent young adult was negative for males and positive for females, and the coefficient for the variable does not have the same effect on the dependent variable, larceny theft arrest rate (see Appendix Table 12).

In the 1980 individual property crime arrest rate model for motor vehicle theft, only one significant gender difference appeared with the variable, percent unemployed. The variable percent unemployed had a negative effect on males and positive effect on females. This means that this variable does not have the same effect on the dependent variable, motor vehicle theft (see Appendix Table 13). The other differences, however, were not significant. The coefficient for the variable percent minority was positive for males and females, the coefficient for the variable percent subunemployed was negative for males and females, the coefficient percent low wage was negative for males and positive for females, the coefficient for the variable percent low

hour was positive for males and negative for females, the coefficient for the variable percent juvenile was negative for males and females, the coefficient for the variable percent young adult was positive for males and females, and the coefficient for the variable state is in the South was negative for males and females. This means, by gender, these variables differentially affect the motor vehicle theft arrest rate (see Appendix Table 13).

In the 1990 individual property crime arrest rate model for burglary, there were two significant gender differences that appear with the variables percent juvenile and state is in the South. The variable percent juvenile had a negative effect on males and a positive effect on females. The variable state is in the South had a positive effect on males and a negative effect on females. This means that these variables do not have the same effect on the dependent variable, burglary arrest rate (see Appendix Table 14). The other differences, however, were not significant. The coefficient for the variable percent minority was positive for males and females, the coefficient for the variable percent unemployed was negative for males and females, the coefficients for the variable percent low wage were negative for males and females, the coefficient for the variable percent low wage were negative for males and females, the coefficient for the variable percent low hour was positive for males and females, the coefficient for the variable percent low hour was positive for males and females, the coefficient for the variable percent low hour was positive for males and females, the coefficient for the variable percent low hour was positive for males and females. This means, by gender, these variables differentially affect the burglary arrest rate (see Appendix Table 14).

In the 1990 individual property crime arrest model for larceny-theft, there were no significant differences between the coefficients for males and females, even though independent variable values were different. The differences, however, were not significant. The coefficient for the variable percent minority was positive for males and negative for females, the coefficient for the variable percent unemployed was negative for males and positive for females, the

coefficient for the variable percent subunemployed was negative for males and females, the coefficient for the variable percent low wage was positive for males and females, the coefficient for the variable percent low hour was positive for males and negative for females, the coefficient for the variable percent juvenile is negative for males and positive for females, the coefficient for the variable percent young adult was negative for males and positive for females, and the coefficient for the variable for the variable for the variable state is in the South was negative for males and females. This means that for male and females, these variables do not have the same effect on the dependent variable, larceny-theft arrest rate (see Appendix Table 15).

In the 1990 individual property crime arrest model for motor vehicle theft, there were two significant gender differences that appear with the variables percent unemployed and percent juvenile. The variable percent unemployed had a positive effect on both genders. The variable percent juvenile had a negative effect on both genders. This means that for males and females, these variables do not have the same effect on the dependent variable, motor vehicle theft arrest rate (see Appendix Table 16). The other differences, however, were not significant. The coefficient for the variable percent minority was significant for males and negative for females, the coefficient for the variable percent subunemployed was positive for males and negative for females, the coefficient for the variable percent low hour was positive for males and females, the coefficient for the variable percent low hour was positive for males and females, the coefficient for the variable percent young adult was negative for males and females, and the coefficient for the variable state is in the South is negative for males and females. This means that for male and females, these variables do not have the same effect on the dependent variable, motor vehicle theft arrest rate (see Appendix Table 16).

In the 2000 individual property crime arrest model for burglary, there were no significant differences between the coefficients for males and females, even though independent variable

values were different. The differences, however, were not significant. The coefficient for the variable percent minority was negative for males and positive for females, the coefficient for the variable percent unemployed are positive for males and females, the coefficient for the variable percent subunemployed was negative for males and females, the coefficient for the variable percent low wage was negative for males and females, the coefficient for the variable percent low hour was positive for males and females, the coefficient for the variable percent juvenile was positive for males and females, the coefficient for the variable percent juvenile was positive for males and negative for females, the coefficient for the variable percent young adult was negative for males and females. This means that for male and females, these variables do not have the same effect on the dependent variable, burglary arrest rate (see Appendix Table 17).

In the 2000 individual property crime arrest rate model for larceny-theft, there were no significant differences between the coefficients for males and females, even though independent variable values were different. The differences, however, were not significant. The coefficient for the variable percent minority was negative for males and females, the coefficient for the variable percent unemployed was positive for males and females, the coefficients for the variable percent subunemployed were negative for males and females, the coefficients for the variable percent low wage was positive for males and females, the coefficients for the variable percent low wage was positive for males and females, the coefficient for the variable percent juvenile was positive for males and females, the coefficient for the variable percent young adult was negative for males and females, and the coefficient for the variable state is in the South was positive for males and negative for females. This means that for male and females, these variables do not have the same effect on the dependent variable, larceny-theft arrest rate (see Appendix Table 18).

In the 2000 individual property crime arrest rate model for motor vehicle theft, there were no significant differences between the coefficients for males and females, even though independent variable values were different. These differences, however, were not significant. The coefficient for the variable percent minority was positive for males and females, the coefficient for the variable percent unemployed was positive for males and females, the coefficient for the variable percent subunemployed was positive for males and negative for females, the coefficient for the variable percent low wage was negative for males and positive for females, the coefficient for the variable percent low hour was negative for males and females, the coefficient for the variable percent juvenile was positive for males and negative for females, the coefficient for the variable percent young adult was negative for males and positive for females, and the coefficient for the variable state is in the South was negative for males and females. This means that for male and females, these variables do not have the same effect on the dependent variable, motor vehicle theft arrest rate (see Appendix Table 19).

## **5.3 Summary of Findings**

The findings from the aggregate models as shown in Tables 8, 9, and 10, depict the gender differences in property crime arrest rates between 1980 and 2000. In 1980, the property crime arrest rate is 2123.414 for males and 76.915 for females (see Appendix Table 8). The aggregate property crime arrest rate for males was nearly three times the rate for females in 1980. In 1990, the aggregate property crime arrest rate is 2053.516 for males and 475.835 for females (see Appendix Table 9). The aggregate property crime arrest rate for males was approximately four times the rate for females in 1990. In 2000, the aggregate property crime rate was 575.492 for males and 140.860 for females (see Appendix Table 10). The aggregate property crime arrest rate for females and 140.860 for females (see Appendix Table 10). The aggregate property crime arrest rate for females and 140.860 for females (see Appendix Table 10). The aggregate property crime arrest rate for females (see Appendix Table 10). The aggregate property crime arrest rate for females (see Appendix Table 10).

These models demonstrated aggregate property crime arrest rates have remained relatively stable over the last few decades, with the property crime arrest rates for males being three-to-four times more than that for females. The findings also suggest that the labor market indicators are not consistently significant across gender. That is, some labor market indicators prove to be statistically important predictors for males and not for females, and vice-versa. Although, the model study was age-specific with an all male sample, they found these same labor market indicators to be significant for males (Allan and Steffensmeier 1989). In an effort to determine why none of the labor market indicators proved significant for males, the model study was further compared to this dissertation. The primary differences are as follows; the model study only examined males, while this dissertation included females, the model study examined data that spanned four consecutive years, while this dissertation examined data from three different periods, and the model study included more controls than were included in this dissertation. Perhaps, these differences combined resulted in none of the labor market indicators being significant for males. In particular though, the decision to examine data from three different periods might have had the most drastic effect, in that, the selected years might have been those years that the male property crime arrest rate might have been lower. As a result, none of the labor market indicators proved significant for males. In spite of the issue of significance, these models, do however serve as empirical evidence of the gender gap decreasing in property crime arrest rates. Therefore, the disaggregated or individual property crime arrest rate models were analyzed to assess if the gender gap in specific property crime arrest rates between 1980 and 2000.

The findings from the individual models as shown in Tables 11 through 19 (Appendix) depict the gender differences in disaggregated property crime arrest rates between 1980 and 2000. These models provide more details than are contained in the aggregated models. The

significant findings are summarized by period, to highlight trends. They are also related to the stated hypotheses again, for emphasis.

### <u>5.3.1 1980</u>

In the burglary crime rate model for 1980, none of the independent nor control variables proved significant (see Appendix Table 11). In the larceny-theft crime rate model for 1980, one variable proved significant for both males and females. The variable percent minority proved significant for both males and females (see Appendix Table 12). This finding supports the hypothesis that states that regions with a substantial minority population will experience higher property crime arrest rates. In the same model the variable, state is in the South, which was used to control for region was significant for females only. This finding supported the hypothesis which stated, property crime arrest rates will be higher in southern states as compared to non-southern states (see Appendix Table 12). In the motor vehicle theft crime rate model for 1980, the control variable percent minority proved significant for both males and females (see Appendix Table 13). In the same model, the variable percent subunemployment is significant for females. However, this finding did not support the hypothesis, which stated subunemployment will increase property crime arrest rates (see Appendix Table 13).

#### 5.3.2 1990

In the burglary crime rate model for 1990, two variables proved significant for males only. One of the control variables used for age, percent juvenile, was significant for males (see Appendix Table 14). This finding did not support the hypothesis which stated an increased juvenile population would increase property crime arrest rates. Additionally, the variable used to control for region, state is in the South, was also significant for males (see Appendix Table 14). This finding supports the hypothesis that southern states, as compared to non-Southern states, will have increased property crime arrest rates. In the larceny-theft arrest rate model for 1990,

none of the independent nor control variables proved significant (see Appendix Table 15). In the motor vehicle theft arrest model for 1990, percent minority proved significant for males and females. This finding supported the hypothesis that stated that regions with substantial minority populations will have increased property crime arrest rates. One of the variables used to control for age, percent juvenile, was significant for males only. For one unit increase in percent juvenile, the motor vehicle arrest rate decreased by a rate of -33.770 for males only (see Appendix Table 16). This finding did not support the hypothesis that stated regions with a substantial juvenile population will have increased property crime arrest rates. In the same model, the independent variable percent unemployed was significant for females only (see Appendix Table 16). This finding supported the hypothesis that stated increases in percent unemployed was significant for females only (see Appendix Table 16). This finding supported the hypothesis that stated increases in percent unemployed was significant for females only (see Appendix Table 16). This finding supported the hypothesis that stated increases in percent unemployed was significant for females only (see Appendix Table 16). This finding supported the hypothesis that stated increases in percent unemployment would contribute to an increase property crime arrest rates.

The data from the 1990 period highlighted some significant changes from the 1980 period, in particular for females. Burglary arrest rates decreased, but larceny and motor vehicle theft increased for males during 1990. However, all three property crime arrest rates increased for females (see Table 7 in Chapter 4).

#### 5.3.3 2000

In the burglary arrest rate model for 2000, none of the independent nor control variables proved significant (see Appendix Table 17). In the larceny theft arrest rate model for 2000, only one variable proved significant. The independent variable percent low wage was significant for females (see Appendix Table 18). This finding supports the hypothesis that states an increase in percent low wage would contribute to an increase in larceny theft arrest rates. In the motor vehicle theft arrest rate model for 2000, three variables were significant. The control variable percent minority was significant for females (see Appendix Table 19). This finding supports the hypothesis that states that areas with substantial minority populations will experience increased

property crime arrest rates. The independent variable percent low wage was also significant for females (see Appendix Table 19). This finding supports the hypothesis that states that property crime arrest rates will increase with increases in percent low wage. Additionally, the variable used to control for region, state is in the South, was also significant for females (see Appendix Table 19). This finding supports the hypothesis that states that southern residents will not experience an increase in property crime arrest rates with poor economic conditions.

After reviewing the findings from the aggregate and individual property crime arrest rate models, it has been statistically confirmed that there are gender differences in property crime arrest rates between 1980 and 2000. The study model for this analysis found specific labor market indicators to be significant for males. This dissertation sought to determine if those same variables would be significant for females. The same labor market indicators, specifically, percent unemployment, percent subunemployment, and percent low hours proved to be significant for females as well. The disaggregation of property crime by specific crime type seems to provide another dimension for discussion. The majority of the labor market indicators proved significant in the individual models and not the aggregate models. It can also be concluded at this point, that variables used in past studies that only focused on males can be used in studies that include females and yield predictable results. Finally, empirical evidence was provided which suggests a decrease in the gender gap has occurred for property crime arrest rates between 1980 and 2000.

The data from the 2000 period provided additional details regarding trends in property crime arrest rates, which are consistent with official statistics (see Figure 1 in Chapter). Table 7 shows marginal decreases in property crime arrest rates for females between 1990 and 2000. However, during that same period, there are statistically important decreases for males between 1990 and 2000. This data support a major objective of this dissertation, which asserts that the

gender gap has narrowed and it is less pronounced in property crime arrest rates between 1980 and 2000. The results of the tests of the hypotheses are summarized in 5.3.4 Figure 4.

As demonstrated above, the preponderance of the evidence does not support the stated hypotheses for this dissertation, nor the findings from the model study provided by Allan and Steffensmeier (1989). In fact some of the findings from this analysis contradicted many earlier studies. Therefore it became necessary to conduct additional tests in an effort to detect any common problems that might affect the findings of this dissertation such as issues with correlations, multicollinearity, and skewness.

First, the correlations for all variables were computed and then the matrixes were examined. This was an attempt to describe the direction and strength of the relationship between any two of the quantitative variables in this analysis. As it turns out, the Pearson correlations in the matrixes did not reveal a cause for concern, because all values fell between the range of -1 and 1.

Next, the collinearity statistics were computed and reviewed to determine how much specific variables impacted the dependent variable. If the Tolerance values were less than .1 and the VIF values were greater than 2.5 then multicollinearity would exist. Multicollinearity is a problem with being able to separate the effects of two or more variables on an outcome or dependent variable. Since all values fell within the acceptable range, there is no problem with multicollinearity.

Finally, skewness statistics were computed and examined because OLS regression was used as the chief analytic tool because a normal distribution was assumed. This test was important in determining if the observations were normally distributed or symmetrically centered on the mean. Skewness for a normal distribution is zero. Since most values were close to zero, there were no problems with lack of symmetry in the models. While these tests did not serve

their intended purpose, that is, to assist in explaining the lack of significance found in this analysis; but these tests did however, rule out some common issues that could have proved to be impediments to the success of this analysis.

Hypotheses	Findings
$H_1$ As unemployment increases, property crime (burglary, larceny, and motor vehicle theft) arrest rates will increase for both male and female offenders.	Hypothesis 1 was not supported for males and was marginally supported for females.
$H_2$ As subunemployment increases, property crime (burglary, larceny, and motor vehicle theft) will increase for both male and female offenders.	Hypothesis 2 was not supported for males or females.
$H_3$ As low hours increase, property crime (burglary, larceny, and motor vehicle theft) will increase for both male and female offenders.	Hypothesis 3 was not supported for males or females.
H <sub>4</sub> As low wages increase, property crime (burglary, larceny, and motor vehicle theft) will increase for both male and female offenders.	Hypothesis 4 was not supported for males and was marginally supported for females.
$H_5$ When examining race by way of the independent variable percent minority, property crime arrest rates will be higher in Regions with a substantial minority population.	Hypothesis 5 was marginally supported for males and females.
$H_6$ When examining age by way of the variables used to control for age, percent juvenile and percent young adult, property crime arrest rates will be higher in regions with a substantial juvenile population.	Hypothesis 6 was not supported for males or females.
$H_7$ When examining region by way of the variable used to control for region, state is in the South, property crime in southern states will be higher than other regions of the United States.	Hypothesis 7 was marginally supported for males and was not supported for females.

Figure 4: Statement of Hypotheses and Findings

# Chapter 6 Conclusion

# 6.1 Overview

Several important conclusions can be drawn from this dissertation in connection with the initial research objectives. Using anomie as the guiding theory, the primary objectives for the dissertation were 1) to compare trends in property crime and property crime arrest rates averaged for males and females for the same periods, while controlling for percent (%) minority, age, and region, and 2) to determine the influence of selected independent (percent unemployed, percent subunemployed, percent low hours, and percent low wages) and control variables (minority=percent (%) black and Hispanic, age, and region) on male and female property crime arrest rates. While it is true that all of the independent and control variables used in this analysis were not significant in most models, both of these research objectives were met.

The theoretical assumptions of this dissertation are largely attributed to the guiding theory, anomie. The use of anomie theory was appropriate for this dissertation because it is a macro-level theory which corresponds to the level of analysis for this dissertation. A state level analysis, such as the one contained in this dissertation, necessitates an underlying premise that explains structural phenomena. That is, the U-C relationship fits succinctly within the framework of anomie, as it explains how unequal means to attaining socially approved goals could lead to deviance and crime. While examining the U-C relationship, the theoretical framework for this dissertation was useful in assessing gender differences in property crime arrest rates as well as explaining findings. More specifically, the strain that individuals experience during an economic recession that leads to crime is included in the theoretical assumptions made by the framework of anomie (Allan and Steffensmeier 1989).

Anomie theory purports, specific societal conditions namely, unequal means to attain socially approves goals and normlessness, produces strain for individuals, irrespective of gender.

The tenets of this theory, i.e., the gaps between goals and means and weakening of social controls, were the basis for hypothesizing both males and females would be adversely affected by poor economic conditions. That is not to say that the extent of the effect of each variable would be the same, hence, the title, gender differences in property crime arrest rates, but rather poor job quality and low job availability would increase the existing property crime arrest rate for both male and female offenders. While anomie was useful, perhaps a supplementary inequality theory should have been included to explain the different social positions and outcomes of males and females. Additionally, though the hypotheses were logical and theoretically based, the preponderance of evidence did not support the hypotheses.

This dissertation was also instrumental in providing definitive information about trends in property crime arrest rates by gender. After the analysis, it was very clear that the aggregate property crime arrest rate for males declined sharply between 1980 and 2000 and only marginally, for females during the same period. In support of a positive U-C relationship, this means that labor market conditions improved dramatically for males and remained virtually stable or were limited for females. This finding has two important implications, 1) poor labor market conditions tend to adversely affect females, more so, than males, and 2) improved labor market conditions could result in a reduction in property crime and the subsequent arrest rates.

After analyzing the aggregate property crime arrest rate models, little significance was found. Then it was determined that individual property crime arrest rate models might produce more meaningful results. After analyzing the individual property crime arrest rate models, the independent variables (labor market indicators) provided marginally significant results, primarily for females. While this finding seems to point to the fact that labor market indicators tend to be better predictors for the U-C relationship for females and that females tend to be more susceptible to poor labor market conditions, but overall, there is not much evidence of a

significant difference between the male and female response to poor economic conditions, therefore more work is needed in this area.

The models, in particular the individual models, analyzed in this study were sufficient in predicting the U-C relationship by gender. The labor market indicators used as independent variables in this dissertation have been used in past studies to test the U-C relationship. In all such studies, the significance of these predictors varied by model, which also occurred in this dissertation. These earlier models did not include females and therefore, this dissertation may be the first of its kind, in that these models were developed to specifically analyze gender differences in property crime arrest rates. Even though the focus of this research was the variation in property crime arrest rates by gender, these models were slightly more effective in producing significant results and predicting the U-C relationship for females.

#### 6.2 Limitations of the Study

After running the analysis, it was determined that there were a few issues that impeded the full success of this dissertation. The limitations include the issues pertaining to the period effects on CPS data, the UCR aggregation procedures, and the level of analysis. These limitations are discussed in this order in the following paragraphs.

To begin with, the labor market indicators obtained from the CPS data used for this analysis are sensitive to overall economic conditions in the U.S. That is to say, period effects, specifically shifts in the economy and unemployment rates, for each decade can influence the calculation of the variables. This could affect the value of the variables, which in turn, could affect the significance of these variables to a state level analysis. The labor market indicators used in this study are highly sensitive to period effects because the calculation of these variables is based on the economy (Social Security Administration). The variables are affected if there is an economic recession or an economic boom, both of which occurred during the years for this

study. The subtleties and nuances that may occur in the individual years between the periods used to represent the three decades may not be captured in the nine years included in this study. That is to say, the three separate time intervals may not accurately reflect the economic conditions of the entire period of 1979 to 2000. Therefore, it has been determined that data consecutively spanning 1979 to 2001 may be more useful for a gender difference trend analysis. Approaching the study from a decadal vantage may have permitted a detection of true trends as opposed to yearly changes, while controlling for period effects.

The second limitation has to do with the UCR data. The UCR data had to be state-level data in order to be compatible with the CPS data, which contained the labor market indicators. The two data sets were merged for the purposes of this analysis. However, within the specific property crime of larceny, there is a great deal of variation. There are a number of offenses that are considered property crime that vary greatly by gender such as, shoplifting, pocket-picking, purse-snatching, thefts from motor vehicles, thefts of motor vehicle parts and accessories, bicycle thefts, and so forth, in which no use of force, violence, or fraud occurs. Of these offenses mentioned, only shoplifting is considered a female offense. This variation may not be captured in aggregated larceny crime rate and may not provide an accurate representation of gender differences in the specific property offense of larceny. Not all types of property crime have enough cases for a gender-specific analysis, which is one of the reasons why arson was excluded from the calculated aggregate property crime arrest rate that was used in this analysis. Larceny, however, is the most common criminal offense for both male and female offenders. While there is roughly a 70-30 split by gender for the aggregate property crime arrest rate, in general, these specific types of larceny are not committed with the same pattern. For some property offenses, that margin is closer (BJS 2005). Some property offenses are primarily "male crime", such as motor vehicle thefts, and others are "female crimes", such as shoplifting. That is not to say that

these offenses are not committed by both genders, it just implies that the vast majority of such offenses are committed by males or females. In such cases, there would not be enough variation for a conclusive gender analysis. Therefore, it is believed that the general category of larceny-theft alone used in an analysis would provide a useful model for studying trends in property crime arrest rates. Further, an analysis with the inclusion of larceny alone could serve as the impetus for a more informative gender difference study, since there were well over 1 million acts of larceny cleared in 2005, with roughly 60 percent of those crimes being attributed to males and remainder to females (BJS 2005).

Finally, the utility or advantage of studying gender differences in property crime arrest rates at the state level of analysis may be questioned because, generally, state level data is highly heterogeneous with a wide range of characteristics. Therefore, a more homogenous population, like an SMSA or census tract, would yield more meaningful results. That is, a macro-level study using SMSA's or census tracts would have likely yielded more significant results because of the homogeneity of a smaller geographical area and the variations in property crime arrest rates combined with the fact that there is more variation to be explained in an inter-unit analysis versus a cross-unit analysis.

#### **6.3 Directions for Future Research**

It is evident from this study that there is a need for a stronger prediction model for to assess gender differences in property crime arrest rates. Although very few of the variables used in this dissertation proved to be statistically important in analyzing the U-C relationship, it is apparent that other variables are also needed for the development of a stronger prediction model. Since it is now known that CPS data are sensitive to overall labor market conditions, one suggestion for future research is to include variables that can better reflect labor market fluctuations, such as permanency of contract and sector of employment variables. The utilization

of variables such as duration of work and labor force status variables that can more accurately measure economic downturns and/or upswings could strengthen the existing prediction model for gender differences in property crime arrest rates.

Although research on property crime arrest rates should remain central to studies on gender difference in crime rates, one should be aware that aggregated property crime arrest rates do not reflect gender differences very well. Thus, another suggestion for future research is to disaggregate specific property crimes, such as larceny, when studying gender differences in property crime arrest rates. Doing so would provide more detailed results and permit more useful and meaningful comparisons within and between gender groups. In fact, this dissertation demonstrated that individual property crime arrest rate models yielded more significant results than aggregated property crime arrest rate models.

Although, this dissertation included the four most common labor market indicators as independent variables in order to test the U-C relationship, perhaps other independent variables could be included in the analysis. Additionally, expanding the primary model to include more control variables might be useful in drawing inferences and assessing the indirect effect on the U-C relationship, such as measures of household characteristics, the percent of female headed households, the percent of single-parent household, a population density index, a residential mobility indicator, and education measures should be considered in order to expand the models. Although these would not be focal variables, they could be useful in determining indirect influences on the U-C relationship.

This dissertation examined macro or structural-level explanations as they pertain to the U-C relationship, however, a micro or individual-level study might add a new dimension to criminological discourse. That is, as opposed to examining structural labor market indicators that predict property crime, studying individual motivations could add a new layer of

interpretation to the U-C relationship. Additionally, this dissertation examined crime data from all fifty states, which included rural and urban areas. However, a study focusing solely on urban areas could be more definitive, especially in view of the fact that urban areas have higher rates of property crime and subsequent arrests. These two aspects combined could advance the model established in this dissertation.

The fact that the area of gender differences is virtually untapped in criminology provides a strong rationale for the need to continue research in this area. Another rationale for continued research in this area is that over the past two decades, researchers have provided empirical evidence for both positive and negative relationships between unemployment and crime. Perhaps the reason for these different and seemingly contradictory findings may possibly be changes in gender inequality in labor market conditions. Future research in this area should take into consideration Chricos' (1987) observation that the unemployment-crime relationship is not a simple one and needs to be studied in greater detail with more sophisticated models that are sensitive to subtleties in differences and changes in the economic structure and how this may influence gender differences in property crime arrest rates, including the direction of the relationship.

Finally, an adjustment to the model established in this dissertation could be advanced by analyzing variations by state and/or by region. There is a great deal of variation in property crime arrest rates by state and by region. As an example, states such as Louisiana (3696.4) and California (3320.5) have higher rates of property crime than states like New Hampshire (1838.9) and North Dakota (2024.6), just as the southern (3884.2) and western (2289.3) regions of the United States have higher property crime arrest rates than the northeast (2289.3) and Midwest (3267.6) regions of the United States (U.S. Department of Justice). This illustrates the benefit of examining property crime arrest rates by state and/or region in a future study.

# **6.4 Closing Remarks**

As our society is becoming increasingly diverse, discussions on equality are becoming vitally important. Foremost of such discussions, in many arenas, is the issue of gender equality. Recent politics and modern laws encouraging equal employment opportunities for women, in terms of position and pay, are an indication that gender equality is currently a primary concern in our society (Newman 2006). Thus, there will be a continuing need for researchers to study the effects of these social changes on gender differences in crime rates. In addition to the findings from this dissertation, combined with the above stated need for future research, gender difference in property crime arrest rates will be a central part of my research agenda.

This dissertation will help keep the door open for continued dialogue on the unemployment-crime relationship. This area of scholarship is vitally important because the primary ways of generating income are considered either legitimate, such as working, or illegitimate, such as committing crime. These two alternatives are omnipresent, therefore the relationship merits continued exploration. This dissertation also generated a renewed interest in conducting research on gender differences in crime rates. Indeed, the findings of this dissertation indicate that there is sufficient enough reason to continue to pursue research on gender difference in crime.

Finally, it must be noted that the majority of the findings from this dissertation were unexpected. That is, I expected my models to contain more significance; however, that was not the case. Even though my findings were somewhat disappointing, I learned how to conduct research. As a social scientist, there is no way to predict the findings. A skilled researcher begins with a research idea, develops research objectives, and searches the extant literature; all while being guided by a theoretical perspective. The combination of those stages leads to the development of theoretical assumptions or hypotheses. After running the analysis, the outcome
is science, and knowledge is produced. Even if that knowledge differs greatly from the theoretical expectations, it is still valuable knowledge nonetheless.

I have gained a great deal of insight from every aspect of this dissertation. In particular, I have learned how research can be conducted in assessing gender differences in crime rates, even though unexpected findings may be generated. In conducting this research, I also learned that gender differences in crime patterns are complex and it can not be assumed that some predictor variables that are significant for one group will be significant for the other. Indeed, gender differences in property crime rates may vary over time and may be influenced by a number of intervening variables that may not have originally been taken into consideration. I will consider these factors in subsequent research endeavors. Accordingly, my research agenda will include, but not be limited to, gender differences in property crime arrest rates, gender differences in incarceration rates, differences within the category of female criminals, and differential effects of female incarceration by race. My aim is to begin my professional record of scholarship by utilizing the data and information obtained from the analysis of this dissertation in an article to be submitted to a journal for publication.

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#### Appendix A: OLS Regression, Equality Tests, and Model Summaries

		Males				Females		Male/Female Difference			
Variable	В	Std. Error	Т	Sig.	В	Std. Error	Т	Sig.	Z Value	P Value	Sig.
1980 Aggregate Property Crime Arrest Rate											
P_Minority	9.639	4.539	2.124	*	3.509	1.458	2.406	*	0.219	0.827	NS
P_Unemp	-1.508	28.296	053		15.674	10.709	1.464		1.286	0.199	NS
P_Subunemp	-207.707	145.416	-1.428		-33.753	27.228	-1.240		-0.577	0.570	NS
P_Lowwage	-62.508	39.731	-1.573		12.082	8.527	1.417		-1.176	0.240	NS
P_Lowhour	-4.780	48.210	099		-15.649	11.671	-1.341		-1.836	0.066	NS
P_Juvenile	-19.821	54.603	363		-1.722	15.924	108		-0.318	0.750	NS
P_YAdult	-33.825	32.373	-1.045		5.839	12.532	.466		-1.143	0.253	NS
State is in the South	-48.113	119.355	403		-92.797	47.736	-1.944		0.348	0.728	NS
Constant	2123.414	700.534	3.031	**	76.915	262.128	.293		2.736	0.006	**

## Table 8. OLS Multiple Regression Analysis for 1980 Aggregate Property Crime Arrest Rate Model by Gender with the Test for Equality of Regression Coefficients

\*P<.05, \*\*P<.01, \*\*\*P<.001 Each z-value corresponds to a point in a normal distribution that describe how much a point deviates from a mean or specification point

Model Summary	R	R Square	Adjusted R Square	Std. Error of the Estimate
1980_M	.422	.178	.022	336.487
1980_F	.486	.236	.091	107.443

		Males				Females			Male/Female Difference			
Variable	В	Std. Error	Τ	Sig.	В	Std. Error	Т	Sig.	Z Value	P Value	Sig.	
1990 Aggregate Property Crime Arrest Rate												
P_Minority	5.988	4.960	1.207		.341	1.624	.210		0.969	.333	NS	
P_Unemp	-38.325	60.035	638		15.487	15.688	.987		1.081	0.279	NS	
P_Subunemp	-53.580	101.509	528		-40.127	31.821	-1.261		-0.867	0.386	NS	
P_Lowwage	22.969	47.730	.481		6.400	12.963	.494		-0.126	0.899	NS	
P_Lowhour	57.385	60.004	.956		-2.243	13.757	163		0.335	0.738	NS	
P_Juvenile	-84.021	52.037	-1.615		227	22.676	010		-0.126	0.140	NS	
P_YAdult	-44.263	55.053	804		-17.127	21.194	808		-0.867	0.646	NS	
State is in the South	4.912	158.053	.031		-21.537	54.129	398		1.082	0.875	NS	
Constant	2053.516	813.221	2.525	*	475.835	320.137	1.486		1.805	0.710	NS	

# Table 9. OLS Multiple Regression Analysis for 1990 Aggregate Property Crime Arrest Rate Model by Gender with the Test for Equality of Regression Coefficients

\*P<.05, \*\*P<.01, \*\*\*P<001

Model Summary	R	R Square	Adjusted R Square	Std. Error of The Estimate
1990_M	.418	.174	.017	421.714
1990_F	.365	.133	032	135.308

		Males						Male/Female Diffe		erence	
Variable	В	Std. Error	Τ	Sig.	В	Std. Error	Т	Sig.	Z Value	P Value	Sig.
2000 Aggregate Property Crime Arrest Rate	'										
P_Minority	-2.198	3.608	609		.023	1.395	.016		0.978	0.328	NS
P_Unemp	34.159	39.891	.856		6.089	14.880	.409		-0.574	0.566	NS
P_Subunemp	-28.415	92.864	306		-60.630	45.979	-1.319	*	0.659	.0510	NS
P_Lowwage	-4.792	52.168	092		51.474	19.113	2.693		0.311	0.756	NS
P_Lowhour	51.938	60.015	.865		-8.846	16.225	545		-1.012	0.311	NS
P_Juvenile	49.616	47.377	1.047		2.800	14.403	.194		0.945	0.344	NS
P_YAdult	-46.975	34.036	-1.380		-4.724	13.247	357		-1.157	0.247	NS
State is in the South	61.346	109.993	.558		-38.863	41.784	930		0.852	.0394	NS
Constant	575.492	452.328	1.272		140.860	164.794	.855		0.901	0.367	NS

# Table 10. OLS Multiple Regression Analysis for 2000 Aggregate Property Crime Arrest Rate Model by Gender with the Test for Equality of Regression Coefficients

Model Summary	R	R Square	Adjusted R Square	Std. Error of the Estimate
2000_M	.306	.094	083	298.827
2000_F	.427	.182	.022	115.771

		Males				Females		Male/Female Difference			
Variable	В	Std. Error	Т	Sig.	В	Std. Error	Т	Sig.	Z Value	P Value	Sig.
1980 Burglary Arrest Rate											
P_Minority	1.505	1.719	.876		.137	.156	.873		-0.744	0.457	NS
P_Unemp	541	10.716	050		.978	1.149	.851		0.793	0.428	NS
P_Subunemp	-31.439	55.072	571		-3.393	2.921	-1.162		-0.141	0.888	NS
P_Lowwage	-14.715	15.047	978		036	.915	039		-0.509	0.611	NS
P_Lowhour	-14.555	18.258	797		933	1.252	745		-0.974	0.330	NS
P_Juvenile	-5.470	20.679	265		-2.154	1.708	-1.261		-0.160	0.873	NS
P_YAdult	-9.275	12.260	757		.617	1.344	.459		-0.802	0.423	NS
State is in the South	-59.017	45.202	1.306		1.960	5.121	.383		1.254	0.210	NS
Constant	616.021	265.308	2.322	*	29.484	28.118	1.049		2.198	0.028	*

# Table 11. OLS Multiple Regression Analysis for 1980 Individual Property Crime Arrest Rate for Burglary by Gender with the Test for Equality of Regression Coefficients

Model Summary	R	R Square	Adjusted R Square	Std. Error of the Estimate
1980_M	.368	.135	029	127.435
1980_F	.371	.138	027	11.525

	Males			Females				Male/Female Difference			
Variable	В	Std. Error	Т	Sig.	В	Std. Error	Т	Sig.	Z Value	P Value	Sig.
1980 Larceny-Theft Arrest Rate											
P_Minority	6.208	2.821	2.201	*	3.140	1.328	2.365	*	0.713	0.476	NS
P_Unemp	838	17.584	048		14.559	9.752	1.493		0.984	0.325	NS
P_Subunemp	-156.216	90.367	-1.729		-28.118	24.792	-1.134		-0.766	0.443	NS
P_Lowwage	-39.390	24.690	-1.595		12.069	7.765	1.554		-1.367	0.172	NS
P_Lowhour	8.415	29.959	.281		-14.240	10.627	-1.340		-1.988	0.047	*
P_Juvenile	-9.696	33.932	286		1.577	14.500	.109		-0.306	0.760	NS
P_YAdult	-28.764	20.118	-1.430		4.696	11.411	.411	*	-1.447	0.148	NS
State is in the South	-89.163	74.171	-1.202		-92.589	43.466	-2.130		0.040	0.968	NS
Constant	1394.663	435.336	3.204	**	35.226	238.683	.148		2.738	0.006	**

### Table 12. OLS Multiple Regression Analysis for 1980 Individual Property Crime Arrest Rate for Larceny-Theft by Gender with the Test for Equality of Regression Coefficients

Model Summary	R	R Square	Adjusted R Square	Std. Error of the Estimate
1980_M	.462	.214	.064	209.105
1980_F	.482	.232	.086	97.833

	Males				Females				Male/Female Difference		
Variable	В	Std. Error	Т	Sig.	В	Std. Error	Т	Sig.	Z Value	P Value	Sig.
1980 Motor Vehicle Theft Arrest Rate								I			1
P_Minority	1.930	.496	3.888	***	.233	.053	4.375	***	0.346	0.729	NS
P_Unemp	121	3.094	039		.137	.391	.351		3.402	0.000	***
P_Subunemp	-20.113	15.902	-1.265		-2.242	.994	-2.255	*	-0.083	0.934	NS
P_Lowwage	-8.371	4.345	-1.927		.049	.311	.158		-1.122	0.262	NS
P_Lowhour	1.353	5.272	.257		476	.426	-1.117		-1.933	0.053	NS
P_Juvenile	-4.574	5.971	766		-1.145	.581	-1.969		-0.572	0.568	NS
P_YAdult	4.209	3.540	1.189		.527	.458	1.151		1.032	0.302	NS
State is in the South	-17.909	13.052	-1.372		-2.168	1.743	-1.244		-1.195	0.232	NS
Constant	111.863	76.609	1.460		12.205	9.570	1.275		1.291	0.197	NS

## Table 13. OLS Multiple Regression Analysis for 1980 Individual Property Crime Arrest Rate for Motor Vehicle Theft by Gender with the Test for Equality of Regression Coefficients

Model Summary	R	R Square	Adjusted R Square	Std. Error of the Estimate
1980_M	.631	.398	.283	36.798
1980_F	.721	.507	.413	3.923

		Males				Females			Male/Female Difference			
Variable	В	Std. Error	Т	Sig.	В	Std. Error	Т	Sig.	Z Value	P Value	Sig.	
1990 Burglary Arrest Rate												
P_Minority	.396	1.089	.364		.141	.167	.848		0.376	0.707	NS	
P_Unemp	.266	13.186	.020		.622	1.611	.386		0.231	0.817	NS	
P_Subunemp	-18.515	22.296	830		-5.928	3.267	-1.814		-0.027	0.979	NS	
P_Lowwage	-1.837	10.484	175		.795	1.331	.597		-0.559	0.577	NS	
P_Lowhour	5.478	13.180	.416		.497	1.412	.352		-0.249	0.803	NS	
P_Juvenile	-23.086	11.430	-2.020	*	.123	2.328	.053		-1.990	0.047	*	
P_YAdult	-9.434	12.092	780		1.546	2.176	.710		-0.893	0.371	NS	
State is in the South	81.051	34.899	2.322	*	304	5.558	055		2.302	0.021	*	
Constant	490.774	178.620	2.748	**	-2.270	32.870	069		2.715	0.006	**	

# Table 14. OLS Multiple Regression Analysis for 1990 Individual Property Crime Arrest Rate for Burglary by Gender with the Test for Equality of Regression Coefficients

Model Summary	R	R Square	Adjusted R Square	Std. Error of the Estimate
1990_M	.499	.249	.106	92.628
1990_F	.314	.098	073	13.893

		Males			Females			Male/Female Difference			
Variable	В	Std. Error	Т	Sig.	В	Std. Error	Т	Sig.	Z Value	P Value	Sig.
1990 Larceny-Theft Arrest Rate		I									
P_Minority	.318	3.462	.092		294	1.486	198		0.808	0.419	NS
P_Unemp	-39.714	41.909	948		12.581	14.356	.876		0.162	0.871	NS
P_Subunemp	-59.715	70.861	843		-30.507	29.121	-1.048		-1.180	0.238	NS
P_Lowwage	28.050	33.319	.842		5.017	11.869	.423		-0.381	0.703	NS
P_Lowhour	32.557	41.887	.777		-2.764	12.589	220		0.651	0.515	NS
P_Juvenile	-27.030	36.325	744		1.623	20.752	.078		-0.684	0.493	NS
P_YAdult	-26.752	38.431	696		18.077	19.396	932		-0.202	0.840	NS
State is in the South	-51.192	110.915	462		-16.344	49.535	330		-0.287	0.774	NS
Constant	1277.521	567.686	2.250	*	463.401	292.970	1.582		1.274	0.203	NS

## Table 15. OLS Multiple Regression Analysis for 1990 Individual Property Crime Arrest Rate for Larceny-Theft by Gender with the Test for Equality of Regression Coefficients

Model Summary	R	R Square	Adjusted R Square	Std. Error of the Estimate
1990_M	.349	.122	045	294.386
1990_F	.357	.127	039	123.826

	Males				Females			Male/Female Difference			
Variable	В	Std. Error	Т	Sig.	В	Std. Error	Т	Sig.	Z Value	P Value	Sig.
1990 Motor Vehicle Theft Arrest Rate											
P_Minority	5.270	1.358	3.880	***	.494	.106	4.654	***	1.162	0.245	NS
P_Unemp	.880	16.440	.054		2.275	1.025	2.219	*	3.506	0.000	***
P_Subunemp	24.741	27.797	.890		-3.688	2.080	-1.773		-0.085	0.933	NS
P_Lowwage	-2.813	13.070	215		.591	.847	.698		1.020	0.308	NS
P_Lowhour	19.143	16.431	1.165		.027	.899	.030		-0.260	0.795	NS
P_Juvenile	-33.770	14.249	-2.370	*	-1.966	1.482	-1.327		-2.220	0.026	*
P_YAdult	-8.213	15.075	545		594	1.385	429		-0.503	0.615	NS
State is in the South	-25.508	43.509	586		-4.907	3.537	-1.387		-0.472	0.637	NS
Constant	286.089	222.689	1.285		14.645	20.921	.700		1.214	0.224	NS

## Table 16. OLS Multiple Regression Analysis for 1990 Individual Property Crime Arrest Rate for Motor Vehicle Theft by Gender with the Test for Equality of Regression Coefficients

Model Summary	R	R Square	Adjusted R Square	Std. Error of the Estimate
1990_M	.635	.403	.290	115.480
1990_F	.700	.490	.393	8.842

	Males					Females			Male/Female Difference		
Variable	В	Std. Error	Т	Sig.	В	Std. Error	Т	Sig.	Z Value	P Value	Sig.
2000 Burglary Arrest Rate											
P_Minority	358	.907	394		.028	.195	.145		.0300	0.764	NS
P_Unemp	9.249	10.026	.923		1.379	2.078	.673		-0.416	0.677	NS
P_Subunemp	-10.028	23.339	430		-10.379	6.421	-1.617		0.767	0.443	NS
P_Lowwage	-8.444	13.111	644		-1.487	2.669	557		0.015	0.988	NS
P_Lowhour	7.020	15.083	.465		2.441	2.266	1.077		-0.520	0.603	NS
P_Juvenile	10.089	11.907	.847		-1.882	2.011	936		0.991	0.322	NS
P_YAdult	-12.628	8.554	-1.476		-2.183	1.850	-1.180		-1.193	0.232	NS
State is in the South	49.459	27.644	1.789		-2.795	5.835	479		1.849	0.064	NS
Constant	160.034	113.683	1.408		52.066	23.013	2.262	*	0.931	0.352	NS

# Table 17. OLS Multiple Regression Analysis for 2000 Individual Property Crime Arrest Rate for Burglary by Gender with the Test for Equality of Regression Coefficients

Model Summary	R	R Square	Adjusted R Square	Std. Error of the Estimate
2000_M	.342	.117	055	75.104
2000_F	.371	.138	030	16.167

	Males			Females				Male/Female Difference			
Variable	В	Std. Error	Т	Sig.	В	Std. Error	Т	Sig.	Z Value	P Value	Sig.
2000 Larceny-Theft Arrest Rate											
P_Minority	-2.316	2.585	896		277	1.211	229		1.251	0.211	NS
P_Unemp	21.736	28.579	.761		4.040	12.922	.313		-0.714	0.475	NS
P_Subunemp	-23.818	66.529	358		-47.274	39.930	-1.184		0.564	0.573	NS
P_Lowwage	5.327	37.374	.143		50.281	16.598	3.029	**	0.302	0.762	NS
P_Lowhour	45.460	42.995	1.057		-11.149	14.091	791		-1.100	0.272	NS
P_Juvenile	37.871	33.941	1.116		6.558	12.509	.524		0.866	0.387	NS
P_YAdult	-29.319	24.384	-1.202		-2.814	11.504	245		-0.983	0.326	NS
State is in the South	31.147	78.800	.395		-24.525	36.287	676		0.642	0.254	NS
Constant	327.742	324.054	1.011		78.760	143.116	.550		0.703	0.482	NS

## Table 18. OLS Multiple Regression Analysis for 2000 Individual Property Crime Arrest Rate for Larceny-Theft by Gender with the Test for Equality of Regression Coefficients

Model Summary	R	R Square	Adjusted R Square	Std. Error of the Estimate
2000_M	.347	.120	051	214.083
2000_F	.474	.225	.074	100.542

	Males			Females				Male/Female Difference			
Variable	В	Std. Error	Т	Sig.	В	Std. Error	Т	Sig.	Z Value	P Value	Sig.
2000 Motor Vehicle Theft Arrest Rate											
P_Minority	.476	.481	.989		.272	.095	2.855	**	0.049	0.961	NS
P_Unemp	3.163	5.321	.595		.651	1.016	.641		0.416	0.677	NS
P_Subunemp	5.375	12.387	.434		-2.977	3.139	948		0.464	0.643	NS
P_Lowwage	-1.629	6.959	234		2.681	1.305	2.055	*	0.654	0.513	NS
P_Lowhour	536	8.005	067		138	1.108	125		-0.609	0.543	NS
P_Juvenile	1.592	6.319	.252		-1.875	.983	-1.907		0.542	0.588	NS
P_YAdult	-5.030	4.540	-1.108		.273	.904	.302		-1.146	0.252	NS
State is in the South	-19.305	14.672	-1.316		-11.543	2.852	-4.407	***	-0.519	0.604	NS
Constant	88.210	60.335	1.462		10.035	11.250	.892		1.273	0.203	**

## Table 19. OLS Multiple Regression Analysis for 2000 Individual Property Crime Arrest Rate for Motor Vehicle Theft by Gender with the Test for Equality of Regression Coefficients

Model Summary	R	R Square	Adjusted R Square	Std. Error of the Estimate
2000_M	.322	.104	071	39.860
2000_F	.617	.381	.260	7.903



#### **Appendix B:** Charts for Property Crime and Unemployment Rates







	<b>P_M</b>	P_M	P_M	P_M	P_M	P_M	P_M	State
	Min	Unemp	Subun	Loww	Lowh	Juv	YAd	is in
								South
P_MMinority	1	028	.452	.122	047	099	.056	.445
Pearson Correlation								
P_MUnemp	028	1	.502	272	.196	111	117	082
Pearson Correlation								
P_MSubunemp	.452	.502	1	163	099	.003	112	.177
Pearson Correlation								
P_MLowwage	.122	272	163	1	.313	.254	087	.318
Pearson Correlation								
P_MLowhour	047	.196	099	.313	1	.000	053	064
Pearson Correlation								
P_MJuvenile	099	111	.003	.254	.000	1	.019	.124
Pearson Correlation								
P_MYAdult	.056	117	112	087	053	.019	1	042
Pearson Correlation								
State is in the South	.445	082	.177	.318	064	.124	042	1
Pearson Correlation								

Correlations	for 1	980 A	ggregate	Male	Model
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Correlations	for	1980	Aggregate	Female	Model
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	P_F	P_F	P_F	P_F	P_F	P_F	P_F	State
	Min	Unemp	Subun	Loww	Lowh	Juv	YAd	is in
								South
P_FMinority	1	.195	.444	168	.161	080	333	.467
Pearson Correlation								
P_FUnemp	.195	1	.509	143	.096	.195	209	.174
Pearson Correlation								
P_FSubunemp	.444	.509	1	060	.217	.320	335	.520
Pearson Correlation								
P_FLowwage	168	143	060	1	.255	153	.098	.310
Pearson Correlation								
P_FLowhour	.161	.096	.217	.255	1	.000	.007	.049
Pearson Correlation								
P_FJuvenile	080	.195	.320	153	.000	1	180	.117
Pearson Correlation								
P_FYAdult	333	209	335	.098	.007	180	1	327
Pearson Correlation								
State is in the South	.467	.174	.520	.310	.049	.117	327	1
Pearson Correlation								

	P_M	P_M	P_M	P_M	P_M	P_M	P_M	State
	Min	Unemp	Subun	Loww	Lowh	Juv	YAd	is in
								South
P_MMinority	1	106	.034	.087	137	149	078	.448
Pearson Correlation								
P_MUnemp	106	1	.441	.282	.160	.095	.148	030
Pearson Correlation								
P_MSubunemp	.034	.441	1	.349	.153	.227	.081	.365
Pearson Correlation								
P_MLowwage	.087	.282	.349	1	.249	.161	056	.196
Pearson Correlation								
P_MLowhour	137	.160	.153	.249	1	.164	186	.111
Pearson Correlation								
P_MJuvenile	149	.095	.227	.161	.164	1	203	.137
Pearson Correlation								
P_MYAdult	078	.148	.081	056	186	203	1	095
Pearson Correlation								
State is in the South	.448	303	.365	.196	.111	.137	095	1
Pearson Correlation								

$\mathbf{X}$	Correlations	for	1990	Aggregate	Female	Model
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	P_F	P_F	P_F	P_F	P_F	P_F	P_F	State
	Min	Unemp	Subun	Loww	Lowh	Juv	YAd	is in
								South
P_FMinority	1	082	.028	047	373	198	.122	.473
Pearson Correlation								
P_FUnemp	082	1	.336	.183	.448	.170	.120	.058
Pearson Correlation								
P_FSubunemp	.028	.336	1	.210	.327	.186	.372	.395
Pearson Correlation								
P_FLowwage	047	.183	.210	1	.283	.099	303	.288
Pearson Correlation								
P_FLowhour	373	.448	.327	.283	1	.401	120	036
Pearson Correlation								
P_FJuvenile	198	.170	.186	.099	.401	1	286	070
Pearson Correlation								
P_MYAdult	.122	.120	.372	303	120	286	1	.224
Pearson Correlation								
State is in the South	.473	.058	.395	.288	036	070	.224	1
Pearson Correlation								

Pearson  $\overline{\text{Correlation}} > 5 = \text{cause for concern}$ 

#### **Correlations for 2000 Aggregate Male Model**

	P_M	P_M	P_M	P_M	P_M	P_M	P_M	State
	Min	Unemp	Subun	Loww	Lowh	Juv	YAd	is in
								South
P_MMinority	1	.419	.320	.168	145	025	.197	.442
Pearson Correlation								
P_MUnemp	.419	1	.478	.403	135	.123	.402	.244
Pearson Correlation								
P_MSubunemp	.320	.478	1	.177	.064	072	.199	.227
Pearson Correlation								
P_MLowwage	.168	.403	.177	1	.260	.255	.240	.196
Pearson Correlation								
P_MLowhour	145	135	.064	.260	1	.163	.086	281
Pearson Correlation								
P_MJuvenile	025	.123	072	.255	.163	1	.085	155
Pearson Correlation								
P_MYAdult	.197	.402	.199	.240	.086	.085	1	.208
Pearson Correlation								
State is in the South	.442	.244	.227	.196	281	155	.208	1
Pearson Correlation								

Correlations	for	2000	Aggregate	Female	Model
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	P_F	P_F	P_F	P_F	P_F	P_F	P_F	State
	Min	Unemp	Subun	Loww	Lowh	Juv	YAd	is in
								South
P_FMinority	1	.348	.195	021	.044	281	.028	.462
Pearson Correlation								
P_FUnemp	.348	1	.381	.232	.220	083	.145	.255
Pearson Correlation								
P_FSubunemp	.195	.381	1	.243	.137	.080	070	004
Pearson Correlation								
P_FLowwage	021	.232	.243	1	.237	.097	.229	.125
Pearson Correlation								
P_FLowhour	.044	.220	.137	.237	1	043	.262	.051
Pearson Correlation								
P_FJuvenile	281	083	.080	.097	043	1	.002	242
Pearson Correlation								
P_FYAdult	.028	.145	070	.229	.262	.002	1	073
Pearson Correlation								
State is in the South	.462	.255	004	.125	.051	242	073	1
Pearson Correlation								

#### **Appendix D: Collinearity Statistics for Aggregate and Individual Models**

· · · · · · · · · · · · · · · · · · ·	Collinearity Statistics	
Model	Tolerance	VIF
(Constant)		
P_MMinority	.556	1.799
P_MUnemp	.548	1.824
P_MSubunemp	.474	2.109
P_MLowwage	.641	1.561
P_MLowhour	.748	1.337
P_MJuvenile	.869	1.151
P_MYAdult	.944	1.059
State is in the South	.701	1.426

#### **Collinearity Statistics for 1980 Male Model**

Dependent Variable: M\_1980\_CR If Tolerance < .1= Cause for Concern

If VIF > 2.5 = Cause for Concern

	Collinearity Statistics	
Model	Tolerance	VIF
(Constant)		
P_FMinority	.538	1.859
P_FUnemp	.720	1.390
P_FSubunemp	.442	2.261
P_FLowwage	.595	1.681
P_FLowhour	.791	1.265
P_FJuvenile	.779	1.284
P_FYAdult	.800	1.251
State is in the South	.447	2.237

#### **Collinearity Statistics for 1980 Female Model**

Dependent Variable: F\_1980\_CR

If Tolerance < .1= Cause for Concern

If VIF > 2.5 = Cause for Concern

#### **Collinearity Statistics for 1990 Male Model**

	Collinearity Statistics		
Model	Tolerance	VIF	
(Constant)			
P_MMinority	.706	1.417	
P_MUnemp	.721	1.387	
P_MSubunemp	.610	1.638	
P_MLowwage	.801	1.249	
P_MLowhour	.847	1.181	
P_MJuvenile	.846	1.182	
P_MYAdult	.874	1.144	
State is in the South	.622	1.609	

Dependent Variable: M\_1990\_CR

If Tolerance < .1= Cause for Concern

If VIF > 2.5 = Cause for Concern

	Collinearity Statistics	
Model	Tolerance	VIF
(Constant)		
P_FMinority	.630	1.587
P_FUnemp	.734	1.363
P_FSubunemp	.554	1.805
P_FLowwage	.657	1.523
P_FLowhour	.554	1.804
P_FJuvenile	.724	1.381
P_FYAdult	.564	1.773
State is in the South	.551	1.814

#### **Collinearity Statistics for 1990 Female Model**

Dependent Variable: F\_1990\_CR If Tolerance < .1= Cause for Concern If VIF > 2.5 = Cause for Concern

#### **Collinearity Statistics for 2000 Male Model**

	Collinearity Statistics		
Model	Tolerance	VIF	
(Constant)			
P_MMinority	.686	1.457	
P_MUnemp	.469	2.134	
P_MSubunemp	.684	1.461	
P_MLowwage	.636	1.573	
P_MLowhour	.698	1.432	
P_MJuvenile	.869	1.151	
P_MYAdult	.791	1.264	
State is in the South	.678	1.474	

Dependent Variable: M\_2000\_CR

If Tolerance < .1= Cause for Concern

If VIF > 2.5 = Cause for Concern

	Collinearity Statistics	
Model	Tolerance	VIF
(Constant)		
P_FMinority	.655	1.526
P_FUnemp	.706	1.416
P_FSubunemp	.746	1.340
P_FLowwage	.798	1.253
P_FLowhour	.869	1.151
P_FJuvenile	.880	1.136
P_FYAdult	.839	1.192
State is in the South	.706	1.417

#### **Collinearity Statistics for 2000 Female Model**

Dependent Variable: F\_2000\_CR If Tolerance < .1= Cause for Concern If VIF > 2.5 = Cause for Concern

	N Skewness		vness
	Statistic	Statistic	Std.
			Error
M_1980_CR	51	.272	.333
P_MUnemp	51	.906	.333
P_MSubunemp	51	.626	.333
P_MLowwage	51	.493	.333
P_MLowhour	51	1.202	.333
P_MMinority	51	2.645	.333
P_MJuvenile	51	208	.333
P_MYAdult	51	.722	.333
State is in the South	51	.729	.333
Valid N (listwise)	51		

Appendix E: Skewness Statistics for Aggregate and Individual Models

**Skewness Statistics for 1980 Aggregate Male Model** 

Skewness Statistic > than 1= highly skewed

Skewness Statistic <>0.5 and 1 or -0.5 and -1 = moderately skewed Skewness Statistic <>-0.5 and 5.0 = fairly symmetric distribution

	Ν	Skewness	
	Statistic	Statistic	Std.
			Error
F_1980_CR	51	.656	.333
P_FUnemp	51	007	.333
P_FSubunemp	51	.611	.333
P_FLowwage	51	.014	.333
P_FLowhour	51	.860	.333
P_FMinority	51	2.317	.333
P_FJuvenile	51	015	.333
P_FYAdult	51	.087	.333
State is in the South	51	.729	.333
Valid N (listwise)	51		

**Skewness Statistics for 1980 Aggregate Female Model** 

Skewness Statistic > than 1= highly skewed Skewness Statistic < > 0.5 and 1 or -0.5 and -1 = moderately skewed

Skewness Statistic <> -0.5 and 5.0 = fairly symmetric distribution

	Ν	Skewness	
	Statistic	Statistic	Std.
			Error
M_1990_CR	51	.512	.333
P_MUnemp	51	046	.333
P_MSubunemp	51	.912	.333
P_MLowwage	51	.573	.333
P_MLowhour	51	.330	.333
P_MMinority	51	2.372	.333
P_MJuvenile	51	.011	.333
P_MYAdult	51	054	.333
State is in the South	51	.729	.333
Valid N (listwise)	51		

Skewness Statistics for 1990 Aggregate Male Model

Skewness Statistic > than 1= highly skewed Skewness Statistic < > 0.5 and 1 or -0.5 and -1 = moderately skewed Skewness Statistic <> -0.5 and 5.0 = fairly symmetric distribution
	Ν	Skewness	
	Statistic	Statistic	Std.
			Error
F_1990_CR	51	.296	.333
P_FUnemp	51	.373	.333
P_FSubunemp	51	1.899	.333
P_FLowwage	51	.773	.333
P_FLowhour	51	.722	.333
P_FMinority	51	2.274	.333
P_FJuvenile	51	.619	.333
P_FYAdult	51	342	.333
State is in the South	51	.729	.333
Valid N (listwise)	51		

**Skewness Statistics for 1990 Aggregate Female Model** 

	Ν	Skewness	
	Statistic	Statistic	Std.
			Error
M_2000_CR	51	.040	.333
P_MUnemp	51	.810	.333
P_MSubunemp	51	.704	.333
P_MLowwage	51	.634	.333
P_MLowhour	51	.907	.333
P_MMinority	51	2.210	.333
P_MJuvenile	51	001	.333
P_MYAdult	51	167	.333
State is in the South	51	.729	.333
Valid N (listwise)	51		

Skewness Statistics for 2000 Aggregate Male Model

Skewness Statistic > than 1= highly skewed Skewness Statistic < > 0.5 and 1 or -0.5 and -1 = moderately skewed Skewness Statistic < > -0.5 and 5.0 = fairly symmetric distribution

	Ν	Skewness	
	Statistic	Statistic	Std.
			Error
F_2000_CR	51	144	.333
P_FUnemp	51	.518	.333
P_FSubunemp	51	.649	.333
P_FLowwage	51	.019	.333
P_FLowhour	51	.454	.333
P_FMinority	51	2.052	.333
P_FJuvenile	51	.478	.333
P_FYAdult	51	299	.333
State is in the South	51	.729	.333
Valid N (listwise)	51		

**Skewness Statistics for 2000 Aggregate Female Model** 

	Ν	Skewness	
	Statistic	Statistic	Std.
			Error
M_1980_BG_CR	51	.730	.333
P_MUnemp	51	.906	.333
P_MSubunemp	51	.626	.333
P_MLowwage	51	.493	.333
P_MLowhour	51	1.202	.333
P_MMinority	51	2.645	.333
P_MJuvenile	51	208	.333
P_MYAdult	51	.722	.333
State is in the South	51	.729	.333
Valid N (listwise)	51		

**Skewness Statistics for 1980 Male Burglary Arrest Rates** 

	Ν	Skewness	
	Statistic	Statistic	Std.
			Error
F_1980_BG_CR	51	2.337	.333
P_FUnemp	51	007	.333
P_FSubunemp	51	.611	.333
P_FLowwage	51	.014	.333
P_FLowhour	51	.860	.333
P_FMinority	51	2.317	.333
P_FJuvenile	51	015	.333
P_FYAdult	51	.087	.333
State is in the South	51	.729	.333
Valid N (listwise)	51		

**Skewness Statistics for 1980 Female Burglary Arrest Rates** 

	N Skewness		vness
	Statistic	Statistic	Std.
			Error
M_1980_LR_CR	51	.297	.333
P_MUnemp	51	.906	.333
P_MSubunemp	51	.626	.333
P_MLowwage	51	.493	.333
P_MLowhour	51	1.202	.333
P_MMinority	51	2.645	.333
P_MJuvenile	51	208	.333
P_MYAdult	51	.722	.333
State is in the South	51	.729	.333
Valid N (listwise)	51		

**Skewness Statistics for 1980 Male Larceny Arrest Rates** 

	Ν	Skewness	
	Statistic	Statistic	Std.
			Error
F_1980_LR_CR	51	.595	.333
P_FUnemp	51	007	.333
P_FSubunemp	51	.611	.333
P_FLowwage	51	.014	.333
P_FLowhour	51	.860	.333
P_FMinority	51	2.317	.333
P_FJuvenile	51	015	.333
P_FYAdult	51	.087	.333
State is in the South	51	.729	.333
Valid N (listwise)	51		

**Skewness Statistics for 1980 Female Larceny Arrest Rates** 

	Ν	Skewness	
	Statistic	Statistic	Std.
			Error
M_1980_MV_CR	51	1.819	.333
P_MUnemp	51	.906	.333
P_MSubunemp	51	.626	.333
P_MLowwage	51	.493	.333
P_MLowhour	51	1.202	.333
P_MMinority	51	2.645	.333
P_MJuvenile	51	208	.333
P_MYAdult	51	.722	.333
State is in the South	51	.729	.333
Valid N (listwise)	51		

**Skewness Statistics for 1980 Male Motor Vehicle Theft Arrest Rates** 

	Ν	Skewness	
	Statistic	Statistic	Std.
			Error
F_1980_MV_CR	51	1.881	.333
P_FUnemp	51	007	.333
P_FSubunemp	51	.611	.333
P_FLowwage	51	.014	.333
P_FLowhour	51	.860	.333
P_FMinority	51	2.317	.333
P_FJuvenile	51	015	.333
P_FYAdult	51	.087	.333
State is in the South	51	.729	.333
Valid N (listwise)	51		

**Skewness Statistics for 1980 Female Motor Vehicle Theft Arrest Rates** 

	Ν	Ske	wness
	Statistic	Statistic	Std.
			Error
M_1990_BG_CR	51	.497	.333
P_MUnemp	51	046	.333
P_MSubunemp	51	.912	.333
P_MLowwage	51	.573	.333
P_MLowhour	51	.330	.333
P_MMinority	51	2.372	.333
P_MJuvenile	51	.011	.333
P_MYAdult	51	054	.333
State is in the South	51	.729	.333
Valid N (listwise)	51		

Skewness Statistics for 1990 Male Burglary Arrest Rates

	Ν	Ske	wness
	Statistic	Statistic	Std.
			Error
F_1990_BG_CR	51	2.412	.333
P_FUnemp	51	.373	.333
P_FSubunemp	51	1.899	.333
P_FLowwage	51	.773	.333
P_FLowhour	51	.722	.333
P_FMinority	51	2.274	.333
P_FJuvenile	51	.619	.333
P_FYAdult	51	342	.333
State is in the South	51	.729	.333
Valid N (listwise)	51		

**Skewness Statistics for 1990 Female Burglary Arrest Rates** 

	Ν	Skev	wness
	Statistic	Statistic	Std.
			Error
M_1900_LR_CR	51	.632	.333
P_MUnemp	51	046	.333
P_MSubunemp	51	.912	.333
P_MLowwage	51	.573	.333
P_MLowhour	51	.330	.333
P_MMinority	51	2.372	.333
P_MJuvenile	51	.011	.333
P_MYAdult	51	054	.333
State is in the South	51	.729	.333
Valid N (listwise)	51		

**Skewness Statistics for 1990 Male Larceny Arrest Rates** 

	Ν	Skewness	
	Statistic	Statistic	Std.
			Error
F_1990_LR_CR	51	.374	.333
P_FUnemp	51	.373	.333
P_FSubunemp	51	1.899	.333
P_FLowwage	51	.773	.333
P_FLowhour	51	.722	.333
P_FMinority	51	2.274	.333
P_FJuvenile	51	.619	.333
P_FYAdult	51	342	.333
State is in the South	51	.729	.333
Valid N (listwise)	51		

**Skewness Statistics for 1990 Female Larceny Arrest Rates** 

	Ν	Skewness	
	Statistic	Statistic	Std.
			Error
M_1990_MV_CR	51	5.077	.333
P_MUnemp	51	046	.333
P_MSubunemp	51	.912	.333
P_MLowwage	51	.573	.333
P_MLowhour	51	.330	.333
P_MMinority	51	2.372	.333
P_MJuvenile	51	.011	.333
P_MYAdult	51	054	.333
State is in the South	51	.729	.333
Valid N (listwise)	51		

**Skewness Statistics for 1990 Male Motor Vehicle Theft Arrest Rates** 

	Ν	Skewness	
	Statistic	Statistic	Std.
			Error
F_1990_MV_CR	51	3.075	.333
P_FUnemp	51	.373	.333
P_FSubunemp	51	1.899	.333
P_FLowwage	51	.773	.333
P_FLowhour	51	.722	.333
P_FMinority	51	2.274	.333
P_FJuvenile	51	.619	.333
P_FYAdult	51	342	.333
State is in the South	51	.729	.333
Valid N (listwise)	51		

**Skewness Statistics for 1990 Female Motor Vehicle Theft Arrest Rates** 

	Ν	Skewness	
	Statistic	Statistic	Std.
			Error
M_2000_BG_CR	51	1.021	.333
P_MUnemp	51	.810	.333
P_MSubunemp	51	.704	.333
P_MLowwage	51	.634	.333
P_MLowhour	51	.907	.333
P_MMinority	51	2.210	.333
P_MJuvenile	51	001	.333
P_MYAdult	51	167	.333
State is in the South	51	.729	.333
Valid N (listwise)	51		

**Skewness Statistics for 2000 Male Burglary Arrest Rates** 

	Ν	Skewness	
	Statistic	Statistic	Std.
			Error
F_2000_BG_CR	50	3.368	.337
P_FUnemp	51	.518	.333
P_FSubunemp	51	.649	.333
P_FLowwage	51	.019	.333
P_FLowhour	51	.454	.333
P_FMinority	51	2.052	.333
P_FJuvenile	51	.478	.333
P_FYAdult	51	299	.333
State is in the South	51	.729	.333
Valid N (listwise)	50		

**Skewness Statistics for 2000 Female Burglary Arrest Rates** 

	N Skewness		wness
	Statistic	Statistic	Std.
			Error
M_2000_LR_CR	50	.077	.337
P_MUnemp	51	.810	.333
P_MSubunemp	51	.704	.333
P_MLowwage	51	.634	.333
P_MLowhour	51	.907	.333
P_MMinority	51	2.210	.333
P_MJuvenile	51	001	.333
P_MYAdult	51	167	.333
State is in the South	51	.729	.333
Valid N (listwise)	50		

**Skewness Statistics for 2000 Male Larceny Arrest Rates** 

	Ν	Skewness	
	Statistic	Statistic	Std.
			Error
F_2000_LR_CR	50	147	.337
P_FUnemp	51	.518	.333
P_FSubunemp	51	.649	.333
P_FLowwage	51	.019	.333
P_FLowhour	51	.454	.333
P_FMinority	51	2.052	.333
P_FJuvenile	51	.478	.333
P_FYAdult	51	299	.333
State is in the South	51	.729	.333
Valid N (listwise)	50		

**Skewness Statistics for 2000 Female Larceny Arrest Rates** 

	Ν	Skewness	
	Statistic	Statistic	Std.
			Error
M_2000_MV_CR	50	1.137	.337
P_MUnemp	51	.810	.333
P_MSubunemp	51	.704	.333
P_MLowwage	51	.634	.333
P_MLowhour	51	.907	.333
P_MMinority	51	2.210	.333
P_MJuvenile	51	001	.333
P_MYAdult	51	167	.333
State is in the South	51	.729	.333
Valid N (listwise)	50		

**Skewness Statistics for 2000 Male Motor Vehicle Theft Arrest Rates** 

	Ν	Skewness	
	Statistic	Statistic	Std.
			Error
F_2000_MV_CR	50	1.860	.337
P_FUnemp	51	.518	.333
P_FSubunemp	51	.649	.333
P_FLowwage	51	.019	.333
P_FLowhour	51	.454	.333
P_FMinority	51	2.052	.333
P_FJuvenile	51	.478	.333
P_FYAdult	51	299	.333
State is in the South	51	.729	.333
Valid N (listwise)	51		

**Skewness Statistics for 2000 Female Motor Vehicle Theft Arrest Rates** 

Vita

Chanika Jones is a native of Ethel, Louisiana, but currently resides in Zachary, Louisiana, with her loving husband of fifteen years and her cherished fourteen year-old daughter. After serving in the United States Marine Corps during the first Gulf War, she entered college at Louisiana State University of Baton Rouge, Louisiana. Once enrolled, she was able to make use of her G.I. Bill benefits. After enrolling in college full-time, she determined it was also necessary to work full-time to assist in caring for her family's needs. After five years of consecutive enrollment, she received a Bachelor of Arts in general studies degree from Louisiana State University in the spring of 2002. Immediately thereafter, she enrolled in the Liberal Arts program to pursue a Master of Arts degree with a concentration in African/African-American studies. She began her first graduate program in the summer of 2002 by studying abroad in Dakar, Senegal, West Africa. This experience not only enlivened her quest for knowledge pertaining to people of African descent, but also enriched her desires for a terminal, research degree. She efficiently completed the requirements for this program in less than two years, while maintaining a 3.9 g.p.a., and as a result, she received a Master of Arts in Liberal Arts degree in the fall of 2003. In order to further her interests in all things African, she entered the sociology program at LSU in order to obtain a doctoral degree. Along the way, she was able to imbed her research interests in people of African descent within the field of sociology. She earned a Master of Arts in sociology degree in the spring of 2005, where her research centered on race and crime. She continued to make people of African descent central to her research while including the significance of gender. On the path to the highly sought after terminal, research degree, she completed the requirements for the doctoral degree in four years and three months, while maintaining a 3.75 g.p.a. She will receive the Doctor of Philosophy in sociology degree from Louisiana State University during the fall 2007 commencement.

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