Graduate Student Theses, Dissertations, & Professional Papers

Graduate School

2003

Officer safety in remote locations: Forest Service law enforcement officers in Region 1

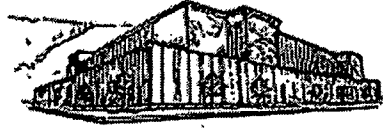Brad Treat
The University of Montana

Follow this and additional works at: https://scholarworks.umt.edu/etd

Let us know how access to this document benefits you.

Recommended Citation

Treat, Brad, "Officer safety in remote locations: Forest Service law enforcement officers in Region 1" (2003). *Graduate Student Theses, Dissertations, & Professional Papers*. 4869.
https://scholarworks.umt.edu/etd/4869

**Maureen and Mike
MANSFIELD LIBRARY**

The University of

Montana

Permission is granted by the author to reproduce this material in its entirety, provided that this material is used for scholarly purposes and is properly cited in published works and reports.

Please check "Yes" or "No" and provide signature

Yes, I grant permission   X

No, I do not grant permission   _____

Author's Signature: _____

Date: 4/30/2003

Any copying for commercial purposes or financial gain may be undertaken only with the author's explicit consent.

8/98

Officer Safety in Remote Locations:

Forest Service Law Enforcement Officers in

Region 1

by

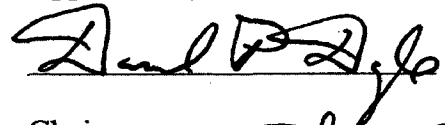Brad Treat

B.A. University of Montana, Missoula, 2000

presented as fulfillment of the requirements
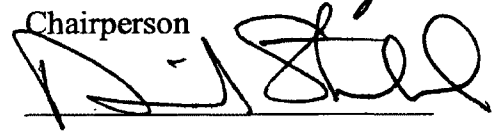
for the degree of Master of Arts

The University of Montana

April 2003

Approved by:

Chairperson

Dean, Graduate School

Date: 5/3/03

UMI Number: EP40333

UMI

Dissertation Publishing

UMI EP40333

ProQuest

Treat, Brad. M.A., April 2003 Sociology

Officer Safety in Remote Locations: Forest Service Law Enforcement Officers in Region 1

Committee Chairman: Daniel P. Doyle

Interview and survey responses from Forest Service law enforcement officers in Montana, North/Central Idaho, North/South Dakota focused on socio-demographic characteristics, duty area conditions/guardianship, and duty area integration. These factors were used as predictors for a general assessment of fear and general and specific predictors of perceived risk. The interviews preceded the survey administration and were used to guide construction of the survey. Ordinary least squares regression techniques were employed in the quantitative analysis. Content analysis was used to explore the interview data.

In the analysis of the general assessment of fear among officers, duty area setting and being threatened with physical assault were the only significant predictors of fear of becoming a victim of physical assault while working. Working in areas characterized as urban tended to increase fear, as did having experienced threatened physical assault. The analysis of the general assessment of risk, patrolling alone at night in ones duty area, yielded two significant predictors as well. Education and precautionary behavior were the best predictors of perceived risk while working. Higher levels of education resulted in lower perceptions of risk while using frequent and multiple types of precautionary behavior resulted in a lessened perception of risk among the population. The last measure of officer safety, how one perceives ones duty area in terms of personal safety, displayed one significant predictor: Non-whites in the survey tended to appraise their duty areas as being safer than whites.

The surveys reinforced the necessity to focus on specific characteristics of officers, guardianship, and integration into the local community. These concepts were embedded within six main areas: experience, precautionary behavior, cognitive perceptions, equipment, environment, and administration. Administration was the overriding theme in the interviews as affecting decision-making capacities, skills, involvement, communication, and confidence among officers.

Table of Contents

List of Tables

Officer Safety in Remote Locations: Forest Service Law Enforcement Officers in Region 1

Brad Treat, *The University of Montana*

The safety of land management law enforcement officers has received little attention by academic research. Land management law enforcement officers work for various local, state, and federal agencies. The Forest Service, a branch of the Department of Agriculture, employs 601 officers across the U.S. Region 1, comprised of Montana, Northern Idaho, and the Grasslands of North and South Dakota, is patrolled by 42 law enforcement officers (Reaves and Hart 2000). Forest Service officers perform many of the duties metropolitan police officers perform, but within a geographic situation and context that makes their responsibilities distinct from all other types of law enforcement. Such duties include, but are not limited to: wilderness patrol, fire investigations, drug lab seizure, patrolling recreation areas and waterways, and timber theft investigations. The nature of their duties and work environment has an inherent effect on the personal safety of officers who labor in these types of contexts.

Very little research has been performed on the attitudes and perceptions of land management law enforcement. Even less research has explored the personal safety of these individuals. Over the next few years the Forest Service will lose a large number of employees to retirement. The unique experiences, ideas, and knowledge will exit along with veteran officers. It is important to gain an understanding of what officers perceive and experience in relation to personal safety before they leave the workforce. The

purpose of this study is to understand the perceptions of personal safety of law enforcement officers working in remote areas from a routine activities perspective. It is possible that understanding and providing this information and knowledge to administrative managers, as well as to new officers entering the occupation, will increase personal safety.

A study of the perceptions of land management officers in the field will identify concepts and ideas that affect personal safety. The question this research will address is: What factors affect the perceptions of safety of law enforcement officers that work in remote areas? The central argument is that highly disorganized patrol areas, particular socio-demographic characteristics, a lack of preventative measures by the officer, and little neighborhood integration between the officer and the local community will result in heightened perceptions of fear. The results from this study will identify officer's perceptions, the influence of a remote working environment, and the methods used to mitigate safety concerns.

ELEMENTS OF SAFETY PERCPETIONS

Perception of safety is closely related to the concept of fear. Much of the research on fear has focused specifically on fear of crime. Traditionally the question, "How safe do you feel alone in your neighborhood at night?" has been used to capture the essence of fear. However, a growing body of literature suggests that there are multiple components to fear (Mesch 2000). Researchers have suggested that there are at least two main dimensions of fear of crime (Roundtree and Land 1996). The first is a general concern about crime (fear) and the second is a cognitive evaluation of victimization (perceived

risk). I hypothesize that both of these elements affect the law enforcement officer perception of his/her safety (Kanan and Pruitt 2002).

This study follows the work of Greenburg (2000) and Kanan and Pruitt (2002) in proposing a (1) general assessment of safety in the community (fear) and a (2) specific assessment of individual safety (perceived risk). These models have previously been applied to the general population and neighborhoods. However, the same model is appropriate for a study of land management law enforcement officers with a few adjustments given their unique duties, remote work environment, and local communities.

GENERAL FEAR OF CRIME/ PERCEIVED RISK

Much of the research on predicting fear of crime and perceptions of risk have focused on socio-demographic characteristics. Age and sex are traditionally used as indicators of physical vulnerability (Kanan and Pruitt 2002). That is, older officers will perceive themselves as more vulnerable to physical victimization than younger officers, and female officers will perceive themselves as more vulnerable to physical victimization than male officers. Social vulnerability is a second component. Race and income are predictors of a heightened perception of risk. The rationale is that minorities and the poor will perceive themselves as vulnerable to victimization. Given the homogeneity of officers and communities in Region 1, I expect little impact from this variable. Previous research suggests that minorities living in racially homogenous areas are more fearful of victimization than those in the majority race (Roundtree and Land 1996). This may be more relevant for officers near Indian reservations. Experience (in years) is an important characteristic for law enforcement officers. It is probable that the more years of experience an officer has, the more heightened their perception of victimization will be.

3

However, experience may also lend itself to a false sense of security, especially among officers in remote areas where little criminal activity takes place. Income is also fairly stable among officers, but slight differences may be detected depending upon experience.

The theory of social disorganization was originally produced to explain crime in heavily populated inner cities. Yet social disorganization at the community level, even in rural areas, can affect perceptions of victimization (Bursik 1988). Social disorganization theory is rooted in the assumption that neighborhood disorder, resulting from a loss of social control within the community, influences rates of crime and delinquency. Shaw and McKay proposed that the physical, economic, and social deterioration brought on by conflicting norms and values were pre-cursors to high rates of crime (Shaw and McKay 1942). Social disorganization also creates ineffective or weakened social control because of the same conflicting values as well as cultural values that support deviant behavior (Cullen and Agnew 2002). Traditionally, problems such as vandalism, run-down buildings, drunks, and beggars have been associated with weakened social control in communities. These strains within the community can affect feelings of vulnerability among residents. The level and pervasiveness of social disorganization can influence the perceptions of individuals living and working in these communities. Forest Service land and the surrounding communities are inherently rural in nature, but signs of social disorganization can still appear on a smaller scale. Social disorganization theory suggests that heterogeneity among residents in communities is much more likely to produce conflicting values, reduced levels of social control, and (most important to the proposed research) heightened perceptions of fear.

4

Routine activities theory has two main underlying assumptions. The first is that demographic differences in the likelihood for victimization are attributed to differences in personal characteristics of the individual. The second assumption is that variations in those personal characteristics are related to differential levels of exposure to victimization (Roundtree and Land 1996). Research on routine activities and lifestyle characteristics has also concluded that individuals who identify with the dominant race are likely to have a decreased perception of risk (Skogan and Maxfield 1981). Other researchers have extended this identification to additional factors including political values, religion, general lifestyle, etc. (Kanan and Pruitt 2002). Though Forest Service land has boundaries and excludes communities from within, small clusters of communities still exist on its periphery. Furthermore, Forest Service officers often interact with individuals in these communities who provide information as well as cause problems. Michael Pendleton (1996) notes that many communities surrounding public land have local outlaws. Law enforcement officers are aware of these individuals and often come into contact with them. This relationship between community and officer can be enhanced if the officer lives in the same area that he/she is assigned to work. It can also be attenuated if anti-government sentiment makes locals suspicious of federal employees.

Risk factors associated with an officer's routine activities can impact the risk of victimization. Just as in the general population, what an officer does, the environment in which he/she does it, and who it brings the officer into contact with are critical in generating perceptions (Mustaine and Tewksbury 1997). Officers in particular, carry out routine activities in three forms. 1) Safety procedures are those precautionary behaviors that officers use to protect themselves when interacting with the public. 2) The use of

certain equipment can create barriers to victimization as well as giving the officer a sense of increased safety (FLETC 2001). 3) Environmental factors are outside the sphere of the officer's control but impact how the officer perceives each situation. This factor plays a greater role in rural and remote areas where officers work alone.

Another variable important to understanding the fear of victimization among officers is their occupational environment. The patriarchy of the administration and the importance of the public in dictating the management of federal lands also affects perceptions of fear about becoming a victim of physical assault. Prior research has established the hierarchical and patriarchal structure of law enforcement administrations as affecting job satisfaction. However, much of this research also keys into the creation of perceptions through the bureaucratic structure (Guiterman and Mays 1997). Anti-government sentiment and interaction with local communities can play an important role in producing certain perceptions for land management law enforcement officers (Pendleton 1996).

A final variable important to prediction of perceptions of victimization is neighborhood integration. Social disorganization theorists have alluded to this concept in the construction of collective efficacy. Collective efficacy portrays the trust and support that community members provide to one another. Collective efficacy follows the underlying assumption that social cohesion among communities, in concert with a willingness to intervene for the good of the community, is linked to reduced violence. (Sampson et al. 1997). Sampson, Raudenbush, and Earls (1997) believed that residential instability could be mediated by collective efficacy. Areas characterized as highly unstable could still have low rates of victimization as long as members are willing to act.

A community that has a strong relationship among its members is likely to wield greater levels of informal social control than a community that lacks social cohesion. Previous studies have used additive indices of indicators such as: number of neighbors one knows, willingness to watch neighbor's houses or property while away, or having friends or family that live in the neighborhood (Kanan and Pruitt 2000).

The population of local communities on the periphery of FS land consists of a large portion of Forest Service employees. This makes the investments, attachments, and social networks between Forest Service law enforcement officers and neighborhoods relevant to a study of perceived victimization risk. A lack of interaction and involvement in local communities has also been used by researchers to predict levels of fear (Kanan and Pruitt 2002). Personal investments in the community, length of residency, and involvement in neighborhood improvements have been used as indicators of integration. Emotional attachments to ones community and the construction of social networks within the neighborhood are also representative of neighborhood integration (Kanan and Pruitt 2002).

An officer's ability to integrate into the community surrounding his/her duty area is critical for a number of reasons. Building relationships within the community allows the officer to create channels of information exchange where both the officer and residents benefit from each others knowledge. This also helps officers identify those individuals that are problematic, receive tips on criminal activity, and legitimize him/herself in the eyes of the community. Also, the officer's perception of danger will likely decrease if he/she feels supported by the community as well as familiar with most of the locals that use the forest. Given the influence of the local community (politically,

socially, and physically) on public lands, a measure of neighborhood integration of officers is critical to understanding perceptions of victimization.

The purpose of this study is to identify the influence of socio-demographic factors, routine activities risk factors, and neighborhood integration factors on the perceived fear of victimization among Forest Service law enforcement officers. The foundation of my hypothesis is that personal characteristics contribute to the perceptions of victimization, however they are not the only factors contributing to the construction of these perceptions. Social disorganization, routine activities, and neighborhood integration play a role in constructing perceptions of fear. These factors coupled with socio-demographic characteristics will help in predicting perceptions of fear (Roundtree and Land 1996). In concert with much of the previous research on victimization, I predict that the more personal investment, emotional attachment, and social networks an officer has with the community, the lower the officer's perception of fear. Likewise, fewer incivilities (social and physical) present on the forest, less dissimilarity between officer and local community, and greater use of prevention measures will be associated with lessened fear of victimization.

DATA, METHODS, AND SAMPLING

Very little research has been done on the impact of routine activities on the victimization of police officers. Even less is known about the characteristics of individual officers, their routine activities, and interaction with surrounding communities. In-person interviews were conducted with officers in order to establish the important concepts and themes relevant to perceptions of fear of victimization. Purposive sampling was used to identify officers that are geographically and demographically representative

8

of the entire region. Structured interview formats were used to investigate the meanings that officers attach to their safety in their actions, their thinking, and their environment (see Appendix B). Interviews consisted of conversations with officers concerning their experiences, their occupational environment, routine activities, and duty area characteristics. The interviewer asked for clarification or elaboration if more in-depth information in a response was necessary. In addition to the interviews, three participant-observations were conducted. These consisted of the researcher spending 3-4 hours with three different officers. The researcher recorded the actions of the officer, events that took place, and any interaction between the officer and the researcher. These observations were communicative in nature as well, since the participation requires verbal interaction. This provided the opportunity to interpret how the officer views his/her safety when working. Pseudonyms were used within this text to protect the identity of each officer.

In addition to the interviews, individual measures of officer safety were developed using a census survey of the 42 Forest Service law enforcement officers in Region 1 (Montana, Northern Idaho, Grasslands of North and South Dakota). The survey was constructed and mailed in the form of a questionnaire (see Appendix C). The survey includes forty-five questions regarding socio-demographic characteristics, routine activities, and neighborhood integration. A census was the preferred sampling method given the small size of the target population. The regional special agent in charge provided a directory of all officers and their duty locations for contact. Only individuals who are fully qualified law enforcement officers within the region (those having completed the natural resource police training program at the Federal Law Enforcement

9

Training Center) were asked to participate in the study. Special agents in the US Forest Service were excluded from the questionnaire and interviews because of the substantive differences in their duties and experiences in law enforcement.

DEPENDENT VARIABLES

Three dependent variables were used to measure general fear of crime and individual perceptions of risk about victimization. Following the work of Kanan and Pruitt (2002), I propose a general fear measure using an emotionally based assessment of fear. This question asks the respondent if they worry about being a victim of physical assault while working. As others have noted, the inclusion of "worry" and "physical assault" taps into the meaning of fear. Two other items are constructed to measure a general and individual assessment of victimization. The general assessment asks the officer how safe they feel working alone at night. The individual assessment asks the officer how he/she rates their duty area in terms of personal safety (Kanan and Pruitt 2002).

INDEPENDENT VARIABLES

Age, sex, race, income and education are included to test their effect on fear and victimization perceptions as well as their effect when other variables are added to the model. I have also included a measure of self-reported victimization, asking the officer whether or not he/she has been the victim of assault while working in their duty area. Consistent with prior research I have chosen to also include a measure of victimization based on urban and rural patrol areas (Kanan and Pruitt 2002). Previous studies suggest

that officers in comparatively rural areas tend to have lower levels of fear about being victimized on duty than those in urban areas (Pendleton, 1996).

A second set of variables attempts to measure perceived social disorganization within an officer's duty area. Kanaan and Pruitt (2002) refer to these variables as duty area conditions/guardianship. The first indicator is an additive index of physical and social incivilities in the officer's duty area. Respondents are asked five questions rating the amount of garbage/litter in their duty area, the abundance of abandoned vehicles, the frequency of intoxicated individuals in their duty area, the frequency of vandalism, and the presence of locals that cause problems on FS land. The reliability of this index, as measured by Cronbach's Alpha is .72. Dissimilarities between the officer and persons in the local community is measured using an additive index of five questions asking the officer to rate the dissimilarities between him/herself and the community in terms of education, religious values, political values, general lifestyle, and race. The alpha reliability of this index is .49.

Routine activities risk factors are also categorized under this variable set. One question asking the officer how often he/she works alone, attempts to conceptualize the risk assessment in being away from help as well as facing dangerous situations alone. This question has often been used to address the protection of property, however, it is also useful in assessing personal crimes. Victimization studies have used questions concerning "walking alone in the neighborhood" to determine the individuals perception of that activity and the potential risk it presents for becoming victimized (Kanan and Pruitt 2002).

Law enforcement officers engage in certain routine activities in order to reduce the risk of victimization. These would include certain safety procedures used by the officer, the use of equipment to mitigate personal harm, and adjusting to the work environment in order to prevent physical assault. Questions regarding prevention measures ask the officer about the placement of space between themselves and others during a public contact, the length of time it takes back-up to reach their duty area, the use of a ballistics vest, following check in/check out procedures, their ability to contact dispatch, and frequency of single officer patrols. One final question asks each officer to assess his/her own level of physical fitness. Greater self-perceived physical strength and endurance are likely to create a lessened perception of risk (FLETC 2001).

Occupational environment is measured using five questionnaire items. Research on law enforcement administrations and communities suggest that they play an important role in how the officer defines his/her work environment. The indicators ask the officer to rate his/her level of respect in the community, support from the District Ranger, support from law enforcement supervisors, and the possibility of being assaulted by those opposing opening or closing public land, and the likely response time if the officer were in need of assistance (Pendleton 1996; Guiterman and Mays 1997).

The last set of variables is used to investigate the integration of the officer into the local community and duty area in which they work. Three indicators are tested under duty area integration: an officer's personal investment in the local community, emotional attachment to the duty area, and duty area social networks. The alpha reliability of this set of indicators is .54.

12

Personal investment is measured by asking the officer about their length of residence in the community closest to their patrol area, how well known they are within the community, and their involvement in community improvement. I hypothesize that having positive ties to the community will result in lower levels of perceived fear about being victimized. Emotional attachment has been measured using two indicators. The first asks officers if they would miss their duty area if reassigned. The second requests officers to state the strength of their relationship with community members. The last set of variables under duty area integration employs one indicator that focuses on social networks. The construction of social networks has been most comprehensively studied in aging research. Parallel with that I propose one measure of social networks for law enforcement officers. The likelihood of socializing with community members outside of work is a measure of ones willingness to construct social networks. Previous studies suggest quantifying the number of social networks, however, this is largely dependent on community size and may differ involuntarily between officers.

The rationale behind each of these variables under integration is that higher scores indicate greater stability within the community and assimilation of the officer into the community. In essence, this will decrease perceptions of victimization as well as fear.

The use of scaled responses to both dependent and independent variables allows me to test reliability among measures of the dependent variables. The first regression test will consist of bi-variate correlations between each independent variable and each dependent variable. However, given that the response categories are in a multi-dimensional form the chief analytical tool will be ordinary least squares regression using a step method. The analysis will take place in a three-step process. The three

independent variables will first be regressed on the socio-demographic variables. This variable has the longest history in explaining perceptions of victimization. Next, the perceived duty area conditions/guardianship variable will be added to the model. Finally the duty area integration subset will be calculated into the model. This method allows me to identify the contributions and affects on the model when each predictor is added.

RESULTS (INTERVIEWS)

Analysis

Five interviews were conducted in order to understand the fear of victimization among Forest Service law enforcement officers. Three interviews took place in office settings. Two interviews and participant observations were conducted while the officer was on patrol, often inside of a vehicle. The interviews usually lasted from 1-3 hours, while the participant observations were 4-6 hours in length. All of the officers were middle-aged, white males, who had seven to fifteen years of experience. Their duty areas ranged from Northwest Montana, Southwest Montana, and Central Montana. All of these individuals were very willing to answer questions, and often elaborated on topics for which they had strong opinions.

For this study, precautionary behavior, cognitive perceptions, equipment, and environment, all played a key role. Unexpectedly, two other factors would emerge as key components influencing the perceptions of fear among Forest Service law enforcement officers. These two factors were level of experience and administrative support. In the original hypothesis formulating the cogent variables of interest, these two categories may have been overlooked. However, upon completion of the interviews with the officers, the influence of these factors and their importance as indicators of perceptions of fear and

14

personal safety could not be overlooked. What follows is a description of the range of ideas and concepts in all six categories. These concepts emerged from the interview discussions and observations. Particular areas seem to play a much more influential and important role than others as far as safety. And certain categories, though playing an indirect role, were key to the officer's beliefs about safety.

Precautionary Behavior. Precautionary Behavior was generally defined as physical techniques or responses used by the officer to protect him/herself. These often reflected the perceptions officers had about certain situations as well as the ways (sometimes unique and original) officers alleviate potential dangers presented by violators. This variable seemed especially important, because it pervaded almost every aspect of the officer's physical actions in the field. Often the response to dangerous situations was in the form of a standard procedure such as calling dispatch to provide details about a situation or location:

> Like I said, you want to get their license plates and vehicle descriptions, and then run them through your dispatch to find out if they are wanted on a warrant. If you decide you have to approach them then the best thing to do is keep your distance. Just like they teach you at any basic law enforcement academy, you want to identify cover and keep a reactionary distance (excerpt from participant-observation field notes).

Other times the response from the officer was completely original:

> I guess I would like to be more aware of my surroundings when I interact with people. Sometimes it seems like, especially if something doesn't seem right I feel like I concentrate too much on the person in front of me. It's hard though, I mean you're trying to pick up on everything that this person is doing but at the same time you want to be looking around, looking for other people, for weapons, that type of thing.

> I also, I think it's important to work with other officers and agencies. I always try to work with county officers or the city guys, BLM, or even have some Forest Service guys work with me. I think the more you can work in pairs the safer you are.

These passages suggest that officers practice a standard set of procedures as well as a completely different set of procedures that they have constructed and formulated to survive and protect themselves. In the first passage the officer attributed the basic concept of calling dispatch to inform them of his location, to formal training. The second passage elicits thoughts and perceptions about how the officer would like to improve his response to dangerous situations. In particular he insinuates that he knows when "something doesn't feel right." He also speaks about being more aware of his surroundings. The context in which the officer speaks of these concepts suggests that they are a result of experience. How would one know when "something doesn't feel right" unless past experience has provided situations, demeanors, and actions that reinforce that belief? The same is true of being aware of ones surroundings. An inexperienced person would be oblivious of the need to escape tunnel vision unless they had had a previous experience where such tunnel vision had failed to reveal certain dangers.

I found that precautionary behavior was also revealed in the field. I observed Keith making a contact with some individuals violating occupancy laws on Forest Service land. His application of safety procedures was quite apparent:

> Keith stated that it was important to survey the outside of the campsite for anything that might be incriminating in nature. Anything in plain view, especially at a public campground, has no reasonable expectation of privacy. . . . . .He approached slowly and quietly and I followed. It didn't appear that we were attempting to sneak up on the campsite but rather simply putting barriers (trees) between ourselves and the campsite as we approached. . . . . . .At this point Keith was walking along the side of the trailer towards the door. He placed his hand on the side of the trailer and seemed to be listening intently. He later explained that this tactic was useful in determining if there was any movement inside the trailer. As he came to the door he stood to the side so that his body was not in front of the door . . . . .he also seemed to have his body bladed towards the door.

The officer in this situation applied precautionary behavior to a situation which he perceived to be a threat. He also connects some legal principles (the plain view doctrine) into his safety paradigm, in that he observes public areas for criminal devices (drugs, weapons, stolen property, etc). His direct physical actions were also representative of the perception that he could be in danger. He blades his body towards the door (very similar to a fighting stance) and he stands to the side of the opening in an attempt to keep his body away from any physical threats lurking behind the door. It becomes apparent after working with a number of officers that these types of actions drive their daily routines in the work environment. Almost every event that the officer completes while on duty has a set of procedures, either official or unique to the officer, that go along with it.

The use of precautionary behavior seems to be the best indicator of an officer's perception of safety in any given situation. This is reinforced by the fact that officers are taught many standard procedures in their basic training academy. It is also clear that many officers have a unique set of procedures (in addition to the standard procedures) or rules that they follow to protect themselves. These two forms of knowledge seem to work in concert and are most notable when the officer is in direct physical threat of injury.

Cognitive Perceptions. The abstract nature of cognitive perceptions is in contrast to the concreteness of precautionary behavior. However, its importance in explaining perceptions of safety is entirely relevant. The importance of this variable became clear in the interviews where the officers could talk and explain their concerns about safety as well as the issues that compromise their safety. It became clear that issues outside of law enforcement have a definite impact on officer safety in the field. It was also clear that

many of the officers were aware of this dilemma and routinely experience problems

inside and outside of work, which can present obstacles to a safe environment.

> . . . . . there are a lot of different issues that all of us deal with outside of law enforcement.
> Personally, I guess, family commitments can be difficult. You know, it's difficult at
> times to separate your home life from work. I mean it's difficult to just come to work
> and put on that law enforcement hat when you've just been dealing with your kids or
> having problems with your wife or financial stuff. In that sense it can really be
> distracting . . . . . .Just the fact that maybe your senses aren't as keen or you're not paying
> as close attention as you should because your mind is somewhere else. I just, you have to
> try and be conscious of that if you're dealing with stuff at home. I always try to be really
> conscious of it, because not paying attention or being lazy, you know mentally, can get
> you killed.

This insightful observation describes the role that thought can play in a law

enforcement officer's safety. Being distracted, un-focused, or "mentally lazy" can

compromise the officer's life. It might mean that the officer does not see the telltale

signs of mental illness or drug abuse, neglects to search a prisoner, or doesn't recognize

spousal abuse in a campground, because his/her mind is fretting over financial woes in

their personal life. Regardless of whether or not the outcome of a public contact is

successful, an officer that is struggling with his/her own personal issues while performing

official duties, can become a victim. Other officers were also cognizant of personal

issues affecting safety:

> . . . .I always try to keep work at work and home at home, but it's difficult. So many
> things can affect you even when you know you should be staying focused on the task at
> hand. If I feel like I have something really traumatic going on then I won't go out. I'll
> either take a day off or just do administrative things in the office. It's not worth it to put
> your life in jeopardy. . . . .I had a death in the family here recently and I can't imagine
> trying to go out and work when you've got something like that on your mind.

Some officers described the importance of officers projecting the appropriate

public image. This was most noticeable when discussing physical fitness of officers.

Though staying fit is a physical activity, many officers believed that staying in good shape portrayed an image that nurtured a safe environment. These individuals believe that an unfit officer is more likely to be physically assaulted because they portray a weak image.

> If people see you and you're this fat slob, with your shirt wrinkled and untucked, and you're short of breath just walking up to a vehicle, people aren't going to have much respect for you. I think that's especially true when you're dealing with somebody who has it in their mind to try and pull something on you, whether it be weapon or they think they're gonna fight their way out of something. I've worked with guys who just, I mean these guys had presence. . . . . They're respected and they get people to do what they don't want to do.
>
> I mean that's what's going to give you the edge if you get into a physical situation with somebody. But it's not just being strong or fit. You know, you've got be prepared to skillfully defeat someone if it comes to that.

This ideology, portrayed by numerous officers, illustrates the importance of displaying a particular image in order to control others. The philosophy seems to be that by controlling and dominating other individuals through physical and mental means, the chance of becoming a victim of an assault is decreased. Few officers mentioned the possibility that being overly aggressive could invoke some individuals to strike back when they normally would not. Regardless of that, it still seems to be an important factor (that the officer can control) in building perceptions of ones own as well as others safety. Many officers seem to suggest that their self-confidence is contingent upon the type of public image that they display. In their view the ability to command and control situations is a result of portraying a strong public image.

Cognitive factors were also apparent in many of the stories that the officers told about dangerous situations with which they were confronted. These depicted the thought

process that these officers experienced in attempting to protect themselves from a

potential physical assault. One story in particular displayed this thought process:

> I had a situation a few years ago with some folks riding on horseback. They stayed at a campground right near the Forest Service cabin that I was staying in. They were drinking and causing a lot of problems and they came up to the cabin and started getting belligerent and saying that I had no right to make them use weed free hay . . . . I'd told them earlier at the trailhead when I met them that they couldn't bring the hay they had, into the wilderness. I just about had to get into a physical confrontation but I just decided, you know, there are four of them and one of me and I'm in the middle of nowhere, maybe this would be a good one to just leave along for tonight. I figured I would let them sleep it off and I had their license plate number so I could just talk to them in the morning when they were sober. It worked out, but what if I was out there all alone, and couldn't get anybody on the radio? That's the kind of situation you sometimes have to deal with.

This story is important to the interpretation of safety perceptions in a number of

ways. First, it's evident that this officer used a cognitive process to evaluate situations

for their danger. Beyond this, these same processes also steer the officer towards a

course of action based on his/her perceptions of what actions will help them to safely deal

with the situation. It also seems reasonable, from this passage, to note that other

variables interact with these cognitive processes. For example, in the above story, the

officer evaluated the danger of approaching the suspects, which then determined whether

or not he would attempt to approach and which tactics (safety procedures/experience)

would be most useful in protecting the officer from a physical confrontation. The ability

of an officer to evaluate potential sources of danger, portray a dominant image of control,

decide on the best course of action, all while pushing personal problems to the periphery,

is strongly associated to cognitive processes in the officer's mind.

Environment and equipment factors seemed to play a more insignificant role than

I originally hypothesized. Equipment in particular seemed to have a weak association to

perceptions of safety. Perhaps this results from a reliance on personal skills rather than equipment to protect oneself. Nevertheless these categories still contributed to the knowledge of perceptions.

Equipment. One area of equipment that did play a role for officers was communications. Radios, satellite phones, scanners, and cellular phones provide a lifeline between the officer working in a remote environment and the outside world. These devices provide officers with information about suspects they encounter, but also allow them to call for help or assistance if they perceive that a threat is more than they can handle:

> Obviously another key is radio equipment. I think you have to make sure your radio equipment is functioning properly all the time. Really it's your lifeline if things go sour. The problem we have around here is dead spots. You get into some areas where you can't hit the repeater with a signal and no one can hear you.

This quote depicts the importance of communication for survival and safety. Being able to call on other officers and describe the situation is critical in a work environment that requires one to work alone. The above comment also displays, once again, the interaction between variables. The officer perceives a certain piece of equipment as important to his survival, but he is also aware of the role that environment can play in creating obstacles. A remote area can interfere with communications equipment, delay the response time of other officers, and make it difficult for others to reach a specific location.

A few officers also placed value on unique uses of equipment. One officer describes his use of polarized sunglasses in order to be able to see into vehicles. He also claimed that it shielded his eyes from potential suspects so that he felt more comfortable to scan his surroundings. Other officers noted the importance of making sure that all

equipment was functional. They claimed that checking equipment and using it on a regular basis was necessary. This would eclipse the possibility that some important piece of equipment would fail when it was needed most, for example, handcuffs on a resistant person.

Few of the officers elaborated on their use of equipment, and seemed to place more importance on other variables of interest. Though I believe it affects the perceptions of safety of most officers, it is either less pronounced than I originally believed, or officers simply apply more importance to other areas affecting safety.

Environment. The remote setting of this type of law enforcement, and the implications of enforcing law in this environment, was frequently discussed by officers. All of the officers in the interviews and the observations recognized this:

> It's just the nature of where we work. So much of our time is spent in the middle of nowhere. There are places around here where you could be two, three hours from any kind of help.

Environment often dictates the types of uses and people that use the national forest. Through experience and knowledge, officers are able to prepare for a specific type of use or person, which affects their perception of whether or not a situation or person will be dangerous. It is likely that past experience has shown certain types of uses and people to be more dangerous than others. Officers perceive different levels of danger based on the current situation and their past history of interacting with similar situations:

> This area is huge for recreation and in the summer that's what I spend most of my time doing. We get a lot of people hiking, biking, boating, camping, pretty much the entire gamut of recreation opportunities that Montana provides. We also have a very large wilderness area that we do work in. There's also the normal use type of issues, firewood,

mushrooms, some mining. As far as criminal activity we have a lot of drugs crossing the Canadian border.

I've found that, you know, if you have to arrest someone or transport them in the winter it's incredibly difficult . . . . . . It's also, just being out there alone and the limitations of assistance to be able to reach you is a concern. If I call for help it's a fair amount of time before someone is going to be able to reach me.

The approach and perception of danger that this officer would apply to an individual illegally cutting firewood is going to be vastly different than the one used to approach a person illegally crossing the border. Environment can elicit variable responses to danger based on the type of person and activity presented and its history (in the officer's mind) of being threatening or non-threatening. Another officer gave a similar narrative and conceptualization of his work environment:

I work outside of a medium sized city, by Montana standards you know. So, we have a lot of urban interface, and I guess I wouldn't really call that remote, but at night, you know, everything can be remote. I have a large chunk of the ****** Wilderness, which gets a lot of use. So, with the wilderness, we have to do a lot of horseback patrol and foot patrol because, obviously, motorized vehicles aren't allowed. And my section of wilderness is definitely remote. We don't always go into the backcountry alone but often that's the case and you just kind of have to deal with the implications of that.

This officer seems to suggest that working alone far away from civilization is something that has inherent risk, and he has accepted that. Perhaps an ideology of rugged individualism or a history of solving problems alone in the wilderness helps this individual to deal with dangerous situations. At any rate, the environment in which he works has shaped his perception of what is safe and what is unsafe. This is likely to shift between officers and between environments given the nature and extent of the remoteness. It could be possible that the more remote the environment the more likely the officer perceives its remote nature as non-threatening. Perhaps individuals adapt to working in this environment, or only those who enjoy such a work environment are drawn to this position. This raises the question of whether officers working in more

urbanized areas, view working alone in remote areas as a greater threat than those who actually work in more remote areas.

Experience. It was apparent that officer experience not only shaped the perceptions of safety, but often mitigated safety concerns. This was apparent in many forms but greatest in the observation of officers in the field. One example of this occurred during an observation with Pat:

> Pat shows me one set of prints (footprints) going up the road and the same exact set coming back down. He says, This one is older, this person came up here and came back down the same way. I ask him about the age of the prints. Well, it's hard to say, but there's some litter (leaves, grass, small pieces of bark) in these prints so they've been here at least long enough for the wind to blow some stuff into them.

This passage illustrated the kind of knowledge that an officer learns through experience. The situation never evolved into one of critical safety, but recognizing the age of prints and the absence or presence of people in an isolated area is important for preparedness. An officer oblivious to these signs would not only decrease the chance of making contact with the public, but would be completely unprepared for contact with a person. Pat made a similar comment later when referring to an incident in which he helped bring an individual (protesting a salvage logging operation) out of a tree.

> Well, it's not something you look forward to doing. There is definitely some risk involved but I think I was able to mediate that by using my experience. And I think we put enough planning into it that it was relatively safe. I had some experience doing this kind of stuff.

Pat alludes to the importance of his own past experience in influencing his perception of the danger of his actions. Earlier in the interview he attributed this experience to years of law enforcement duty as well as being a smokejumper in his

younger years. All of this seems to suggest that the safety of an officer, both in his/her mind and in reality, is contingent upon years of experience and knowledge gained through those experiences.

Pat was not the only officer for whom experience played a prominent role in safety. While interviewing Ben, he mentioned the importance of relying on the expertise of others within the Forest Service:

> Officers rely on wildlife biologists, timber administrators, fire technicians, procurement officers, personnel managers, all of these people have a great deal of knowledge about their duties. As law enforcement officers we will never be able to gain that kind of knowledge about every topic of department that affects the Forest Service, we rely on the employees. So, if we have a timber theft investigation we are going to rely on the timber cruisers and surveyors to tell us where the boundaries are and what trees have been taken (cut). This is how we complete investigations. We don't work autonomously, but it's more like a partnership.

Ben illustrates how the safety of officers can be constructed or deconstructed by experience with departments within the Forest Service. An officer who is interviewing an employee for misconduct may get a "heads-up" from personnel that the employee has had a history of mental problems. This flow of information, creating contacts and sources of information within departments, and addressing law enforcement issues with the help of employees, can only be stimulated by experience with issues and relationships with people. In other words, the safety of an officer is profoundly connected to the various departments within the Forest Service.

Other interviewees did not convey a direct link between safety perceptions and experience but it would be reasonable to assume that they factor into how the officer perceives levels of danger. Keith, for example has been with the Forest Service in law enforcement and fire for 23 years. To discard this piece of information without acknowledging the importance it has on his relationship to safety would be inappropriate.

Experience creates the potential for increased or decreased levels of safety. Increased levels of safety would be a result of acquiring and applying knowledge and skills learned through interaction. Decreased levels of safety could result from arrogance, apathy, or lack of experience with dangerous situations. This is in accordance with micro-level theories of routine activities, which suggest that in areas with low levels of victimization (which I hypothesize that most FS lands are) differences in individual characteristics will be significant.

Administration. The final variable of interest is one that was originally overlooked but became one of the more prominent factors influencing safety. This variable would probably fit best within the conceptualization of occupational environment but for the sake of clarity, based on the richness of responses, and the frequency with which this topic was mentioned, a separate category was created. Administrative factors were cited as being intrinsically linked to the safety of officers. This variable provided the greatest range and depth of discussion from the officers even when the administration was viewed as an indirect link to safety concerns.

The allocation of funds and budgeting were a major concern for many officers. This affected officer safety by reducing the ability to buy current (and quality) equipment. Allocation of funding was also blamed for the small number of officers available to patrol large areas of land. Other officers simply believed that funds were not being allocated to the correct areas:

> But, like, you know I've said before that the administration has some problems with budgeting and funneling money to the right places.

There was also a belief that compensation for extra responsibilities and work should be reorganized. This was in regards to a lack of compensation for certain programs that officers were involved with. Though salary may not be directly related to safety, it may affect performance and job satisfaction which could have an effect on ones level of safety while working.

> But once I started I realized that they (the law enforcement administration) really had no system for compensation. I figured, you know, that they would at least give us a step increase (in pay), but now I've realized that there really isn't any system for that. Which I think is ridiculous because how can they expect people to want to participate in the program if they aren't going to reward them.

A second area of conflict was the perceived lack of understanding by management. Many officers felt that their high-level supervisors did not understand the issues that they (the officer) were facing. They pointed out that these individuals were making policy without understanding the implications it would have on the people to whom it was applied.

> These guys, I might point out, usually did not have any law enforcement experience. So a lot of times they had no idea how to address our concerns or even understood what it was we were dealing with.
>
> I think they are somewhat oblivious to the kinds of issues we are dealing with here . . . . I think law enforcement management needs to spend more time out in the field with their officers. And, second I think they need to address the concerns we are having over safety, with that frame of mind.
>
> And you know, this is something, it's just another thing that needs to be addressed by the administration.
>
> Management doesn't know what we're facing everyday in the field and because of that they don't know what kinds of changes are necessary.

Communication and interaction between officers and management was also a factor in safety. It was clear that both officers and administrators did a poor job of communicating with each other regarding problems, policy guidelines, and possible

solutions to increasing safety concerns. Officers were unwilling to discuss safety

problems because of apathy and resentment of administrators. Managers were slow and

unenthusiastic to involve themselves in potential problems or solutions. A few officers

recognized that this problem could be attributed to both parties:

> But you know I think, I don't want to entirely take the blame off of the officers. We need to be collaborating with each other about the kinds of changes we would like to see. I don't think the officers as a whole do a good job about relaying the problems they see and how they would like to see changes.

> I think we have a good flow of information between forests and between agencies and I think that management to some extent has facilitated that.

> One area that both law enforcement and management need to work on is communication. Officers are supervised in a sense by both the law enforcement administration and the district rangers and forest supervisors. So, it's like being pulled in both directions at the same time. Some of the directives we get are just contradictory . . . .

The structure of the administration and its affect on officers also garnered

attention. The main problem seemed to stem from a dual management system. Officers

are supervised by a law enforcement line of administration at the forest, regional, and

national level. However, they are assigned to specific districts, which are managed by

district rangers. Traditionally the officers were responsible to these district rangers, but

in the late 1980's the system was restructured to provide a law enforcement exclusive line

of authority. Yet the authority of the districts to manage law enforcement was not

eliminated with the advent of the new administration. In essence, officers are responsible

to both lines of authority. Many officers claim that this results in contradictory directives

and a reduced lack of support from both administrations. Officers also believe that it

reduces the officer's autonomy, decision-making ability, and confidence in the field. It

also makes law enforcement officers question their judgment and the repercussions of

their actions and decisions.

Ideally it was supposed to mean that law enforcement officers would be managed by law enforcement supervisors. On paper it looks pretty good because you're attempting to eliminate a conflict of interest by creating a law enforcement specific line of authority.

I think a lot of time the law enforcement administration bends to the wishes of the forest administration. The forest wants an officer in location A but the law enforcement management knows that placing an officer in area A isn't going to be that productive. But they feel the pressure of the mainline management in making their decision. In the end, I think everybody loses because the officer is put someplace that just doesn't have a lot happening, the funding goes to waste, and other areas suffer.

The folks in the Washington office haven't taken the initiative to step down and see what's happening in these places. They delegate but they don't take the time to come and see what's happening with the little people.

BI-VARIATE SURVEY RESULTS

Table 1.1 in Appendix A displays the mean and standard deviation for each variable in the study. Table 1.2 shows the two independent variables that were statistically significant when regressed on concern about being physically assaulted. The first relationship suggests that officers in urban areas are more fearful of becoming a victim than officers in rural settings. Officers in urban areas tend to see higher rates of forest use, more people, and an influx of serious and frequent criminal activity. This stems from patrolling urban interface areas that are near large centers of population. Patrolling in areas where the nature of crime is more serious and occurs frequently is likely to increase an officer's fear that he/she may have a physical confrontation. The second significant relationship was officers threatened with physical assault. Predictably, officers who had been threatened were more concerned about becoming a victim of physical assault than those who had never been threatened. Simply having experienced such an encounter is likely to raise the fear that such an encounter could have turned into a physical assault, and that it may happen again.

For the independent variable safe when patrolling alone at night, Table 1.3 displays the three variables that were statistically significant: height, education, and integration into the community. 1) As height increases, officers in this census reported feeling safer alone at night. This variable was gathered based on previous research from deadly encounters between suspects and officers, which suggested that purely physical features might affect a suspect's decision to attack an officer (Fridell and Pate 2001). This relationship, by itself seems to solidify the notion that taller officers represent a more intimidating foe, and that officers are aware of this phenomena. Taller officers tend to be less fearful about victimization in their duty areas at night than shorter officers. 2) Officers with higher levels of education displayed lower levels of fear about their safety when patrolling at night. The explanation for this relationship is expanded upon in the multi-dimensional results section. 3) Relationship with community members, predictably, suggests that officers who have a weak relationship with community members in their duty area feel more vulnerable patrolling at night. This may stem from being an outsider or lacking knowledge about locals or hotspots which create criminal activity. Officers who have a strong relationship with their community members have access to local knowledge and feel more comfortable in general, patrolling at night. This is also a key relationship for administrators to note, as encouraging and facilitating integration between community members and officers may increase officer safety in these areas.

Note in Table 1.4 that weight was the only significant variable when regressed solely on duty area in terms of personal safety. This indicator also has its roots in research performed on deadly encounters between officers and suspects (Fridell and Pate

2001). The relationship for this study showed that increased weight accompanied an increase in fear about ones safety. This relationship is difficult to interpret because increased or decreased weight though associated with increased or decreased height, does not necessarily equate to a physical advantage. Obesity can play a negative role in officer safety, as can being thin. Perceived physical fitness would be a better representation of physical characteristics, but unfortunately this variable was not significantly related to the dependent.

MULTI-DIMENSIONAL SURVEY RESULTS

Does perceived risk of victimization among law enforcement officers change based on socio-demographic factors, duty area conditions, and duty area integration? Tables 1.5-1.7 in Appendix A show the relationship between the dependent variables and socio-demographic characteristics, duty area conditions, and duty area integration.

The striking feature in those tables is the small number of independent variables that are statistically significant in predicting the dependent variables.

One of the significant variables in Table 1.5 for the dependent variable, concern about being physically assaulted, is the setting of the officer's duty area. As expected the relationship suggests that officers in areas characterized by an urban atmosphere are more fearful of being victimized than those officers in more rural areas. National Forests are inherently rural but many officers work on forests that are surrounded by heavily urbanized areas. In Region 1, cities such as Coeur D' Alene, Missoula, Bozeman, and Kalispell abut national forest land. For many officers, heavily populated campgrounds and recreation areas can often present a quasi-urban atmosphere. The data suggest that officers in those areas would likely be more concerned about being victimized on duty

31

than officers that described their duty areas as rural. The data also seem to dispel the notion that officers working in rural areas are more concerned about being victimized given that they are alone in a remote area. It is important to note that this relationship was still significant when duty area conditions were added to the model. However, it was not significant when the duty area integration factors were added. It is possible that integration within the community lessens the power of duty area representation to explain the general fear of victimization.

The second relationship to note in Table 1.5 is officers who were threatened with physical assault while on duty. The linear relationship suggests that officers who have been threatened (54% of officers in the sample) share a greater concern for being victimized than those who have never experienced such an encounter. This phenomenon may be a result of years of experience. Descriptive statistics suggest that 89% of those officers that responded that they had been threatened with physical assault had at least eleven or more years of experience. 81% of officers that stated they had not been threatened with physical assault had eleven years or less of experience. This is not a surprising relationship as we would expect that those with more years of service would have greater opportunities and frequency of contacts for such an encounter to occur. It does suggest that the potential for a verbal threat of force (which could lead to an actual confrontation) exists for officers with fewer years of experience. Interestingly, I find no significant relationship between actual physical assault and a general fear of victimization. This may be a result of the small number of individuals that have been assaulted on duty (3). Despite this, being threatened with physical assault is a better

predictor of concern for victimization and for those who have experienced such an encounter increases their concern for future victimization.

Table 1.6 displays the regression model for a general assessment of victimization. The first variable of interest is education, which remained significant through each step of the regression model. Ironically the regression line for education seems to suggest that as an officers education increases they tend to feel safer patrolling alone at night in their duty area. This implies that there is something about the education of natural resource officers that instills a higher level of comfort patrolling solo than those with fewer years of education. One hypothesis would be that higher education requires greater autonomy and confidence in ones ability to succeed. Success at higher education may reinforce an officers belief that they can "handle themselves" during nighttime patrol. It is important to note that 74% of officers responded that they had at least a bachelor's degree. Another possibility is that this occupation requires individuals who have higher levels of education, which tends to produce officers that are autonomous and confident in their abilities. It is also important to note that of those officers who have never been threatened with physical assault in the field, 68% had at least a bachelor's degree. In essence a larger number of officers with experience in higher education have never been threatened. It is likely that this affects their perception of fear when working alone at night.

Precautionary behavior also displayed a significant relationship in models 2 and 3 of Table 1.6. This relationship suggests that officers using high levels of precautionary behavior: working alone infrequently, wearing a ballistics vest frequently, checking in and out with dispatch frequently, placing large distances between themselves and

suspects during contacts, having a radio that performs well, staying physically fit, and spending a large amount of time in training, tend to feel safer when patrolling at night. Ironically, the reason many officers use such precautionary behavior is that they are worried about victimization or hope to mitigate the chances of an assault. This relationship shows that those concerns about safety are minimized when officers use these precautionary behaviors religiously. Whether they create a safer environment is a question that the current research does not address.

Results for the last model (Table 1.7) displayed one significant relationship. Race displayed a strong significant relationship with the specific assessment of victimization: the officer's duty area in terms of safety.

DISCUSSION

Links in the Data. The data gathered from the interviews and the survey point to some important links between the results. What follows is an attempt to bridge the gap between data collected from both methods with the notion that they are interrelated in explaining fear of victimization.

Though education was not specifically mentioned in the interviews, the education of officers in Region 1 is associated with administrative factors. Managers are responsible for setting the guidelines and standards for hiring new officers. In the early stages of the program, education took a backseat to experience. In recent years, however, managers have increased the education standards for hiring new officers. Regardless of experience, new officers are typically required to have a bachelor's degree upon entry. This does not mean that simply increasing education standards will decrease

34

victimization rates among officers. It does mean that among the officers in Region 1, fear of victimization has been lessened due to increased education.

The height and weight variables from the survey also have important connections to the cognitive abilities variable from the interviews. It is logical to conclude that officers do size up their competition when they make public contacts in the field. Knowing ones own physical characteristics can instill confidence or fear depending on difference in size and weight of the officer and suspect. The interviews in particular indicate that officers evaluate themselves and suspects in terms of physical stature, especially when the situation seems to deteriorate. An officer that believes he/she has a physical advantage over a suspect is likely to be less fearful about becoming a victim of assault.

Officers that were threatened with physical assault displayed more years of experience and a greater fear of assault in the future. The experience and cognitive abilities variables from the interviews solidify this notion. Officers that have numerous years of experience are equipped with the skills and knowledge to deal with dangerous situations that young officers may be unprepared for. However, it also presents the possibility that experienced officers are more fearful of victimization because they have been in dangerous situations and that it could happen to them. It is also clear that officers who have been threatened are cognitively aware of the potential for victimization. This tends to increase their fear that a real physical confrontation may take place during their career.

We can also draw conclusions about the setting of the duty area and the officer's environment. The quantitative data suggested that officers in rural areas were less fearful

of victimization than officers in urban areas. The interviews with officers in urban settings also indicated that they were more fearful of victimization simply because of the frequency of violations and public contacts. However, the potential still exists for officers that work in very remote environments, where assistance is limited, to have high levels of fear about victimization. The interviews suggested that Forest Service officers were fairly autonomous individuals experienced in working alone in remote environments. Given this characteristic they are likely to be less fearful in a remote environment.

Precautionary behavior was statistically significant in the quantitative analysis and is similar to many of the concepts that officers discussed in the interviews. In the interviews officers talked about the types of equipment they use to mitigate safety concerns. Radio equipment in particular was a piece of equipment that provided information about suspects and assistance if necessary. Officers discussed their environment, their limitations in that environment, and being familiar with their duty area. These are important in that they provide precautionary behavior in the form of knowledge about ones environment. Many officers also pointed to their administration as playing a direct role in precautionary behavior. This was most evident when training and funding were discussed. Many officers felt that greater allocation of funding to the program and line officers for training could increase their safety.

Applying the Data. What conclusions can be drawn from this research? The drive behind this work was an attempt to create a niche for studying the fear of victimization among land management law enforcement officers. The data present some interesting findings and, I believe, add significant knowledge to an area in which little

36

research has been conducted. However, it has also provided an opportunity for future research to eliminate potential sources for explaining victimization perceptions. The data collected in Region 1 indicate that duty area conditions are fairly irrelevant indicators of victimization potential or fear of victimization. Why that variable plays such an insignificant role here but such a significant role in victimization potential in the general population (NCVS) is up for speculation. Perhaps the sheer geographic size of patrol areas or the rural nature of patrol areas pushes the significance of duty area conditions into the background. Montana, Idaho, North and South Dakota are particularly emblematic of rural models which seem to show fewer signs of incivilities and dissimilarities among their populations. The integration of the officer into his/her local community also played a minimal role, perhaps for the same reasons stated above. In any case, further research on this variable might yield greater success in semi-rural or areas of heavy urban interface (e.g. Denver) where variability is likely to be exposed among officers that do and do not involve themselves within the community. For Region 1, it seems that the overpowering nature of socio-demographic characteristics (for which I found the largest number of significant relationships) may minimize the effect of variables such as duty area integration or duty area conditions. One variable that I believe deserves greater scrutiny is the physical attributes of the officer. Officer's weight played a significant role in the safety of officers patrolling at night and the safety of officer's duty area (when regressed alone). This variable along with physical fitness, and officer height, could play a major role in an officer's fear of being vulnerable to physical assault. Physical characteristics of officers compared to potential suspects are an often overlooked variable when assessing a person's susceptibility to being physically

37

assaulted (Fridell and Pate 2001). An in-depth look at the effects of these indicators

would provide direction towards a deeper understanding of victimization among police.

It is necessary to point out that two variables in the first model, setting of duty

area and being threatened with physical assault, were significant when compared with the

officer's concern about being physically assaulted on duty. I discovered that the more

urban characteristics that a patrol area displays the greater fear of physical assault the

officer will exhibit. Unfortunately for officers and policymakers alike, the environment

of the patrol area is difficult if not impossible to manipulate. It would be futile to try and

make large scale changes to population areas near national forests in order to make them

safer for the officer. For this reason the emphasis must be placed on how the officer

approaches his/her patrol area in terms of safety, training, confidence, and ability. And

we cannot rule out the dangers that officers face in rural areas. Though officers seem to

feel safer in rural patrol areas, the fact that they are often in remote areas, by themselves,

enforcing laws, makes the potential for assault a great possibility. That a large number of

officers who were threatened with physical assault display a greater fear of being

assaulted in the future is not surprising. It is rational to expect that when one has been

threatened with assault, one has a greater fear of actually experiencing that type of

situation. It will be impossible to eliminate verbal threats against officers in the field,

they will inevitably occur. What is important, however, is that officers learn from that

experience and apply it as a tool to use in the future. This might mean approaching

critical situations with different tactics or having greater awareness of the types of

situations that can lead to threats and assaults. For management this means implementing

programs such as critical incident stress debriefings which allows the officer to share

38

his/her story and voices their concerns. It also means that other officers can learn from their experience. Law enforcement officers can increase their skills and knowledge by learning from their own successes and failures as well as those of their fellow officers.

It is important to note that precautionary behavior seems to play a significant role in affecting the perceptions that officers have about safety when they perform night patrols. We would expect this to be the case. It is logical that officers would go to greater lengths and use more religiously any precautionary behavior at their disposal during periods of single officer or high risk patrol. We can extend this concept, however, because it has powerful implications at the policy level. First, law enforcement managers have the ability to emphasize the need for greater precautionary behavior during certain enforcement periods. They also have the authority to implement guidelines and standard operating procedures to ensure that the safety of each officer is not compromised. This would include authorizing multiple officer patrols during nightshifts on weekends, strict check in/check out procedures, etc. Secondly, managers have the authority to implement training. This may include in-depth sessions on defensive tactics, high-risk patrol, or other specialized training that could increase an officer's abilities and confidence during single officer patrols. Increased training is one preventative measure that managers can take to ensure that the risk of victimization of officers is minimized before the incident happens.

It is interesting to note that education played a role in the perceived safety of the duty area. The greater ones education, the safer one feels in their patrol area. Whether or not individuals with higher levels of education area actually safer is a great concern. It is possible that highly educated officers may have a false sense of security in their patrol

areas. On the other hand, their level of education may give them confidence in their ability to communicate and interact with people, retain and analyze information, and perform their duties in a safe manner. It's difficult to say from this survey how that perception would unfold among all officers. At this point it is still important to encourage the attainment of education among the current officers and to continue to hold applicants to a high standard of education. Until future research suggests otherwise greater levels of education continue to provide the Forest Service with a well rounded and knowledgeable corps of officers.

The interviews were used to guide the composition of the survey. The key concepts gathered from those interactions were the effect that administrators and their decisions can have on the occupational environment in which the officer works. That environment, in turn, can put pressure on the officer, create confusion, doubt, negligence, and indifference leading to a compromise of safety in the field. The frequency with which officers associated administration with their own personal safety displays the connectedness between the two concepts. Officer's believed that administration not only affected their safety through the unintended consequences of their decisions, but that administrators played a direct role in determining the potential for victimization among officers. The general sentiment among officers seemed to be that the flow of communication and the involvement of officers (or at least the voicing of their opinions) in the decision making process needs to be improved. Previous research has suggested that officers involved in use of force situations may have failed to use the appropriate force when necessary because they were afraid that supervisors and managers would not support their actions. Unfortunately the response rate for that question in the Region 1

survey was extremely poor, so it is difficult to assess the sentiment among officers with regard to that issue. It is entirely clear from the interviews, however, that officers feel a separation and strain from their management and that this affects job performance, decision-making, and confidence among the officers in general.

The solution to this impasse is neither quick nor easy. It requires both management and line officers to work together to improve communication and involvement. This means managers go into the field with officers in order to gain and understanding of their experiences and perspectives concerning safety. It also means that managers and officers create a means for communicating with each other on a regular basis. This alone would likely resolve many of the misunderstandings, rumors, and negative sentiment that seem to permeate the organization.

The category labeled cognitive perceptions was another key factor affecting officer safety and perceptions. The interviews illustrated that thought processes and perceptions affect the way in which officers will react or not react to certain situations. Stress from sources outside of the workplace, co-workers, and ones perception of oneself can all place strain on an officer. This strain can affect an officer's confidence, ability to process information, and the ability to make quick decisions. Greater research into this concept and its implications for safety in the field is necessary before we can make assumptions about thought processes and its relationship to victimization.

The interviews with officers displayed the importance of environment and its relationship to safety in the field. Remote environments present unique difficulties for officers who enforce law in these areas. Several officers noted that simply trying to get assistance when it is necessary in the backcountry can be difficult in logistical and

practical terms. As one officer explained, it is not easy to get into some places on the forest and other areas are simply so distant that officers are literally hours away from help. Radio communications are severely limited in many parts of the forest. Management and line officers are faced with the same difficulty they have when patrolling in urban interface areas. We cannot change the environment, we can only adapt using the skills and technology available to us. With that in mind, during many of my interviews it became apparent that the communications plan between Forest Service officers and the county (which officers predominantly use as their contact) was rarely a uniform procedure. Some officers were constantly in contact with the county from the moment they stepped inside their vehicle, others made contact only when necessary, and still others rarely made contact (this was especially true in areas where the Forest Service and the county had a poor relationship). In some areas, officers relied on their Forest Service dispatch as their main communication link. This was particularly troublesome given the fact that those dispatch centers can be out of service on weekends and completely inundated with dispatching fire resources during the summer. This creates a conundrum because it multiplies the chance that when something does go wrong, the officer will not have the opportunity to make contact for assistance. The concept is important because it is one of the few ways in which Forest Service officers can overcome the barriers to safety in remote environments, and it seems to tie equipment and environment into a mutual relationship. The question that management needs to address (and officers need to recognize and voice) is: How do we mitigate this predicament? One option is to create mandatory communication plans with each county in the Region, and make them as uniform as possible. Another option would be to create

a centralized dispatch center that could provide services for all of the officers in Region 1, somewhat similar to the structure of the Montana Highway Patrol. These are just a few ideas that could create a safety network for officers in the backcountry or in remote areas. They may make the difference between getting assistance or getting killed.

Based on the survey and the interviews it seems clear that this organization needs to mature both internally and externally. Relationships and communications between officers and managers need to be addressed by both sides, especially since officers believe they play a role in their safety. I think it is critical for further study on this concept and the factors that play a role in predicting fear of victimization among land management law enforcement officers. It appears that socio-demographic factors still take precedence for this population and until other genres of predictors can be tested and confirmed the basic characteristics of officers and their environment give us the clearest picture of their fear of victimization.

Appendix A

Table 1.1

Measures and Descriptive Statistics of Forest Service Law Enforcement Officers Fear-of-Crime/Victimization, Risk Perception Variables, and Predictors

Variables (Coding)	Mean	SD
Dependent Variables		
Concern about Assault	2.43	.850
Perceived Safety Patrolling at Night	2.71	.957
Perceived Safety of Duty Area	2.83	.747
Socio-demographic Characteristics		
Age (Years)	44.51	8.34
Gender (1=male, 2=female)		
Race (Re-coded 1=white, 2=non-white)	1.06	.236
Education (1=grade school, 10=doctorate degree)		
Height (inches)	70.9	3.55
Weight (lbs.)	192	32.0
Years of Experience as an LEO (years)	11.97	7.13
Length of Residence at Current Duty Area (years)	8.63	6.66
Setting of Duty Area (1-urban 4-rural)	3.46	.701
Victim of Assault (1-yes 2-no)	1.91	.284
Threatened Physical Assault (1-yes 2-no)	1.46	.505
Duty Area Conditions/Guardianship (additive indexes)		
Incivilities (1=small problem, 5=large problem)	2.29	.789
Dissimilarities (1=very similar, 5=very dissimilar)	2.49	.562
Precautionary Factors (1=high precaution, 5=low precaution)	3.03	.453
Occupational Environment (1=low threat, 5=high threat)	2.54	.561
Duty Area Integration (1=high integration, 5=low integration)	2.23	.808
Local Sentiment		
Effort Invested in Community		
Attachment to Duty Area		
Strength of Relationship with Local Community Members		
Community Association Membership		

Table 1.2   Bi-variate Least Squares Regression of Socio-demographic
Characteristics, Duty Area Conditions/Guardianship, and Duty Area
Integration on Concern About Being Physically Assaulted

	Standardized Regression Coefficient	R^2
Dependent Variable Concern About Being Physically Assaulted		
Socio-demographic Characteristics		
Age	-.285	.081
Gender	.138	.019
Race		
Education	.231	.053
Height	.081	.007
Weight	.023	.001
Years of Experience as LEO	-.265	.070
Length of Residence at Current Duty Area	-.111	.012
Setting of Duty Area	-.487*	.237
Victim of Assault	.157	.025
Threatened Physical Assault	.352*	.124
Duty Area Conditions/Guardianship		
Incivilities	-.013	.000
Dissimilarities	.044	.002
Precautionary Behavior	-.109	.012
Occupational Environment	.053	.003
Duty Area Integration	.044	.002

* significance level is <.05

Table 1.3   Bi-variate Least Squares Regression of Socio-demographic Characteristics, Duty Area Conditions/Guardianship, and Duty Area Integration on Safe When Patrolling Alone in Duty Area at Night

	Standardized Regression Coefficients	R^2
Dependent Variable Safe When Patrolling Alone in Duty Area at Night		
Socio-demographic Characteristics		
Age	.015	.000
Gender	.204	.042
Race		
Education	-.489*	.239
Height	-.397*	.157
Weight	-.174	.030
Years of Experience as LEO	.042	.002
Length of Residence at Current Duty Area	-.105	.011
Setting of Duty Area	.244	.060
Victim of Assault	.015	.000
Threatened Physical Assault	-.087	.008
Duty Area Conditions/Guardianship		
Incivilities	.072	.005
Dissimilarities	-.172	.030
Precautionary Behavior	.223	.050
Occupational Environment	.133	.018
Duty Area Integration	.163*	.168

* significance level is <.05

Table 1.4   Bi-variate Least Squares Regression of Socio-demographic
Characteristics, Duty Area Conditions/Guardianship, and Duty Area
Integration on Duty Area in Terms of Personal Safety

	Standardized Regression Coefficients	R^2
Dependent Variable Duty Area in Terms of Personal Safety		
Socio-demographic Characteristics		
Age	-.108	.012
Gender	.084	.007
Education	-.047	.002
Height	-.349	.080
Weight	-.359*	.129
Years of Experience as LEO	-.233	.054
Length of Residence at Current Duty Area	-.273	.075
Setting of Duty Area	-.014	.000
Victim of Assault	.067	.005
Threatened Physical Assault	-.020	.000
Duty Area Conditions/Guardianship		
Incivilities	-.264	.070
Dissimilarities	.204	.042
Precautionary Behavior	.015	.000
Occupational Environment	-.193	.037
Duty Area Integration	.116	.013

* significance level is <.05

47

Table 1.5   Least Squares Regression of Socio-demographic Characteristics, Duty Area Conditions/Guardianship, and Duty Area Integration on Concern About Being Physically Assaulted, Using the Step Method

	Standardized Regression Coefficients		
	(1)	(2)	(3)
Dependent Variable			
Concern About Being Physically Assaulted			
Socio-demographic Characteristics			
Age	-.313	-.224	-.310
Gender	.391	.372	.467
Education	.124	.232	.219
Height	.261	.260	.428
Weight	-.083	-.112	-.102
Years of Experience as LEO	.447	.034	.329
Length of Residence at Current Duty Area	-.093	.100	.108
Setting of Duty Area	-.485*	-.434*	-.281
Victim of Assault	-.070	.058	.116
Threatened Physical Assault	.505*	.406	.414
Duty Area Conditions/Guardianship			
Incivilities		.068	-.105
Dissimilarities		-.192	-.147
Precautionary Behavior		-.160	-.376
Occupational Environment		.111	.112
Duty Area Integration			.403
Constant	-.364	-.0054	-3.399
R^2	.510	.543	.598

* significance level is <.05

Table 1.6   Least Squares Regression of Socio-demographic Characteristics, Duty Area Conditions/Guardianship, and Duty Area Integration on Safe When Patrolling at Night, Using the Step Method

Standardized Regression Coefficients

	(1)	(2)	(3)
Dependent Variable			
Safe When Patrolling Alone in Duty Area at Night			
Socio-demographic Characteristics			
Age	.261	.132	.153
Gender	.126	.189	.166
Education	-.555*	-.530*	-.527*
Height	-.377	-.382	-.423
Weight	.360	.456	.453
Years of Experience as LEO	-.220	.007	-.023
Length of Residence at Current Duty Area	-.302	-.538	-.556
Setting of Duty Area	.180	.156	.119
Victim of Assault	.019	-.012	-.027
Threatened Physical Assault	-.087	-.040	-.042
Duty Area Conditions/Guardianship			
Incivilities		-.026	.016
Dissimilarities		.047	.036
Precautionary Behavior		.489*	.542*
Occupational Environment		-.045	-.046
Duty Area Integration			-.099
Constant	8.611	4.533	5.467
R^2	.459	.577	.580

* significance level is <.05

49

Table 1.7   Least Squares Regression of Socio-demographic Characteristics, Duty Area Conditions/Guardianship, and Duty Area Integration on Duty Area in Terms of Personal Safety, Using the Step Method

Standardized Regression Coefficients

	(1)	(2)	(3)
Dependent Variable Duty Area in Terms of Personal Safety			
Socio-demographic Characteristics			
Age	.169	.057	.041
Gender	-.222	-.246	-.228
Education	.015	-.165	-.167
Height	-.523	-.564	-.532
Weight	-.087	-.131	-.129
Years of Experience as LEO	-.358	-.003	.020
Length of Residence at Current Duty Area	-.156	-.181	-.167
Setting of Duty Area	-.018	-.051	-.022
Victim of Assault	-.016	-.278	-.267
Threatened Physical Assault	-.238	-.006	-.005
Duty Area Conditions/Guardianship			
Incivilities		-.333	-.366
Dissimilarities		.250	.258
Precautionary Behavior		-.142	-.184
Occupational Environment		-.208	-.208
Duty Area Integration			.078
Constant	13.49	17.37	16.81
R^2	.419	.560	.562

* significance level is <.05

Appendix B

Structured Interview Format

Introduction

1) Officer's background/experience

Safety

1) What are some of the major concerns you have about your safety when interacting with the public?

2) What are some of the procedures or actions you take to mitigate safety concerns in the field?

3) What types of things outside of law enforcement affect how you perform your duties (in regards to safety)?

4) Do mental processes ever affect your safety, and if so, how?

5) What kind of role does physical fitness play in your physical safety?

6) Describe the equipment you carry as a law enforcement officer.

7) How does this equipment increase your physical safety?

8) Describe some of the characteristics of your duty area?

9) What kind of difficulties does this present to you as an officer that works alone?

10) What kind of changes should be made to increase the safety of officers?

11) Who is responsible for these changes?

12) What have those people done to increase or decrease your safety in the field?

13) What kind of changes would you like to personally make in order to increase your safety when interacting with others as an officer?

Officer Safety Questionnaire

Please read and answer the following questions. Mark only one box unless otherwise noted.

1)   Select the law enforcement zone where your current duty
         station is located.

       1☐ Northern Idaho (Idaho Panhandle NF)
       2☐ Central Idaho (Nez Perce NF/Clearwater NF)
       3☐ Northwest (Flathead NF/Kootenai NF)
       4☐ Southwest (Lolo NF/Bitterroot NF/Beaverhead-Deerlodge
           NF)
       5☐ East (Lewis and Clark NF/Helena NF/Gallatin NF/Custer
           NF/Dakota Prairie Grassland)

This set of questions focus on your background.

2)   How many years have you worked for the Forest Service?_____

3)   How many years have you been a Forest Service Law Enforcement Officer
         (excluding any time as an FPO)?_____

4)   How long have you been a law enforcement officer at your current duty
         location?_____

5)   What is your current age?_____

6)   What is your gender?

       1☐   male
       2☐   female

7)   What is your marital status?

       1☐   single
       2☐   married
       3☐   cohabiting

8)   **What is your highest level of education completed?**

1☐ grade school
2☐ some high school
3☐ graduated high school
4☐ some college or vo-tech
5☐ associates degree
6☐ bachelors degree
7☐ some graduate school
8☐ masters degree
9☐ some doctoral school
10☐ doctorates degree

9)   **What is your race?**

1☐ White
2☐ Black
3☐ American Indian, Aleutian, Eskimo
4☐ Hispanic
5☐ Asian, Pacific Islander
6☐ other_____

10)   **What is your height (feet and inches)?**_____

11)   **How much do you weigh (in lbs.)**_____

12)   **Rate your current level of physical fitness (overall aerobic/anaerobic capacity, strength, and flexibility).**

1☐ excellent
2☐ above average
3☐ average
4☐ below average
5☐ poor

13) Please indicate the range that fits your current income, before taxes (check one).

1☐$11,000-$20,000
2☐$21,000-$30,000
3☐$31,000-$40,000
4☐$41,000-$50,000
5☐$51,000-$60,000
6☐$61,000-$70,000
7☐$71,000-$80,000
8☐$81,000-$90,000
9☐$91,000-$100,000
11☐greater than $100,000

The next set of questions concerns the characteristics of your duty area.

14) Choose the response that best represents your duty area

1 ☐ urban
2 ☐ mostly urban / partially rural
3 ☐ mostly rural / partially urban
4 ☐ rural

15) How often do you work alone?

1☐ very frequently
2☐ somewhat frequently
3☐ neither frequently nor infrequently
4☐ somewhat infrequently
5☐ very infrequently

16) In reference to the area on your forest where you believe the most criminal activity occurs, how long would it take back-up (assistance) to reach that area if an officer called for assistance?

1☐ 1-30 minutes
2☐ 31-60 minutes
3☐ 61-90 minutes
4☐ 91-120 minutes
5☐ more than 2 hours

To what extent do you feel the following are problems in your duty area?

		large problem	somewhat large problem	somewhat small problem	small problem
17)	litter and trash?	1 ☐	2 ☐	3 ☐	4 ☐
18)	abandoned vehicles?	· 1 ☐	2 ☐	3 ☐	4 ☐
19)	vandalism?	1 ☐	2 ☐	3 ☐	4 ☐
20)	locals causing trouble?	1 ☐	2 ☐	3 ☐	4 ☐
21)	intoxicated individuals?	1 ☐	2 ☐	3 ☐	4 ☐

To what extent do you agree or disagree with the following statement:

22) **I would miss my current duty area if reassigned.**

1 ☐ strongly agree
2 ☐ somewhat agree
3 ☐ neutral
4 ☐ somewhat disagree
5 ☐ strongly disagree

This set of questions revolves around the characteristics of your local community.

On a scale of 1 to 5, how similar are you to the local community surrounding your duty area in terms of:

		very similar	similar	neither similar nor dissimilar	dissimilar	very dissimilar
23)	education?	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
24)	religious values?	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
25)	political values?	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
26)	general lifestyle?	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
27)	race?	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐

To what extent do you agree or disagree with the following statements:

		strongly agree	somewhat agree	neither agree nor disagree	somewhat disagree	strongly disagree
28)	I am well known within the local community.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
29)	I put a large amount of effort into community improvement in my duty area.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
30)	I have a positive relationship with local community members.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
31)	During off duty times I socialize with community members.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐

32) In your opinion, what level of respect does the local community (nearest your duty area) have for Forest Service Law Enforcement:

1☐ well respected
2☐ somewhat well respected
3☐ neither respected nor disrespected
4☐ somewhat disrespected
5☐ very disrespected

The following questions are focused on problems you encounter on the job.

To what extent do you agree or disagree with the following statement:

33) I am concerned about being the victim of a physical assault when contacting someone in my duty area.

1☐ strongly agree
2☐ somewhat agree
3☐ neutral
4☐ somewhat disagree
5☐ strongly disagree

34) How safe do you feel patrolling alone in your duty area at night?

1 ☐ very safe
2 ☐ somewhat safe
3 ☐ neither safe nor unsafe
4 ☐ somewhat unsafe
5 ☐ very unsafe

35) How would you rate your duty area in terms of personal safety?
1 ☐ very safe
2 ☐ somewhat safe
3 ☐ neither safe nor unsafe
4 ☐ somewhat unsafe
5 ☐ very unsafe

36) Has anyone ever threatened to physically assault you you while on duty?

1 ☐ yes
2 ☐ no

37) Have you ever been physically assaulted while on duty?

1 ☐ yes
2 ☐ no

38) What is the likelihood of you being physically attacked by those individuals that have disagreements with the Forest Service over land use?

1☐ very likely
2☐ somewhat likely
3☐ neither likely nor unlikely
4☐ somewhat unlikely
5☐ very unlikely

Now, I would like you to tell me about some of the things you do while on patrol.

39) When making an initial contact with an individual (that you believe has committed a violation), how much distance do you typically place between yourself and that individual?

1☐ 1-5 feet
2☐ 6-10 feet
3☐ 11-15 feet
4☐ 16-20 feet
5☐ 20+ feet

40) How often do you wear a ballistics vest (choose one)?

1☐ always
2☐ most of the time
3☐ sometimes
4☐ rarely
5☐ never

41) How often do you check in and check out with your dispatcher when patrolling?

1☐ always
2☐ most of the time
3☐ sometimes
4☐ rarely
5☐ never

42) How well does your radio perform (putting you in contact with your primary dispatch) within your duty area?

1☐ excellent
2☐ good
3☐ fair
4☐ not good
5☐ poor

43) How many hours of additional training (other than the bi-annual firearms refresher/annual physical techniques refresher) have you completed in the past year?

1☐ less than 8 hours
2☐ 8-40 hours (1-5 days)
3☐ 41-80 hours (6-10 days)
4☐ 81-120 hours (11-15)
5☐ more than 120 hours (>3 weeks)

The last set of questions is concerned with the administration within the Forest Service.

44) How supportive of your actions as a law enforcement officer, is the District Ranger in the area where you work?

1☐ very supportive
2☐ somewhat supportive
3☐ neither supportive nor unsupportive
4☐ somewhat unsupportive
5☐ very unsupportive

45) If you have been or ever were involved in a situation where you justifiably used deadly force on a suspect, how supportive of your actions would (or were) the regional law enforcement administrators be (SAC/ASAC)?

1☐ very supportive
2☐ somewhat supportive
3☐ neither supportive nor unsupportive
4☐ somewhat unsupportive
5☐ very unsupportive

References

Bursik, Robert J. 1988. "Social Disorganization and Theories of Crime and Delinquency: Problems and Prospects." *Criminology*. 26: 519-551.

Cullen, Francis and Robert Agnew. 2002. "Criminological Theory: Past to Present." Los Angeles, CA: Roxbury.

Federal Law Enforcement Training Center. 2001. "ST-5080: Natural Resources Police Training Patrol Skills." Glynco, GA: Office of Training.

Fridell, Lorie A. and Antony M. Pate. 2001. "Felonious Homicides of American Police Officers." Ann Arbor, MI: The Police Foundation.

Greenberg, Stephanie W. 1986. "The Social Ecology of Crime: Fear and its Relationship to Crime, Neighborhood Deterioration, and Informal Social Control. New York: Springer-Verlag.

Guiterman, D., and G.L. Mays. 1997. "Work Assignments and Police Work: Exploring the Work World of Sworn Officers in Four New Mexico Police Departments." *Policing*. 20: 419-441.

Kanan, James and Matthew Pruitt. 2002. "Modeling Fear of Crime and Perceived Victimization Risk: The (In)Significance of Neighborhood Integration." *Sociological Inquiry*. 72: 527-548.

Mesch, Gustavo. 2000. "Perceptions of Risk, Lifestyle Activities, and Fear of Crime." *Deviant Behavior*. 21: 47-62.

Mustaine, Elizabeth, and Richard Tewksbury. 1997. "The Risk of Victimization in the Workplace for Men and Women: An Analysis Using Routine Activities/Lifestyle Theory." *Humanity and Society*. 21: 17-38.

Pendleton, Michael R. 1996. "Crime, Criminals and Guns in 'Natural Settings': Exploring the Basis for Disarming Federal Rangers." *American Journal of Police*. 15: 3-25.

Reaves, Brian A. and Timothy C. Hart. 2000. "Federal Law Enforcement Officers, 2000." Washington, DC: Bureau of Justice Statistics.

Roundtree, Pamela Wilcox, and Kenneth C. Land. 1996. "Burglary Victimization, Perceptions of Crime Risk, and Routine Activities: A Multilevel Analysis Across Seattle Neighborhoods and Census Tracts." *Journal of Research in Crime and Delinquency*. 33: 147-180.

60

Sampson, Robert J, Raudenbush, Stephen W. and Felton Earls. 1997. "Neighborhoods and Violent Crime: A Multi-Level Study of Collective Efficacy." *Science.* 277: 918-924.

Shaw, Clifford and Henry McKay. 1942. "Juvenile Delinquency and Urban Areas." Chicago: University of Chicago Press.

Skogan, Wesley G. and Michael G. Maxfield. 1981. "Coping with Crime: Individual and Neighborhood Reactions." Beverly Hills, CA: Sage.