

**A Longitudinal Study of Fear of Crime in Winnipeg**

by  
Kristin Rachelle Clarke

A Thesis  
Submitted to the Faculty of Graduate Studies  
in Partial Fulfillment of the Requirements  
for the Degree of Master of Arts

Department of Sociology  
University of Manitoba  
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**FACULTY OF GRADUATE STUDIES**  
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## ABSTRACT

This thesis attempts to answer the questions of whether or not Winnipeg residents have become more or less fearful of crime over time and whether changes in fear levels are related to changes in official crime rates. It also attempts to answer the question of whether certain individuals (women, minority, and elderly) experience heightened levels of fear. Four fear of crime theories; the risk interpretation model, the indirect victimization model, the vulnerability model and the multiple jeopardy hypothesis are tested using Winnipeg Police official crime data, and 1984, 1994, and 2004 Winnipeg Area Study survey results. Relationships between fear of crime and official crime rates are explored using a multiple comparison technique while multiple regression techniques were used to estimate the effects of demographic variables on fear of crime.

Contrary to the risk interpretation and indirect victimization models, results indicate that generally, mean fear levels over the twenty year time span are low, and there are no consistent associations between fear levels and official crime over the twenty year time span. Fear of crime levels increased from 1984 to 1994 then decreased from 1994 to 2004. Women, visible minorities, the less educated and married individuals expressed higher levels of fear, while the elderly expressed lower levels of fear. Higher levels of fear were expressed by females, particularly when other indicators of vulnerability were added to the regression models. These findings lend partial support to the vulnerability model and multiple jeopardy hypothesis.

The results of this thesis suggest that most people in Winnipeg are not that fearful. Fear rates may fluctuate but tend to revert to relatively low levels, even when crime rates increase. From a policy perspective, crime is not as important an issue to the public and may not merit a general increase of resources for crime suppression. A more prudent allocation of resources would see them directed to those most vulnerable: low-income minority women.

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## CHAPTER 1 INTRODUCTION

Throughout the last decade, Canadian and United States crime rates have been declining, including high profile offences such as homicide (Wallace 2004). Civic polls consistently show that crime remains a topic of concern, surprising given the fall in reported offences. The puzzle leads to the research question, are people still fearful of crime, regardless of lower crime rates? If not, what is the connection between official crime rate changes and people's perception of victimization risk?

These questions are important because of the impact that fear of crime can have on an individual's day to day life, not to mention its effect on communities in general. Fear can restrict where people go, limit the activities they engage in, and intensify activities they feel necessary to ensure the safety of themselves and their loved ones (Hale 1996; Warr 1995, 2000). Fear can destroy a positive sense of community. It can harden attitudes towards street criminals, leading to stigmatization of the poor and those who differ from the norm. Elevated fear levels can undermine public faith in the ability of the police, courts and corrections to manage crime. Fear has also been found to have detrimental psychological effects on people (Hale 1996).

Significantly, fear can have greater negative consequences for women than men. Feminist researchers have argued that as a consequence of fear, women take more precautionary measures than men, both in public and private. Women are more likely to limit their movements in public or isolate themselves in private to avoid danger (Stanko 1990). Because women's anxiety is partially based on fear of men's violence, they must constantly negotiate their safety with men they know, those whom they live with, work

with and socialize. As men are likely to be women's intimate companions, or colleagues and bosses at work, the very people who women turn to for protection are the ones who may pose the greatest danger. Feminists maintain that the greatest problem with fear of crime in women's lives is that it often keeps women out of the public sphere, and in the homes where they are most likely to become victims of male violence (Stanko 1990).

Changes in fear levels over time are important to policy makers. Higher fear levels within the general public indicate that greater resources are needed in areas of crime control and community development. On one hand, greater levels of fear in certain groups such as women indicate that initiatives directed at decreasing fear have to be tailored to meet their specific needs. On the other hand, if fear is declining (and there are no differences in individual levels of fear) public monies directed at crime control may be better spent in other areas. Intuitively, one would expect that reported crime rates will directly influence fear. If this is not the case, more effort may be needed by government agencies to provide a realistic estimate of risk to the public.

Because the crime problem is defined by the media in sensationalist terms, it is crucial for researchers to determine more specifically how people feel about crime, whether some are more fearful than others, and the influence of fear on their daily lives. For this purpose, the survey method has been an important strategy by investigators to assess public attitudes towards crime and the anxiety it generates. Surveys have spawned a large literature on fear of crime and victimization, adding to our knowledge of predatory crime and its influences on our quality of life. Surveys have been criticized, however, for poor measurement of fear, leaving unsettled the question of which factors are most likely to influence individual fear, and under what circumstances (Ferraro 1995).

Another deficiency is a dependency on cross-sectional designs: longitudinal surveys that measure changes in fear over time are still infrequent (Warr 2000). This is unfortunate, insofar as longitudinal surveys allow us to more carefully assess how social changes impact attitudes towards crime, and examine the relationship between fear levels and official crime rates.

My thesis attempts to answer the questions of whether or not Winnipeg residents have become more or less fearful of crime over time and whether or not any increases or decreases in fear levels are related to changes in the official crime rates. I also attempt to answer the question of whether certain individuals experience heightened levels of fear. Three years (1984, 1994, 2004) of survey data from the Winnipeg Area Study and 26 years of official crime data from Winnipeg Police Service are used to examine the changes in fear over a twenty year time span. In addition, I use the fear survey data and official crime data to test three theories: the risk interpretation model, the indirect victimization model, and the vulnerability model.

Although my thesis is based on a repeated cross sectional design, it represents an extensive examination of changes in Winnipeg residents' fear of crime over time. Hypotheses are derived from the fear of crime theoretical models, and then tested empirically. The significance of study findings are discussed, and the implications for future research and social policy outlined. The use of three theoretical explanations provides for a rigorous inquiry into the relationship between fear of crime, official crime, and demographic factors. The use of three survey sources of fear data allows fear of crime to be contextualized as a social trend, rather than as a single occurring event.

For theory development, this study compares the relative strengths of risk interpretation, indirect victimization and vulnerability model in explaining the relationship between fear of crime and official crime rates. From a policy perspective, insights gained into fear of crime trends should help government administration in making more effective decisions about where public monies should be directed.

This thesis is comprised of five chapters including the introductory chapter (Chapter 1). Chapter 2 offers a presentation of the current literature surrounding fear of crime. This includes a discussion of the fear of crime definition, longitudinal analysis of fear, official crime rates and fear, the correlates of fear of crime, and a section on fear of crime and gender. Included in this chapter is a presentation of the fear of crime theoretical models and four hypotheses which have been derived from them. Chapter 3 focuses on data methods and contains a discussion of the Winnipeg Area Study data, Official Crime Statistics, dependent and independent variables and the overall analysis plan. The results of the thesis are presented in Chapter 4. This chapter presents the sample description, crime statistics trends and fear of crime trends. Results from the fear of crime trend comparison, bivariate regressions, multivariate regressions and interaction effects for gender are also put forth. Finally, the discussion (Chapter 5) provides a summary of the findings in relation to the fear of crime theoretical models. Discussion surrounding measurement issues, policy implications, global contributions to the literature and future research are also presented. This chapter finishes with a brief conclusion of the thesis. The appendices include a number of charts relating to crime rates and fear of crime levels.

## CHAPTER 2      LITERATURE REVIEW

### *2.1 Fear Definitions*

Despite decades of research and debate, investigators have yet to settle on a definition of fear of crime. Over the years, “fear” has been equated with a variety of emotional states, attitudes, or perceptions including mistrust of others, anxiety, perceived risk, fear of strangers, or concern about deteriorating neighbourhoods or declining national morality (Warr 2000). Much of the confusion over the meaning of fear seems to arise from a failure to recognize elementary distinctions between perception, cognition, and emotion. Warr defines fear of crime as, “an emotion, a feeling of alarm or dread caused by an awareness or expectation of danger. This affective state is ordinarily (though not invariably) associated with certain physiological changes, including increased heart rate, rapid breathing, sweating, decreased salivation, and increased galvanic skin response.” (2000:453-454)

Some researchers have sought to refine the definition. Keane (1992) argues that fear of crime has two dimensions: formless fear and concrete fear. *Formless* fear is a generalized feeling of vulnerability or perception about the safety of a respondent’s neighbourhood. This type of fear is typically measured by asking respondents, “How safe do you feel walking alone in your neighbourhood at night?” Keane (1992) states that this type of fear may reflect a perception that in certain circumstances, conditions of the neighbourhood are aversive. Conversely, *concrete* fear is a measure of a respondent’s perceived risk and/or worry of victimization (Keane 1992). This type of fear is typically

measured by asking respondents to indicate how likely they feel they are to become a victim of a crime in the next year (for example, "How much do you worry about someone sexually assaulting you?").

Most of the survey research done in the area of fear of crime relies on what Pantazis (2000) calls the 'global measure of fear', the formless fear question. Fear of crime is typically measured by asking: "Is there any area right around here, that is, within a mile where you would be afraid to walk alone at night?" (Forde 1993; Haynie 1998; Roberts 2001; Taylor 1998; Warr 1995). This measure is criticized as being too hypothetical, limited to nighttime, not mentioning crime, and only crudely estimating intensity (Ferraro & LaGrange 1988; Warr 2000). It is also criticized for expecting respondents to define what "safe" means, and what constitutes a neighbourhood (Christian 2001).

Researchers identify other conceptual concerns with measuring fear of crime. For example Farrall, Bannister, Ditton and Gilchrist (1997) critique the use of the survey method, because it converts a social process into a series of quantifiable events which do not reflect the experiences or feelings of those involved. They argue that surveys are, "static and often reduce the experience to a decontextualized snapshot where ongoing experiences and strength are rarely captured" (Farrall et al. 1997: 660).

A key conceptual issue frequently discussed in the literature is that of fear versus perceived risk. Mesch (2000) argues that the distinction between fear of crime and perceived risk has been an important contribution to the field. Fear of crime is defined as "an emotional response of dread or anxiety to crime or symbols that a person associates with crime" (Ferraro 1995: 4). Ferraro distinguishes perceived risk as, "a recognition of a

situation as possessing at least potential danger, real or imagined” (1995: 4). While the two concepts appear related, a number of studies have adduced empirical evidence that the two constructs are quite distinct and are affected by different factors (Mesch 2000). Two researchers in particular (Ferraro and Warr) have made large contributions in the area of perceived risk and its relation to fear of crime. They agree that fear of crime and perceived risk do in fact measure different phenomena, and therefore should not be used interchangeably (Ferraro 1995; Warr 2000). They also concur that fear is a fundamentally different psychological experience than perceived risk. Ferraro (1995) views fear as an emotion that may be attached to a physiological reaction, while risk is a distinctly cognitive judgment. In his risk interpretation theory, he additionally proposes that perceived risk affects both how people feel (fear) and what they do (constrained behavior). He concludes that perceived risk is the most important determinant of fear.

The degree of fear attached to particular crimes is a combination of not only the perceived risk of the offense, but the perceived seriousness of the offense as well (Warr 2000). Earlier works of Warr (1987), however, conclude that although perception of risk is often an important predictor of fear, it is not a perfect correlation since fear also depends upon how serious the individual perceives the offence to be and the individual’s risk sensitivity. “Fear of individual offences is a multiplicative function of the perceived risk (i.e. the subjective probability of victimization) and the perceived seriousness of offences.” (Warr 2000:298) For strong fear to be generated, the offence must be perceived as both serious and likely to occur (Warr 2000). I will examine this issue in greater detail when I outline the risk interpretation model.

In response to these criticisms, researchers have made attempts to improve on the fear of crime measure. Warr's (2000) research has more thoroughly measured fear by looking at five offense specific indicators such as theft, fraud, assault, sexual assault, and robbery. For example he measures fear of sexual predation by asking respondents, "How often do you worry about someone sexually assaulting you?" His measure gives the respondent some context in which to answer the question (Warr 2000). However, Warr's measures of individual offences have also been criticized because he fails to make a distinction between fear and risk assessment. Christian (2001) critiques the use of multi-measure items because they often confuse (rather than clarify) the fear of crime. She indicates that multi-item measures still share the same methodological issues, specifically the failure to provide a frame of reference for the terms used and a lack of distinction between fear and risk assessment (Christian 2001).

The revised fear measure created by Denker and Winkel (1998) uses a three item scale intended to capture the degree to which respondents feel tense, afraid and aggravated when thinking about the possibility of becoming a victim of crime. Norris and Kaniasty (1992) take a different approach, by looking at safety and worry. The safety measurement consists of two measures, including the traditional one asking how safe individuals felt walking alone in their neighbourhoods during the day and night. Their worry measure, on the other hand, attempts to capture respondent concerns about being personally victimized by calculating a mean of four items (e.g. "When you leave your house or apartment, how often do you think about being robbed or physically assaulted?").



Farrall et al. 1997 postulate that survey research can be strengthened by using a methodological triangulation such as “open” and “closed” ended questions. They believe that crime surveys often ignore the meaning of events for respondents; turn processes into events; neglect that fear can be a multifaced-phenomena; poorly conceptualize the fear of crime; ignore important contextual variables; greatly influence the reported incidence of the fear of crime and rely too heavily on respondents recall (Farrall et al. 1997).

There are five ways in which sound fear of crime measures can be developed. First, one should look beyond judgments and concerns about crime and focus more on the emotional state of fear or worry. Second, surveys should avoid general references about crime and make explicit reference to the type of crime or victimization. Third, surveys should avoid hypothetical situations and aim rather towards looking at experiences in everyday life. Fourth, researchers must be extremely careful in designing survey questions to avoid double-barreled questions such as, “Do you feel safe or would you feel safe walking....?” Finally, because perceived risk appears to be designated as an important concept in the understanding of fear, researchers should direct more efforts to measure both perceived risk and fear instead of using them interchangeably (Ferraro 1995).

## *2.2 Longitudinal Analysis of Fear*

Few longitudinal studies have examined fear of crime (Haynie 1998). However, there is a considerable amount of research using cross-sectional surveys which examine the association between fear and other sociodemographic characteristics such as gender,

age, education, marital status and race. Warr (2000) argues that crucial aspects of fear have often been overlooked by the conventional annual surveys that employ national samples. For example, he suggests that even though urban panics are the most common forms of fear, we seem to know very little about the causes underlying them, whether fear dissipates gradually or suddenly after the incident, or whether a portion of the fear permanently resides in the community (Warr 2000).

Many experts in the field indicate that a longitudinal panel study on the topic of fear is the only realistic way of moving forward (Ditton, Chadee & Khan 2003). Longitudinal research, allows researchers to describe and explain patterns of variation over time. There are three types of longitudinal studies: trend, cohort and panel. A trend study (which is the type used in the WAS) examines a phenomenon of general population over time. It consists of a series of questions which are repeated throughout the study but are asked of different respondents. In contrast, cohort studies examine more specific subpopulations (cohorts) as they change over time. This involves interviewing individuals with similar characteristics but are still different respondents. Typically a cohort is an age group, but it can also be based on other types of groupings. Panel studies are similar to trend and cohort except that the same set of people are studied each time and are asked the same questions (Babbie 2001). This is the best type of longitudinal study as it allows for a more accurate analysis of change. One of the main problems associated with using trend studies as opposed to panel studies is that because we do not measure the same cases over time, we limit our ability to measure “true” change, and that the differences observed could be due to the differences in respondents and not actual change.

While many investigators argue that panel studies are the best way to conduct fear of crime research, this method also has limitations in terms of reliability. For example, in a two wave panel study conducted by Ditton, Chandee and Khan (2003), they found that even if the same individuals are used over a short period of time their responses to survey questions differ. Results of their study indicated that only 12 out of 474 (3%) respondents answered all 18 questions identically on both surveys which were administered half an hour apart. They report that the differences can be attributed to different questioning order, impression management, attitude strength, or uncertainty about feelings towards the issue of fear of crime (Ditton, Chandee & Khan 2003). A final problem that has been associated with panel studies is the attrition rate of respondents. For instance, there were 728 respondents in the first wave of their study, but only 474 for the second wave. In other words, the retention rate was approximately 64 percent. This creates large problems in trying to achieve optimal sample sizes and representativeness. However, despite these difficulties, the panel study is the superior method for understanding social change.

Has fear of crime in Western society increased or decreased over time? Overall findings are mixed. Most studies show that fear has remained relatively constant (Forde 1993; Roberts 2001; Taylor 1999; Warr 1995). Some studies do, however, report fluctuations over time. Haynie's (1998) national longitudinal study on gender and fear of crime measures fear by the General Social Survey question which asks respondents "Is there any area, right around here, that is within a mile where you would be afraid to walk alone at night?" Overall, mean levels of fear increase from 1973 to 1994. However, Haynie notes that this trend is not linear, as fear of crime actually decreases from 1976

until 1989, and then increases until 1994. She speculates that because the official violent crime rate also shows a steady increase from 1988 to 1992, the media's coverage of violent crime may have influenced the public's fear. Krannich, Berry and Greider (1989) look at fear of crime in several rural communities in the Western United States, where population sizes change due to resource development activities. The researchers surveyed adult members from four different towns, using a question concerning perceptions of personal safety from crime and violence in the local community. Respondents were randomly sampled every two years, from 1982 to 1986. Results of their study show variation in the reported fear levels between the four towns. Fear of crime declines in two towns, increases in one and remains the same in the other. The variable that exhibits the most consistent relationship with fear is the contextual factor of community change. They find that fear is highest when a community has experienced recent rapid growth and social ties are weakened.

In a recent review of national survey data Roberts (2001) looks at Canadian historical trends to explore the relationship between fear of crime and attitudes towards criminal justice issues. His study, which consists of four parts, looks at fear of criminal victimization, perceptions of crime as an important problem, public perceptions of crime trends, and attitudes towards the criminal justice system. He finds that, overall, fear of crime is relatively consistent but the percentage of Canadian respondents expressing fear is slightly lower in 2000 than it has been for many years. For example, in 1970, 29% of respondents express fear of walking alone at night, while in 2000 the percentage decreases to 27%. Two explanations are offered for declining fear levels. First, a decline in fear can be explained by the actual decline in victimization rates and second, by

changing perceptions of the crime rate. In other words, people are more likely to report feeling safe if they believe that they are less likely to become victims (Roberts 2001).

Crime does not generate high levels of concern by Canadians in comparison to other social issues, such as health care and the economy. While less than one third state that they are very concerned about crime, 69% of Canadians relate that they have greater concerns about health care and 58% have greater concerns about child poverty (Roberts 2001). Roberts also finds that most respondents believe that crime rates are rising. In a national survey conducted in 1994 over two-thirds of Canadians believed that crime rates had increased over the last five years, when in fact, they had showed a 5% decline. Overall, there appears to be strong support for the criminal justice system, and reasonable support for parole and confidence in the courts (67%).

Warr (1995) uses national US Gallup poll results (1965 to 1993) and US General Social Survey findings to outline American trends on attitudes towards crime and punishment. Similar to Haynie's (1998) research, Warr finds a moderate increase (9.3%) in fear of crime, although generally it has remained consistent. Warr's longitudinal assessment differs from others because he uses offense specific measures of fear. He does not use the typical, "Do you fear walking alone in your neighbourhood at night" but more specific crimes such as fear of robbery, rape and burglary. Warr finds that burglary, rather than murder, is most feared. This finding suggests that respondents take the subjective probability of victimization into account when assessing their fear of specific offences. These findings give credence to the argument that in order to obtain more accurate measures of fear, questions must be put into context for respondents to answer more accurately.

A Manitoba study conducted by Forde (1993) looks at yearly surveys completed from 1981 to 1992 to assess if there are any patterns in Winnipeg residents' opinions about crime and fear of crime. He evaluates whether fear is influenced more by perceived crime in neighbourhoods, the city or nationally. Forde (1993) finds no change in fear over the 11 year period and no consistent correlations between perceived crime in the city, neighbourhood, country and feelings of safety and walking alone (Forde 1993). Forde (1993) indicates that there is a lack of correspondence between citizen perceptions of crime and official crime rates. Perceived crime in the neighbourhood was weakly related to both feelings of safety and marginally associated with walking alone in neighbourhood at night.

### *2.3 Official Crime Rates and Fear*

There are no consistent associations between fear of crime and official statistics within the fear of crime literature. Some studies show a lack of correspondence between fear of crime and official crime rates (Forde 1993; Taylor & Shumaker 1990) while other studies indicate an association between the two over time (Haynie 1998; Warr 1995). Haynie (1998) finds that respondents increasing fear of crime is consistent with the rise in violent crime in the United States over a 20 year time span. Warr (1995) reports similarity between fear of crime and the official crime rate, yet it does not necessarily indicate any causal connection between the two. He argues, however, that fear is not out of line with objective risk as measured by the Uniform Crime Reports.