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Author(s): Kristy Holtfreter, Ph.D., Michael D. Reisig, Ph.D.,

Daniel P. Mears, Ph.D., Scott E. Wolfe, Ph.D.

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### **FINAL REPORT:**

# Financial Exploitation of the Elderly in a Consumer Context\*

Kristy Holtfreter, Ph.D.

School of Criminology and Criminal Justice

Arizona State University

Phoenix, Arizona

Michael D. Reisig, Ph.D.

School of Criminology and Criminal Justice

Arizona State University

Phoenix, Arizona

Daniel P. Mears, Ph.D.

College of Criminology and Criminal Justice
Florida State University

Tallahassee, Florida

Scott E. Wolfe, Ph.D.

Department of Criminology and Criminal Justice
University of South Carolina
Columbia, South Carolina

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### **ABSTRACT**

# **Research Goals and Objectives**

- Statement of Purpose. The goal of this research was to provide researchers, practitioners, and policy makers with an empirically-based understanding of financial exploitation of elderly consumers. This study focused on Arizona and Florida, two states with significantly higher proportions of older residents. This study sought to identify risk and protective factors for fraud victimization and to evaluate the elderly's awareness and use of state-based programs.
- Research Subjects. This study included telephone interviews of 1000 Arizonians and 1000 Floridians age 60 and over. The study was approved by the Institutional Review Boards (IRB) of two universities. Informed consent was established during the interview and first included the completion of a screen for cognitive impairment because cognitively impaired individuals cannot give consent. The sample is 37% male with an average age of 72, 94% white, 92% with a high-school diploma or more, and 61% married.

### **Research Design and Methodology**

• *Methods*. During the period of June 27, 2011-July 27, 2011, a CATI survey was conducted with 1000 Arizona citizens over 60 and 1000 Florida citizens over 60.

### **Research Results and Conclusions**

- *Data Analyses*. Descriptive, bivariate, and multivariate analyses were performed to address the study's goals and objectives.
- *Results*. The study revealed that nearly 6 of every 10 participants were targeted by a fraud attempt in the year prior to the study. Approximately 14% of the full sample was a fraud victim within the past year. The prevalence of victimization was greater among targeted adults (25%). The most common form of shopping/purchasing fraud targeting was having someone attempt to sell a phony subscript to a magazine or something else. The most common type of financial fraud

targeting in the past year was having someone attempt to trick an individual into providing personal financial information (16%). Financial fraud victimization of any type was rare (.8%). The most common types of other consumer fraud targeting involved phony prize scams (24% past year prevalence) and contributing to phony charities (22%). Past year prevalence of financial mistreatment was 5.6%, and the most common type of financial mistreatment was having money or belongings stolen (3.4%). Being male, remote purchasing, low self-control, education, and telemarketing purchases increased targeting. Remote purchasing, low self-control, being older, and minority status increased fraud victimization. Routine activities were associated with financial fraud victimization. Most respondents were not familiar with their state's programs. Greater monetary losses were associated with victim reporting.

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## **EXECUTIVE SUMMARY**

### **Problem**

Despite increased concerns about fraudulent activities that target the elderly—evidenced in all 50 states having enacted elder abuse statutes in recent decades—little remains known about the prevalence of such fraud, the factors that give rise to it, or the effectiveness of efforts aimed at reducing it. Without information along each of these dimensions, it is difficult to develop and implement evidence-based policies aimed at preventing and reducing elderly fraud victimization. This problem assumes greater importance given the "graying" of the American population.

## Purpose

The study's goals were to provide policymakers, practitioners, and researchers with a greater, empirically-based understanding of the distribution and causes of, as well as solutions to, financial exploitation of the elderly in a consumer context. To achieve this goal, the study focused on two states, Arizona and Florida, that have significantly higher proportions of citizens age 60 and older and that, under the leadership of the two states' attorneys general, have undertaken elderly crime prevention initiatives. The study's three specific objectives were: (1) To determine the nature, incidence, and prevalence of fraud victimization among elderly consumers in Arizona and Florida; (2) To identify risk and protective factors associated with fraud victimization in this population; and (3) To evaluate the elderly population's awareness and use of state-based programs, including reporting behavior to law enforcement.

# **Research Design**

The 2-year study consisted of a computer-assisted telephone interview (CATI) survey, conducted from June 27, 2011 to July 27, 2011, of 1,000 Arizonians and 1,000 Floridians over

the age of 60. This age cut-off was consistent with that used by governmental agencies such as the Administration on Aging (AOA) and the U.S. Census Bureau to define the senior population, with the extant literature on elderly victimization, and with the National Institute of Justice's (NIJ) focus in its solicitation on elderly abuse and exploitation. Prior to undertaking the study, the researchers submitted the research protocol to institutional review boards at Arizona State University (ASU) and Florida State University (FSU), and obtained approval to proceed.

Survey questions focused broadly on shopping/purchasing fraud, financial fraud, and other types of financial fraud. They also focused on awareness of efforts to increase understanding about such fraud and steps to prevent it. The survey included a range of other questions on the social and demographic characteristics of the participants, as well as factors that might contribute to an increased risk of victimization. Not least, for purposes of comparison with prior research, the study included a measure of financial mistreatment (e.g., having someone spend money that is yours or forged your signature) that previously has been used in studies of financial exploitation.

The sampling and screening procedures resulted in 4,130 total eligible interviewees that were contacted during data collection. This value includes the total number of people who self-identified as 60 years or older who completed the interview (N = 2,000), refused to participate (N = 1,716), or partially completed the interview (N = 414). Individuals who were classified as impaired or who failed the cognitive screener were excluded from this value because they are not eligible respondents. The response rate was 48.4%, which is comparable to the response rate in similar studies, and the completion rate was 82.9%, which is significantly higher than the 67.2% average in other telephone surveys.

To address the study's goals and objectives, descriptive, bivariate, and multivariate analyses were undertaken. Similar response pattern imputation (SRPI) was used to impute

missing values in the data. Missing values could not be imputed for 90 individuals so they were excluded from the analysis. Analyses indicated that the social and demographic characteristics of the sample were largely similar to those of the populations from which they were derived.

## **Findings**

The study analyses generated a wide range of results that reflected the following general areas of investigation: the nature and prevalence of consumer fraud targeting and victimization; the nature and prevalence of financial mistreatment; fraud targeting and victimization across demographic groups; multivariate analyses of fraud targeting; multivariate analyses of financial mistreatment; crime program familiarity and contact; and reporting of consumer fraud victimization and financial mistreatment. Select findings from each of these sets of analyses are presented below. These serve to illustrate the range of analyses undertaken and the types of findings available in the full report. The salience of any given finding, whether those included here or in the report, ultimately depends of course on the particular focus or perspective taken for a given research study or policy discussion.

The Nature and Prevalence of Consumer Fraud Targeting and Victimization

• Nearly six out of every 10 respondents were targeted by a fraud attempt during the year prior to the study, and two-thirds of respondents were targeted by a fraud attempt during the two years prior to the study. Fraud targeting thus is more common in this sample of elderly people compared to samples of adults 18 years of age and older where, for example, past-year prevalence estimates have been shown to range from 15% to 31%.

- Approximately 14% of the sample was a fraud victim during the past year and 19% was a victim during the two years prior to the survey. These estimates are similar to fraud victimization prevalence estimates observed in other national samples of adults.
- Among individuals who were targeted by fraud attempts, the prevalence of fraud victimization was greater. For example, among such individuals, the past year prevalence of fraud victimization was 25 %.
- The most common type of shopping/purchasing fraud targeting was having someone attempt to sell a phony subscription to a magazine or something else. Approximately 10% of the sample reported such targeting in the year prior to the survey. Telephone contact was the primary mode through which such targeting occurred, but other modes, such as mail advertisements and in-person solicitations, were common. Law enforcement officials are rarely made aware of instances of shopping/purchasing fraud targeting. The most common form of shopping/purchasing fraud involves paying for a product or service that does not work as promised. Such victimization was reported by 3.5% of the sample. The median dollar loss past-year fraud victimization was \$225 for repair fraud, \$67 for product/service fraud, and \$30 for phony subscription fraud.
- The most common type of financial fraud targeting was having someone attempt to trick an individual into providing personal financial information. Over 16% of the sample reported being targeted in this way during the year prior to the study. Telephone contact again was the primary mode through which targeting occurred. Contact by way of email (30.4%) and web sites (17.6%) were also relatively common for attempts to get participants to provide personal financial information to unknown individuals. Respondents who were targeted for financial fraud typically did not report the offenses to the police. Financial fraud victimization of any type was rare. The most frequently reported form of financial fraud victimization was being

tricked into giving one's personal financial information to an unknown person (0.8%). The median dollar loss was highest for investing in a phony business (\$6,248), followed by paying someone to improve finances (\$580). The lowest median dollar loss was incurred by victims who were tricked into providing their financial information (\$38). The prevalence of financial fraud victimization was greater among those who were targeted for such fraud.

• The most common types of other consumer fraud targeting were attempts to get individuals to pay to claim a phony prize (24% past-year prevalence) and contribute money to a phony charity or religious organization (22% past-year prevalence). Contact by telephone, mail, and e-mail were the primary modes of targeting. Such instances were, again, rarely reported to law enforcement. However, when individuals had someone try to steal their personal information, 25% contacted law enforcement. The median dollar loss, for past-year victimization, between each type of consumer fraud varied from \$20 (contributing to a phony charity or religious organization) to \$700 (paying to reduce mortgage payments). The median dollar loss associated with being a victim of a phony prize scam was \$219, and \$200 for victimization relating to having personal information stolen. As with the other types of fraud, targeted individuals were more likely to report actual victimization.

The Nature and Prevalence of Financial Mistreatment

- The overall prevalence of financial mistreatment in the sample during the year leading up to the study was 5.6% and 8.4% during the two years leading up to the study. These findings are nearly identical to the prevalence of financial mistreatment estimated in other studies.
- The most common type of financial mistreatment experienced by the respondents during the year preceding the study was having someone steal their money or belongings (3.4%). Fewer individuals reported that someone spent their money or sold property without their

permission (2.2%) or forged their signature (1.3%). These estimates are similar to that of reported shopping/purchasing and other fraud victimization found in this study.

- A larger percentage of respondents who had someone spend their money or sell something without their permission were victimized by a family member. Respondents' children were the most frequent culprits of these two types of financial mistreatment. A smaller portion of participants who had their money stolen or items taken were victimized by a relative.
- About one-quarter of individuals (27%) who indicated someone spent their money or sold their property without permission reported the offense to the police. A higher percentage of individuals who had their money or property stolen reported their victimization to law enforcement (40%).

Fraud Targeting and Victimization across Demographic Groups

- Fraud targeting is least common among those who are 80 or more years old. Less than half of these individuals (49.6%) indicated that they had been targeted. By contrast, over 60 percent of other respondents reported being targeted. Males reported being targeted more frequently than females (65.4% versus 56.4%, respectively). In general, education was weakly associated with fraud targeting. No differences in fraud targeting were observed across racial and ethnic minorities. However, racial minorities and retired individuals were slightly more likely to report that they had been the victims of consumer fraud during the year leading up to the study as compared to their counterparts. No differences in fraud victimization were observed across other demographic groups.
- Among individuals who were targeted for fraud, those who were over age 72 or were racial minorities were more likely to experience fraud victimization. Targeted racial minorities also were more likely to report victimization (38.6% versus 24.1%, respectively).

• The pattern of results was similar for financial mistreatment.

# A Multivariate Assessment of Fraud Targeting

- In analyses in which fraud targeting was the outcome being predicted, the results showed that the following factors were positively associated with targeting: remote purchasing (including engaging in a greater variety of such purchasing), having low self-control, being male, and having higher levels of education. Making a telemarketing purchase substantially increased targeting. Respondents who purchased something in response to a telemarketing call from a company with whom they had not previously done business during the previous year increased their risk of becoming a fraud target by over 200% compared to those who had not made such purchases. Some variation in the effect of some of the predictors varied by type of fraud.
- The effect of telemarketing purchases appear limited to two types of targeting—shopping fraud and financial fraud. Respondents who placed an order for a product after seeing an infomercial also increased their odds of being targeted for shopping fraud. Participants who made online purchases had higher odds of targeting for financial fraud, charity scams, and prize notification fraud.
- Some demographic variables were correlated with specific forms of targeting. For example, younger participants were more likely to report being targeted for financial fraud and prize notification fraud, and males were more often the targets of financial fraud, charity scams, and prize notification fraud.

## A Multivariate Assessment of Fraud Victimization

• In analyses in which fraud victimization was the outcome being predicted, the results showed that the following factors were positively associated with victimization: remote

purchasing (including engaging in a greater variety of such purchasing), having low self-control, being older, and being a member of a racial minority. Here, again, some variation in the effect of some of the predictors varied by type of fraud.

- Remote purchasing is significantly associated with each form of fraud victimization, including shopping/purchasing fraud, financial fraud, charity scam fraud, and identity theft.
- The impact of telemarketing purchase is largely restricted to financial fraud victimization; individuals who made a telemarketing purchase with a company they had not previously done business with during the past year increased their odds of financial fraud victimization by over 600 percent.
- The risk of shopping fraud victimization was elevated among respondents who purchased products after viewing infomercials and receiving mail solicitations from companies with whom they had not previously done business. The risk of identity theft was elevated when respondents made purchases resulting from unsolicited email.
- In analyses that focused only on those individuals who were targeted for fraud, similar analyses showed similar results, with remote purchasing, low self-control, and being older all associated with an increased likelihood of victimization. The effects of telemarketing and several other factors varied across type of victimization. Similarly, the effect of low self-control was only significant in the shopping fraud victimization model. Analyses aimed at addressing selection effects associated with belonging to the group who was targeted for victimization identified similar effects.

## A Multivariate Assessment of Financial Mistreatment

- In analyses in which financial mistreatment was the outcome being predicted, the results showed that the following factors were positively associated with victimization: adherence to fewer routine activities (e.g., participating in social activities away from home, getting together with people who do not live with you, going to the movies), low self-control, being male, and belong to a racial minority. Once, again, some variation in the effect of some of the predictors varied by type of fraud.
- Additional analyses showed that the effect of routine activity is isolated to one type of financial mistreatment—failing to engage in routine activities increases the likelihood of being having money or property stolen.
- Two specific routine activities contributed to the observed effects: (1) the frequency with which respondents got together socially with friends, family, and neighbors, and (2) outside-the-home social activity.

## Program Familiarity and Contact

- The study examined respondents' familiarity with Arizona- and Florida-based programs that have been designed to help elderly citizens prevent and cope with criminal victimization. Arizona participants were asked how familiar they are (closed-ended responses include "very familiar," "somewhat familiar," and "not familiar") with the Agency on Aging and the Senior Sleuths project. Floridians who were interviewed were asked about their level of familiarity with the Seniors vs. Crime Program and their state's Senior Sleuths project.
- Most respondents were not familiar with their state's programs. Nearly 70% of Arizona participants were "not familiar" with the Agency on Aging. In Florida, 87% of respondents reported they were "not familiar" with the Florida's Seniors vs. Crime Program.

- The Senior Sleuths projects in both states were not well known by the survey respondents. Over 97 percent of respondents in both states reported that they were "not familiar" with the Seniors Sleuths project.
- In analyses that focused on subjects who did express some familiarity with the available programs, friends or family members, newspapers, television, and "word of mouth" were the most common sources identified as first teaching the subjects about the programs.
- In Arizona, only a small portion of respondents who were aware of the Agency on Aging contacted them in the year leading up to the interview (8.4%). Only one participant from Arizona reported contacting the Senior Sleuths project. A similar pattern of results emerged for Florida.
- The study also queried respondents about the sources that have provided information on how to protect themselves from consumer fraud victimization. Study participants reported that they received prevention information from a variety of sources. Television, however, was the most commonly reported source of information in both states (28.3% in Arizona, 31.1% in Florida). Internet websites, emails, magazines, radio, and brochures/fliers were also relatively common sources of fraud prevention information.
- Several demographic variables were correlated with program awareness. Specifically, older and more educated individuals were more familiar with the Agency on Aging. Male respondents were less familiar with the agency than females. In analyses that focused on Florida's Seniors vs. Crime Program, the pattern of results was similar. Older respondents were more familiar with the Seniors vs. Crime program. Males in the Florida subsample were less familiar with the program than females. Finally, racial minorities reported higher levels of awareness with Florida's Seniors vs. Crime program compared to non-Hispanic whites.

Reporting Consumer Fraud Victimization and Financial Mistreatment

- The final set of analyses focused on what drives victims of consumer fraud and financial mistreatment to report their experiences to authorities. Using a statistical methodology for addressing potential selection effects associated with focusing on victims only, the analyses showed, consistent with prior research, that the seriousness of a victimization event (as gauged by monetary loss) increased the likelihood of reporting the victimization to law enforcement. The analyses also showed that remote purchasing is also associated with an increased likelihood of contacting authorities about victimization.
- When the focus was on financial mistreatment, the analyses indicated that greater monetary loss is also associated with an increased likelihood of reporting victimization to law enforcement authorities. In addition, the analyses indicated that such reporting was more likely when the assailant was a stranger. The results, too, accord with prior research on reporting other forms of criminal victimization.

### **Conclusion**

The results of this study are significant for several reasons. In particular, they provide an empirical foundation on which to understand the distribution and causes of financial exploitation of the elderly and steps that can be taken to reduce it. The main conclusion to be drawn from the study is that consumer fraud targeting and fraud victimization of the elderly are common and result from activities, such as frequent online and telemarketing purchases, that can be curbed or that can be coupled with simple steps to protect individuals from actual victimization. The study also highlights that the elderly population is largely unaware of efforts that exist to educate them about consumer fraud. Accordingly, a considerable opportunity exists to make substantial strides in educating the elderly about fraud victimization by more aggressively distributing information

through different media. Several specific recommendations are discussed further below after discussing implications for further research.

Implications for Further Research

Although this study constitutes an advance over prior research, several limitations bear mention that point to directions for future research. First, the study examined elderly populations in Arizona and Florida. Thus, the extent to which the results generalize to the rest of the country is unknown. That said, the prevalence estimates of victimization largely accord with those found in prior research, suggesting that the results likely provide a reasonable estimate of what would be found with studies in other states or the country as a whole. Clearly, however, the prevalence of fraud targeting and victimization, and the specific causes, may vary from place to place.

Second, there remains a need to undertake studies that employ several sources of information, including self-report data from offenders on abuse and victimization of the elderly, official records data from law enforcement agencies, and interviews with policymakers, practitioners, and advocates involved in efforts to protect the elderly from fraudulent activity. It is possible, for example, that fraud targeting and victimization are lower in areas where a critical threshold of awareness about consumer fraud of the elderly exists. The use of multiple sources of data could aid in the development of measures that gauge such awareness and in turn enable empirical tests of that possibility.

Third, although this study identified key risk factors that increase the likelihood of fraud targeting and victimization, the precise causal mechanisms involved warrant further investigation. For example, individuals who engage in routine activities, such as socializing with their friends in the community, are less likely to experience financial mistreatment. What exactly produces this effect bears closer scrutiny. It could be that such activities reduce

opportunities for fraud targeting and victimization to occur, but they also could expose individuals to a broader network of individuals who provide informal social support that protects them against fraudulent activities that family members of relatives might seek to undertake.

Fourth, this study included questions about several state-level efforts in Arizona and Florida to prevent and combat elderly fraud victimization. A wide range of similar and different efforts exist in other states and their implementation, the extent to which they target the risk factors associated with elderly victimization, and their effectiveness remain to be examined.

## Implications for Policy and Practice

The diversity of methods through which fraud targeting occurs is considerable, including telephone, mail, email, web sites, phony prize offers, requests for contributions to phone charitable causes, and more. The plethora of such methods in turn indicates that any efforts to reduce victimization likely must be multifaceted and, for example, should target these different methods as well as educate elderly consumers about the ways in which consumer fraud victimization can occur.

The fact that few fraud attempts or actual fraud victimization events are reported to law enforcement suggests the need for education about the importance of reporting such events and, at the same time, for efforts to ensure that law enforcement respond to such reports in a proactive and well-publicized manner. Such steps can increase the chances that the elderly will learn about consumer fraud victimization, that they will report it, and that a potential general deterrent effect can be created or increased. For example, would-be offenders, such as family members and solicitors, may be less likely to engage in fraud if they read or hear about law enforcement aggressively responding to claims of fraudulent activity.

Given the greater targeting and victimization of them, males and individuals ages 60-72 should be educated about the importance of taking steps to prevent fraud and of reporting attempted or actual fraud. Similarly, individuals who engage in greater amounts of remote purchasing or who are low in self-control should be targeted for similar educational efforts since these two factors emerged as the most robust predictors of various types of fraud targeting and victimization. Not least, since financial mistreatment was associated with failing to engage in routine activities, such as social events, outside the home, elderly individuals should be encouraged to participate in social activities in their community. Doing so may create a social support network that provides a protective effect against fraud targeting and especially victimization.

Few respondents in the study were familiar with state-level efforts to educate and help the elderly in matters related to consumer fraud. Accordingly, there likely is substantial room to reduce consumer fraud victimization by greater attention to implementing these efforts in ways that better reach their intended target populations. Such efforts could include flyers, radio and television advertisements during shows or times when the elderly are more likely to be listening or watching, and other related activities. These are the primary avenues through which respondents reported learning about these programs, but, ultimately, the effectiveness of such efforts depends heavily on whether informational material reaches the intended audience.

#### **BACKGROUND LITERATURE**

Financial exploitation, defined as "the illegal or improper use of an incapacitated or vulnerable adult or his resources for another's profit or advantage" (Arizona Elder Abuse Coalition 2007: 4), is a common form of elder abuse (American Association of Retired Persons [AARP] 2003; Hall et al. 2005; Muscat et al. 2002). Unlike other forms of elder abuse, financial exploitation (e.g., consumer fraud) is more likely to take place with the implied consent of the elder victim (Bonnie and Wallace 2002; Hafemeister 2002), and the majority of victims do not have a personal relationship with the perpetrator (Laumann, Leitsch, and Waite 2008). Scholars have suggested that fraud has become the "characteristic crime of the 21st century" (Albanese 2005:8). Before describing the current study, we review prior work on consumer fraud and elderly victimization.

First, we examine available statistics and legal provisions pertaining to consumer fraud, followed by an overview of the findings from previous studies on the nature, incidence, and prevalence of fraud victimization. Next, we discuss research on elderly victim reporting and studies of consumers' routine activities, lifestyles, and demographic characteristics that may serve as risk and protective factors. The bulk of national-level studies have been conducted by consumer protection or elderly advocacy groups (e.g., the AARP) and these typically have involved a delimited focus on developing national prevalence estimates of elderly consumer fraud victimization, while academic researchers addressing this topic have typically used small, local samples. The lack of state-level research has made it difficult for statewide service providers, victim assistance programs, and policy makers to reach those members of the elderly population most at-risk for victimization. Put simply, there is a critical need to conduct state-level research and to incorporate measures that enable researchers to pin-point more precisely the correlates of fraud victimization and what can be done to prevent and reduce it.

# **Defining Consumer Fraud**

Consumer fraud is a form of financial exploitation that involves some form of communication between victim and offender, and includes the "deliberate deception of the victim with the promise of goods, services, or other benefits that are non-existent, unnecessary, were never intended to be provided, or were grossly misrepresented" (Rosoff et al. 2004:48). Based on such a definition, and as we discuss below, this crime appears to be a growing problem in the United States, as evidenced by recent estimates provided by the Federal Trade Commission's (FTC) Bureau of Economics and Consumer Protection indicating that nearly one-third of American adults have been targeted by fraudsters (Anderson 2004). Other sources have identified the elderly as probable targets of fraudsters, and statistics confirm when the elderly are victimized it often involves property crime and is financial in nature (Hafemeister, 2002; Johnson 2003; Klaus 2005).

## What is Known About the Nature, Incidence, and Prevalence of Victimization?

Knowledge about the nature, incidence, and prevalence of elderly fraud victimization has been the product of two distinct sources: (1) research conducted or sponsored by consumer-protection or elderly-advocacy agencies, and (2) social scientists. Three national-level surveys were conducted by the Federal Trade Commission (FTC) in 2003, 2005, and 2011-2012. The FTC's first survey of 2,500 households revealed that one-third of Americans have ever been targeted by some form of consumer fraud, with 16 percent reporting targeting over the past year and 11 percent reporting actual victimization in the past year. The most common types of fraud identified by respondents pertained to advance fee loans, buyer's club memberships, credit repair, prize promotions, Internet service provider fraud, and pyramid schemes (Anderson 2004).

In descriptive analyses, targeting appeared to be relatively evenly distributed across consumer demographics, suggesting that the elderly may not necessarily be targeted at a higher rate than their younger counterparts. In 2003, the most common form of targeting occurred through print media (e.g., mail, newspapers, magazine ads, catalogs, and posters). In the second FTC survey of 3,888 adults, 13.5% of respondents reported victimization. The majority of victims were targeted through print media (Anderson 2007). Similar to the 2003 FTC survey, the 2005 study revealed that seniors were not at greater risk of fraud victimization relative to other age groups. The third FTC survey of 3,638 adults found that nearly 11% of respondents were the victims of consumer fraud in 2011 (Anderson 2013). The types of frauds varied slightly from previous years, with the most commonly reported being fraudulent weight-loss products, fraudulent prize promotions, being billed for buyers' club memberships that they had not agreed to purchase, being billed for Internet services they had not agreed to purchase, and fraudulent work-at-home programs. In a notable change from previous surveys, the Internet was the most frequent way in which victims were targeted. In this survey, Hispanic and African-American consumers were more likely to be victimized. Finally, those between the ages of 55-74 had the greatest risk of being victimized by fraudulent prize promotions.

While the FTC surveys provided important insights into the methods used by fraudsters, none of these studies included measures derived from victimization theories. However, in the second and third surveys, level of debt, a characteristic some argue is indicative of low self-control (see e.g., Romal and Kaplan 1995) increased the likelihood of victimization. Similarly, the third survey found that engaging in risky purchasing behaviors---a measure consistent with routine activity/lifestyles perspectives----also increased the likelihood of fraud victimization (Anderson 2013). These findings underscore the need for additional research informed by theories of victimization (i.e., routine activity theory).

Like the FTC, efforts to address consumer fraud by the AARP have focused on the national level (AARP 1996, 2003). One difference between the two groups is that the AARP's studies have been more narrowly focused on specific types of fraud believed to disproportionately target seniors (e.g., telemarketing fraud), making it more difficult to generate accurate estimates of consumer fraud prevalence and incidence. In comparison, most social scientific studies to date have used small, convenience samples, often comprised of the willing victims of a single fraudulent incident or type of fraud (see e.g., Alves and Wilson, 2008; Jesilow et al. 1992; Mason and Benson 1996; McGuire and Edelhertz 1980; Van Wyk and Benson 1997; Van Wyk and Mason 2001). Scholars have argued that such research may be limited in its generalizability and its implications for public policy (Friedman 1998; Lee and Soberon-Ferrer 1997). One consistency across the national and local studies is that the elderly are less likely to report fraud victimization, although reasons for underreporting remain largely unexplored in the literature (Choi and Mayer 2000; Hall et al. 2005; Laumann et al. 2008). Anecdotal evidence suggests that seniors do not report fraud due to embarrassment or fear of repercussions (Ravenna 2004:9).

Given that the authority for enforcing most consumer protection legislation rests with State Attorney General's Offices, the importance of state-level studies bears emphasis. To illustrate, results from a modified version of the FTC survey administered in 2004-2005 to a sample of Florida adults revealed several key differences between the nation and Florida residents. For example, the incidence of consumer fraud attempts in the United States was estimated at one-third, compared to 16% in Florida (Holtfreter, Reisig, and Pratt 2008). Such differences underscore the need for more refined state-level studies using samples of resident populations—and guidance in conducting these types of studies—that can help states develop more empirically-grounded, context-relevant policies to reduce victimization.

## **Risk and Protective Factors**

Attempts to develop sociodemographic profiles of elderly fraud victims have been advanced, but these results have been largely inconclusive, and often involved simple descriptive analyses relying on a relatively narrow range of potential correlates of victimization. There is consensus, however, that demographic characteristics reflect consumers' vulnerability. Overall, prior studies have found that age is negatively associated with fraud victimization (see generally, Anderson 2004, 2007; Holtfreter et al., 2008; Titus et al. 1995). Notably, while one study confirmed a lower rate of victimization among the elderly, it also revealed that older consumer victims suffered greater monetary losses (Princeton Survey Research Associates 1999). Unfortunately, these studies have not systematically introduced controls that would allow for more robust estimation of age effects.

To date, only a few studies have addressed consumer fraud within a broader theoretical context. Holtfreter et al. (2008) found that remote purchasing behaviors (i.e., mail, telephone, Internet, television) increased consumers' likelihood of being targeted by fraudsters. In the language of routine activity theory, these behaviors reflect greater access to unguarded exposure. Once targeted, consumers who engaged in risky financial practices were significantly more likely to be victimized than their high self-control counterparts. A follow-up study examined online consumers' perceived risks of credit card theft victimization and found that socially vulnerable and financially impulsive respondents perceived higher levels of risk when using their credit cards on line (Reisig et al., 2009). However, although consumers with higher risk scores altered their behaviors to reduce victimization risk, financially impulsive individuals failed to make such behavioral changes.

Building on these two studies, Pratt, Holtfreter, and Reisig (2010) examined the influence of routine online activities on Internet fraud targeting. Before controlling for time spent

online and online purchasing behavior, younger consumers and more educated consumers were significantly more likely to experience Internet fraud targeting. However, these effects disappeared after controlling for time spent online and online purchasing, and both of these consumer behaviors significantly increased the odds of Internet fraud targeting, a finding that lends support to routine activity theory. Similarly, Reyns (2013) found that online banking, shopping, and instant messaging increased the risk of identity theft victimization. In a recent study of Dutch consumers, van Wilsem (2013) partially replicated the work of Holtfreter et al. (2008), finding that low self-control and online shopping elevated the risk of consumer fraud victimization. Applied to an elderly fraud context, these theory-informed studies suggest that attention to seniors' daily routines as well as personal traits and attitudes is warranted.

Carcach et al. (2001) have offered important and intriguing insights into the relationship between victimization and age. They suggest that aging alters the ways individuals distribute their time across social roles and activities. Put differently, because victimization risk varies across situations, it is reasonable to expect that elderly consumers' day-to-day activities and other lifestyle factors may make them more or less vulnerable to fraud victimization (Akers et al. 1987). This expectation is consistent with routine activity theory explanations of violent and property crime victimization (Cohen and Felson 1979; Schreck 1999; Stewart et al. 2004).

Coupled with the work of Carcach et al. (2001), the studies conducted by Holtfreter and colleagues (Holtfreter et al., 2008; Pratt et al. 2010; Reisig and Holtfreter, 2007, 2013; Reisig et al., 2009) supply a point of departure for exploring factors associated with elderly consumer fraud victimization. Applying this theoretical perspective to elderly fraud victimization would, however, require moving beyond analysis of simple demographics to identify other sources of vulnerability related to consumers' routine activities (e.g., purchasing, investing, Internet use, responding to phone solicitations, charitable contributions) and lifestyle factors (e.g., living

situation, prior victimization). Such an approach would lend itself equally well to systematic exploration of factors that may influence seniors' reporting of attempted and actual fraud victimization, including the extent of financial loss. Given the absence of attention to these critical risk and protective factors, the current research attempted to fill these gaps in ways that will lead to important policy changes.

#### Awareness and Prevention Efforts in Arizona and Florida

Although all 50 states have enacted laws protecting the elderly, virtually no research on the effectiveness of these laws exists. Against this backdrop, the percentage of persons age 65 and older increased by a factor of 11 during the 20th century; by 2030, this population is expected to constitute 20 percent of the U.S. population (American Geriatrics Society 2006).

In Arizona, it is projected that residents aged 60 and older will comprise over 25% of the state's population by 2020 (Arizona Attorney General's Office, 2009). Considerable resources have been devoted to the needs of this growing population, and the abuse and exploitation of elderly consumers through fraud remains at the forefront of these efforts. In sum, it is clear that the needs of elderly Arizonans, particularly those pertaining to financial exploitation and abuse, are of the utmost concern to state and local officials. In Florida, seniors comprised, as of 2012, just over 18 percent of the State's population, a rate considerably above the national average (United States Census Bureau 2012). Not surprisingly, Florida policymakers, like their counterparts elsewhere, have expressed concern about victimization of this population and thus commissioned reports on the issue. Most recently, a legislative Task Force Report on Crimes Against the Elderly found that seniors had an unrealistic fear of crime and were not being informed about the most likely fraud scams targeting them (Ravenna 2004). In response to this report, the Florida Office of the Attorney General established Seniors vs. Crime, a special project

designed to provide services to Florida's elderly to help prevent and reduce victimization, and to assist the Attorney General in consumer-related investigations.

The state-level demographics in Arizona and Florida, coupled with the aggressive strategies of both state governments, made these two sites a natural venue for systematic empirical research on elderly consumer fraud victimization. Lessons from Arizona and Florida should be of interest to other states for several reasons, including: the emphasis on identifying what likely are a core set of risk and protective factors associated with victimization; the opportunity to identify lessons that other states can draw in pursuing strategies similar to Seniors vs. Crime, and, more generally, from an understanding of the risk and protective factors associated with elderly consumer fraud victimization; and the development of a research protocol that can assist states in their efforts to develop, monitor, evaluate, and improve efforts to reduce victimization of the elderly.

## **Research Gaps and Needs**

In short, a paucity of evidence exists that goes beyond establishing nationwide estimates of elderly consumer fraud victimization. Few studies establish the risks for such victimization or the protective factors that buffer the elderly from being targeted by offenders. And we know of no efforts to systematically and empirically evaluate state-level efforts aimed at preventing and reducing elderly victimization. Juxtaposed against these research gaps is the increasing number of elderly in the U.S., many of whom live on the margins of poverty and who can ill-afford to bear additional financial burdens. Despite the aggressive outreach efforts launched by Arizona and Florida, the extent to which seniors in both states are aware of programs and services was unknown prior to the current research effort.

## **SCOPE AND METHODS**

The current study is comprised of data from telephone surveys of 2,000 adults aged 60 years and older in Arizona (N = 1,000) and Florida (N = 1,000). The survey was obtained via Computer Assisted Telephone Interviewing (CATI) administered by Precision Research which is a reputable private research firm in Glendale, Arizona with more than 27 years of marketing and social science research experience. The surveys collected information relating to consumer fraud targeting and victimization, risk and protective factors related to fraud targeting and victimization, and respondent awareness and use of state-based fraud programs. Consistent with prior research, the survey collected information relating to respondents' experience with being targeted and victimized by the following types of consumer fraud (Anderson, 2004; Holtfreter, Reisig, & Blomberg, 2006):

- Shopping/purchasing fraud
  - o Paid for unnecessary repairs to home, appliance, or automobile
  - o Bought a product that did not work as claimed
  - o Paid for phony subscriptions to magazines or something else
- Financial fraud
  - Paid money to improve financial situation
  - Invested in phony business opportunity
  - o Tricked into giving financial information (e.g., credit card number)
- Other types of consumer fraud
  - Contributed to phony charity or religious organization
  - o Paid a fee to claim a phony prize
  - o Paid money in advance to reduce mortgage payment
  - Identity was stolen

## Target Population

The target population for the current study was all people age 60 years and older living in Arizona and Florida. These states were selected because they have two of the highest proportions of elderly people (i.e., 60 years or older) in the U.S. About 18% of the U.S. population is 60 or older. Arizona seniors comprise 19.29% of the total state population and 23.38% of Florida's population is 60 or older. Sixty was chosen as the age cut-point to define the elderly target population for several reasons. First, it is similar to the age used by governmental agencies such as the Administration on Aging (AOA) and the U.S. Census Bureau to define the senior population. Second, it is consistent with the extant literature on elderly victimization (Acierno, Hernandez-Tejada, Muzzy, & Steve 2009; Alves & Wilson, 2008; Conrad et al., 2010; Dietz & Wright, 2005; Feldmeyer & Steffensmeier, 2007; Laumann, Leitsch, & Waite, 2008; Lewis, Fields, & Rainey, 2006). Finally, and perhaps most importantly, 60 years and older was the target population stipulated in the NIJ solicitation for this project.

### Sample Construction

The sample was generated using a list-assisted sampling method. Specifically, telephone numbers come from a White Pages database of directory-listed households in Arizona and Florida. One concern with this approach to generate the sample is that people who only use cell phones will be excluded from the sample. While this would certainly affect a sample consisting of all ages, it is of less concern for the current sample. Cell phone usage has increased among the elderly population in recent years. According to a recent survey, about 87% of people 57-65 years, 68% of people 66-75 years, and 48% of people 75 or older own a cell phone (Zickuhr, 2011). However, older people are significantly more likely to also use landline telephones

compared to younger individuals. One survey revealed that only 2% of U.S. respondents age 65 or over uses *only* a cell phone (Blumberg & Luke, 2007). Accordingly, use of the White Pages is a reasonable method to generate a sample of elderly people for a telephone survey.

The first stage of the sampling process consisted of Precision Research subjecting the directory-list to an extensive validation process to ensure that all telephone numbers were currently valid, assigned to the correct area code, and within an appropriate ZIP code. Working blocks were used to generate a sample of telephone numbers. A "block" (also known as a hundreds-block or bank) is a set of 100 contiguous telephone numbers identified by the first two digits of the last four digits of a telephone number. For the purposes of this study a block was considered working if one or more listed numbers were found in the block. Precision Research used an Equal Probability of Selection Method (EPSEM) to produce an equal probability sample of all possible 10-digit telephone numbers in the working blocks. Specifically, random digit dialing (RDD) was used to randomly call numbers from the working blocks. All numbers within the blocks had an equal probability of selection regardless of whether they were listed, unlisted, residential, business, or fax machine.

### Household Screening

The sample construction process yielded a RDD sample of all working telephone numbers in Arizona and Florida. Inevitably, however, non-working and non-residential numbers were called during RDD. During the second stage of sample generation Precision Research interviewers determined whether the randomly dialed number was a working residential household phone number. Non-working numbers (e.g., disconnected numbers), non-residential numbers (e.g., businesses and fax machines), and ineligible households (e.g., no adult 60 years or older in household and language barriers other than Spanish) were replaced by the RDD process.

Only residential households with at least one adult age 60 years or older were included in the sample. Precision Research interviewers read the following introductory script to a potential respondent to identify the purpose of survey and determine whether the household had an eligible participant:

"Hello, my name is\_\_\_\_\_, and I'm calling on behalf of Arizona State

University for Arizona calls or Florida State University for Florida calls). We are
interviewing (Arizonans/Floridians) about different kinds of crimes on behalf of
the National Institute of Justice. We are interested in the experiences of people
over 60."

The interviewer then asked the individual how many adults age 60 or older lived in the household. If no person meeting this requirement lived in the household the interview ended and a new RDD number was contacted. If at least one individual 60 years or older was present in the household the interview continued.

### Respondent Selection

The third stage of sample construction consisted of selecting a respondent to take part in the survey. If only one individual 60 years or older was present in the household he or she was designated as the respondent. If the individual speaking with the interviewer indicated that the person 60 years or older was impaired, unavailable, or refused to contact the person the interview ended and a new number was contacted through RDD. In many cases there was more than one individual in a household that was 60 years or older. In these situations the person with the "next birthday" was designated as the respondent. The incidence rate (i.e., the percentage of calls that resulted in an eligible respondent) was 69%.

# Cognitive Screener

The possibility of contacting a respondent with a cognitive impairment (e.g., Alzheimer's disease or some form of dementia) was greater in the present study compared to studies of the general population because the target population was much older. Accordingly, the final stage in the sample construction process consisted of the interviewer administering a cognitive screener to all eligible and willing participants. The survey instrument used Callahan et al.'s (2002) Six-Item Screener (SIS). The SIS was used because it is unobtrusive and takes less than one minute to administer. Additionally, the screener has a high predictive accuracy in community-based samples for cognitive impairment and dementia. The SIS is comprised of three sections. First, respondents were read a list of objects (i.e., apple, table, and penny) and asked to remember them. Second, three orientation questions requested respondents to identify the day, month, and year. Third, the respondents were asked to repeat the three words they heard at the beginning of the screener. Each screener item scored one point for a correct response (range = 0 to 6). After a review of previous literature that has used the SIS and feedback provided by hired expert consultants, a cut-off of less than 3 was used in the present study. That is, potential respondents who scored less than 3 on the SIS were excluded from participation in the study. This cognitive screening strategy is consistent with previous research (Callahan et al., 2002; Woodford & George, 2007).

### Phoning Procedures

Following the creation of the CATI program and interviewer training, interviewing commenced on June 27, 2011. The sample was completed on July 27, 2011. Data were collected seven days a week during specific times of the day that had the greatest probability of contacting a respondent. Specifically, potential respondents were called between 6:00 p.m. and 9:00 p.m.

Monday through Friday and between 12:00 p.m. and 9:00 p.m. on Saturdays and Sundays. All telephone interviews were conducted by the research firm based in Arizona which is in Mountain Standard Time (MST). There was a three-hour time-zone difference during data collection between Arizona and Florida. Accordingly, interviews were conducted during MST to correspond with the appropriate Eastern Standard Time (EST) target timeframe. For example, Precision Research began the weekday Florida interviews around 3:00 p.m. (MST) and ended them around 6:00 p.m. (MST), which translated into 6:00 p.m. (EST) and 9:00 p.m. (EST).

# Contact Attempts

A ten-callback rule was used to contact a respondent. That is, calls that were met with no answer, an answering machine, or a busy signal were loaded back into the CATI computer system to be called again later. After a maximum of 10 callbacks with no eligible respondent talking to an interviewer the telephone number was replaced by the CATI system.

In some instances the respondent agreed to participate in the survey but did not have time to complete the interview at the time of initial contact. Additionally, on several occasions a respondent had to stop an interview short due to a time conflict. In both of these situations the interviewers were trained to schedule a time with the respondent that was most convenient for him or her to finish the interview.

## Spanish Language Interviews

The interviews were primarily conducted in English but a Spanish survey instrument was constructed and used when necessary. It was vital to have the ability to conduct interviews in Spanish given the large proportion of residents in Arizona and Florida from Hispanic/Latino origin. Precision Research staff members are uniquely trained and equipped to interview

Hispanic/Latino respondents. Trained interviewers were able to administer the surveys in Spanish but were also capable of ensuring that the text and concepts of the survey were understandable to a range of potential Hispanic subcultures (e.g., Mexican, Cuban, Puerto Rican, Dominican, Central American, and South American). The interviewers' unique expertise in this regard helped eliminate language and cultural barriers.

# Minimizing Survey Administration Error

A number of steps were taken to minimize the risk of survey administration error. Several supervisors monitored interviewers by walking the call center floor and listening to in-progress interviews on private phone lines. As an additional precaution, a member of the research team called a private phone line at the research firm to randomly monitor active interviews.

Interviewers were aware that they could be monitored by supervisors and research team members but were unaware of the exact interviews that were being observed. Respondents were unaware that anyone other than the interviewer was listening to the questionnaire. The research team member monitored interviews several times per week throughout the entire data collection period. Interviews were monitored during various days, times, and interviewer shifts. Eleven complete and 10 partial interviews were monitored by the research team member during this quality control process. Interview monitoring allowed the research team to assess whether the interviewers were consistently and accurately administering the survey and if particular areas of the questionnaire were problematic. No problems were detected during interview monitoring.

# **Field Outcomes**

The above sampling methods resulted in complete interviews with 2,000 Arizona (N = 1,000) and Florida (N = 1,000) residents age 60 years or older. The interviews required an average of 21 minutes to complete.

# Phone Dispositions

A total of 4,247 telephone numbers resulted in contact with a household containing at least one potential respondent age 60 years or older. Table 1 presents a breakdown of the phone dispositions. The values reported in Table 1 include each possible disposition after the interviewer determined that at least one person in the household was 60 years or older.

Table 1

Phone dispositions

	_
Dispositions	N
Impaired <sup>a</sup>	71
Failed cognitive screener	46
Refusals	1716
Partial interviews	414
Completed interviews	2000
Total eligible interviewees <sup>b</sup>	4130

<sup>&</sup>lt;sup>a</sup>Participant was impaired and unable to be interviewed.

<sup>&</sup>lt;sup>b</sup>Total number eligible potential participants 60 years of age or older who were not impaired and passed the cognitive screener.

Seventy-one people were declared impaired and unable to complete the interview by the household informant that answered the call. Forty-six individuals failed the cognitive screener and were not interviewed. There were a total of 1,716 people who refused to participate in the interview. This value includes all people who refused to answer any survey questions after eligibility was established. There are 414 people classified as "partial interviews" in Table 1. This includes eligible respondents that agreed to take part in the survey but ended the survey short of completion. Interviewers attempted to schedule times to complete the interview with these individuals. In the event that the respondent refused to complete the remainder of the interview they were classified as a partial interview. The sampling and screening procedures described above resulted in 4,130 total eligible interviewees that were contacted during data collection. This value represents the total number of people who self-identified as 60 years or older who completed the interview (N = 2,000), refused to participate (N = 1,716), or partially completed the interview (N = 414). Individuals who were classified as impaired or who failed the cognitive screener were excluded from this value because they are not eligible respondents.

#### Response Rate

The response rate is important to the current study because it influences how representative the sample is of the population from which it was drawn. Low response rates can result in biased data and misleading results (American Association for Public Opinion Research [AAPOR], 2011). For example, study results cannot be used to generalize to a larger population if a low percentage of the sample frame actually participated in the study. Although a systemic process was used to produce the most random sample as possible, the final sample is determined by the number of eligible people agreeing to participate in the survey.

Formulas used to calculate response rates vary in the type of information that is used (see AAPOR, 2011, p. 44). Some formulas include cases of unknown eligibility in the response rate calculation. For example, busy signals and answering machines might be included in the denominator. The present study views this approach as an overly restrictive formula. Cases of unknown eligibility (e.g., no answer, busy signals, and answering machines), known ineligibility (e.g., no person in household 60 years of age or older, disconnected numbers, businesses, and fax machines), impaired respondents, and respondents who failed the cognitive screener were excluded from the response rate calculation.

The response rate formula for the present study includes the number of completed interviews (CI), partial interviews (PI), and refusals by eligible participants (REF) (AAPOR, 2011, p. 46). CIs consist of all interviews that were completed by eligible participants. PIs include interviews that eligible respondents began but failed to finish (e.g., they hung up during the interview). REF is the number of participants who self-reported to be 60 years or older but refused to be interviewed. Frequencies for each disposition used in the calculation of the response rate can be found by referring back to Table 1. The response rate formula used in the present study is as follows:

Response rate = 
$$CI/(CI + PI + REF)$$

Response rate = 
$$2,000_{\text{CI}}/(2,000_{\text{CI}} + 414_{\text{PI}} + 1,716_{\text{REF}}) = 2,000/4,130 = 0.4843$$

The response rate for the present study was 48.43%, which is comparable to other recent telephone survey research (Curtin, Presser, & Singer, 2005). Additionally, the completion rate for this study was 82.90%, which is significantly higher than the 67.20% average for telephone surveys (Hox & De Leeuw, 1994).

## Missing Data

As is the case in most survey research, not every respondent answered every question on the survey. Similar response pattern imputation (SRPI) (also known as "hot-deck imputation") was used to impute missing values in the data. SRPI has been shown to be a superior imputation strategy compared to listwise deletion which reduces statistical power (Allison, 2001) and mean replacement which can distort variances and correlations (Roth, 1994; Schafer & Graham, 2002; see also, Gmel, 2001). SRPI replaces missing values for particular survey items for specific respondents based on the values from other respondents that display highly similar response patterns on other questionnaire items. Specifically, a set of matching variables (e.g., gender, race, age, education, employment status, and marital status) is used to match a missing case to a donor case. SRPI is also advantageous because it is able to impute continuous, ordinal, and binary variables and it produces imputations that are within the range of possible values for the specific item (Myrtveit, Stensrud, & Olsson, 2001).

This study used PRELIS version 2.30 to complete missing value imputation using SRPI. Missing values were relatively rare in these data. In fact, less than one percent of cells within the data file had missing information. After imputation of missing values, complete data for 1,910 respondents were available for analysis. Missing values could not be imputed for 90 individuals so they were excluded from the analysis.

## Sample Characteristic Comparison to U.S. Census Estimates

Table 2 presents split-sample characteristics for Arizona and Florida and the 2010 census estimates for each of the states. The mean age of the Arizona and Florida samples is 72 and 73, respectively. For the 60 years and older population in Arizona and Florida, the mean age is 70 and 71, respectively. Accordingly, the Arizona and Florida samples are slightly older than the

senior populations of the two states. Thirty-seven percent of the Arizona sample is male, whereas 46% of the elderly Arizona population is male. Likewise, males comprise 35% of the Florida sample but 45% of the population according to the 2010 census. Accordingly, males are underrepresented in the Arizona and Florida samples.

There are slight differences with respect to racial/ethnic composition of the samples compared to census estimates. Ninety-four percent of the Arizona sample and 90% of the Florida sample self-identified as white. This is compared to whites representing 90% of the Arizona population and 88% of the Florida population. While the percentages are not drastic, both samples slightly over represent white respondents. With regards to ethnicity, the sample underrepresents the elderly population of Hispanics in both states. About 85% of Arizonians and 82% of Floridians have a high school degree or higher. Ninety-two percent of the Arizona sample and 86% of the Florida sample have a high school degree or higher. Therefore, the sample is slightly more educated.

With respect to marital status, the Arizona and Florida samples approximate the decennial census estimates. Sixty-one percent of the Arizona sample was married at the time of the interview whereas 62% of the 60 and older population was married in 2010. About 55% of the Florida sample self-identified as married compared to 58% of the population. The marital status percentages vary only slightly between the samples and census estimates. Finally, the sample is also representative of the Arizona and Florida populations in terms of employment status. Twenty-one percent of the Arizona sample and 24% of the Florida sample indicated that they were employed during the interview. Of the 60 years and older population in Arizona and Florida, 23% and 22% are employed, respectively. In sum, the overall sample includes respondents that are slightly older, female, white, and educated. These differences are not drastic.

What is more, the sample is highly representative of the Arizona and Florida populations with respect to marital and employment status.

Table 2
Sample Characteristics Compared to U.S. Census Estimates

	State of	Arizona	State of	Florida
	2011 Sample	2010 Census	2011 Sample	2010 Census
Age (mean)	72	70	73	71
Gender Male	37%	46%	35%	45%
Race/Ethnicity White	94%	90%	90%	88%
Hispanic	4%	12%	3%	14%
Education High school +	92%	85%	86%	82%
Marital status Married	61%	62%	55%	58%
Employment Status Employed	21%	23%	24%	22%

*Note*. Gender and race/ethnicity census estimates are derived from the 2010 Decennial Census. Age, education, marital status, and employment status census percentages are derived from the 2010 American Community Survey one-year estimates.

#### Measures

The study includes a variety of measures. The financial exploitation of the elderly in a consumer context is captured by using various measures that reflect fraud victimization. For purposes of comparison, a previously used measure of financial exploitation, financial mistreatment, is also included. Risk factors found to be associated with different forms of victimization are featured in the analyses. These variables include: daily routine activities, remote shopping, self-control, trust, health, social support, employment status, among others. A complete list of measures and their operational definitions are provided below.

#### Fraud Victimization

The section of the survey that featured the consumer fraud items began with the following introduction:

Sometimes consumers are misled into giving people money who grossly misrepresent or never provide goods and services they were promised. The people who do these things may or may not work for legitimate businesses and may contact consumers through email, Internet sites, telemarketing, infomercials, and other ways.

Fraud victimization was captured using a three-step method. First, following the introductory statement, survey respondents were asked whether anyone had *ever* tried to defraud them. This was accomplished by presenting ten different consumer fraud scams to study participants. Each item representing a specific fraudulent scheme and the appropriate follow-up questions were administered prior to moving on to the next scam. Previous studies have also used the listing of specific fraud schemes approach (see, e.g., Titus, Heinzelmann, & Boyle, 1995). This strategy is helpful in that the exact definition of what constitutes "consumer fraud" is not well understood

among the general public. The list using in this study was compiled by referencing the web pages for the Office of the Attorney General in both Arizona and Florida (both released "Top 10" scams targeting consumers in 2010), and an extensive review of the literature. For organization purposes, these targeting items in the current project are grouped under six commonly used headings.

Shopping/Purchasing Fraud. Consumers can be exposed to fraud during the course of shopping for products and services. For example, a service provider may charge for work that was promised but not performed. A salesperson may sell a product that does not work as he/she claimed. Or, someone claiming to represent a legitimate organization may sell a product that is never delivered. All of these criminal acts fall under the shopping/purchasing fraud heading. The current study includes three items to determine whether respondents had ever been targeted for shopping/purchasing fraud:

- 1. "Has anyone ever tried to get you to pay for repairs to your home, an appliance or automobile for work that was never performed or was unnecessary?"
- 2. "Has anyone ever tried to sell you a health, beauty care, weight-loss or other product or service that did not work as claimed?"
- 3. "Has anyone ever tried to sell you a phony subscription to magazines or something else?" *Financial Fraud*. Fraud perpetrators may target consumers using scams related to credit repair or business opportunities. Additionally, fraudsters may attempt to trick their potential victims into providing their credit card and bank account information. The present study includes three items to determine whether study participants had ever been targeted for financial fraud:
  - 4. "Has anyone tried to trick you into giving them money to improve your financial situation, like repair credit or get equity out of your home?"

- 5. "Has anyone ever tried to get you to invest in a phony business opportunity such as workat-home scams?"
- 6. "Has anyone ever tried to trick you into giving them your financial information, like your credit card number or bank account information?"

Charity Scam. Another common form of consumer fraud entails the false claim by a perpetrator that she or he represents a legitimate nonprofit organization and is soliciting donations on its behalf. One charity scam item was included in the survey to determine whether respondents were ever targeted for this type of fraud:

7. "Has anyone ever tried to get you to contribute money to a phony charity or religious organization?"

Prize Notification Fraud. This type of fraud entails informing the target that he or she is the lucky winner of some type of contest or promotion. The scheme unfolds with the target being told that he or she needs to pay some type of fee to claim the prize. One prize notification item was used in the present study to determine whether respondents had been targeted for this type of fraud:

8. "Has anyone ever tried to get you to pay a fee to claim a phony prize, like a sweepstakes or vacation?"

Mortgage Rescue Fraud. This type of fraud often targets people who are facing foreclosure. It comes in a variety of forms, such as charging homeowners high fees for assistance (which often does not occur) with basic tasks (e.g., making phone calls and filling out paperwork) that homeowners could easily do themselves. In 2010, the Mortgage Assistance Relief Services Rule made it illegal to collect fees before homeowners receive and accept a relief offer from their lenders. To determine whether study participants were targets of mortgage rescue fraud, the following item was included in the survey:

9. "Has anyone tried to get you to pay money in advance to reduce your mortgage payment?"

*Identity Theft.* Another form of consumer fraud involves the illegally obtaining a target's information (e.g., records and identification) and using it to purchase goods and services. One identity theft survey item was included to determine whether respondents had been targeted in this way:

10. "Has anyone ever tried to steal your personal information so they could use it to get a credit card or loan?"

If the respondent answered "yes" to any of these items, a variety of follow-up questions were asked. Interviewers determined whether the fraud attempt (or most recent attempt if multiple attempts were reported) took place within the year leading up to the interview, one or two years prior to the interview, or more than two years before the study. Because of memory decay, data from two time periods are assessed separately – (1) up to one year prior to the survey; and, (2) up to two years prior to the survey. If respondents reported that their targeting took place during these time periods, they are considered a "target" (1 = yes, 0 = no). Finally, if the respondent indicated that she/he had been targeted during either the one or two year time period, the interviewer administered questions that were used to determine whether the fraud attempt was successful (e.g., "How much money did you pay for the repairs?"). Fraud victims are coded 1 (0 = no). Prevalence estimates are provided for all ten types of consumer fraud targeting and victimization. In the multivariate analysis, however, the fraud targeting and victimization outcomes reflect whether a respondent responded in the affirmative to any one of the ten items. Both the targeting and victimization measures are binary coded in the multivariate analysis.

#### Financial Mistreatment

The section of the survey that featured the financial mistreatment items began with the following introduction:

People sometimes illegally use other people's money or property for their own benefit. The individuals doing these things could be close to you, like a family member or friend, or someone you don't know very well.

Three items that reflect financial mistreatment were included in the survey. Prior research has employed similar items (see, e.g., Acierno, Hernandez, Amstadter, Resnick, Steve, Muzzy, & Kilpatrick, 2010; Laumann, Leitsch, & Waite, 2008). Much like the consumer fraud items, follow-up questions were asked to respondents who answered in the affirmative to any of the three financial exploitation items.

- 1. "Has anyone ever spent your money or sold something of yours without your permission?" (*spent money or sold something*)
- 2. "Has anyone ever forged your signature without your permission in order to sell your things or to get money from your accounts?" (*forged signature*)
- 3. Has anyone ever stolen your money or taken things for themselves, for their friends, or to sell?" (*stolen money or property*)

Self-reports of financial mistreatment are assessed for two different observation periods: (1) the year prior to the study; and, (2) two years prior to the study. All three of the financial exploitation items feature a dichotomous response set (1 = yes, 0 = no). The multivariate analysis will employ an outcome measure where every respondent who answered "yes" one or more of the three survey items is considered a victim of financial exploitation (coded as 1).

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<sup>&</sup>lt;sup>1</sup> One of the reviewers of the proposal recommended that we include both financial mistreatment and physical mistreatment measures in the survey. Items similar to Acierno et al. (2010) were included in the survey. Results for the physical mistreatment items are presented in Appendix A.

## Reporting Victimization and Mistreatment

The section of the survey that asked about consumer fraud victimization and financial mistreatment contained two items that asked whether self-reported victims had reported this experience to authorities. The first item read, "Was the incident reported to the police?" Victims of consumer fraud and financial mistreatment were also asked whether the incident was "reported to other authorities." In the section dealing with consumer fraud, two examples (the Better Business Bureau and a government agency) of "other authorities" were included in the wording of the survey item. For financial mistreatment, the provided example of an "other" authority was "social services." These individual items featured a binary coded response set (1 = yes, 0 = no). For the multivariate analyses, the two reporting items ("police" and "other") are combined into a single variable that reflects whether victims reported their experience to either the police, other authorities, or both (1 = yes, 0 = no).

Two additional variables are introduced in the reporting section of the multivariate analysis. One variable, *monetary loss*, reflects the approximate amount of money (in dollars) the victim lost. The original distribution of scores was widely dispersed. As such, scores were adjusted using the square root transformation. The second variable, stranger assailant, reflects instances where the perpetrator of financial mistreatment was an unfamiliar person to the victim (1 = yes, 0 = no).

## Program Familiarity

All survey respondents were queried on their familiarity with existing programs that are designed to help prevent senior citizens from becoming victims of consumer fraud. Floridian respondents were asked, "How familiar are you with Florida's Seniors vs. Crime program?" Floridians were also asked about their state's Senior Sleuths program. The survey for Arizona

residents asked about the Agency on Aging and the Senior Sleuths program. The same closed-ended response set, which ranged from "not familiar" (coded as 1) to "somewhat familiar" (coded as 2), to "very familiar" (coded as 3), was used for these survey items.

## Remote Purchasing

Respondents were queried about the different modes of remote purchasing in the year leading up to the study. Following the lead of prior researchers (see Holtfreter, Reisig, & Pratt, 2008), participants were asked whether they had done any of the following: (1) purchased something in response to a telemarketing call from a company with whom they have NOT previously done business (telemarketing purchase); (2) purchased something from an Internet web site (online purchase); (3) placed an order for a product by phone, Internet or mail after seeing a television advertisement or infomercial (infomercial purchase); (4) placed an order for a product by phone, Internet or mail after receiving an offer in the mail from a company with whom they have NOT previously done business (mail-order purchase); and (5) placed an order for a phone, Internet or mail after receiving an email offer from a company with whom they have NOT previously done business (email-order purchase). Affirmative responses were coded as 1 (0 = otherwise). Next, scores for the five items were summed to create the remote purchasing routines scale. The scale is coded so that higher scores reflect a greater variety of remote purchasing activity during the year leading up to the study. The analyses presented below also assess the impact of individual forms of remote purchasing.

#### Routine Activities

This summated scale was constructed using social activity items from the Second Longitudinal Study on Aging wave 3 survivor survey (Center for Disease Control & Prevention, 2002, p. 18). The items reflect how involved respondents self-reported to be in a number of activities during the past year.

- 1. "Participated in social activities away from home?" (outside-home activities)
- 2. "Got together socially with people who DO NOT live with you, such as friends, neighbors, and relatives?" (social get-togethers)
- 3. "Went shopping at grocery, drug, hardware, department or convenience stores?" (*street-side shopping*)
- 4. "Went to a movie, restaurant, club meeting, or other group event?" (entertainment)
- 5. "Exercised and/or participated in leisure sports?" (*leisure sports*)

Each item featured a four-point, closed-ended response set that ranged from "never" (coded 1) to "frequently" (coded 4). This scaled exhibits an adequate level of internal consistency (Cronbach's alpha = 0.632; mean inter-item correlation = 0.262). When entered into a principal components analysis, the five items load on a single latent component (Eigenvalue = 2.103; % of variance = 42.056; loadings > 0.400).

## Low Self-Control

Self-control reflects the ability to regulate one's behavior. For example, people with self-control are effectively able to exercise impulse control and delay gratification (Gottfredson & Hirschi, 1990). Respondents were administered attitudinal self-control items (Tangney, Baumeister, & Boone, 2004).

- 1. "I do certain things that are bad for me, if they are fun."
- 2. "I often act without thinking through all the alternatives."

The closed-ended response sets were anchored from strongly disagree (coded 1) and strongly agree (coded 4). The correlation coefficient for the two self-control survey items is 0.229 (p < 0.001).

# Demographic Variables

Several different demographic variables are included in the current study. Age is the respondent's age in years. Five dummy variables are included: Married (1 = yes, 0 = otherwise); male (1 = yes, 0 = no);  $racial\ minority$  (1 = yes; includes African-Americans, American Indians and Native Alaskan, Asians, Native Hawaiian and Other Pacific Islander and "other" racial minorities) and Hispanic (1 = yes) (non-Hispanic whites are coded as 0 and serve as the reference group); and retired (1 = yes, 0 = otherwise). Finally, education is an ordered categorical variable: less than high school (coded 1), high school graduate (coded 2), some college/technical or vocational school (coded 3), college graduate (coded 4), and graduate/professional school (coded 5).

## **Statistical Procedures**

A variety of univariate, bivariate, and multivariate analyses that reflect the research goals and objectives will be conducted. The descriptive analyses will focus primarily on nature and extent of consumer fraud victimization and related outcomes among seniors in Arizona and Florida. Here, univariate statistics, such as frequencies, will be used to express the prevalence of different forms of consumer fraud targeting, fraud victimization, financial mistreatment, and

provide information relating to state programs designed to prevent consumer fraud and assist victims (e.g., familiarity and contact).

The distribution of consumer fraud-related outcomes will also be assessed across social groups. These bivariate analyses will provide evidence as to whether socio-demographic characteristics, such as age, gender, and education, are linked to consumer fraud outcomes. At this stage in the analysis, cross-tabulations (or contingency tables) will be calculated. The chi-square test will be used to determine whether any observed differences in the outcomes of interest between groups are statistically significant. Different measures of association (e.g., phi and Cramer's V) will be used to describe the magnitudes of observed relationships (see Miller & Whitehead, 1996, pp. 355-373). Cross-tabulations will also be used in situations when the research objective is to understand the relationship between two variables but features of the data do not allow the reliable estimation of multivariate statistical models.

Multivariate statistical models will be used to evaluate high-order relationships. Put differently, multiple regression procedures will be used to estimate the relationship between two key variables while taking into account the effects of other variables, thus helping to control for spuriousness. Because fraud targeting, fraud victimization, and financial exploitation are binary response variables (coded 0, 1), logistic regression is used (see Menard, 2002). These analyses will provide reliable estimates on the factors that amplify or diminish the odds of fraud targeting, fraud victimization, and financial mistreatment.

Multivariate modeling techniques will also be used to understand the factors associated with Arizona respondents' familiarity with the Agency on Aging and Floridian participants' familiarity with the Seniors vs. Crime program. These analyses will identify which demographic characteristics are associated with program familiarity. The nature of the program familiarity

variables (i.e., ordered-categorical and positive skew) necessitates the use of the ordinal regression model (see Long, 1997).

Finally, in various analyses we estimate multivariate models that make use of nonrandom subsamples (e.g., victims). This can prove problematic when membership in the subsample is not independent from the dependent variable. When this is the case, selection bias becomes a possibility. This statistical problem is commonly dealt with by using two-step modeling techniques (see, e.g., Berk, 1983). Because the outcome measures (e.g., fraud victimization and calling the police) are binary response variables (coded 0, 1), the probit regression model with selection (or "heckprob") is used. This feature is available in STATA 9.0 (College Station, TX) (see Miranda & Rabe-Hasketh, 2006).

#### **FINDINGS**

## **Sample Characteristics**

Table 3 presents the characteristics for the merged sample (i.e., Arizona and Florida combined). A majority of the sample is comprised of women (63.7%, n = 1273) and approximately one-third are men (36.3%, n = 726). The ages of those included in the sample ranges from 60 to 99 years (average = 72.5 years). Most respondents are married (58.0%, n = 1148), 22.6% (n = 448) are widowed, 14.8% (n = 294) divorced, 1.1% (n = 22) separated, and 3.5% (n = 69) have never been married. With respect to racial composition, a majority of the sample is White (91.9%, n = 1792). However, the sample contains members from several racial minority groups: Black/African American (3.5%, n = 69), American Indian or Alaska Native (1.4%, n = 28), Asian (0.5%, n = 9), Native Hawaiian or Pacific Islander (0.2%, n = 3), and 1.0% (n = 20) self-identified as "Other." While interviewers were trained to not list any ethnic groups as an option when asking respondents about their race, 1.4% (n = 28) of participants self-

identified their racial category as Hispanic or Latino. Participants were also asked a separate question about ethnic background. Information from these two survey items show that 3.2% (n = 62) of the sample is of Hispanic or Latino ethnic origin.

As would be expected, most participants are retired (73.3%, n = 1453) but 12.4% (n = 14245) are working full-time, 9.6% (n = 191) working part-time, and 3.4% (n = 68) unemployed. Some respondents self-identified as being "homemakers" when asked about their employment status (1.2%, n = 24). On the whole, the sample is relatively well educated: 27.2% are college graduates (n = 536), 28.6% have some college education (n = 565), and 17.7% have graduated high school (or received an equivalent degree) (n = 350). Additionally, 13.1% of respondents have a graduate or professional degree (n = 258), and 2.4% attended a technical or vocational school (n = 48). A small portion of the sample only completed a portion of high school (9.5%, n = 48). = 188) or received some grade school education (1.4%, n = 28). With respect to living conditions, a majority of respondents self-identify as living in a house (77.2%, n = 1526). Some respondents live in condominiums (8.2%, n = 162), mobile homes (7.3%, n = 144), apartments (3.0%, n = 60), and duplexes (1.4%, n = 27). A small portion of the sample report residing in some type of supervised living facility, such as a retirement home (1.2%, n = 24), an assisted living facility (0.3%, n = 6), a nursing or rest home (0.1%, n = 2), and supervised apartment (0.1%, n = 1).

Table 3
Sample Characteristics

Variable	Categories or Range	N	% or Mean
State	Arizona	1000	50.0
	Florida	1000	50.0
Gender	Female	1273	63.7
	Male	726	36.3
Age (mean)	Min = 60 $Max = 99$	1891	72.5
Marital Status	Married	1148	58.0
	Widowed	448	22.6
	Divorced	294	14.8
	Separated	22	1.1
	Never married	69	3.5
Race	White	1792	91.9
	Black/African American	69	3.5
	American Indian/Alaska Native	28	1.4
	Asian	9	0.5
	Native Hawaiian/Pacific Islander	3	0.2
	Other	20	1.0
	Hispanic/Latino	28	1.4
Ethnicity (Hispanic/Latino)	No	1933	96.8
	Yes	63	3.2
Employment Status	Working full-time	245	12.4
	Working part-time	191	9.6
	Retired	1453	73.3
	Unemployed	68	3.4
	Homemaker	24	1.2
Education	Some grade school	28	1.4
	Some high school	188	9.5
	High school graduate/equivalent	350	17.7
	Technical/vocational school	48	2.4
	Some college	565	28.6
	College graduate	536	27.2
	Graduate/professional school	258	13.1
Living conditions	House	1526	77.2
	Condominium	162	8.2
	Apartment	60	3.0
	Duplex	27	1.4
	Mobile home	144	7.3
	Retirement home	24	1.2
	Supervised apartment	1	0.1
	Assisted living facility Nursing/rest home	6 2	0.3 0.1
	Other	24	1.2
Number of people in household	Min = 1	1944	1.86
(mean)	Max = 10	17 <del>44</del>	1.00
Children living at home	No	1791	90.0
candida avaig at nome	Yes	199	10.0
Respondent lives alone	No	1302	67.0

Note. Percentages may not sum to 100 because of rounding.

## The Nature and Prevalence of Consumer Fraud Targeting and Victimization

Fraud Targeting and Victimization

We begin with an examination of fraud targeting and victimization prevalence estimates (see Table 4). The discussion focuses primarily on the one-year observation period. Table 4 reveals that nearly six out of every 10 respondents were targeted by a fraud attempt during the year prior to the study (59.8%; or 1066 of the 1784 respondents for whom data are available). Therefore, fraud targeting is more common in this sample of elderly people compared to samples of adults 18 years of age and older where prevalence estimates have been shown to range from 15% to 31% (Anderson, 2004; Holtfreter et al., 2008; Titus et al., 1995). The results also demonstrate that 13.6% of the sample was a fraud victim during the past year (or 211 of the 1553 respondents for whom data are available). This result is similar to fraud victimization prevalence estimates observed in national samples of adults (Anderson, 2004; Titus et al., 1995). Another way to examine the data is to consider the prevalence of fraud victimization among only those individuals that were targeted by fraud attempts (not reported in Table 4). The data indicate that the prevalence of fraud victimization among the targeted subsample is 25.3%. While the same pattern of results is observed during the two-year observation period, not surprisingly the prevalence of fraud targeting and victimization is higher during this period. With the prevalence of fraud targeting and victimization among this sample established, the following sections explore the specific types of fraud.

Table 4

Prevalence of Fraud Targeting and Victimization

		Past year		Past 2 years	
		N	%	N	%
Fraud targeting	Yes	1066	59.8	1225	67.4
	No	718	40.2	593	32.6
Fraud victimization	Yes	211	13.6	301	19.1
	No	1342	86.4	1273	80.9

## Shopping/Purchasing Fraud

The prevalence of shopping/purchasing fraud targeting is provided for two time periods (i.e., 1 and 2 years) in Table 5. The discussion will focus primarily on the results for the one-year observation period. Of the three specific types of shopping/purchasing fraud targeting, the most common is having someone attempt to sell a phony subscription to a magazine or something else. Approximately 10% of the sample (or 189 of the 1875 respondents for whom data are available) report this fraud-related experience in the year leading up to the study. Less common are instances where someone tried to sell participants something that did not work as claimed (8.7%) and someone trying to get respondents to pay for unnecessary repairs (5.3%). Finally, it is worth noting that this general pattern of targeting frequency is also observed at the two-year time period.

Table 5

Prevalence of Shopping/Purchasing Fraud Targeting

		Past year		Past 2	years
		N	%	N	%
Unnecessary or never performed repairs	Yes	104	5.3	156	8.0
	No	1857	94.7	1805	92.0
Product or service did not work	Yes	168	8.7	216	11.2
	No	1764	91.3	1716	88.8
Phony subscription	Yes	189	10.1	251	13.4
	No	1686	89.9	1624	86.6

The distributions for the initial modes of contact for the three types of shopping/purchasing fraud targeting are presented in Table 6. Note that the same mode of contact—the telephone—was most prevalent for all three types (33% for unnecessary repairs, 30% for product that did not work, and 27.7% for phony subscription). Regarding unnecessary repairs, a sizable portion of participants report that they were also targeted after having someone come to their home (presumably a repair technician of some type) (17.7%). Mail advertisements were most frequently a mode of targeting for attempting to sell products or services that did not work as reported (17.5%). Not surprisingly, respondents also reported that having someone come to their home was a common way of trying to cajole them to pay for a phony subscription (24.5%).

Table 6

Mode of Contact for Shopping/Purchasing Fraud Targeting

	Past year		Past 2	2 years
	N	%	N	%
Unnecessary or never performed repairs				
Web site	2	2.1	2	1.4
Email	1	1.0	1	0.7
TV ad or infomercial	0	0.0	0	0.0
Mail advertisement	6	6.3	9	6.3
Telephone	33	34.4	46	31.9
Store visited	10	10.4	22	15.3
Someone came to home	17	17.7	28	19.4
Radio advertisement	0	0.0	0	0.0
Poster or flier	0	0.0	3	2.1
Magazine/newspaper ad	0	0.0	0	0.0
A bill received	0	0.0	0	0.0
Other	27	28.1	33	22.9
Product or service did not work				
Web site	19	11.9	22	10.6
Email	14	8.8	16	7.7
TV ad or infomercial	16	10.0	23	11.1
Mail advertisement	28	17.5	36	17.4
Telephone	48	30.0	66	31.9
Store visited	5	3.1	5	2.4
Someone came to home	6	3.8	6	2.9
Radio advertisement	2	1.3	2	1.4
Poster or flier	1	0.6	2	1.0
Magazine/newspaper ad	5	3.1	7	3.4
A bill received	0	0.0	0	0.0
Other	16	10.0	21	10.1
Phony subscription				
Web site	6	3.3	7	2.9
Email	14	7.6	16	6.6
TV ad or infomercial	0	0.0	0	0.0
Mail advertisement	42	22.8	50	20.5
Telephone	51	27.7	65	26.6
Store visited	1	0.5	2	0.8
Someone came to home	45	24.5	73	29.9
Radio advertisement	0	0.0	0	0.0
Poster or flier	0	0.0	1	0.4
Magazine/newspaper ad	2	1.1	2	0.8
A bill received	2	1.1	2	0.8
Other	21	11.4	26	10.7

Two interesting patterns emerge in the results regarding reporting fraud targeting to authorities featured in Table 7. First, law enforcement officials are rarely made aware of instances of shopping/purchasing fraud targeting. Participants most frequently called the police when they were targeted for phony subscription fraud (7.5%; or 14 of 187 targeted respondents for whom data are available), followed by repair fraud (4.9%; or 5 of 103 targeted respondents), and product/service that did not work (3.0%; or 5 of 168 targeted respondents). The second interesting feature is that survey respondents appear to be more willing to contact other authorities, such as the Better Business Bureau or a government agency.

Table 7

Reporting of Shopping/Purchasing Fraud Targeting to Authorities

		Past	t year	Past 2 years	
		N	%	N	%
Unnecessary or never performed repairs					
Reported to police	Yes	5	4.9	10	6.5
	No	98	95.1	145	93.5
Reported to other authorities	Yes	9	8.8	17	11.2
	No	93	91.2	135	88.8
Product or service did not work					
Reported to police	Yes	5	3.0	7	3.2
	No	163	97.0	209	96.8
Reported to other authorities	Yes	11	6.6	18	8.4
	No	156	93.4	197	91.6
Phony subscription					
Reported to police	Yes	14	7.5	19	7.6
	No	173	92.5	230	92.4
Reported to other authorities	Yes	14	7.6	20	8.1
	No	171	92.4	227	91.9

The prevalence of shopping/purchasing fraud victimization is provided in Table 8. Two findings require discussion. First, the most common form of shopping/purchasing fraud involves paying for a product or service that does not work as promised. This form of victimization was reported by 3.5% of the sample (or 68 of the 1932 respondents for whom data are available). A smaller percentage of the sample reported repair fraud victimization (1.2%; or 23 of 1960 respondents) and phony subscription fraud (1.1%; or 21 of 1875 respondents). Second, the relative frequencies of consumer fraud victimization are consistent across the two observation periods. The median dollar loss for each type of fraud victimization (1 year time period) is as follows: \$225 for repair fraud, \$67 for product/service fraud, and \$30 for phony subscription fraud.

Table 8

Prevalence of Shopping/Purchasing Fraud Victimization

	_	Past year		Past 2 years	
		N	%	N	%
Unnecessary or never performed repairs	Yes	23	1.2	40	2.0
	No	1937	98.8	1920	98.0
Product or service did not work	Yes	68	3.5	92	4.8
	No	1864	96.5	1840	95.2
Phony subscription	Yes	21	1.1	33	1.8
	No	1854	98.9	1842	98.2

Another way to use the victimization data is to consider the percentage of those targeted for the different forms of shopping/purchasing fraud that ultimately became victims. Those who were exposed to opportunities to purchase products/services that did not perform as advertised were most likely to be victimized (40.5%; or 68 of 168 targeted respondents for whom data are available), followed by unnecessary or never performed repairs (22.1%; or 23 of 104 targeted respondents), and phony subscription (11.1%; or 21 of 189 targeted respondents).

In Table 9, the reporting data for shopping/purchasing fraud victimization are presented. Once again, it is clear that reporting incidents involving fraud-related matters to authorities is not the norm. However, differences between the types of shopping/purchasing fraud are observed. Respondents who reported being the victims of phony subscription fraud were most likely to report their victimization to the police (15%; or 3 of 20 victims for whom data are available). Individuals on the receiving end of unnecessary repairs or those who paid for repairs that were never performed most frequently reported their incidence to other authorities, such as the Better Business Bureau (19%; or 4 of 21 victims). With but one exception (i.e., phony subscription fraud at the one year time period), the results show that survey respondents more frequently contacted authorities other than the police to report their victimization.

Table 9

Reporting of Shopping/Purchasing Fraud Victimization to Authorities

	_	Past year		Past 2 years	
		N	%	N	%
Unnecessary or never performed repairs					
Reported to police	Yes	2	9.5	4	10.0
	No	19	90.5	36	90.0
Reported to other authorities	Yes	4	19.0	9	22.5
	No	17	81.0	31	77.5
Product or service did not work					
Reported to police	Yes	1	1.5	3	3.3
	No	67	98.5	89	96.7
Reported to other authorities	Yes	3	4.5	8	8.8
	No	64	95.5	83	91.2
Phony subscription					
Reported to police	Yes	3	15.0	3	9.4
	No	17	85.0	29	90.6
Reported to other authorities	Yes	3	14.3	4	12.1
1	No	18	85.7	29	87.9

#### Financial Fraud

Table 10 features the prevalence of financial fraud targeting for one and two year periods. Having someone attempt to trick an individual into providing personal financial information was the most common type of financial fraud targeting. More than 16% of the sample (or 319 of the 1944 respondents for whom data are available) reported being targeted in this way during the year prior to the study. Fewer participants have experienced someone trying to trick them into giving money to improve their financial situation (10.8%; or 212 of 1970 respondents) or trying to get them to invest in a phony business opportunity such as a work-at-home scam (8.8%; or 173 of 1969 respondents). Importantly, this pattern of results is mirrored during the two-year observation period.

Table 10

Prevalence of Financial Fraud Targeting

	_	Past year		Past 2	years
		N	%	N	%
Pay to improve finances	Yes	212	10.8	255	12.9
	No	1758	89.2	1715	87.1
Phony business opportunity	Yes	173	8.8	217	11.0
	No	1796	91.2	1752	89.0
Trick to get financial information	Yes	319	16.4	413	21.2
	No	1625	83.6	1531	78.8

Table 11 features the distributions of each mode of contact used to target the respondents for the three types of financial fraud. Telephone was the mode of contact used most often to attempt to get participants to pay money to improve their financial situations (44.2%) and trick them into providing financial information (42.8%). With respect to improving finances, approximately

one-quarter of the targeted sample was contacted via email, 15% by mail advertisements, and 10% by web sites. Contact by way of email (30.4%) and web sites (17.6%) were also relatively common for attempts to get participants to provide personal financial information to unknown individuals. Regarding phony business opportunities, email (32.7%), telephone (29.8), and web sites (23.4%) were the most prevalent modes of targeting. Overall, respondents were targeted by would-be financial fraudsters most often through telephone, email, and web sites. It is worth noting that this general pattern of mode of contact was also observed for the two-year time period.

Information on how frequently instances of financial fraud targeting were reported to authorities is provided in Table 12. Similar to the pattern of results observed for shopping/purchasing fraud (see Table 7), an overwhelming majority of respondents who were targeted for financial fraud did not report the offenses to the police. Notably, individuals who had someone try to trick them into providing financial information were the most likely to report the fraud attempt to law enforcement (13.5%; or 43 of 318 targeted respondents for whom data are available). Of the participants who had someone attempt to get them to pay money to improve their finances, approximately 9% informed the police about the fraud attempt (or 20 of 212 targeted respondents). Reporting to law enforcement was least common in instances where someone attempted to get respondents to invest in a phony business venture (7.6%; or 13 of the 172 targeted respondents). Other authorities, such as the Better Business Bureau or a government agency, were more likely to be made aware of all three types of financial fraud targeting. In fact, more than 22% of the sample (or 70 of the 314 targeted respondents) who had someone attempt to obtain their financial information reported that they contacted other authorities.

Table 11

Mode of Contact for Financial Fraud Targeting

	Past	year	Past 2	years
	N	%	N	%
Pay to improve finances				
Web site	20	9.6	22	8.8
Email	51	24.5	55	22.0
TV ad or infomercial	2	1.0	5	2.0
Mail advertisement	32	15.4	36	14.4
Telephone	92	44.2	114	45.6
Store visited	0	0.0	0	0.0
Someone came to home	1	0.5	3	1.2
Radio advertisement	1	0.5	1	0.4
Poster or flier	1	0.5	2	0.8
Magazine/newspaper ad	0	0.0	1	0.4
A bill received	0	0.0	0	0.0
Other	8	3.8	11	4.4
Phony business opportunity				
Web site	40	23.4	48	22.5
Email	56	32.7	65	30.5
TV ad or infomercial	1	0.6	1	0.5
Mail advertisement	6	3.5	14	6.6
Telephone	51	29.8	60	28.2
Store visited	0	0.0	0	0.0
Someone came to home	3	1.8	5	2.3
Radio advertisement	2	1.2	2	0.9
Poster or flier	2	1.2	2	0.9
Magazine/newspaper ad	1	0.6	2	0.9
A bill received	0	0.0	0	0.0
Other	9	5.3	14	6.6
Trick to get financial information				
Web site	55	17.6	65	16.3
Email	95	30.4	114	28.5
TV ad or infomercial	3	1.0	3	0.8
Mail advertisement	10	3.2	13	3.3
Telephone	134	42.8	183	45.8
Store visited	2	0.6	3	0.8
Someone came to home	1	0.3	3	0.8
Radio advertisement	0	0.0	0	0.0
Poster or flier	1	0.3	1	0.3
Magazine/newspaper ad	1	0.3	1	0.3
A bill received	3	1.0	3	0.8
Other	8	2.6	11	2.8

Table 12

Reporting of Financial Fraud Targeting to Authorities

		Past year		Past 2 years	
		N	%	N	%
Pay to improve finances					
Reported to police	Yes	20	9.4	28	11.0
	No	192	90.6	226	89.0
Reported to other authorities	Yes	25	12.0	35	14.1
	No	183	88.0	214	85.9
Phony business opportunity					
Reported to police	Yes	13	7.6	15	7.0
1	No	159	92.4	200	93.0
Reported to other authorities	Yes	20	11.7	25	11.6
•	No	151	88.3	190	88.4
Trick to get financial information					
Reported to police	Yes	43	13.5	55	13.4
1	No	275	86.5	354	86.6
Reported to other authorities	Yes	70	22.3	93	22.9
1	No	244	77.7	314	77.1

Findings on the prevalence of financial fraud victimization among study participants are presented in Table 13. Several observations require discussion. First, all three types of financial fraud victimization are rare. Second, the most frequently reported form of financial fraud victimization was being tricked into giving one's personal financial information to an unknown person (0.8%; or 15 of the 1943 respondents for whom data are available). A smaller percentage of participates reported that they invested in a phony business opportunity (0.5%; or 9 of the 1968 respondents) or were tricked into paying money to improve their finances (0.4%; or 8 of the 1970 respondents). Finally, the median dollar loss was highest for investing in a phony business (\$6,248), followed by paying someone to improve finances (\$580). The lowest median

dollar loss was incurred by victims who were tricked into providing their financial information (\$38).

What percentage of respondents targeted for financial fraud were actually victimized? The data show that financial fraud targets were rarely victims. During the one-year observation period, people who were presented with the opportunity to invest in a phony business were most likely to be victimized (5.2%; or 9 of 173 targeted respondents for whom data are available), followed closely by being tricked into providing financial information (4.7%; or 15 of 319 targeted respondents), and paying to improve one's financial situation (3.8%; or 8 of 212 targeted respondents).

Table 13

Prevalence of Financial Fraud Victimization

		Past year		Past 2	years
		N	%	N	%
Pay to improve finances	Yes	8	0.4	11	0.6
	No	1962	99.6	1958	99.4
Phony business opportunity	Yes	9	0.5	10	0.5
	No	1959	99.5	1958	99.5
Trick to get financial information	Yes	15	0.8	22	1.1
	No	1928	99.2	1920	98.9

Reporting frequencies among victims of financial fraud are presented in Table 14. As was the case with financial fraud targeting, victims rarely notify the authorities about their experiences. At the same time, several observations emerge that require discussion. Of the three financial fraud offenses, the police were notified most frequently when participants were tricked into providing their financial information to someone (37.5%; or 3 of 8 victims for whom data

are available). With respect to investing in phony business opportunities, about 22% (or 2 of 9 victims) contacted law enforcement. Respondents who were tricked into providing their financial information to someone were least likely to contact the police (13.3%; or 2 of 15 victims). Interestingly, however, victims of this type of financial fraud were most likely to contact other authorities, such as the Better Business Bureau (42.9%; or 6 of 14 victims). Along these lines, the results show that survey respondents who paid to improve their finances or invested in sham businesses contacted the police and other authorities at relatively similar frequencies. However, respondents that were tricked into providing their financial information were more likely to contact authorities other than law enforcement.

Table 14

Reporting of Financial Fraud Victimization to Authorities

		Past year		Past 2 years	
		N	%	N	%
Pay to improve finances					
Reported to police	Yes	3	37.5	3	27.3
	No	5	62.5	8	72.7
Reported to other authorities	Yes	2	25.0	3	27.3
	No	6	75.0	8	72.7
Phony business opportunity					
Reported to police	Yes	2	22.2	2	20.0
	No	7	77.8	8	80.0
Reported to other authorities	Yes	2	22.2	2	20.0
	No	7	77.8	8	80.0
Trick to get financial information					
Reported to police	Yes	2	13.3	5	22.7
	No	13	86.7	17	77.3
Reported to other authorities	Yes	6	42.9	8	38.1
1	No	8	57.1	13	61.9

## Other Types of Consumer Fraud

Table 15 presents the prevalence of four additional types of consumer fraud targeting. The discussion of the findings will focus on the one-year observation period. Having someone attempt to get them to pay to claim a phony prize and contribute money to a phony charity or religious organization were the two most common types of consumer fraud targeting in Table 15. Approximately 24% (or 461 of the 1951 respondents for whom data are available) of the sample had an individual try to get them to pay money in order to claim a phony prize such as a vacation. Additionally, about 22% (or 386 of the 1781 respondents) of participants reported that someone tried to get them to contribute money to a phony charity or religious organization. Fewer respondents experienced an attempt to steal their personal information (7.3%; or 137 of 1881 respondents) or to pay money in advance to reduce mortgage payments (5.8%; or 115 of 1972 respondents). The same general pattern of results was observed for the two-year observation period.

Table 15

Prevalence of Other Types of Consumer Fraud Targeting

	_	Past year		Past 2	Past 2 years	
		N	%	N	%	
Phony charity or religious organization	Yes	386	21.7	458	25.7	
	No	1395	78.3	1323	74.3	
Pay to claim phony prize	Yes	461	23.6	556	28.5	
	No	1490	76.4	1395	71.5	
Reduce mortgage payments	Yes	115	5.8	130	6.6	
	No	1857	94.2	1842	93.4	
Steal personal information	Yes	137	7.3	201	10.7	
	No	1744	92.4	1680	89.3	

Table 16 features frequencies for the modes of contact used for each of the four types of consumer fraud. Survey respondents were contacted by would-be fraudsters most frequently by telephone during the year leading up to the study (59.2% for phony charity or religious organization, 36.3% for phony prize, 54.4% for reduce mortgage payments, and 35.2% for steal personal information). Mail advertisements were also used to target a large portion of the sample for fraud schemes involving a phony charity or religious organization (17.5%), paying to claim a phony prize (25.1%), and paying money in advance to reduce mortgage payments (20.2%). Given increased computer usage among the elderly in recent years, it is not surprising that approximately 24% of the sample were contacted via email by someone attempting to persuade them to pay money to claim a phony prize. With respect to having someone try to steal personal information to get a credit card or a loan, about 30% of the sample reported that they were contacted through some "other" method. The general pattern of results was consistent across the two observation periods.

Table 17 presents distributions for reporting each of the consumer fraud targeting types to authorities. Several observations are worth noting. First, consistent with the other forms of consumer fraud discussed previously, the authorities were rarely notified about these four types of fraud. Law enforcement was contacted most frequently by individuals who had a person attempt to steal their personal information (24.8%; or 30 of 121 targeted respondents for whom data are available). It appears that this type of consumer fraud attempt was viewed as more serious by respondents because they contacted the police at a much greater frequency than the other types of consumer fraud. In fact, only 6.6% of respondents who had someone try to persuade them to contribute money to a phony charity or religious organization, 5.9% of participants who experienced someone try to entice them into paying to claim a phony prize, and

3.5% of people who had an individual attempt to swindle them into paying money in advance to reduce their mortgage payments reported their experiences to the police. Survey respondents were more likely to contact other authorities, such as the Better Business Bureau, when someone tried to get them to pay money to claim a prize (9%) or reduce mortgage payments (9.6%). Additionally, even with people contacting law enforcement officials with relative frequency when someone attempts to steal their personal information, respondents were still more likely to contact other authorities (29.6%). However, elderly people are almost equally likely to notify the police and other authorities when someone tries to coax them into contributing to a phony charity (6.6% and 6.9%, respectively).

Table 18 provides the prevalence of the other types of consumer fraud victimization. The most common form of consumer fraud victimization involves having personal information stolen (2.7%; or 50 of the 1872 respondents for whom data are available). Fraud victimization resulting from contributing money to phony charities followed closely behind (2.6%; or 47 of the 1777 respondents). A relatively small percentage of survey respondents reported being a victim of paying money to claim a phony prize (0.5%; or 9 of the 1951 respondents) or reduce mortgage payments in advance (0.2%; or 3 of the 1972 respondents). This pattern of results is consistent across the two observation periods. The median dollar loss between each type of consumer fraud varies from \$20 (contributing to a phony charity or religious organization) to \$700 (paying to reduce mortgage payments). The median dollar loss associated with being a victim of a phony prize scam was \$219, and \$200 for victimization relating to having personal information stolen.

Table 16

Mode of Contact for Other Types of Consumer Fraud Targeting

	Past year		Past 2 years	
	N	%	N	%
Phony charity or religious organization				
Web site	17	4.5	19	4.3
Email	27	7.2	29	6.5
TV ad or infomercial	6	1.6	7	1.6
Mail advertisement	66	17.5	81	18.2
Telephone	223	59.2	262	58.7
Store visited	3	0.8	4	0.9
Someone came to home	19	5.0	25	5.6
Radio advertisement	0	0.0	0	0.0
Poster or flier	2	0.5	2	0.4
Magazine/newspaper ad	0	0.0	0	0.0
A bill received	1	0.3	1	0.2
Other	13	3.4	16	3.6
Pay to claim phony prize				
Web site	52	11.4	56	10.2
Email	108	23.7	125	22.8
TV ad or infomercial	4	0.9	4	0.7
Mail advertisement	114	25.1	146	26.6
Telephone	165	36.3	204	37.2
Store visited	0	0.0	1	0.2
Someone came to home	3	0.7	3	0.5
Radio advertisement	0	0.0	0	0.0
Poster or flier	1	0.2	1	0.2
Magazine/newspaper ad	1	0.2	1	0.2
A bill received	0	0.0	0	0.0
Other	7	1.5	8	1.5
Reduce mortgage payments				
Web site	10	8.8	13	10.2
Email	9	7.9	11	8.6
TV ad or infomercial	0	0.0	0	0.0
Mail advertisement	23	20.2	25	19.5
Telephone	62	54.4	68	53.1
Store visited	0	0.0	0	0.0
Someone came to home	2	1.8	2	1.6
Radio advertisement	0	0.0	0	0.0
Poster or flier	1	0.9	1	0.8
Magazine/newspaper ad	0	0.0	0	0.0
A bill received	0	0.0	0	0.0
Other	7	6.1	8	6.3
Steal personal information				
Web site	8	7.6	15	9.3
Email	7	6.7	11	6.8
TV ad or infomercial	0	0.0	0	0.0
Mail advertisement	7	6.7	9	5.6
Telephone	37	35.2	51	31.7
Store visited	2	1.9	4	2.5
Someone came to home	3	2.9	5	3.1
Radio advertisement	0	0.0	0	0.0
Poster or flier	1	1.0	1	0.6
Magazine/newspaper ad	2	1.9	2	1.2
A bill received	7	6.7	14	8.7
Other	31	29.5	49	30.4

Table 17

Reporting of Other Types of Consumer Fraud Targeting to Authorities

		Past year		Past 2 years	
		N	%	N	%
Phony charity or religious organization					
Reported to police	Yes	25	6.6	27	6.0
	No	353	93.4	421	94.0
Reported to other authorities	Yes	26	6.9	33	7.4
	No	350	93.1	413	92.6
Pay to claim a phony prize					
Reported to police	Yes	27	5.9	41	7.4
•	No	431	94.1	512	92.6
Reported to other authorities	Yes	41	9.0	55	10.0
	No	417	91.0	496	90.0
Reduce mortgage payments					
Reported to police	Yes	4	3.5	5	3.8
1 1	No	111	96.5	125	96.2
Reported to other authorities	Yes	11	9.6	11	8.5
	No	104	90.4	119	91.5
Steal personal information					
Reported to police	Yes	30	24.8	55	30.7
-	No	91	75.2	124	69.3
Reported to other authorities	Yes	34	29.6	57	33.3
•	No	81	70.4	114	66.7

Table 18

Prevalence of Other Types of Consumer Fraud Victimization

	_	Past year		Past 2	Past 2 years	
		N	%	N	%	
Phony charity or religious organization	Yes	47	2.6	59	3.3	
	No	1730	97.4	1717	96.7	
Pay to claim phony prize	Yes	9	0.5	11	0.6	
	No	1942	99.5	1940	99.4	
Reduce mortgage payments	Yes	3	0.2	3	0.2	
	No	1969	99.8	1972	99.8	
Steal personal information	Yes	50	2.7	78	4.2	
	No	1822	97.3	1791	95.8	

As for the percentage of targeted respondents who actually became consumer fraud victims, the highest percentage involved stolen personal information (36.5%; or 50 of 137 targeted respondents for data are available). Clearly, this offense is difficult to protect oneself against. The second most frequent type of victimization was contributing money to a phony charity or religious organization (12.2%; or 47 of 386 targeted respondents), followed by paying money in advance to reduce mortgage payments (2.6%; or 3 of 115 targeted respondents), and paying to claim a phony prize (0.9%; or 9 of 461 targeted respondents).

The distributions of reporting for the different type of consumer fraud victimization experiences are provided in Table 19. Four findings emerge. First, respondents who reported having their personal information stolen were most likely to report their victimization to the police (29.8%; or 14 of the 47 victims for whom data are available) and other authorities (35.4%; or 17 of the 48 victims). Second, a majority of the sample who was tricked into paying to claim a fake prize reported their victimization to other authorities (55.6%; or 5 of the 9 victims). One-third of victims of this type of consumer fraud notified the police. This same pattern of results is observed for survey respondents who reported paying money in advance to reduce their mortgages, with 33.3% informing the police (or 1 of the 3 victims) and 66.7% contacting other authorities (or 2 of the 3 victims). Finally, participants who were deceived into contributing money to a bogus charity or religious organization infrequently reported their victimization to the police (4.5%; or 2 of the 44 victims) or other authorities (6.7%; or 3 of the 45 victims).

Table 19

Reporting of Other Types of Consumer Fraud Victimization to Authorities

		Past	year	Past 2 years		
		N	%	N	%	
Phony charity or religious organization						
Reported to police	Yes	2	4.5	3	5.4	
-	No	42	95.5	53	94.6	
Reported to other authorities	Yes	3	6.7	5	8.8	
•	No	42	93.3	52	91.2	
Pay to claim a phony prize						
Reported to police	Yes	3	33.3	3	27.3	
•	No	6	66.7	8	72.7	
Reported to other authorities	Yes	5	55.6	5	45.5	
1	No	4	44.4	6	54.5	
Reduce mortgage payments						
Reported to police	Yes	1	33.3	1	33.3	
	No	2	66.7	2	66.7	
Reported to other authorities	Yes	2	66.7	2	66.7	
•	No	1	33.3	1	33.3	
Steal personal information						
Reported to police	Yes	14	29.8	30	41.1	
-	No	33	70.2	43	58.9	
Reported to other authorities	Yes	17	35.4	32	43.2	
•	No	31	64.6	42	56.8	

#### The Nature and Prevalence of Financial Mistreatment

#### Financial Mistreatment

The overall prevalence of financial mistreatment in the sample during the year leading up to the study was 5.6% (or 108 of the 1943 respondents for whom data are available). This finding is nearly identical to the prevalence of financial mistreatment observed by Acierno and colleagues' (2009) nationally representative sample of elderly people (5.2%). Not surprisingly, the prevalence of financial mistreatment for the two-year observation period was higher. During this period 8.4% of the sample reported being a victim of financial mistreatment (see Table 20).

Table 20

Prevalence of Financial Mistreatment

	_	Past year		Past 2	years
		N	%	N	%
Financial mistreatment	Yes No	108 1835	5.6 94.4	164 1781	8.4 91.6

# Specific Forms of Financial Mistreatment

The prevalence of the specific forms of financial mistreatment is presented in Table 21. The most common type of financial mistreatment experienced by the respondents during the year preceding the study was having someone steal their money or belongings (3.4%; or 68 of the 1978 respondents for whom data are available). The prevalence of this form of financial mistreatment also mirrors national estimates observed by Acierno et al. (2009). Fewer individuals reported that someone spent their money or sold property without their permission (2.2%; or 44 of 1976 respondents) or forged their signature (1.3%; or 26 of 1978 respondents). The prevalence of financial mistreatment in this sample is similar to that of shopping/purchasing fraud victimization (see, e.g., Table 8) and other forms of fraud victimization, such as having personal information stolen and contributing money to phony charities (see, e.g., Table 18). In terms of dollar loss, people who were victims of forged signatures had a median dollar loss of \$1,000. This was followed by a \$700 median dollar loss incurred by people who had someone spend their money or sell their property without permission, and a \$413 median dollar loss for individuals who had money or property stolen. When considering all three forms of financial mistreatment together, the median dollar loss was \$500 for the one-year time period (\$600 for the two-year period).

Table 21

Prevalence of Specific Forms of Financial Mistreatment

	_	Past year		Past 2 years	
		N	%	N	%
Spent money or sold something	Yes	44	2.2	59	3.0
	No	1932	97.8	1917	97.0
Forged signature	Yes	26	1.3	39	2.0
	No	1952	98.7	1939	98.0
Stole money or property	Yes	68	3.4	109	5.5
	No	1910	96.6	1869	94.5

Table 22 presents information on the victim-offender relationships for financial mistreatment. Several findings emerge. A larger percentage of respondents who had someone spend their money or sell something without their permission (42.9%; or 15 of the 35 victims) or forge their signature (50.0%; or 10 of the 20 victims) were victimized by a family member. Respondents' children were the most frequent culprits of these two types of financial mistreatment (20.0% for spent money or sold something, 30.0% for forged signature). A smaller portion of participants who had their money stolen or items taken were victimized by a relative (29.4%; or 15 of the 51 victims). Still, sons/daughters comprised the largest group under the family member heading for this type of financial mistreatment (17.6%; or 9 of the 51 victims). About one-quarter of respondents who experienced someone spend their money or sell something without their permission (25.7%; or 9 of the 35 victims), 30% (or 6 of the 20 victims) who had their signature forged, and 39.2% (or 20 of the 51 victims) who had their money stolen or things taken were victimized by a stranger. This same pattern of results was observed for the two-year observation period.

Table 22 Victim-Offender Relationship for Financial Mistreatment

	Pas	t year	Past 2	2 years
	N	%	N	%
Spent money or sold something				
Spouse or partner	4	11.4	5	10.2
Ex-spouse or partner	1	2.9	1	2.0
Son or daughter	7	20.0	10	20.4
Brother or sister	0	0.0	0	0.0
Niece/nephew	1	2.9	3	6.1
Cousin	0	0.0	0	0.0
Grandchild	0	0.0	0	0.0
Other relative	2	5.7	2	4.1
Friend	6	17.1	10	20.4
Neighbor	2	5.7	2	4.1
Stranger (no relation)	9	25.7	12	24.5
Employee	0	0.0	0	0.0
Other non-relative	3	8.6	4	8.2
Forged signature				
Spouse or partner	2	10.0	3	10.3
Ex-spouse or partner	0	0.0	0	0.0
Son or daughter	6	30.0	7	24.1
Brother or sister	1	5.0	1	3.4
Niece/nephew	0	0.0	0	0.0
Cousin	0	0.0	0	0.0
Grandchild	0	0.0	0	0.0
Other relative	1	5.0	2	6.9
Friend	2	10.0	2	6.9
Neighbor	0	0.0	0	0.0
Stranger (no relation)	6	30.0	9	31.0
Employee	0	0.0	0	0.0
Other non-relative	2	10.0	5	17.2
Stolen money or property				
Spouse or partner	1	2.0	2	2.4
Ex-spouse or partner	0	0.0	2	2.4
Son or daughter	9	17.6	12	14.5
Brother or sister	1	2.0	2	2.4
Niece/nephew	1	2.0	3	3.6
Cousin	1	2.0	2	2.4
Grandchild	1	2.0	1	1.2
Other relative	1	2.0	1	1.2
Friend	6	11.8	9	10.8
Neighbor	3	5.9	6	7.2
Stranger (no relation)	20	39.2	31	37.3
Employee	3	5.9	3	3.6
Other non-relative	4	7.8	9	10.8

Information on financial mistreatment reporting practices is provided in Table 23. About one-quarter of individuals (27%; or 10 of 37 victims) who indicated someone spent their money or sold their property without permission reported the offense to the police. A higher percentage of individuals who had their money or property stolen reported their victimization to law enforcement (40.4%; or 21 of the 52 victims). A similar percentage of respondents who had their signature forged notified the police (42.1%; or 8 of the 19 victims). The data show that victims of financial mistreatment are more likely to contact law enforcement agencies regarding their experience than other authorities such as social services.

Table 23

Reporting of Financial Mistreatment to Authorities

		Past	year	Past 2 years	
		N	%	N	%
Spent money or sold something					
Reported to police	Yes	10	27.0	14	28.0
Reported to other authorities	No Yes No	27 3 32	73.0 8.6 91.4	36 4 44	72.0 8.3 91.7
Forged signature					
Reported to police	Yes No	8 11	42.1 57.9	12 17	41.4 58.6
Reported to other authorities	Yes No	2 16	11.1 88.9	4 24	14.3 85.7
Stolen money or property					
Reported to police	Yes	21	40.4	38	44.7
Reported to other authorities	No Yes No	31 8 44	59.6 15.4 84.6	47 11 73	55.3 13.1 86.9

# Fraud Targeting and Victimization across Demographic Groups

Fraud Targeting across Demographic Groups

Table 24 features a series of cross-tabulations showing the distribution of fraud targeting across demographic characteristics. The analyses use data from the one-year observation period. Chi-square tests ( $\chi^2$ ) were estimated to determine whether fraud targeting varies significantly across groups. With respect to age, the results demonstrate that fraud targeting is least common among the oldest-old (i.e., 80 years and older). Less than half of the oldest-old respondents (49.6%) indicated that they had been targeted. However, 63% of the young-old and 62.2% of the old-old reported being targeted. Although significant, the strength of the relationship between age and fraud targeting is weak (Cramer's V = 0.11).

With regards to gender, males reported being targeted more frequently than females (65.4% versus 56.4%, respectively). However, the strength of this relationship is very modest (phi = 0.09). Retired individuals report being targeted less frequently than their counterparts (57.4% versus 66.7%, respectively). The association between fraud targeting and being retired is weak (phi = -0.08). About 69% of survey respondents with graduate-level education report being fraud targets during the year leading up to the study, making them the most targeted group with respect to educational attainment. In general, education is weakly associated with fraud targeting (Cramer's V = 0.11). No differences in fraud targeting were observed across racial and ethnic minorities.

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<sup>&</sup>lt;sup>2</sup> For this analysis the age variable was collapsed into a three-category variable, ranging from young-old, to old-old, to oldest-old. This classification scheme is consistent with prior gerontology research (Suzman, Willis, & Manton, 1992).

Table 24
Fraud Targeting by Demographics

	% Yes	(N)	% No	( <i>N</i> )	Chi-square
Age					
Young-old (60 to 72) Old-old (73 to 79) Oldest-old (80 and older)	63.0 62.2 49.6	(585) (258) (175)	37.0 37.8 50.4	(343) (157) (178)	20.37**
Gender					
Female Male	56.4 65.4	(633) (433)	43.6 34.6	(489) (229)	13.99**
Racial minority					
No Yes	59.4 64.9	(971) (72)	40.6 35.1	(663) (39)	1.28
Hispanic					
No Yes	59.8 62.5	(1024) (35)	40.2 37.5	(687) (21)	0.16
Retired					
No Yes	66.7 57.4	(311) (749)	33.3 42.6	(155) (555)	12.36**
Married					
No Yes	57.5 61.3	(424) (632)	42.5 38.7	(313) (399)	2.54
Education					
Less than high school High school graduate/equivalency Some college/vocational school College graduate Graduate school	58.2 50.8 58.9 63.9 68.9	(110) (159) (327) (311) (151)	41.8 49.2 41.1 36.1 31.1	(79) (154) (228) (176) (68)	21.90**

*Note.* Sample sizes are in parentheses. \* p < 0.05; \*\* p < 0.01.

Fraud Victimization across Demographic Groups (Full Sample)

A number of cross-tabulations depicting the distribution of fraud victimization across various demographic groups using the full sample are presented in Table 25. Statistically significant differences were observed across two demographic groups. First, racial minorities were more likely to report that they had been the victims of consumer fraud during the year leading up to the study. About 23% of racial minorities were fraud victims. However, the relationship between race and fraud victimization is weak (phi = 0.07). Second, retired individuals were less likely to report fraud victimization. Twelve-percent of retired participants reported being a fraud victim compared to 16.6% of their counterparts. The strength of the association between fraud victimization and being retired is weak (phi = -0.05). No differences in fraud victimization were observed across the other demographic characteristics (e.g., Hispanic and education) featured in Table 25.

Fraud Victimization across Demographic Groups (Targeted Subsample)

The distribution of fraud victimization can also be evaluated by looking at the subsample of study participants who reported being targeted. Table 26 features a series of cross-tabulations for the targeted subsample. The results reveal that age (Cramer's V = 0.10) and racial minority (phi = 0.09) are significantly associated with fraud victimization. With respect to age, the targeted individuals in young-old (i.e., 60 to 72 years) age group report less frequent victimization (21%) when compared to the older age groups (29% and 29.7%, respectively). Additionally, targeted racial minorities more frequently report victimization (38.6% versus 24.1%, respectively). No other significant differences in fraud victimization were observed.

Table 25
Fraud Victimization across Demographic Groups (Full Sample)

	% Yes	( <i>N</i> )	% No	( <i>N</i> )	Chi-square
Age					
Young-old (60 to 72)	12.0	(97)	88.0	(708)	3.34
Old-old (73 to 79)	16.0	(56)	84.0	(294)	
Oldest-old (80 and older)	13.0	(41)	87.0	(275)	
Gender					
Female	13.6	(135)	86.4	(860)	0.00
Male	13.6	(76)	86.4	(482)	
Racial minority					
No	12.9	(183)	87.1	(1240)	7.79**
Yes	22.9	(22)	77.1	(74)	
Hispanic					
No	13.5	(201)	86.5	(1287)	0.32
Yes	16.3	(8)	83.7	(41)	
Retired					
No	16.6	(69)	83.4	(347)	4.45*
Yes	12.4	(140)	87.6	(985)	
Married					
No	12.5	(80)	87.5	(558)	0.79
Yes	14.1	(127)	85.9	(773)	
Education					
Less than high school	16.6	(29)	83.4	(146)	2.97
High school graduate/equivalency	11.3	(31)	88.7	(244)	
Some college/vocational school	13.1	(63)	86.9	(419)	
College graduate	14.5	(61)	85.5	(361)	
Graduate school	13.4	(24)	86.6	(155)	

*Note.* Sample sizes are in parentheses. \* p < 0.05; \*\* p < 0.01.

Table 26
Fraud Victimization across Demographic Groups (Targeted Subsample)

		Fraud victimization			
	% Yes	( <i>N</i> )	% No	( <i>N</i> )	Chi-square
Age					
Young-old (60 to 72)	21.0	(97)	79.0	(365)	7.26*
Old-old (73 to 79)	29.0	(56)	71.0	(137)	
Oldest-old (80 and older)	29.7	(41)	70.3	(97)	
Gender					
Female	26.7	(135)	73.3	(371)	1.35
Male	23.1	(76)	76.9	(253)	
Racial minority					
No	24.1	(183)	75.9	(577)	5.95*
Yes	38.6	(22)	61.4	(35)	
Hispanic					
No	25.1	(201)	74.9	(600)	0.17
Yes	28.6	(8)	71.4	(20)	
Retired					
No	26.4	(69)	73.6	(192)	0.33
Yes	24.6	(140)	75.4	(430)	
Married					
No	24.6	(80)	75.4	(245)	0.06
Yes	25.3	(127)	74.7	(374)	
Education					
Less than high school	30.2	(29)	69.8	(67)	2.09
High school graduate/equivalency	25.6	(31)	74.4	(90)	
Some college/vocational school	24.8	(63)	75.2	(191)	
College graduate	24.8	(61)	75.2	(185)	
Graduate school	21.6	(24)	78.4	(87)	

*Note.* Sample sizes are in parentheses. \* p < 0.05; \*\* p < 0.01.

### Financial Mistreatment across Demographic Groups

Table 27 presents a series of cross-tabulations for the distribution of financial mistreatment across various demographic groups. This assessment focuses on the two-year observation period which provides more incidents of financial mistreatment to assess. The results demonstrate that significant differences exist for two demographic groups. Males were more likely than females to report being the victims of financial mistreatment during the past two

years (11.2% versus 6.9%, respectively). Consistent with pattern of findings observed for fraud victimization, racial minorities more frequently reported being the victims of financial mistreatment (14% versus 8%, respectively). It is important to note that the strength of the associations are weak (phi = 0.07 for gender, phi = 0.05 for racial minority).

Table 27

Financial Mistreatment by Demographics

		_			
	% Yes	(N)	% No	( <i>N</i> )	Chi-square
Age					
Young-old (60 to 72)	9.8	(98)	90.2	(903)	4.76
Old-old (73 to 79)	7.5	(34)	92.5	(421)	
Oldest-old (80 and older)	6.5	(25)	93.5	(360)	
Gender					
Female	6.9	(86)	93.1	(1159)	10.47**
Male	11.2	(78)	88.8	(621)	
Racial minority					
No	8.0	(143)	92.0	(1635)	5.30*
Yes	14.0	(17)	86.0	(104)	
Hispanic					
No	8.4	(156)	91.6	(1711)	1.85
Yes	13.3	(8)	86.7	(52)	
Retired					
No	10.1	(52)	89.9	(463)	2.42
Yes	7.9	(111)	92.1	(1300)	
Married					
No	9.4	(76)	90.6	(730)	1.49
Yes	7.9	(88)	92.1	(1032)	
Education					
Less than high school	11.3	(24)	88.7	(188)	4.97
High school graduate/equivalency	7.9	(27)	92.1	(314)	
Some college/vocational school	7.2	(43)	92.8	(554)	
College graduate	8.2	(43)	91.8	(480)	
Graduate school	10.5	(26)	89.5	(221)	

*Note.* Sample sizes are in parentheses. \* p < 0.05; \*\* p < 0.01.

# A Multivariate Assessment of Fraud Targeting

Table 28 features two logistic regression models that examine the predictors of fraud targeting (one-year observation period). In Model 1, fraud targeting is regressed on the remote purchasing, low self-control, and seven demographic variables. The Wald  $\chi^2$  is statistically significant at the 0.01 level, which indicates that the model accounts for more variation in fraud targeting than would be expected by chance alone. Consistent with expectations, the results reveal that remote purchasing is positively associated with fraud targeting as indicated by the statistically significant *z*-test. The odds ratio indicates that each additional form of remote purchasing used by respondents elevates their odds of being targeted by 44.4%. While participating in a greater variety of remote purchasing is associated with increased fraud targeting risk, the combined scale may obscure the effects that different forms of remote purchasing have on fraud targeting. In Model 2, the effects of specific forms of remote purchasing are examined. The results show that all five forms of remote purchasing increase the odds of being targeted. However, when evaluating the odds ratios, telemarketing purchase appears to stand apart from the rest. Respondents who purchased something in response to a telemarketing call from a company with whom they had not previously done business during the previous year increased their risk of becoming a fraud target by over 200% compared to those who had not made such purchases. In comparison, the odds of fraud targeting increased by 35.7% after making an online purchase and by 54.7% after buying items in response to email solicitations.

The regression models in Table 28 also assess whether low self-control is associated with fraud targeting. The findings from model 1 demonstrate that low self-control is positively associated with fraud targeting after controlling for remote purchasing and demographic

characteristics. Specifically, a one-unit increase in low self-control translates into a 16% increase in the odds of being a fraud target. The results suggest people with poor self-control engage in behaviors or activities beyond remote purchasing that increase the odds of fraud targeting. Future research should focus on identifying which behaviors are related to low self-control and increase fraud-targeting risk.

Two important findings also emerged with respect to the effect of demographic characteristics on fraud targeting. Both regression models show that males are more likely to be targets for fraud than females and higher levels of education increase fraud targeting risk. In Model 1, for example, the odds of fraud targeting are 31.2% higher for males. As for education, a one-unit increase in education corresponds with a 13.2% increase in the odds of fraud targeting.

In Tables 29 through 34, the different forms of fraud targeting are regressed on remote purchasing, low self-control, and the demographic variables. The results show that remote purchasing increases the odds of all forms of targeting (see Model 1 in each table). Participants who engage in a greater variety of remote purchasing increase their odds of being the targets of shopping fraud (odds ratio = 1.358), financial fraud (odds ratio = 1.420), charity scams (odds ratio = 1.169), prize notification fraud (odds ratio = 1.305), mortgage rescue fraud (odds ratio = 1.244), and identity theft (odds ratio = 1.261).

Table 28
Fraud Targeting Logistic Regression Models

	Fraud targeting							
		Model 1			Model 2			
	<i>b</i> (s.e.)	Odds ratio	z-test	<i>b</i> (s.e.)	Odds ratio	z-test		
Remote purchasing	0.368 (0.060)	1.444	6.14**					
Telemarketing purchase				1.110 (0.433)	3.034	2.56**		
Online purchase				0.306 (0.107)	1.357	2.86**		
Infomercial purchase				0.313 (0.129)	1.368	2.43*		
Mail-order purchase				0.405 (0.169)	1.500	2.40*		
Email-order purchase				0.436 (0.200)	1.547	2.18*		
Low self-control	0.150 (0.042)	1.162	3.59**	0.147 (0.042)	1.159	3.51**		
Age	-0.008 (0.007)	0.992	-1.30	-0.010 (0.007)	0.990	-1.45		
Male	0.271 (0.102)	1.312	2.67**	0.276 (0.102)	1.318	2.71**		
Racial minority	0.294 (0.198)	1.342	1.49	0.270 (0.200)	1.309	1.35		
Hispanic	0.405 (0.285)	1.500	1.42	0.389 (0.283)	1.476	1.37		
Education	0.124 (0.041)	1.132	3.03**	0.129 (0.042)	1.138	3.09**		
Retired	-0.214 (0.115)	0.807	-1.86	-0.209 (0.116)	0.811	-1.81		
Married	-0.019 (0.099)	0.981	-0.19	-0.011 (0.010)	0.989	-0.11		
Wald $\chi^2 =$		95.42**			95.61**			
N =		1958			1958			

Consistent with previous analyses (see Table 28), the effect of specific forms of remote purchasing are also assessed (see Model 2 in each table). Several findings emerge. The effect of telemarketing purchase appears limited to two types of targeting—shopping fraud and financial fraud. Respondents who placed an order for a product after seeing an infomercial also increased their odds of being targeted for shopping fraud. Participants who made online purchases had higher odds of targeting for financial fraud, charity scams, and prize notification fraud. The effect of placing an order after receiving an unsolicited email only increased the odds shopping fraud targeting. Finally, placing an order after receiving solicited mail increased the odds of various forms of targeting, including shopping fraud, financial fraud, charity scams, and prize notification fraud. Interestingly, none of the individual forms of remote purchasing increased the odds of being targeted for mortgage rescue fraud targeting and identity theft.

The models in Tables 29 through 34 show that the effect of low self-control varies. Poor self-control increases the odds of being targeted for shopping fraud, charity scams, and identity theft.

Several demographic variables are correlated with specific forms of targeting. Younger participants are more likely to report being targeted for financial fraud and prize notification fraud. Males were more often the targets of financial fraud, charity scams, and prize notification fraud. No consistent effects for racial minority were observed. Hispanic respondents were more likely to be targeted for shopping fraud. Higher levels of formal education were linked to financial fraud targeting and prize notification fraud targeting. Retired participants were less likely to be targeted for shopping fraud. Finally, married respondents were more likely to be the targets of mortgage rescue fraud.

Table 29
Shopping Fraud Targeting Logistic Regression Models

	Shopping fraud targeting							
		Model 1			Model 2			
	<i>b</i> (s.e.)	Odds ratio	z-test	<i>b</i> (s.e.)	Odds ratio	z-test		
Remote purchasing	0.326 (0.064)	1.385	5.10**					
Telemarketing purchase				0.754 (0.332)	2.126	2.27*		
Online purchase				0.199 (0.130)	1.220	1.53		
Infomercial purchase				0.321 (0.140)	1.378	2.30*		
Mail-order purchase				0.346 (0.174)	1.414	1.99*		
Email-order purchase				0.420 (0.199)	1.522	2.11*		
Low self-control	0.222 (0.052)	1.249	4.24**	0.218 (0.053)	1.243	4.15**		
Age	0.007 (0.008)	1.007	0.91	0.005 (0.008)	1.005	0.59		
Male	0.065 (0.119)	1.068	0.55	0.074 (0.120)	1.077	0.62		
Racial minority	0.409 (0.216)	1.505	1.89	0.361 (0.221)	1.434	1.63		
Hispanic	0.605 (0.283)	1.831	2.14*	0.584 (0.280)	1.793	2.08*		
Education	0.097 (0.051)	1.102	1.89	0.107 (0.052)	1.113	2.07**		
Retired	-0.294 (0.131)	0.745	-2.25*	-0.292 (0.132)	0.747	-2.21*		
Married	-0.076 (0.120)	0.927	-0.63	-0.063 (0.121)	0.939	-0.52		
Wald $\chi^2 =$		64.59**			68.18**			
N =		1954			1954			

Table 30
Financial Fraud Targeting Logistic Regression Models

	Financial fraud targeting							
		Model 1			Model 2			
	<i>b</i> (s.e.)	Odds ratio	z-test	<i>b</i> (s.e.)	Odds ratio	z-test		
Remote purchasing	0.350 (0.060)	1.420	5.88**					
Telemarketing purchase				0.692 (0.343)	1.997	2.02*		
Online purchase				0.418 (0.118)	1.519	3.55**		
Infomercial purchase				0.244 (0.134)	1.277	1.83		
Mail-order purchase				0.337 (0.168)	1.400	2.00*		
Email-order purchase				0.323 (0.188)	1.381	1.72		
Low self-control	0.034 (0.048)	1.035	0.70	0.034 (0.048)	1.035	0.71		
Age	-0.019 (0.008)	0.981	-2.45*	-0.018 (0.008)	0.982	-2.26*		
Male	0.428 (0.109)	1.534	3.92**	0.426 (0.110)	1.532	3.89**		
Racial minority	0.244 (0.212)	1.276	1.15	0.248 (0.216)	1.282	1.15		
Hispanic	0.252 (0.289)	1.287	0.87	0.260 (0.287)	1.297	0.91		
Education	0.118 (0.048)	1.126	2.47*	0.113 (0.049)	1.119	2.31*		
Retired	-0.214 (0.123)	0.807	-1.75	-0.202 (0.123)	0.817	-1.64		
Married	0.102 (0.112)	1.107	0.90	0.095 (0.113)	1.099	0.84		
Wald $\chi^2 =$		89.95**			91.99**			
<i>N</i> =		1955			1955			

Table 31

Charity Scam Targeting Logistic Regression Models

			Charity s	scam targeting
		Model 1		Model 2
	<i>b</i> (s.e.)	Odds ratio	z-test	b Odds z-test (s.e.) ratio
Remote purchasing	0.157 (0.063)	1.169	2.47*	
Telemarketing purchase				0.198 1.219 0.53 (0.377)
Online purchase				0.253 1.288 2.05* (0.123)
Infomercial purchase				-0.056 0.945 -0.39 (0.146)
Mail-order purchase				0.502 1.652 2.96** (0.170)
Email-order purchase				-0.115 0.891 -0.54 (0.214)
Low self-control	0.100 (0.051)	1.106	1.98*	0.101 1.107 1.99* (0.051)
Age	0.005 (0.007)	1.005	0.65	0.005 1.005 0.64 (0.008)
Male	0.256 (0.116)	1.292	2.22*	0.254 1.289 2.19* (0.116)
Racial minority	0.386 (0.214)	1.471	1.80	0.422 1.525 1.95 (0.216)
Hispanic	-0.517 (0.362)	0.596	-1.43	-0.496
Education	0.054 (0.049)	1.055	1.10	0.040 1.041 0.80 (0.050)
Retired	-0.089 (0.130)	0.915	-0.59	-0.076 0.927 -0.58 (0.130)
Married	-0.078 (0.117)	0.925	-0.67	-0.085 0.918 -0.72 (0.118)
Wald $\chi^2 =$		27.29**		35.10**
N =		1954		1954

Table 32

Prize Notification Fraud Targeting Logistic Regression Models

		Priz	e notificati	on fraud targ	geting	
		Model 1			Model 2	
	<i>b</i> (s.e.)	Odds ratio	z-test	<i>b</i> (s.e.)	Odds ratio	z-test
Remote purchasing	0.266 (0.061)	1.305	4.35**			
Telemarketing purchase				0.408 (0.344)	1.504	1.19
Online purchase				0.278 (0.121)	1.320	2.30*
Infomercial purchase				0.208 (0.139)	1.232	1.50
Mail-order purchase				0.452 (0.169)	1.571	2.67**
Email-order purchase				0.083 (0.200)	1.086	0.41
Low self-control	0.094 (0.048)	1.099	1.95	0.094 (0.048)	1.098	1.93
Age	-0.021 (0.008)	0.979	-2.73**	-0.022 (0.008)	0.978	-2.75**
Male	0.343 (0.112)	1.409	3.05**	0.344 (0.113)	1.410	3.05**
Racial minority	0.131 (0.214)	1.141	0.61	0.133 (0.215)	1.142	0.62
Hispanic	-0.081 (0.318)	0.922	-0.25	-0.080 (0.318)	0.924	-0.25
Education	0.118 (0.049)	1.126	2.43*	0.115 (0.049)	1.122	2.33*
Retired	-0.127 (0.126)	0.881	-1.01	-0.123 (0.127)	0.885	-0.97
Married	-0.127 (0.115)	0.880	-1.11	-0.127 (0.115)	0.880	-1.10
Wald $\chi^2 =$		60.73**			62.92**	
<i>N</i> =		1960			1960	

Table 33

Mortgage Rescue Fraud Targeting Logistic Regression Models

		Mor	tgage resc	ue fraud targe	eting	
		Model 1			Model 2	
	<i>b</i> (s.e.)	Odds ratio	z-test	<i>b</i> (s.e.)	Odds ratio	z-test
Remote purchasing	0.218 (0.105)	1.244	2.08*			
Telemarketing purchase				0.355 (0.543)	1.427	0.65
Online purchase				0.254 (0.218)	1.289	1.17
Infomercial purchase				0.151 (0.242)	1.163	0.62
Mail-order purchase				0.440 (0.277)	1.553	1.59
Email-order purchase				-0.053 (0.356)	0.984	-0.15
Low self-control	0.062 (0.085)	1.064	0.72	0.063 (0.085)	1.066	0.74
Age	-0.016 (0.014)	0.984	-1.13	-0.016 (0.014)	0.984	-1.14
Male	0.314 (0.202)	1.370	1.56	0.314 (0.202)	1.368	1.55
Racial minority	0.548 (0.337)	1.730	1.63	0.561 (0.337)	1.753	1.66
Hispanic	0.437 (0.486)	1.548	0.90	0.443 (0.490)	1.557	0.90
Education	0.015 (0.087)	1.015	0.18	0.010 (0.088)	1.010	0.12
Retired	-0.278 (0.209)	0.757	-1.33	-0.272 (0.211)	0.761	-1.29
Married	0.483 (0.219)	1.621	2.21*	0.482 (0.219)	1.620	2.20*
Wald $\chi^2 =$		24.37**			24.74*	
N =		1961			1961	

Table 34 *Identity Theft Targeting Logistic Regression Models* 

			Identity tl	neft targeting	5	
		Model 1			Model 2	
	<i>b</i> (s.e.)	Odds ratio	z-test	<i>b</i> (s.e.)	Odds ratio	z-test
Remote purchasing	0.232 (0.099)	1.261	2.35*			
Telemarketing purchase				-0.760 (0.696)	0.468	-1.09
Online purchase				0.352 (0.193)	1.422	1.82
Infomercial purchase				0.248 (0.202)	1.282	1.23
Mail-order purchase				-0.019 (0.282)	0.981	-0.07
Email-order purchase				0.474 (0.285)	1.607	1.66
Low self-control	0.225 (0.073)	1.253	3.10**	0.231 (0.073)	1.260	3.15**
Age	-0.011 (0.012)	0.990	-0.89	-0.007 (0.012)	0.993	-0.59
Male	0.231 (0.180)	1.259	1.28	0.214 (0.181)	1.238	1.18
Racial minority	0.529 (0.304)	1.698	1.74	0.606 (0.308)	1.834	1.97*
Hispanic	0.490 (0.417)	1.632	1.18	0.521 (0.419)	1.684	1.24
Education	0.051 (0.081)	1.052	0.63	0.046 (0.082)	1.047	0.56
Retired	0.302 (0.217)	1.352	1.39	0.290 (0.218)	1.337	1.33
Married	0.047 (0.182)	1.048	0.26	0.035 (0.184)	1.035	0.19
Wald $\chi^2 =$		26.78**			30.98**	
N =		1956			1956	

# A Multivariate Assessment of Fraud Victimization (Full Sample)

Table 35 presents the fraud victimization regression models estimated using the full sample. The results in Model 1 show that remote purchasing is positively associated with fraud victimization. The odds ratio indicates each additional form of remote purchasing used by respondents increases the odds of fraud victimization by 64.6%. To determine whether the five individual modes of remote shopping influence consumer fraud victimization differently, Model 2 includes the different types of remote purchasing as independent variables. The results indicate that four forms of remote purchasing—telemarketing purchase (odds ratio = 2.921), infomercial purchase (odds ratio = 1.983), mail order purchase (odds ratio = 1.500), and email-order purchase (odds ratio = 1.742)—significantly increase the odds of victimization. The impact of telemarketing purchase is noteworthy. Making a purchase after receiving a telephone solicitation from a company with whom they have not previously done business during the past year increased the odds of fraud victimization by 192%.

The effect of low self-control on fraud victimization is also assessed in Table 35. The results show that low self-control is positively associated with consumer fraud victimization. In Model 1, for example, a one-unit increase in the low self-control scale is associated with a 26.3% increase in the odds of fraud victimization.

The findings also reveal that two demographic characteristics—age and racial minority—are positively associated with fraud victimization. Both regression models show older people and racial minorities are at greater risk for consumer fraud victimization. In Model 1, for example, a one-year increase in age corresponds with a 2.3% increase in the odds of fraud victimization. Racial minorities are 83.5% more likely to become victims of fraud compared to non-Hispanic whites.

Table 35
Fraud Victimization Logistic Regression Models (Full Sample)

			Fraud vi	ctimization				
		Model 1			Model 2			
	<i>b</i> (s.e.)	Odds ratio	z-test	<i>b</i> (s.e.)	Odds ratio	z-test		
Remote purchasing	0.498 (0.074)	1.646	6.69**					
Telemarketing purchase				1.072 (0.363)	2.921	2.95**		
Online purchase				0.228 (0.159)	1.256	1.43		
Infomercial purchase				0.685 (0.157)	1.983	4.36**		
Mail-order purchase				0.405 (0.201)	1.500	2.02*		
Email-order purchase				0.555 (0.226)	1.742	2.45*		
Low self-control	0.234 (0.063)	1.263	3.71**	0.229 (0.063)	1.257	3.63**		
Age	0.022 (0.009)	1.023	2.46*	0.018 (0.009)	1.019	1.98*		
Male	-0.040 (0.146)	0.961	-0.28	-0.023 (0.147)	0.977	-0.16		
Racial minority	0.607 (0.240)	1.835	2.53*	0.505 (0.252)	1.657	2.00*		
Hispanic	0.453 (0.373)	1.574	1.22	0.401 (0.364)	1.494	1.10		
Education	-0.042 (0.062)	0.959	-0.67	-0.016 (0.062)	0.984	-0.26		
Retired	-0.245 (0.159)	0.783	-1.54	-0.256 (0.161)	0.775	-1.58		
Married	0.208 (0.146)	1.232	1.43	0.239 (0.147)	1.270	1.62		
Wald $\chi^2 =$		70.32**			78.09**			
N =		1952			1952			

The analyses in Tables 36 through 39 assess the effects of remote purchasing, low self-control, and the demographics variables on four different forms of fraud victimization using the full sample. Sufficient data were not available to estimate regression models for mortgage rescue fraud and prize notification fraud victimization. To begin, remote purchasing is significantly associated with each form of fraud victimization. Specifically, each form of remote purchasing participants engage in increases the odds of shopping fraud victimization by 66.5%, financial fraud victimization by 139.7%, charity scams by 45.4%, and identity theft by 75.4%.

The regression models featuring the specific modes of remote purchasing scale show that the impact of telemarketing purchase is largely restricted to financial fraud victimization; however, the increased risk of this type of victimization is substantial. Individuals who made a telemarketing purchase with a company they had not previously done business with during the past year increased their odds of financial fraud victimization by 613.7%. The risk of shopping fraud victimization was elevated among respondents who purchased products after viewing infomercials (odds ratio = 2.111) and receiving mail solicitations from companies they have not previously done business with (odds ratio = 2.189). Finally, risk of identity theft was elevated when respondents made purchases resulting from unsolicited email (odds ratio = 3.512).

Low self-control is related to two specific types of fraud victimization. Each unit increase in the low self-control scale corresponds to 36% increase in the odds of shopping fraud victimization. Those with poor self-control are also at greater risk for identity theft.

With respect to the demographic characteristics, older individuals in the sample are at increased risk of becoming victims of shopping fraud and charity scams. Males are less likely than females to become victims of shopping fraud, but males are more likely to be identity theft victims. Respondents who reported that they are retired had lower odds of being victims of shopping fraud. Finally, the odds of charity scam victimization were 246.9% higher among racial minorities relative to non-Hispanic whites (see Model 1 in Table 38).

Table 36
Shopping Fraud Victimization Logistic Regression Models (Full Sample)

		Sh	nopping frau	ud victimizat	tion	
		Model 1			Model 2	
	<i>b</i> (s.e.)	Odds ratio	z-test	<i>b</i> (s.e.)	Odds ratio	z-test
Remote purchasing	0.510 (0.102)	1.665	4.98**			
Telemarketing purchase				0.833 (0.470)	2.301	1.77
Online purchase				0.253 (0.246)	1.288	1.03
Infomercial purchase				0.747 (0.221)	2.111	3.38**
Mail-order purchase				0.783 (0.263)	2.189	2.98**
Email-order purchase				0.029 (0.351)	1.029	0.08
Low self-control	0.309 (0.089)	1.362	3.46**	0.313 (0.090)	1.368	3.49**
Age	0.031 (0.013)	1.031	2.34*	0.025 (0.014)	1.025	1.84
Male	-0.449 (0.223)	0.638	-2.01*	-0.433 (0.225)	0.649	-1.92
Racial minority	0.467 (0.365)	1.595	1.28	0.392 (0.388)	1.480	1.01
Hispanic	0.518 (0.529)	1.679	0.98	0.471 (0.510)	1.602	0.92
Education	-0.021 (0.085)	0.979	-0.25	0.000 (0.082)	1.000	0.00
Retired	-0.629 (0.219)	0.533	-2.87**	-0.653 (0.222)	0.521	-2.95**
Married	0.413 (0.222)	1.512	1.86	0.444 (0.224)	1.558	1.98*
Wald $\chi^2 =$		66.54**			73.51**	
<i>N</i> =		1956			1956	

Table 37
Financial Fraud Victimization Logistic Regression Models (Full Sample)

		Fii	nancial frau	ıd victimizat	ion	
		Model 1			Model 2	
	<i>b</i> (s.e.)	Odds ratio	z-test	<i>b</i> (s.e.)	Odds ratio	z-test
Remote purchasing	0.874 (0.172)	2.397	5.08**			
Telemarketing purchase				1.965 (0.648)	7.137	3.03**
Online purchase				0.714 (0.436)	2.042	1.64
Infomercial purchase				0.705 (0.435)	2.024	1.62
Mail-order purchase				0.795 (0.526)	2.214	1.51
Email-order purchase				0.861 (0.554)	2.365	1.55
Low self-control	0.266 (0.213)	1.305	1.25	0.269 (0.219)	1.309	1.23
Age	0.028 (0.025)	1.028	1.00	0.026 (0.028)	1.026	0.90
Male	-0.396 (0.415)	0.673	-0.95	-0.394 (0.418)	0.674	-0.94
Racial minority	0.658 (0.613)	1.931	1.07	0.420 (0.700)	1.521	0.60
Hispanic	0.266 (1.134)	1.305	0.23	0.246 (1.045)	1.280	0.24
Education	-0.118 (0.186)	0.889	-0.63	-0.105 (0.184)	0.900	-0.57
Retired	-0.163 (0.453)	0.850	-0.36	-0.088 (0.485)	0.915	-0.18
Married	0.185 (0.426)	1.203	0.43	0.216 (0.427)	1.242	0.51
Wald $\chi^2 =$		38.35**			39.64**	
N =		1960			1960	

Table 38

Charity Scam Victimization Logistic Regression Models (Full Sample)

		C	harity scar	n victimizati	on	
		Model 1			Model 2	
	<i>b</i> (s.e.)	Odds ratio	z-test	<i>b</i> (s.e.)	Odds ratio	z-test
Remote purchasing	0.375 (0.143)	1.454	2.61*			
Telemarketing purchase				0.836 (0.641)	2.307	1.30
Online purchase				-0.280 (0.341)	0.756	-0.82
Infomercial purchase				0.622 (0.336)	1.863	1.85
Mail-order purchase				0.548 (0.396)	1.729	1.38
Email-order purchase				0.481 (0.489)	1.618	0.98
Low self-control	0.220 (0.129)	1.246	1.70	0.206 (0.128)	1.229	1.61
Age	0.045 (0.017)	1.046	2.69**	0.036 (0.017)	1.037	2.18*
Male	-0.085 (0.338)	0.919	-0.25	-0.039 (0.341)	0.961	-0.12
Racial minority	1.244 (0.379)	3.469	3.28**	1.098 (0.385)	2.999	2.85**
Hispanic	-0.517 (1.087)	0.596	-0.48	-0.553 (1.043)	0.575	-0.53
Education	-0.224 (0.145)	0.800	-1.55	-0.180 (0.141)	0.835	-1.28
Retired	-0.114 (0.375)	0.892	-0.30	-0.129 (0.385)	0.879	-0.33
Married	-0.459 (0.297)	0.632	-1.55	-0.398 (0.296)	0.672	-1.35
Wald $\chi^2 =$		46.04**			48.90**	
N =		1957			1957	

Table 39 *Identity Theft Victimization Logistic Regression Models (Full Sample)* 

		Id	dentity thef	t victimizati	on		
		Model 1			Model 2		
	<i>b</i> (s.e.)	Odds ratio	z-test	<i>b</i> (s.e.)	Odds ratio	z-test	
Remote purchasing	0.562 (0.138)	1.754	4.06**				
Telemarketing purchase				0.009 (0.726)	1.009	0.01	
Online purchase				0.242 (0.328)	1.273	0.74	
Infomercial purchase				0.475 (0.302)	1.608	1.57	
Mail-order purchase				0.437 (0.366)	1.549	1.19	
Email-order purchase				1.256 (0.370)	3.512	3.40**	
Low self-control	0.266 (0.120)	1.304	2.22*	0.247 (0.122)	1.280	2.03*	
Age	0.005 (0.016)	1.005	0.30	0.002 (0.017)	1.002	0.12	
Male	0.642 (0.290)	1.901	2.21*	0.653 (0.289)	1.920	2.25*	
Racial minority	0.322 (0.495)	1.380	0.65	0.334 (0.506)	1.396	0.66	
Hispanic	0.181 (0.738)	1.198	0.25	0.169 (0.722)	1.184	0.23	
Education	-0.038 (0.131)	0.962	-0.29	-0.021 (0.131)	0.979	-0.16	
Retired	0.063 (0.323)	1.065	0.20	0.029 (0.321)	1.030	0.09	
Married	-0.008 (0.285)	0.992	-0.03	0.027 (0.288)	1.028	0.09	
Wald $\chi^2 =$		37.60**			46.61**		
N =		1958			1958		

#### A Multivariate Assessment of Fraud Victimization (Targeted Subsample)

The victimization models are also estimated using data from a subsample of respondents who reported being targeted by fraudsters during the year before the interview. Results from the logistics regression analysis shows that remote purchasing is significantly associated with fraud victimization. According to the odds ratio, each form of remote purchasing that targeted respondents practices amplifies the odds of fraud victimization by 48.7% (see Model 1 in Table 40). Model 2 shows that two specific types of remote purchasing influence whether targeted respondents are victimized—telemarketing purchase (odds ratio = 2.146) and infomercial purchase (odds ratio = 1.293). These two associations were also observed in the model using the full sample (see Model 2 in Table 35). However, in Table 40 the effects of mail-order and email-order purchases on fraud victimization fail to achieve statistical significance.

The models in Table 40 also show that low self-control is associated with fraud victimization among targeted respondents. The odds ratio indicates that a one-unit increase in the low self-control scale corresponds with a 19% increase in odds of consumer fraud victimization (see Model 1). Once targeted, participants with poor self-control are less likely to resist temptation and consider the long-term consequences of their actions.

Only one demographic variable is related to fraud victimization across models in the targeted subsample. Specifically, older participants are at greater risk for fraud victimization (odds ratio = 1.033). The age effect was also observed in the analysis using the full sample. The lack of consistency in the effect of the other demographic variable (i.e., racial minority) across model specifications suggests it is not terribly robust.

Table 40
Fraud Victimization Logistic Regression Models (Targeted Subsample)

			Fraud vi	ctimization		
		Model 1			Model 2	
	<i>b</i> (s.e.)	Odds ratio	z-test	<i>b</i> (s.e.)	Odds Ratio	z-test
Remote purchasing	0.397 (0.079)	1.487	5.01**			
Telemarketing purchase				0.763 (0.378)	2.146	2.02*
Online purchase				0.144 (0.171)	1.154	0.84
Infomercial purchase				0.626 (0.167)	1.870	3.75**
Mail-order purchase				0.257 (0.208)	1.293	1.23
Email-order purchase				0.448 (0.237)	1.566	1.89
Low self-control	0.177 (0.063)	1.193	2.82**	0.173 (0.063)	1.189	2.74**
Age	0.033 (0.010)	1.033	3.36**	0.029 (0.010)	1.029	2.85*
Male	-0.167 (0.153)	0.846	-1.09	-0.153 (0.154)	0.858	-0.99
Racial minority	0.558 (0.252)	1.746	2.22*	0.463 (0.262)	1.588	1.77
Hispanic	0.358 (0.383)	1.430	0.93	0.291 (0.378)	1.338	0.77
Education	-0.125 (0.064)	0.882	-1.96	-0.097 (0.064)	0.907	-1.51
Retired	-0.198 (0.167)	0.820	-1.18	-0.204 (0.168)	0.816	-1.21
Married	0.221 (0.153)	1.248	1.45	0.247 (0.155)	1.281	1.60
Wald $\chi^2 =$		47.22**			52.29**	
N =		1141			1141	

The four specific types of consumer fraud victimization—shopping, financial, charity scam, and identity theft—are regressed on remote purchasing, low self-control, and the demographic variables using the targeted subsample in Tables 41 through 44. The results show that remote purchasing is positively linked with shopping fraud, financial fraud, and identity theft victimization. Put differently, each additional form of remote purchasing that targeted respondents engaged in resulted in a 45% increase in the odds of shopping fraud victimization, 199% increase in the odds of financial fraud victimization, and a 60.1% increase in the odds of identity theft. The findings from the targeted sample differ from the model using the full sample (see Table 38) in that remote purchasing does not increase the odds of charity scam victimization among the former.

When the different modes of remote purchasing are assessed separately, we find that the effect of telemarketing purchase on financial victimization is quite pronounced. Targeted participants who have purchased good after an unsolicited telephone call from a company they had not previously done business with increased their odds of financial fraud victimization by 443%. Buying products from companies that one has not previously done business with after viewing infomercials or receiving mail solicitations increases the odds of shopping fraud victimization (odds ratios = 1.944 and 1.916, respectively). Finally, email-order purchase is associated with identity theft victimization (odds ratio = 3.309).

The effect of low self-control is only significant in the shopping fraud victimization model. Among the targeted subsample, a one-unit increase in the low self-control scale is associated with a 29% increase in the odds of being victimized by shopping fraud.

In terms of demographic correlates, age increases the odds of shopping fraud and charity scam victimization. Males are less likely than females to be victims of shopping fraud. Finally, racial minorities are significantly more likely to be victims of charity scams than non-Hispanic whites.

Table 41
Shopping Fraud Victimization Logistic Regression Models (Targeted Subsample)

		Sh	opping frau	ıd victimizat	ion	
		Model 1			Model 2	
	<i>b</i> (s.e.)	Odds ratio	z-test	<i>b</i> (s.e.)	Odds ratio	z-test
Remote purchasing	0.403 (0.105)	1.450	3.84**			
Telemarketing purchase				0.523 (0.460)	1.678	1.14
Online purchase				0.196 (0.255)	1.216	0.77
Infomercial purchase				0.665 (0.226)	1.944	2.94**
Mail-order purchase				0.650 (0.266)	1.916	2.94**
Email-order purchase				-0.111 (0.353)	0.895	-0.31
Low self-control	0.257 (0.087)	1.293	2.95**	0.270 (0.088)	1.310	3.05**
Age	0.039 (0.014)	1.039	2.86**	0.033 (0.014)	1.033	2.31*
Male	-0.557 (0.225)	0.573	-2.47*	-0.549 (0.228)	0.577	-2.40*
Racial minority	0.385 (0.374)	1.470	1.03	0.336 (0.394)	1.400	0.85
Hispanic	0.509 (0.529)	1.663	0.96	0.447 (0.513)	1.563	0.87
Education	-0.091 (0.084)	0.913	-1.07	-0.066 (0.081)	0.936	-0.81
Retired	-0.605 (0.227)	0.546	-2.66**	-0.633 (0.227)	0.531	-2.79**
Married	0.409 (0.225)	1.505	1.82	0.402 (0.227)	1.495	1.77
Wald $\chi^2 =$		49.12**			54.73**	
N =		1143			1143	

Table 42
Financial Fraud Victimization Logistic Regression Models (Targeted Subsample)

		Fir	nancial frau	ıd victimizat	ion	
		Model 1			Model 2	
	<i>b</i> (s.e.)	Odds ratio	z-test	<i>b</i> (s.e.)	Odds ratio	z-test
Remote purchasing	0.785 (0.180)	2.191	4.37**			
Telemarketing purchase				1.692 (0.643)	5.432	2.63**
Online purchase				0.680 (0.449)	1.974	1.51
Infomercial purchase				0.607 (0.433)	1.834	1.40
Mail-order purchase				0.705 (0.509)	2.025	1.39
Email-order purchase				0.776 (0.550)	2.173	1.41
Low self-control	0.210 (0.204)	1.233	1.03	0.211 (0.212)	1.235	1.00
Age	0.037 (0.027)	1.038	1.38	0.035 (0.028)	1.035	1.23
Male	-0.456 (0.417)	0.634	-1.09	-0.453 (0.419)	0.636	-1.08
Racial minority	0.588 (0.614)	1.801	0.96	0.383 (0.693)	1.467	0.55
Hispanic	0.221 (1.119)	1.247	0.20	0.132 (1.008)	1.141	0.13
Education	-0.194 (0.181)	0.824	-1.07	-0.174 (0.178)	0.840	-0.98
Retired	-0.117 (0.443)	0.890	-0.26	-0.051 (0.470)	0.950	-0.11
Married	0.162 (0.412)	1.176	0.39	0.189 (0.425)	1.208	0.44
Wald $\chi^2 =$		28.51**			32.23**	
N =		1146			1146	

Table 43

Charity Scam Victimization Logistic Regression Models (Targeted Subsample)

	Charity scam victimization								
	Model 1			Model 2					
	<i>b</i> (s.e.)	Odds ratio	z-test	<i>b</i> (s.e.)	Odds ratio	z-test			
Remote purchasing	0.277 (0.150)	1.320	1.85						
Telemarketing purchase				0.518 (0.633)	1.678	0.82			
Online purchase				-0.348 (0.349)	0.706	-1.00			
Infomercial purchase				0.544 (0.341)	1.723	1.60			
Mail-order purchase				0.487 (0.389)	1.627	1.25			
Email-order purchase				0.334 (0.491)	1.396	0.68			
Low self-control	0.159 (0.121)	1.172	1.32	0.148 (0.119)	1.160	1.25			
Age	0.055 (0.017)	1.057	3.29**	0.045 (0.017)	1.046	2.65**			
Male	-0.179 (0.341)	0.836	-0.53	-0.139 (0.344)	0.870	-0.41			
Racial minority	1.181 (0.394)	3.257	2.99**	1.053 (0.401)	2.867	2.62**			
Hispanic	-0.680 (1.062)	0.507	-0.64	-0.800 (1.033)	0.450	-0.77			
Education	-0.309 (0.141)	0.734	-2.20*	-0.258 (0.138)	0.772	-1.87			
Retired	-0.024 (0.382)	0.977	-0.06	-0.054 (0.390)	0.947	-0.14			
Married	-0.522 (0.294)	0.593	-1.78	-0.485 (0.298)	0.615	-1.63			
Wald $\chi^2 =$		40.18**			42.98**				
N =		1144			1144				

Table 44 *Identity Theft Victimization Logistic Regression Models (Targeted Subsample)* 

	Identity theft victimization								
	Model 1			Model 2					
	<i>b</i> (s.e.)	Odds ratio	z-test	<i>b</i> (s.e.)	Odds ratio	z-test			
Remote purchasing	0.471 (0.143)	1.601	3.30**						
Telemarketing purchase				-0.190 (0.701)	0.827	-0.27			
Online purchase				0.130 (0.343)	1.139	0.38			
Infomercial purchase				0.389 (0.304)	1.476	1.28			
Mail-order purchase				0.368 (0.359)	1.445	1.03			
Email-order purchase				1.197 (0.366)	3.309	3.27**			
Low self-control	0.202 (0.118)	1.224	1.72	0.178 (0.121)	1.195	1.47			
Age	0.013 (0.017)	1.013	0.79	0.010 (0.018)	1.010	0.55			
Male	0.520 (0.295)	1.681	1.76	0.533 (0.293)	1.705	1.82			
Racial minority	0.298 (0.487)	1.347	0.61	0.337 (0.494)	1.400	0.68			
Hispanic	0.071 (0.747)	1.073	0.09	0.004 (0.723)	1.004	0.01			
Education	-0.096 (0.131)	0.909	-0.73	-0.080 (0.132)	0.923	-0.60			
Retired	0.174 (0.331)	1.191	0.53	0.157 (0.328)	1.171	0.48			
Married	-0.037 (0.291)	0.963	-0.13	0.037 (0.291)	1.037	0.13			
Wald $\chi^2 =$		21.86**			29.90**				
N =		1143			1143				

Assessing Possible Selection Bias

Before proceeding further, it is necessary to assess the robustness of the estimates that were observed using the targeted subsample (see, e.g., Table 40). As noted previously, statistical problems can arise when inclusion in a subsample (e.g., being targeted for consumer fraud) is not independent from the dependent variable (e.g., fraud victimization). When this happens, the possibility that the observed regression estimates are misleading (termed selection bias) is possible. The two-stage probit regression presented in Table 45 was designed to deal with such a situation.

The selection equation is featured on the left-hand side of the table. Here, fraud targeting is regressed onto the same set of variables that were used in prior fraud targeting models (see Table 28) and three additional variables (i.e., military service, law violation, and prior fraud targeting). The latter three variables (termed "exclusionary restrictions") are included because each is correlated with fraud targeting at the 0.05 level. These same three variables, however, are not related to the fraud victimization. This satisfies a statistical requirement of this particular regression technique.

Importantly, the likelihood ratio test fails to achieve statistical significance, meaning that the regression estimates are not adversely influenced by selection bias. Put another way, the estimates for fraud victimization reported in Table 45 should closely mirror the effects of Model 1 in Table 40 in terms of sign (i.e., positive or negative) and significance. A quick inspection indicates that this is indeed the case. More specifically, both models indicate that the effects of remote purchasing, low self-control, and age on fraud victimization are positive and statistically significant. In sum, the results presented in Table 45 increase our confidence that the analyses using the targeted subsample do not suffer from selection bias.

Table 45
Fraud Victimization Probit Regression with Sample Selection

	Fraud ta	argeting	Fraud victimization		
	<i>b</i> (s.e.)	z-test	<i>b</i> (s.e.)	z-test	
Remote purchasing	0.104 (0.043)	2.39*	0.251 (0.048)	5.20**	
Low self-control	0.057 (0.031)	1.86	0.102 (0.037)	2.78**	
Age	0.001 (0.005)	0.16	0.020 (0.006)	3.33**	
Male	-0.269 (0.101)	-2.67**	-0.103 (0.091)	-1.13	
Racial minority	0.216 (0.144)	1.50	0.343 (0.162)	2.12*	
Hispanic	0.191 (0.189)	1.02	0.248 (0.219)	1.13	
Education	0.032 (0.029)	1.08	-0.060 (0.037)	-1.61	
Retired	-0.135 (0.082)	-1.65	-0.124 (0.099)	-1.25	
Married	0.058 (0.072)	0.81	0.129 (0.091)	1.42	
Military service	0.226 (0.109)	2.07*			
Law violation	0.068 (0.025)	2.75**			
Prior fraud targeting	0.340 (0.017)	19.98**			
N =	19	29	11	29	
Wald $\chi^2 =$		51.7	7**		
Likelihood Ratio $\chi^2$ =		0.4	47		

#### A Multivariate Assessment of Financial Mistreatment

Table 46 features two logistic regression models where financial mistreatment (two-year observation period) as the outcome measure. In Model 1, financial mistreatment is regressed on the routine activity scale, low self-control scale, and seven demographic variables. The model has more explanatory power than would be expected by chance alone (Wald  $\chi^2 = 47.41$ , p < 0.01). The results show that the routine activity scale is inversely related to financial mistreatment. According to the odds ratio, each unit increase in the routine activity scale corresponds to a 7.3% decrease in the odds of experiencing financial mistreatment for the participants in the study. In short, an active life characterized by high levels of routine activities appears to act as a protective factor against financial mistreatment. In Model 2 the 5-item routine activity scale is disaggregated into its component parts. Doing so allows us to determine whether any of the specific routines influence financial mistreatment. The results reveal that none of the individual routine activities are significantly associated with financial mistreatment.

The regression models in Table 46 also show that low self-control is significantly associated with financial mistreatment. The odds of being a financial mistreatment victim increase by 30% for each unit increase in the low self-control scale. These findings suggest that individuals with poor self-control place themselves in situations and behave in ways that increase the risk for financial mistreatment. Future research should focus on identifying these particular situations and behaviors related to variations in self-control that amplify the odds of financial mistreatment.

Finally, two demographic effects are observed. Males and racial minorities are more likely to be victimized by financial mistreatment. The odds of financial mistreatment are 57.5% higher for males relative to females. For racial minorities, the odds are 71.3% higher when compared to non-Hispanic whites (see Model 1 in Table 46).

Table 46
Financial Mistreatment Logistic Regression Models

	Financial mistreatment							
		Model 1			Model 2			
	<i>b</i> (s.e.)	Odds ratio	z-test	<i>b</i> (s.e.)	Odds ratio	z-test		
Routine activity	-0.076 (0.031)	0.927	-2.42*					
Outside-home activities				-0.166 (0.102)	0.847	-1.62		
Social get-togethers				-0.129 (0.128)	0.879	-1.01		
Street-side shopping				-0.072 (0.128)	0.930	-0.57		
Entertainment				0.087 (0.102)	1.090	0.85		
Leisure sports				-0.096 (0.076)	0.908	-1.26		
Low self-control	0.265 (0.076)	1.304	3.49**	0.264 (0.077)	1.303	3.44**		
Age	-0.021 (0.011)	0.979	-1.89	-0.021 (0.011)	0.979	-1.84		
Male	0.455 (0.180)	1.575	2.53**	0.463 (0.180)	1.589	2.57**		
Racial minority	0.538 (0.274)	1.713	1.97*	0.548 (0.273)	1.729	2.01*		
Hispanic	0.705 (0.380)	2.024	1.85	0.719 (0.379)	2.053	1.90		
Education	0.060 (0.081)	1.062	0.74	0.063 (0.082)	1.065	0.77		
Retired	-0.151 (0.191)	0.860	-0.79	-0.142 (0.192)	0.867	-0.74		
Married	-0.329 (0.174)	0.720	-1.89	-0.324 (0.175)	0.723	-1.85		
Wald $\chi^2 =$		47.41**			48.59**			
N =		1942			1942			

The analysis now turns to the question of whether general routine activity protects against the different forms of financial mistreatment. The results of the regression analyses are presented in Tables 47 through 49. Results show that the inverse effect of routine activity is isolated to one type of financial mistreatment—stolen money or property (see Model 1 in Table 49). The odds ratio indicates that each unit increase in the routine activity scale corresponds to an 8.2% decrease in the odds of having participants' money stolen or belongings taken. Two specific routine activities are correlated with the outcome measures. First, the frequency with which respondents got together socially with friends, family, neighbors, and the like was inversely associated with having someone forge a signature without permission (see Model 2 in Table 48). Second, outside-home activity is associated with having money or property stolen (see Model 2 in Table 49).

The results show that the correlation between low self-control and each type of financial mistreatment is statistically significant at the 0.01 level. Again, as levels of self-control decrease among study participants, their risk of financial mistreatment increases significantly. As noted previously, the nature of this relationship is not well understood. Additional research in this area is certainly warranted.

With regards to the effects of demographic characteristics on specific forms of financial mistreatment, the results show that males are more likely to have their money spent or things sold without their permission and have their money and property stolen when compared to women. Racial minorities are more likely than their counterparts to have money and property stolen. Finally, Hispanic respondents are more likely to have their signature forged without permission.

Table 47

Spent Money or Sold Something Logistic Regression Models

		Spe	nt money o	or sold somet	thing	
		Model 1			Model 2	
	<i>b</i> (s.e.)	Odds ratio	z-test	<i>b</i> (s.e.)	Odds ratio	z-test
Routine activity	-0.049 (0.053)	0.952	-0.92			
Outside-home activities				-0.059 (0.151)	0.943	-0.39
Social get-togethers				-0.012 (0.217)	0.988	-0.05
Street-side shopping				-0.106 (0.193)	0.900	-0.55
Entertainment				0.041 (0.161)	1.042	0.26
Leisure sports				-0.127 (0.130)	0.881	-0.97
Low self-control	0.356 (0.138)	1.428	2.59**	0.353 (0.140)	1.424	2.53**
Age	-0.027 (0.017)	0.974	-1.57	-0.027 (0.017)	0.973	-1.60
Male	1.019 (0.292)	2.770	3.48**	1.041 (0.291)	2.831	3.58**
Racial minority	0.742 (0.383)	2.101	1.94	0.755 (0.385)	2.128	1.96*
Hispanic	0.355 (0.629)	1.427	0.56	0.360 (0.630)	1.434	0.57
Education	-0.140 (0.126)	0.869	-1.11	-0.131 (0.130)	0.877	-1.01
Retired	-0.171 (0.305)	0.843	-0.56	-0.159 (0.307)	0.853	-0.52
Married	-0.317 (0.282)	0.729	-1.12	-0.312 (0.286)	0.732	-1.09
Wald $\chi^2 =$		28.38**			29.43**	
N =		1950			1950	

Table 48
Forged Signature without Permission Logistic Regression Models

		Forge	d signature	without perr	nission	
		Model 1			Model 2	
	<i>b</i> (s.e.)	Odds ratio	z-test	<i>b</i> (s.e.)	Odds ratio	z-test
Routine activity	-0.010 (0.070)	0.990	-0.14			
Outside-home activities				0.043 (0.201)	1.044	0.21
Social get-togethers				-0.513 (0.218)	0.599	-2.35*
Street-side shopping				0.185 (0.225)	1.203	0.82
Entertainment				0.287 (0.194)	1.333	1.48
Leisure sports				0.017 (0.136)	1.017	0.12
Low self-control	0.412 (0.158)	1.509	2.61**	0.421 (0.164)	1.524	2.57**
Age	-0.014 (0.022)	0.986	-0.62	-0.009 (0.022)	0.991	-0.39
Male	0.312 (0.331)	1.366	0.94	0.320 (0.332)	1.377	0.96
Racial minority	0.408 (0.521)	1.504	0.78	0.436 (0.526)	1.547	0.83
Hispanic	1.136 (0.558)	3.113	2.04*	1.128 (0.526)	3.090	2.14*
Education	0.048 (0.161)	1.049	0.30	0.030 (0.158)	1.030	0.19
Retired	0.456 (0.420)	1.577	1.09	0.470 (0.418)	1.601	1.12
Married	-0.309 (0.330)	0.734	-0.93	-0.289 (0.336)	0.749	-0.86
Wald $\chi^2 =$		19.75*			26.05*	
N =		1949			1949	

Table 49
Stolen Money or Property Logistic Regression Models

	Stolen money or property							
		Model 1						
	<i>b</i> (s.e.)	Odds ratio	z-test	<i>b</i> (s.e.)	Odds ratio	z-test		
Routine activity	-0.086 (0.037)	0.918	-2.30*					
Outside-home activities				-0.268 (0.117)	0.765	-2.28*		
Social get-togethers				0.036 (0.148)	1.037	0.25		
Street-side shopping				-0.210 (0.139)	0.811	-1.51		
Entertainment				0.088 (0.118)	1.093	0.75		
Leisure sports				-0.104 (0.090)	0.901	-1.15		
Low self-control	0.215 (0.085)	1.239	2.51**	0.211 (0.087)	1.235	2.44*		
Age	-0.014 (0.014)	0.986	-1.05	-0.017 (0.014)	0.984	-1.20		
Male	0.450 (0.224)	1.569	2.01*	0.465 (0.227)	1.591	2.04*		
Racial minority	0.820 (0.303)	2.270	2.70**	0.824 (0.302)	2.279	2.73**		
Hispanic	0.578 (0.467)	1.783	1.24	0.588 (0.468)	1.800	1.26		
Education	0.111 (0.103)	1.118	1.08	0.121 (0.105)	1.129	1.15		
Retired	-0.237 (0.231)	0.789	-1.02	-0.228 (0.235)	0.796	-0.97		
Married	-0.394 (0.214)	0.674	-1.85	-0.405 (0.217)	0.667	-1.87		
Wald $\chi^2 =$		37.85*			40.01**			
N =		1950			1950			

# **Program Familiarity and Contact**

Table 50 presents data on respondents' familiarity with Arizona- and Florida-based programs that are designed to help elderly citizens prevent and cope with criminal victimization. Arizona participants were asked how familiar they are (closed-ended responses include "very familiar," "somewhat familiar," and "not familiar") with the Agency on Aging and the Senior Sleuths project. Floridians who were interviewed were asked about their level of familiarity with the Seniors vs. Crime Program and their state's Senior Sleuths project.

Several findings emerge from this analysis. For starters, a vast majority of respondents are not familiar with their state's programs. Nearly 70% of Arizona participants (or 693 of the 992 respondents for whom data are available) are "not familiar" with the Agency on Aging. Approximately 25% (or 250 of the 992 respondents) are "somewhat familiar" with the agency, and less than 5% report being "very familiar" with the Agency on Aging. In Florida, 86.5% of respondents reported they are "not familiar" the Florida's Seniors vs. Crime Program (855 or the 988 respondents). Approximately 11% (or 113 of the 988 respondents) indicated that they are "somewhat familiar" with the program, and only 2% (or 20 of the 988 respondents) are "very familiar" with the Seniors vs. Crime program.

The Senior Sleuths projects in both states are not well known by the survey respondents. Indeed, 98.6% of Arizona participants (or 962 of the 976 respondents) and 97.5% of Florida respondents (or 953 of the 977 respondents) reported they are "not familiar" with the Seniors Sleuths project.

Table 50

Program Familiarity in Arizona and Florida

	Arizona						
	Agency or	n Aging	Senior Sleu	ths Project			
	%	N	%	N			
Very familiar	4.9%	49	0.0%	0			
Somewhat familiar	25.2%	250	1.4%	14			
Not familiar	69.9%	693	98.6%	962			
		Florid	da				
	Seniors vs. Cri	me Program	Senior Sleu	ths Project			
	%	N	%	N			
Very familiar	2.0%	20	0.5%	5			
Somewhat familiar	11.4%	113	1.9%	19			
Not familiar	86.5%	855	97.5%	953			

Table 51 presents survey results showing where respondents who reported some level of familiarity with available programs first learned about them. "Friends or family members" were the most commonly reported for Agency on Aging (28.5%; or 77 of the 270 respondents). Other relatively common sources include "newspapers" (17.8%) and "word of mouth" (11.9%).

About an even number of Florida respondents learned about the Seniors vs. Crime Program from "friends or family members" (19.8%; or 24 of the 121 respondents), "television" (19.8%), and "newspapers" (20.7%).

With respect to the Senior Sleuths project, familiarity among respondents in both states was so sparse that none of the sources included in the survey (including an open-ended response) proved beneficial as a mode to disseminate program information.

Table 51
Informational Sources for Programs

	Arizona					
	Agency o	on Aging	Senior Sleuths Projec			
Source	%	(N)	%	(N)		
Friend or family member	28.5%	(77)	23.1%	(3)		
Television	6.7%	(18)	15.4%	(2)		
Radio	1.5%	(4)	0.0%	(0)		
Newspaper	17.8%	(48)	15.4%	(2)		
Web page or email	5.2%	(14)	0.0%	(0)		
Mail	6.3%	(17)	15.4%	(2)		
Church	3.3%	(9)	15.4%	(2)		
Work	1.9%	(5)	7.7%	(1)		
Previous experience	7.8%	(21)	0.0%	(0)		
Police department/crime watch	0.0%	(1)	0.0%	(0)		
Magazine	0.1%	(2)	0.0%	(0)		
Word of mouth	11.9%	(32)	0.0%	(0)		
Phone call	2.2%	(6)	0.0%	(0)		
Hospital	1.1%	(3)	0.0%	(0)		
Other	4.8%	(13)	7.7%	(1)		

Florida

	Seniors vs. Cr	rime Program	Senior Sleuths Projec		
Source	%	(N)	%	(N)	
Friend or family member	19.8%	(24)	26.1%	(6)	
Television	19.8%	(24)	17.4%	(4)	
Radio	0.8%	(1)	0.0%	(0)	
Newspaper	20.7%	(25)	17.4%	(4)	
Web page or email	3.3%	(4)	0.0%	(0)	
Mail	6.6%	(8)	4.3%	(1)	
Church	1.7%	(2)	4.3%	(1)	
Work	4.1%	(5)	8.7%	(2)	
Previous experience	2.5%	(3)	0.0%	(0)	
Police department/crime watch	6.6%	(8)	0.0%	(0)	
Magazine	1.7%	(2)	0.0%	(0)	
Word of mouth	6.6%	(8)	0.0%	(0)	
Phone call	0.0%	(0)	0.0%	(0)	
Hospital	0.0%	(0)	0.0%	(0)	
Other	5.8%	(7)	21.7%	(5)	

Table 52 shows whether respondents who are either "somewhat" or "very familiar" with the programs of interest have actually contacted them. In Arizona, only a small portion of respondents who are aware of the Agency on Aging contacted them in the year leading up to the interview (8.4%; or 25 of the 277 respondents). Only one participant from Arizona reported contacting the Senior Sleuths project.

A similar pattern of results emerged for Florida. Approximately 5.3% (or 7 of the 133 respondents) of participants contacted the Seniors vs. Crime Program. Only 3 respondents in Florida said they contacted the Senior Sleuths project during the year prior to the study.

Table 52

Contact with Programs

		Arizona						
	Agency or	n Aging	Senior Sleu	ths Project				
	%	N	%	N				
No	91.6%	272	92.9%	13				
Yes	8.4%	25	7.1%	1				
		Florio	da					
	Seniors vs. Cri	me Program	Senior Sleu	ths Project				
	%	N	%	N				
No	94.7%	126	87.5%	21				
Yes	5.3%	7	12.5%	3				

The survey also queried respondents about the sources that have provided information on how to protect themselves from consumer fraud victimization. These results are featured in Table 53. Study participants report that they received prevention information from a variety of sources. Television, however, was the most commonly reported source of information in both states (28.3% in Arizona, 31.1% in Florida). Internet websites, emails, magazines, radio, and brochures/fliers were also relatively common sources of fraud prevention information.

Table 53
Informational Sources on Consumer Fraud Prevention

	Ariz	zona	Flo	rida
Source	%	(N)	%	(N)
Internet website	15.0%	(243)	14.6%	(204)
Email	11.0%	(178)	9.7%	(135)
Television	28.3%	(459)	31.1%	(435)
Radio	9.1%	(148)	8.6%	(120)
Magazines	16.3%	(264)	15.5%	(216)
Brochures or fliers	9.9%	(161)	9.6%	(134)
AARP	0.5%	(8)	0.4%	(5)
Newspaper	3.5%	(57)	4.3%	(60)
Bank or credit card company	1.0%	(17)	0.6%	(8)
Word of mouth (family/friends)	2.3%	(37)	2.2%	(31)
Mail	0.6%	(10)	0.7%	(10)
Police department	0.4%	(6)	0.9%	(12)
Telephone	0.1%	(1)	0.3%	(4)
Neighborhood crime watch	0.2%	(3)	0.5%	(7)
Attorney General's Office	0.2%	(3)	0.0%	(0)
Other	1.5%	(25)	1.1%	(16)

Table 54 features two ordinal regression models examining whether respondents' demographic characteristics are associated with program familiarity. Regarding Arizona's Agency on Aging, several demographic variables are correlated with program awareness as evidenced by the statistically significant *z*-tests. The regression estimates show that older and more educated individuals are more familiar with the Agency on Aging. Male respondents are less familiar with the agency than females.

Turning attention to Florida's Seniors vs. Crime Program, we see that the pattern of results is very similar to that of the Agency on Aging. Older respondents are more familiar with the Seniors vs. Crime program. Males in the Florida subsample are less familiar with the program than females. Finally, racial minorities report higher levels of awareness with Florida's Seniors vs. Crime program compared to non-Hispanic whites.

Table 54

Program Familiarity Ordinal Regression Models

		Arizona			Florida	
	A	Agency on Aging			s vs. Crime P	rogram
	b	b (s.e.) z-test		b	(s.e.)	z-test
Age	0.024	(0.010)	2.43*	0.023	(0.012)	1.97*
Male	-0.692	(0.159)	-4.36**	-0.426	(0.217)	-1.96*
Racial minority	-0.598	(0.416)	-1.44	0.880	(0.274)	3.21**
Hispanic	-0.589	(0.424)	-1.39	0.810	(0.490)	1.65
Education	0.190	(0.066)	2.87**	-0.019	(0.088)	-0.22
Retired	0.100	(0.182)	0.55	0.084	(0.231)	0.36
Married	-0.068	(0.151)	-0.45	0.072	(0.204)	0.35
Cut 1	2.983	(0.749)		3.580	(0.946)	
Cut 2	5.156	(0.762)		5.626	(0.973)	
Wald $\chi^2 =$		38.75**			23.31**	
<i>N</i> =		976			979	

The final set of program familiarity analyses assess whether respondent demographic characteristics are related to familiarity with the Senior Sleuths project in both states. Too few respondents reported that they were familiar with the Senior Sleuths to conduct multivariate analyses. Accordingly, a series of cross-tabulations are presented for Arizona (see Table 55) and Florida (see Table 56). Two observations emerge from these analyses. First, an overwhelming majority of respondents in every demographic group included in the analysis reported they were "not familiar" with the Senior Sleuth project. The pattern of findings is observed in both Florida and Arizona. Second, no statistically significant differences in levels of awareness are detected. In sum, the evidence shows that survey respondents from all walks of life are not too familiar with their state's Senior Sleuths project.

Table 55

Familiarity across Demographic Groups for Arizona's Senior Sleuths Project

		Ariz	ona's Senio	r Sleuths Proj	ect		_	
	Not fa	Not familiar		Somewhat familiar		amiliar		
	%	(N)	%	(N)	%	(N)	Chi-square	
Age								
Young-old (60 to 72)	98.9	(538)	1.1	(6)	0.0	(0)	4.486	
Old-old (73 to 79)	99.1	(231)	0.9	(2)	0.0	(0)		
Oldest-old (80 and older)	97.0	(193)	3.0	(6)	0.0	(0)		
Gender								
Female	99.0	(604)	1.0	(6)	0.0	(0)	2.338	
Male	97.8	(358)	2.2	(8)	0.0	(0)		
Racial minority								
No	98.7	(921)	1.3	(12)	0.0	(0)	4.245	
Yes	94.6	(35)	5.4	(2)	0.0	(0)		
Hispanic								
No	98.5	(922)	1.5	(14)	0.0	(0)	0.577	
Yes	100.0	(38)	0.0	(0)	0.0	(0)		
Retired								
No	97.5	(237)	2.5	(6)	0.0	(0)	2.424	
Yes	98.9	(722)	1.1	(8)	0.0	(0)		
Married								
No	98.7	(378)	1.3	(5)	0.0	(0)	0.005	
Yes	98.6	(581)	1.4	(8)	0.0	(0)		
Education								
Less than high school	96.1	(73)	3.9	(3)	0.0	(0)	4.640	
HS graduate/equivalency	99.3	(144)	0.7	(1)	0.0	(0)		
Some college	99.0	(307)	1.0	(3)	0.0	(0)		
College graduate	98.3	(283)	1.7	(5)	0.0	(0)		
Graduate school	98.7	(153)	1.3	(2)	0.0	(0)		

*Note.* Sample sizes are in parentheses. \* p < 0.05; \*\* p < 0.01.

Table 56

Familiarity across Demographic Groups for Florida's Senior Sleuths Project

	Florida's Senior Sleuths Project					_	
	Not familiar		Somewhat familiar		Very familiar		-
	%	(N)	%	(N)	%	(N)	Chi-square
Age							
Young-old (60 to 72) Old-old (73 to 79) Oldest-old (80 and older)	97.7 98.3 96.4	(508) (233) (212)	2.1 1.3 2.3	(11) (3) (5)	0.2 0.4 1.4	(1) (1) (3)	5.002
Gender							
Female Male	97.8 97.1	(619) (334)	1.6 2.6	(10) (9)	0.6 0.3	(4) (1)	1.749
Racial minority							
No Yes	97.9 94.4	(867) (84)	1.7 4.5	(15) (4)	0.5 1.1	(4) (1)	4.069
Hispanic							
No Yes	97.5 100.0	(927) (24)	2.0 0.0	(19) (0)	0.5 0.0	(5) (0)	0.621
Retired							
No Yes	97.5 97.6	(270) (680)	1.4 2.2	(4) (15)	1.1 0.3	(3) (2)	2.957
Married							
No Yes	98.2 97.0	(432) (520)	1.4 2.4	(6) (13)	0.5 0.6	(2) (3)	1.485
Education							
Less than high school HS graduate/equivalency Some college College graduate Graduate school	97.7 97.5 97.0 98.4 97.1	(130) (197) (287) (239) (100)	1.5 2.0 3.0 0.4 2.9	(2) (4) (9) (1) (3)	0.8 0.5 0.0 1.2 0.0	(1) (1) (0) (3) (0)	10.098

*Note.* Sample sizes are in parentheses. \* p < 0.05; \*\* p < 0.01.

# **Reporting Consumer Fraud Victimization and Financial Mistreatment**

The analysis now shifts to the topic of what drives victims of consumer fraud and financial mistreatment decision to report their experiences to authorities. Because notifying authorities is done by victims (a subsample of respondents), the two-stage probit model with sample selection is used.

The results for reporting consumer fraud to authorities are presented in Table 57. Two variables—low self-control and retired—act as the exclusionary restrictions. As seen in previous analyses (see Table 35), low self-control and remote purchasing are two important drivers of fraud victimization. The Wald  $\chi^2$  indicates that the predictive ability of the reporting victimization model is greater than what we would expect by chance alone. Note also that the log likelihood ratio is statistically significant, suggesting the presence of selection bias. This finding underscores the need to use this two-stage modeling technique. To do otherwise could result in misleading regression estimates. Two variables achieve statistical significance in the reporting victimization model. Specifically, the directional hypothesis stating that the likelihood of reporting consumer fraud victimization increases as the seriousness of the incident (measured in terms of monetary loss) also increases is confirmed. This finding is largely consistent with prior research on reporting other forms of criminal victimization. Remote purchasing is also associated with notifying authorities among consumer fraud victims. The regression estimate indicates that individuals who engage is more modes of remote purchasing are more likely to call on authorities in the event that they are victimized by fraudsters.

Table 57

Reporting Fraud Victimization Probit Regression with Sample Selection

	Fraud vic	timization	Reporting victimization		
	<i>b</i> (s.e.)	z-test	<i>b</i> (s.e.)	z-test	
Monetary loss			0.004 (0.002)	1.84†	
Remote purchasing	0.325 (0.0414)	7.86**	0.160 (0.068)	2.35*	
Age	0.005 (0.005)	1.01	-0.003 (0.008)	-0.42	
Male	-0.064 (0.077)	-0.83	-0.049 (0.122)	-0.40	
Racial minority	0.204 (0.142)	1.44	0.147 (0.220)	0.67	
Hispanic	0.141 (0.200)	0.71	-0.433 (0.428)	-1.01	
Education	-0.044 (0.029)	-1.50			
Retired	-0.192 (0.076)	-2.50*			
Married	0.254 (0.069)	0.37			
Low self-control	0.116 (0.031)	3.74**			
N =	18	357		290	
Wald $\chi^2 =$			14.40*		
Likelihood Ratio $\chi^2 =$			5.61*		

*Note.* Robust standard errors are in parentheses. \* p < 0.05, \*\* p < 0.01 (two-tailed test); † p < 0.05 (one-tailed test).

In Table 58, the two-stage probit regression for reporting incidents of financial mistreatment is presented. In terms of sign and significance, the estimates observed in the selection equation are very similar to those reported in the financial mistreatment model featured in Table 46 (Model 1). For example, the odds of financial mistreatment are greater among individuals with poor self-control. Those living busy lives (as indicated by the routine activity scale), however, are protected against mistreatment. These two measures—low self-control and routine activity—serve as exclusionary restrictions. Two variables achieve statistical significance in the reporting mistreatment equation. Much like consumer fraud victims, the likelihood that financial mistreatment victims will notify authorities increases substantially as the monetary loss also increases. The second important factor, stranger assailant, indicates that reporting is much more likely if the perpetrator is someone who the victim does not know personally. These two findings are very consistent with prior research investigating the determinants of reporting other forms of criminal victimization.

Table 58

Reporting Financial Mistreatment Probit Regression with Sample Selection

	Financial 1	mistreatment	Reporting 1	Reporting mistreatment		
	<i>b</i> (s.e.)	z-test	<i>b</i> (s.e.)	z-test		
Monetary loss			0.006 (0.003)	2.23*		
Stranger assailant			0.730 (0.247)	2.94**		
Age	-0.012 (0.005)	-2.17*	-0.009 (0.014)	-0.68		
Male	0.223 (0.085)	2.61**	-0.319 (0.262)	-1.22		
Racial minority	0.243 (0.138)	1.76	0.235 (0.383)	0.61		
Hispanic	0.347 (0.194)	1.79	-0.043 (0.501)	-0.09		
Education	0.036 (0.038)	0.94				
Retired	-0.088 (0.103)	-0.85				
Married	-0.166 (0.089)	-1.86				
Low self-control	0.154 (0.036)	4.29**				
Routine activity	-0.042 (0.015)	-2.78**				
N =	1	937	1	59		
Wald $\chi^2 =$		12	.60*			
Likelihood Ratio $\chi^2$ =		0	.08			

### **CONCLUSION**

# **Discussion of Findings**

This study supports the findings of prior research in demonstrating that elderly populations are significantly targeted for various types of fraud, including shopping/purchasing fraud, financial fraud, and other consumer fraud. It revealed, for example, that over two-thirds of individuals ages 60 and over in Arizona and Florida were subjected to attempted fraud in the two years prior to the survey. It also revealed that victimization is relatively common—in this same time period, 1 in 5 respondents reported being the victim of fraud. Financial mistreatment, such as having someone spend your money or forge your signature, occurred among 8.4% of the respondents during the two years leading up to the study. Such incidents typically resulted from victimization by family members, especially children. Notably, the study found that few individuals who are targeted for fraud, and only slightly more who experience fraud victimization, contact law enforcement authorities.

Those who engage in consumer fraud victimization of the elderly tend to be "equal opportunity" offenders. For example, there were few demographic or social groups who were substantially more likely to be targeted for fraud or to be the victims of fraud. That said, individuals who were ages 60-72 and who were male were more likely to experience fraud targeting and victimization. Racial minorities who were targeted for fraud were more likely to report victimization or financial mistreatment. Notably, the most robust individual characteristics predictive of fraud targeting and victimization were remote purchasing (e.g., making many purchases online of via telephone) and being low in self-control. Financial mistreatment was less likely among individuals who adhered to such routine activities as

participating in social activities away from home and, more generally, socializing with individuals outside the home.

Results from the study show that respondents were unfamiliar with the state-level efforts, in Arizona and Florida, to educate the elderly about consumer fraud. Over 70% of Arizona participants and 87% of Florida participants were "not familiar" with the efforts. Almost none of the respondents were familiar with the Seniors Sleuths project. Those who were familiar with these different efforts learned about them primarily from friends and family members, newspapers, television, and "word of mouth."

The results of this study are significant for several reasons. In particular, they provide an empirical foundation on which to understand the distribution and causes of financial exploitation of the elderly and steps that can be taken to reduce it. The main conclusion to be drawn from the study is that consumer fraud targeting and fraud victimization of the elderly are common and result from activities, such as frequent online and telemarketing purchases, that can be curbed or that can be coupled with simple steps to protect individuals from actual victimization. The study also highlights that the elderly population is largely unaware of efforts that exist to educate them about consumer fraud. Accordingly, a considerable opportunity exists to make substantial strides in educating the elderly about fraud victimization by more aggressively distributing information through different media. Several specific recommendations are discussed further below after discussing implications for further research.

### **Implications for Further Research**

Although this study constitutes an advance over prior research, several limitations bear mention that point to directions for future research. First, the study examined elderly populations in Arizona and Florida. Thus, the extent to which the results generalize to the rest of the country

is unknown. That said, the prevalence estimates of victimization largely accord with those found in prior research, suggesting that the results likely provide a reasonable estimate of what would be found with studies in other states or the country as a whole. Clearly, however, the prevalence of fraud targeting and victimization, and the specific causes, may vary from place to place.

Second, there remains a need to undertake studies that employ several sources of information, including self-report data from offenders on abuse and victimization of the elderly, official records data from law enforcement agencies, and interviews with policymakers, practitioners, and advocates involved in efforts to protect the elderly from fraudulent activity. It is possible, for example, that fraud targeting and victimization are lower in areas where a critical threshold of awareness about consumer fraud of the elderly exists. The use of multiple sources of data could aid in the development of measures that gauge such awareness and in turn enable empirical tests of that possibility.

Third, although this study identified key risk factors that increase the likelihood of fraud targeting and victimization, the precise causal mechanisms involved warrant further investigation. For example, individuals who engage in routine activities, such as socializing with their friends in the community, are less likely to experience financial mistreatment. What exactly produces this effect bears closer scrutiny. It could be that such activities reduce opportunities for fraud targeting and victimization to occur, but they also could expose individuals to a broader network of individuals who provide informal social support that protects them against fraudulent activities that family members of relatives might seek to undertake.

Fourth, this study included questions about several state-level efforts in Arizona and Florida to prevent and combat elderly fraud victimization. A wide range of similar and different

efforts exist in other states and their implementation, the extent to which they target the risk factors associated with elderly victimization, and their effectiveness remain to be examined.

### **Implications for Policy and Practice**

The diversity of methods through which fraud targeting occurs is considerable, including telephone, mail, email, web sites, phony prize offers, requests for contributions to phone charitable causes, and more. The plethora of such methods in turn indicates that any efforts to reduce victimization likely must be multifaceted and, for example, should target these different methods as well as educate elderly consumers about the ways in which consumer fraud victimization can occur.

The fact that few fraud attempts or actual fraud victimization events are reported to law enforcement suggests the need for education about the importance of reporting such events and, at the same time, for efforts to ensure that law enforcement respond to such reports in a proactive and well-publicized manner. Such steps can increase the chances that the elderly will learn about consumer fraud victimization, that they will report it, and that a potential general deterrent effect can be created or increased. For example, would-be offenders, such as family members and solicitors, may be less likely to engage in fraud if they read or hear about law enforcement aggressively responding to claims of fraudulent activity.

Given the greater targeting and victimization of them, males and individuals ages 60-72 should be educated about the importance of taking steps to prevent fraud and of reporting attempted or actual fraud. Similarly, individuals who engage in greater amounts of remote purchasing or who are low in self-control should be targeted for similar educational efforts since these two factors emerged as the most robust predictors of various types of fraud targeting and victimization. Not least, since financial mistreatment was associated with failing to engage in

routine activities, such as social events, outside the home, elderly individuals should be encouraged to participate in social activities in their community. Doing so may create a social support network that provides a protective effect against fraud targeting and especially victimization.

Few respondents in the study were familiar with state-level efforts to educate and help the elderly in matters related to consumer fraud. Accordingly, there likely is substantial room to reduce consumer fraud victimization by greater attention to implementing these efforts in ways that better reach their intended target populations. Such efforts could include flyers, radio and television advertisements during shows or times when the elderly are more likely to be listening or watching, and other related activities. These are the primary avenues through which respondents reported learning about these programs, but, ultimately, the effectiveness of such efforts depends heavily on whether informational material reaches the intended audience.

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#### DISSEMINATION OF RESEARCH FINDINGS

#### **Conference Presentations**

- Holtfreter, Kristy, and Michael D. Reisig (2013). Routine activities and identity theft victimization in late adulthood. The 65<sup>th</sup> Annual Meeting of the American Society of Criminology, Atlanta, GA.
- Mears, Daniel P., Michael D. Reisig, Samuel Scaggs, and Kristy Holtfreter (2013).

  Awareness among the elderly of efforts to reduce fraud victimization. The 65<sup>th</sup>

  Annual Meeting of the American Society of Criminology, Atlanta, GA.
- Wolfe, Scott E., Michael D. Reisig, and Kristy Holtfreter (2013). Opportunity, offending, and crime analogous outcomes in late life: General routines or domain-specific opportunities? The 65<sup>th</sup> Annual Meeting of the American Society of Criminology, Atlanta, GA.
- Reisig, Michael D., and Kristy Holtfreter (2012). Explaining elderly victimization: Assault, theft, and consumer fraud. The 64<sup>th</sup> Annual Meeting of the American Society of Criminology, Chicago, IL.
- Wolfe, Scott E. (2012). Gender, race, self-control, and offending in late life: A test of self-control theory and the invariance thesis. The 64<sup>th</sup> Annual Meeting of the American Society of Criminology, Chicago, IL.
- Wolfe, Scott E. (2011). Routine activity, low self-control, and offending late in the life course. The 63<sup>rd</sup> Annual Meeting of the American Society of Criminology, Washington, D.C.
- Reisig, Michael D., Kristy Holtfreter, Daniel P. Mears, and Scott E. Wolfe (2011). Financial exploitation of the elderly in a consumer context: Some preliminary findings. The 63<sup>rd</sup> Annual Meeting of the American Society of Criminology, Washington, D.C.

### **Completed Dissertation**

Wolfe, Scott E. (2012). *Crime in late life*. Arizona State University, School of Criminology and Criminal Justice.

### **Published Articles**

Reisig, Michael D., and Kristy Holtfreter (2013). Shopping fraud victimization among the elderly. *Journal of Financial Crime* 20 (3): 324-337.

# **Articles under Review and In Progress**

- Mears, Daniel P., Michael D. Reisig, Samuel Scaggs, and Kristy Holtfreter. Efforts to reduce consumer fraud victimization among the elderly: The effect of information access on program awareness and contact. Under review.
- Wolfe, Scott E. (2012). Gender, race, self-control, and offending in late life: Support and challenges for the generality of self-control theory. Under review.
- Wolfe, Scott E., Michael D. Reisig, and Kristy Holtfreter. Crime in late life: Implications for the generality of low self-control theory. In progress.
- Holtfreter, Kristy, and Michael D. Reisig. Routine activities and identity theft victimization in late adulthood. In progress.
- Holtfreter, Kristy, Michael D. Reisig, and Jillian J. Turanovic. Victimization, depression, and negative coping in late adulthood: A test of General Strain Theory. In progress.

# **APPENDIX A:** The Nature and Prevalence Of Physical Mistreatment

The portion of the survey that featured the physical mistreatment items began with the following introduction:

People are sometimes physically hurt by other people. The person doing these things could be someone close to you, like a family member or friend, or someone you don't know very well.

The following three items are used to capture incidents of physical mistreatment. These items are very similar to those used in previous studies (see, e.g., Acierno et al., 2010; Laumann, Leitsch, & Waite, 2008). Much like the consumer fraud and financial mistreatment items, these items also included a number of follow-up questions that were presented to those who answered in the affirmative to any of the three following items.

- 1. "Has anyone ever hit you with their hand or object, slapped you, kicked you, or threatened you with a weapon?" (hit, kicked or threatened)
- 2. "Has anyone ever held you down, tied you up, or locked you in your room or house or some other place against your will?" (forcibly restrained)
- 3. "Has anyone ever physically hurt you so that you suffered some degree of injury, including cuts, bruises, or other marks?" (*physically injured*)

Self-reported incidents of physical mistreatment are assessed from two time periods: (1) the year prior to the study; and, (2) two years prior to the study. Each of the three physical mistreatment items feature a binary response set (1 = yes, 0 = no). For the multivariate analysis, respondents are considered a victim of mistreatment (coded as 1) if the answered in the affirmative to one or more of the three survey items.

The overall prevalence of physical mistreatment was 0.6% (or 12 of the 1982 respondents for whom data are available) during the one-year observation period. This is

lower than recent national prevalence estimates of 1.6% (Acierno et al., 2009). For the two years leading up to this study the prevalence of physical mistreatment was 1.4% (or 28 of the 1982 respondents). In terms of seriousness, a majority of individuals did not receive medical treatment as a result of their physical victimization. However, physical mistreatment still led to 27.3% of victims receiving medical treatment during the one-year observation period (see Appendix Table 1).

The frequency distributions clearly show that all three types of physical mistreatment are rare. Only seven participants reported that someone had hit, slapped, kicked, or threatened them with a weapon in the year prior to the study (0.4%). Similarly, five people indicated that someone had physically injured them (0.3%) and two individuals reporting that someone had held them down, tied them up, or locked them in a room or house against their will (0.1%). This general pattern of findings was also observed during the two-year observation.

Appendix A Table 1

Prevalence of Physical Mistreatment

	_	Past year		Past 2 years	
		N	%	N	%
Physical mistreatment	Yes	12	0.6	28	1.4
	No	1970	99.4	1954	98.6
Hit, kicked or threatened	Yes	7	0.4	22	1.1
	No	1985	99.6	1970	98.9
Forcibly restrained	Yes	2	0.1	3	0.2
	No	1994	99.9	1993	99.8
Physically injured	Yes	5	0.3	7	0.4
	No	1984	99.7	1982	99.6

Appendix Table 2 features information regarding the victim-offender relationships for physical mistreatment. Similar to financial mistreatment (see, e.g., Table 22), strangers (36.4%; or 4 of the 11 victims) and family members (i.e., spouse/partner and son/daughter) (36.4%; or 4 of the 11 victims) were the most common offenders. Within the family member category, spouses/partners were the most common group of offenders. The two-year observation period yielded a similar pattern of results.

Appendix A Table 2

Victim-Offender Relationship for Physical Mistreatment

	Past year		Past 2	2 years
	N	%	N	%
Physical mistreatment				
Spouse or partner	3	27.3	6	26.1
Ex-spouse or partner	0	0.0	2	8.7
Son or daughter	1	9.1	1	4.3
Friend	1	9.1	1	4.3
Neighbor	1	9.1	1	4.3
Stranger (no relation)	4	36.4	9	39.1
Other non-relative	1	9.1	3	13.0
Hit, kicked or threatened				
Spouse or partner	1	16.7	4	25.0
Ex-spouse or partner	0	0.0	2	12.5
Son or daughter	1	16.7	1	6.3
Neighbor	1	16.7	1	6.3
Stranger (no relation)	3	50.0	7	43.8
Other non-relative	0	0.0	1	6.3
Forcibly restrained				
Spouse or partner	2	100.0	2	66.7
Ex-spouse or partner	0	0.0	1	33.3
Physically injured				
Spouse or partner	1	25.0	1	16.7
Friend	1	25.0	1	16.7
Neighbor	1	25.0	2	33.3
Stranger (no relation)	1	25.0	2	33.3

These results are consistent across each type of physical mistreatment. Victims were most frequently hit, slapped, kicked, or threatened by a stranger (50.0%; or 3 of the 6 victims). About one-third of victims of hitting were victimized by a family member (i.e., spouse/partner and son/daughter) (33.3%; or 2 of the 6 victims). Respondents who indicated that they had been restrained against their will were victimized by a relative (i.e., spouse/partner and ex-spouse/partner). Of the four victims of physical injury the offenders were equally distributed between a spouse/partner, friend, neighbor, and stranger (25.0%; or 1 of the 4 victims for each offender type).

Victims of physical mistreatment reporting practices are featured in Appendix Table 3. The results for overall physical mistreatment show that over half of victims called the police (54.5%; or 6 of the 11 victims). The data also show that other authorities such as social services were contacted less frequently than the police (36.4%; or 4 of the 11 victims). Victims of physical mistreatment are more likely to contact the police and social services when compared to victims of financial mistreatment (see, e.g., Table 23). The small cell counts for reporting practices across specific forms of physical mistreatment make it difficult to reliably interpret the findings.

Appendix A Table 3

Reporting of Physical Mistreatment to Authorities

		Past year		year Past	
		N	%	N	%
Physical mistreatment					
Reported to police	Yes	6	54.5	11	47.8
	No	5	45.5	12	52.2
Reported to other authorities	Yes	4	36.4	4	18.2
	No	7	63.6	18	81.8
Hit, kicked or threatened					
Reported to police	Yes	3	50.0	8	47.1
-	No	3	50.0	9	52.9
Reported to other authorities	Yes	3	50.0	3	18.8
•	No	3	50.0	13	81.3
Forcibly restrained					
Reported to police	Yes	1	50.0	1	33.3
1	No	1	50.0	2	66.7
Reported to other authorities	Yes	1	50.0	1	50.0
•	No	1	50.0	1	50.0
Physically injured					
Reported to police	Yes	3	75.0	3	50.0
1	No	1	25.0	3	50.0
Reported to other authorities	Yes	0	0.0	0	0.0
1	No	5	100.0	7	100.0

**APPENDIX B: Fraud Targeting State Subsample Analyses** 

Appendix B Table 1
Fraud Targeting Logistic Regression Models for Arizona

	Fraud targeting in Arizona						
	Model 1			Model 2			
	<i>b</i> (s.e.)	Odds ratio	z-test	<i>b</i> (s.e.)	Odds ratio	z-test	
Remote purchasing	0.422 (0.085)	1.525	4.98**				
Telemarketing purchase				2.279 (1.024)	9.766	2.22*	
Online purchase				0.493 (0.153)	1.638	3.23**	
Infomercial purchase				0.219 (0.188)	1.244	1.16	
Mail-order purchase				0.249 (0.235)	1.283	1.06	
Email-order purchase				0.627 (0.276)	1.871	2.27*	
Low self-control	0.214 (0.063)	1.238	3.38**	0.217 (0.064)	1.242	3.42**	
Age	-0.016 (0.010)	0.984	-1.67	-0.015 (0.010)	0.985	-1.45	
Male	0.094 (0.144)	1.099	0.65	0.085 (0.145)	1.088	0.58	
Racial minority	0.473 (0.349)	1.605	1.35	0.502 (0.354)	1.651	1.42	
Hispanic	0.736 (0.386)	2.087	1.91	0.782 (0.389)	2.187	2.01*	
Education	0.161 (0.061)	1.174	2.63**	0.160 (0.062)	1.173	2.60**	
Retired	-0.037 (0.170)	0.964	-0.22	-0.024 (0.171)	0.976	-0.14	
Married	-0.051 (0.144)	0.950	-0.35	-0.057 (0.145)	0.944	-0.39	
Wald $\chi^2 =$		61.48**			65.84**		
N =		978			978		

Appendix B Table 2
Fraud Targeting Logistic Regression Models for Florida

	Fraud targeting in Florida						
		Model 1		Model 2			
	<i>b</i> (s.e.)	Odds ratio	z-test	<i>b</i> (s.e.)	Odds ratio	z-test	
Remote purchasing	0.314 (0.084)	1.369	3.73**				
Telemarketing purchase				0.737 (0.520)	2.090	1.42	
Online purchase				0.128 (0.151)	1.137	0.85	
Infomercial purchase				0.379 (0.179)	1.461	2.12*	
Mail-order purchase				0.520 (0.242)	1.682	2.15*	
Email-order purchase				0.267 (0.289)	1.306	0.92	
Low self-control	0.103 (0.057)	1.108	1.81	0.102 (0.057)	1.107	1.78	
Age	-0.003 (0.009)	0.997	-0.30	-0.006 (0.009)	0.994	-0.69	
Male	0.443 (0.146)	1.557	3.03**	0.461 (0.148)	1.586	3.12**	
Racial minority	0.166 (0.241)	1.181	0.69	0.117 (0.246)	1.124	0.47	
Hispanic	-0.031 (0.437)	0.970	-0.07	-0.045 (0.435)	0.956	-0.10	
Education	0.107 (0.057)	1.113	1.88	0.119 (0.058)	1.126	2.04*	
Retired	-0.341 (0.159)	0.711	-2.14*	-0.358 (0.159)	0.699	-2.25*	
Married	-0.003 (0.139)	0.997	-0.02	0.012 (0.140)	1.012	0.09	
Wald $\chi^2 =$		43.30**			44.57**		
N =		980			980		

APPENDIX C: Fraud Victimization (Full Sample) State Subsample Analyses

Appendix C Table 1
Fraud Victimization Logistic Regression Models (Full Sample) for Arizona

	Fraud victimization in Arizona						
		Model 1			Model 2		
	<i>b</i> (s.e.)	Odds ratio	z-test	<i>b</i> (s.e.)	Odds ratio	z-test	
Remote purchasing	0.453 (0.104)	1.573	4.35**				
Telemarketing purchase				0.548 (0.616)	1.730	0.89	
Online purchase				0.546 (0.228)	1.726	2.39*	
Infomercial purchase				0.516 (0.238)	1.675	2.16*	
Mail-order purchase				0.228 (0.294)	1.256	0.78	
Email-order purchase				0.446 (0.320)	1.563	1.39	
Low self-control	0.303 (0.088)	1.353	3.45**	0.308 (0.088)	1.361	3.51**	
Age	0.014 (0.014)	1.014	0.96	0.017 (0.014)	1.017	1.15	
Male	-0.351 (0.215)	0.704	-1.63	-0.360 (0.217)	0.697	-1.66	
Racial minority	1.026 (0.408)	2.789	2.51*	1.043 (0.414)	2.838	2.52*	
Hispanic	0.613 (0.463)	1.846	1.32	0.643 (0.463)	1.901	1.39	
Education	-0.017 (0.091)	0.983	-0.19	-0.019 (0.091)	0.981	-0.21	
Retired	-0.175 (0.249)	0.839	-0.70	-0.182 (0.250)	0.834	-0.73	
Married	0.150 (0.217)	1.161	0.69	0.141 (0.222)	1.151	0.63	
Wald $\chi^2 =$	ŕ	41.46**		ŕ	43.41**		
N =		973			973		

Appendix C Table 2
Fraud Victimization Logistic Regression Models (Full Sample) for Florida

	Fraud victimization in Florida						
		Model 1			Model 2		
	b (s.e.)	Odds ratio	z-test	<i>b</i> (s.e.)	Odds ratio	z-test	
Remote purchasing	0.551 (0.109)	1.734	5.07**				
Telemarketing purchase				1.362 (0.468)	3.905	2.91**	
Online purchase				-0.073 (0.228)	0.930	-0.32	
Infomercial purchase				0.843 (0.212)	2.323	3.97**	
Mail-order purchase				0.529 (0.276)	1.697	1.91	
Email-order purchase				0.786 (0.323)	2.194	2.43*	
Low self-control	0.188 (0.092)	1.206	2.04*	0.188 (0.093)	1.207	2.02*	
Age	0.030 (0.012)	1.030	2.47*	0.020 (0.013)	1.020	1.56	
Male	0.234 (0.199)	1.263	1.17	0.312 (0.202)	1.366	1.54	
Racial minority	0.397 (0.301)	1.487	1.32	0.181 (0.323)	1.199	0.56	
Hispanic	0.207 (0.373)	1.230	0.33	0.153 (0.587)	1.165	0.26	
Education	-0.057 (0.062)	0.944	-0.66	-0.014 (0.086)	0.986	-0.16	
Retired	-0.293 (0.159)	0.746	-1.41	-0.357 (0.214)	0.700	-1.67	
Married	0.247 (0.198)	1.280	1.25	0.298 (0.200)	1.347	1.49	
Wald $\chi^2 =$		38.53**			53.73**		
N =		979			979		

 ${\bf APPENDIX\ D:\ Fraud\ Victimization\ (Targeted\ Sample)\ State\ Subsample\ Analyses}$ 

Appendix D Table 1
Fraud Victimization Logistic Regression Models (Targeted Sample) for Arizona

	Fraud victimization in Arizona							
		Model 1			Model 2			
	<i>b</i> (s.e.)	Odds ratio	z-test	<i>b</i> (s.e.)	Odds ratio	z-test		
Remote purchasing	0.313 (0.108)	1.368	2.89**					
Telemarketing purchase				0.094 (0.611)	1.099	0.15		
Online purchase				0.412 (0.245)	1.510	1.68		
Infomercial purchase				0.471 (0.256)	1.601	1.84		
Mail-order purchase				0.108 (0.305)	1.115	0.36		
Email-order purchase				0.222 (0.329)	1.248	0.67		
Low self-control	0.235 (0.094)	1.265	2.51*	0.242 (0.095)	1.273	2.54*		
Age	0.030 (0.016)	1.030	1.94	0.033 (0.016)	1.034	2.09*		
Male	-0.436 (0.228)	0.647	-1.91	-0.446 (0.230)	0.641	-1.94		
Racial minority	1.008 (0.442)	2.741	2.28*	1.050 (0.446)	2.858	2.36*		
Hispanic	0.312 (0.499)	1.366	0.63	0.348 (0.501)	1.416	0.69		
Education	-0.118 (0.096)	0.889	-1.23	-0.118 (0.097)	0.889	-1.21		
Retired	-0.194 (0.257)	0.823	-0.76	-0.211 (0.258)	0.810	-0.82		
Married	0.132 (0.228)	1.141	0.58	0.126 (0.232)	1.135	0.54		
Wald $\chi^2 =$		25.11**			27.29**			
N =		560			560			

Appendix D Table 2
Fraud Victimization Logistic Regression Models (Targeted Sample) for Florida

	Fraud victimization in Florida							
		Model 1			Model 2			
	<i>b</i> (s.e.)	Odds ratio	z-test	<i>b</i> (s.e.)	Odds ratio	z-test		
Remote purchasing	0.490 (0.118)	1.633	4.16**					
Telemarketing purchase				1.267 (0.522)	3.550	2.42*		
Online purchase				-0.118 (0.246)	0.889	-0.48		
Infomercial purchase				0.806 (0.230)	2.239	3.50**		
Mail-order purchase				0.336 (0.290)	1.399	1.16		
Email-order purchase				0.806 (0.346)	2.238	2.33*		
Low self-control	0.152 (0.089)	1.164	1.71	0.156 (0.091)	1.169	1.72		
Age	0.037 (0.013)	1.038	2.89**	0.028 (0.014)	1.028	2.04*		
Male	0.061 (0.210)	1.062	0.29	0.154 (0.215)	1.167	0.72		
Racial minority	0.367 (0.311)	1.443	1.18	0.141 (0.340)	1.152	0.41		
Hispanic	0.355 (0.606)	1.426	0.59	0.223 (0.603)	1.250	0.37		
Education	-0.131 (0.089)	0.877	-1.48	-0.074 (0.089)	0.929	-0.83		
Retired	-0.206 (0.223)	0.814	-0.92	-0.267 (0.230)	0.765	-1.16		
Married	0.288 (0.210)	1.333	1.37	0.340 (0.214)	1.404	1.58		
Wald $\chi^2 =$		26.83**			37.10**			
N =		581			581			

**APPENDIX E: Financial Mistreatment State Subsample Analyses** 

Appendix E Table 1
Financial Mistreatment Logistic Regression Models for Arizona

	Financial mistreatment in Arizona						
	Model 1				Model 2		
	<i>b</i> (s.e.)	Odds ratio	z-test	<i>b</i> (s.e.)	Odds ratio	z-test	
Routine activity	-0.069 (0.044)	0.933	-1.59				
Outside-home activities				-0.338 (0.156)	0.713	-2.17*	
Social get-togethers				0.051 (0.211)	1.053	0.24	
Street-side shopping				-0.172 (0.183)	0.842	-0.94	
Entertainment				0.128 (0.140)	1.137	0.91	
Leisure sports				-0.035 (0.114)	0.966	-0.31	
Low self-control	0.216 (0.111)	1.241	1.94	0.214 (0.113)	1.239	1.89	
Age	0.005 (0.016)	1.005	0.33	0.002 (0.016)	1.002	0.13	
Male	0.319 (0.274)	1.376	1.17	0.299 (0.269)	1.349	1.11	
Racial minority	0.481 (0.517)	1.618	0.93	0.506 (0.511)	1.659	0.99	
Hispanic	1.155 (0.457)	3.174	2.53*	1.173 (0.450)	3.232	2.61**	
Education	0.246 (0.131)	1.279	1.88	0.248 (0.131)	1.281	1.90	
Retired	-0.364 (0.286)	0.695	-1.27	-0.352 (0.287)	0.703	-1.23	
Married	-0.028 (0.259)	0.972	-0.11	-0.047 (0.263)	0.954	-0.18	
Wald $\chi^2 =$		27.01**			28.71**		
N =		967			967		

Appendix E Table 2
Financial Mistreatment Logistic Regression Models for Florida

	Financial mistreatment in Florida							
		Model 1			Model 2			
	<i>b</i> (s.e.)	Odds ratio	z-test	<i>b</i> (s.e.)	Odds ratio	z-test		
Routine activity	-0.092 (0.044)	0.912	-2.09*					
Outside-home activities				-0.019 (0.133)	0.981	-0.14		
Social get-togethers				-0.251 (0.162)	0.778	-1.55		
Street-side shopping				-0.056 (0.184)	0.946	-0.30		
Entertainment				0.026 (0.149)	1.027	0.18		
Leisure sports				-0.160 (0.107)	0.852	-1.50		
Low self-control	0.310 (0.106)	1.364	2.92**	0.310 (0.108)	1.363	2.86**		
Age	-0.041 (0.015)	0.960	-2.68**	-0.040 (0.016)	0.961	-2.54*		
Male	0.582 (0.237)	1.790	2.46*	0.595 (0.238)	1.814	2.50*		
Racial minority	0.427 (0.334)	1.533	1.28	0.458 (0.336)	1.581	1.36		
Hispanic	0.168 (0.671)	1.183	0.25	0.207 (0.679)	1.230	0.31		
Education	-0.038 (0.105)	0.963	-0.36	-0.038 (0.106)	0.963	-0.36		
Retired	0.002 (0.255)	1.002	0.01	0.023 (0.257)	1.024	0.09		
Married	-0.466 (0.233)	0.628	-2.00*	-0.453 (0.234)	0.636	-1.93		
Wald $\chi^2 =$		31.39**			33.63**			
N =		975			975			

## **APPENDIX F: Survey Instrument**

[Initial Introduction] Hello, my name is \_\_\_\_\_\_, and I'm calling on behalf of [Arizona State University or Florida State University. We are interested in talking with people 60 years of age or older.

- **Q1** How many adults age 60 or older live in this household?
  - 0 =Thank and End.
  - 1 = Go to Question 2
  - 2 or more = Go to Question 3
- **Q2** May I speak with that person?
  - 1 = On the phone (*Continue to Follow-up Introduction*)
  - 2 = Impaired (*Thank and End*)
  - 3 = Called to the phone (*Repeat Initial Introduction and continue to Follow-up Introduction*)
  - 4 = Unavailable (*Schedule Callback*)
  - 5 = Refused (Thank and End)
- Q3 In order to select just one person to interview, may I please speak to the person 60 years of age or older living in your household who will have the next birthday?
  - 1 = On the phone (*Continue to Follow-up Introduction*)
  - 2 = Impaired (*Thank and End*)
  - 3 = Called to the phone (*Repeat Initial Introduction and continue to Follow-up Introduction*)
  - 4 = Unavailable (*Schedule Callback*)
  - 5 =Refused (*Thank and End*)

[Follow-Up Introduction] We are interviewing [Arizonans or Floridians] about different kinds of crimes on behalf of the National Institute of Justice, a research agency in the U.S. Department of Justice. There are no wrong or right answers. You can skip questions if you wish. You may choose to stop at any time. Your participation is voluntary. We will not ask for your name or any information that would allow us or others to guess who you are. The interview takes about 15 minutes. Is now a good time?

I would like to begin by asking you some questions that require you to use your memory. I am going to name three objects. Please wait until I say all three words. Do not write them down. Remember what they are because I am going to ask you to name them again in a few moments. The three words are: APPLE, TABLE, PENNY. (*Interviewer may repeat names 3 times if necessary*.)

- **Q4** What year is this?
  - 1 = Correctly identified
  - 0 = Incorrectly identified
- **Q5** What month is this?
  - 1 = Correctly identified
  - 0 =Incorrectly identified

- **Q6** What is the day of the week?
  - 1 = Correctly identified
  - 0 =Incorrectly identified
- **Q7** What were the three objects I asked you to remember? (*Record # remembered; Order of recall is not important.*)
  - 0 = Zero Correct
  - 1 = One Correct
  - 2 = Two Correct
  - 3 = Three Correct

[Sum response codes for Q4 - Q7. If score is 3 or higher, continue with interview. If score is 0, 1, or 2, then thank and end interview.]

Now, please tell me whether, yes or no, you have done any of the following in the past YEAR.  $(RANDOMIZE\ Q8 - Q12\ STATEMENTS)$ 

- Q8 Have you purchased something in response to a telemarketing call from a company with whom you have NOT previously done business?
  - $1 = \text{Yes} (go \ to \ Q8a)$
  - $0 = \text{No} (go \ to \ Q9)$
  - 99 = Don't Know/Refused (go to Q9)
  - Q8a How many purchases have you made in the last year? (RECORD EXACT NUMBER; -999 Don't Know/Refused) (go to Q8b)
  - **Q8b** How much money did you spend on all such purchases last year? (*RECORD EXACT AMOUNT IN DOLLARS*; -999 Don't Know/Refused)
- **Q9** Have you purchased something from an Internet web site?
  - $1 = \text{Yes} (go \ to \ Q9a)$
  - 0 = No (go to Q10)
  - 99 = Don't Know/Refused (go to Q10)
  - **Q9a** How many purchases have you made in the last year? (RECORD EXACT NUMBER; -999 Don't Know/Refused) (go to Q9b)
  - **Q9b** How much money did you spend on all such purchases last year? (RECORD EXACT AMOUNT IN DOLLARS; -999 Don't Know/Refused)
- Q10 Have you placed an order for a product by phone, Internet or mail after seeing a television advertisement or infomercial?
  - $1 = \text{Yes} (go \ to \ Q10a)$
  - $0 = \text{No} (go \ to \ Q11)$
  - 99 = Don't Know/Refused (go to Q11)
  - Q10a How many purchases have you made in the last year? (RECORD EXACT NUMBER; -999 Don't Know/Refused) (go to Q10b)

- Q10b How much money did you spend on all such purchases last year? (RECORD EXACT AMOUNT IN DOLLARS; -999 Don't Know/Refused)
- Q11 Have you placed an order for a product by phone, Internet or mail after receiving an offer in the mail from a company with whom you have NOT previously done business?
  - $1 = \text{Yes } (go \ to \ Q11a)$
  - $0 = \text{No} (go \ to \ Q12)$
  - 99 = Don't Know/Refused (go to Q12)
  - Q11a How many purchases have you made in the last year? (RECORD EXACT NUMBER; -999 Don't Know/Refused) (go to Q11b)
  - Q11b How much money did you spend on all such purchases last year? (RECORD EXACT AMOUNT IN DOLLARS; -999 Don't Know/Refused)
- Q12 Have you placed an order for a product by phone, Internet or mail after receiving an email offer from a company with whom you have NOT previously done business?
  - $1 = \text{Yes} (go \ to \ Q12a)$
  - $0 = \text{No} (go \ to \ Q13)$
  - 99 = Don't Know/Refused (go to Q13)
  - Q12a How many purchases have you made in the last year? (RECORD EXACT NUMBER; -999 Don't Know/Refused) (go to Q12b)
  - Q12b How much money did you spend on all such purchases last year? (RECORD EXACT AMOUNT IN DOLLARS; -999 Don't Know/Refused)

Thank you. That is helpful.

- Q13 Do you ever go online to access the Internet?
  - $1 = \text{Yes} (go \ to \ Q13a)$
  - 0 = No (go to Q14)
  - 99 = Don't Know/Refused (go to Q14)
  - Q13a How many hours each week would you say you spend on the Internet? (RECORD EXACT NUMBER OF HOURS; -999 for Don't know/Refused)
- Q14 Do you manage your own money, like a checking account?
  - 1 = Yes
  - 0 = No
  - 99 = Don't Know/Refused
- Q15 How much difficulty do you have managing your money, such as keeping track of expenses or paying bills? (*READ RESPONSES*)
  - 0 = No difficulty
  - 1 =Some difficulty
  - 2 = A lot of difficulty
  - 3 =Unable to do it
  - 99 = Don't Know/Refused

- Q16 Do you receive help from another person in managing your money?
  - $1 = \text{Yes} (go \ to \ Q16a)$
  - $0 = \text{No} (go \ to \ Q17)$
  - 99 = Don't Know/Refused (go to Q17)
  - **Q16a** What is that person's relationship to you?
    - 1 = A spouse or partner
    - 2 = An EX-spouse or partner
    - 3 = A son or daughter
    - 4 = A brother or sister
    - 5 = A parent or step-parent
    - 6 = Another relative (Specify)
    - 7 = A friend
    - 8 = A neighbor
    - 9 =Some other non-relative (Specify)
    - 99 = Don't know/Refused

Please indicate whether you strongly agree, agree, disagree, or strongly disagree with the following statements. ( $RANDOMIZE\ Q17 - Q35\ STATEMENTS$ )

- Q17 I am basically satisfied with my life.
  - 1 = Strongly agree
  - 2 = Agree
  - 3 = Disagree
  - 4 =Strongly disagree
  - 99 = Don't know/Refused
- Q18 It is easy for me to trust someone.
  - 1 = Strongly agree
  - 2 = Agree
  - 3 = Disagree
  - 4 =Strongly disagree
  - 99 = Don't know/Refused
- **Q19** I often feel isolated from others.
  - 1 =Strongly agree
  - 2 = Agree
  - 3 = Disagree
  - 4 = Strongly disagree
  - 99 = Don't know/Refused
- **Q20** I often get bored.
  - 1 = Strongly agree
  - 2 = Agree
  - 3 = Disagree
  - 4 = Strongly disagree
  - 99 = Don't know/Refused

- **Q21** My tendency to trust people is high.
  - 1 =Strongly agree
  - 2 = Agree
  - 3 = Disagree
  - 4 =Strongly disagree
  - 99 = Don't know/Refused
- Q22 I do certain things that are bad for me, if they are fun.
  - 1 = Strongly agree
  - 2 = Agree
  - 3 = Disagree
  - 4 = Strongly disagree
  - 99 = Don't know/Refused
- Q23 I often feel helpless.
  - 1 =Strongly agree
  - 2 = Agree
  - 3 = Disagree
  - 4 =Strongly disagree
  - 99 = Don't know/Refused
- **Q24** Trusting someone is NOT difficult for me.
  - 1 = Strongly agree
  - 2 = Agree
  - 3 = Disagree
  - 4 = Strongly disagree
  - 99 = Don't know/Refused
- **Q25** I am good at resisting temptation.
  - 1 =Strongly agree
  - 2 = Agree
  - 3 = Disagree
  - 4 =Strongly disagree
  - 99 = Don't know/Refused
- Q26 I know people who would help me if I were confined to bed.
  - 1 = Strongly agree
  - 2 = Agree
  - 3 = Disagree
  - 4 = Strongly disagree
  - 99 = Don't know/Refused
- **Q27** I often feel that I lack companionship.
  - 1 =Strongly agree
  - 2 = Agree
  - 3 = Disagree
  - 4 =Strongly disagree
  - 99 = Don't know/Refused

- **Q28** I prefer staying at home rather than going out and doing things. 1 =Strongly agree 2 = Agree3 = Disagree4 =Strongly disagree 99 = Don't know/Refused **O29** I have people who I can talk to about my problems. 1 =Strongly agree 2 = Agree3 = Disagree4 = Strongly disagree 99 = Don't know/Refused **Q30** I often act without thinking through all the alternatives. 1 =Strongly agree 2 = Agree3 = Disagree4 =Strongly disagree 99 = Don't know/Refused **Q31** I know people who I can turn to if I need good advice about a crisis. 1 = Strongly agree
  - 2 = Agree
  - 3 = Disagree
  - 4 =Strongly disagree
  - 99 = Don't know/Refused
- Q32 I feel pretty worthless right now.
  - 1 =Strongly agree
  - 2 = Agree
  - 3 = Disagree
  - 4 =Strongly disagree
  - 99 = Don't know/Refused
- Q33 The police in my community can be trusted to make good decisions.
  - 1 =Strongly agree
  - 2 = Agree
  - 3 = Disagree
  - 4 =Strongly disagree
  - 99 = Don't know/Refused
- Q34 I believe you should accept decisions made by the police even if you think they are wrong.
  - 1 =Strongly agree
  - 2 = Agree
  - 3 = Disagree
  - 4 =Strongly disagree
  - 99 = Don't know/Refused

- Q35 In my community the criminal justice system does a good job making sure criminals get what they deserve, no more, no less.
  - 1 = Strongly agree
  - 2 = Agree
  - 3 = Disagree
  - 4 =Strongly disagree
  - 99 = Don't know/Refused

Now I'd like to ask you about some things that people do from time to time. Remember that your answers are anonymous, so please report honestly. Thinking about the PAST YEAR, please tell me whether you frequently, sometimes, rarely or never did each of the following:  $(RANDOMIZE\ Q36 - Q52\ STATEMENTS)$ 

- **Q36** Participated in social activities away from home?
  - 1 = Frequently
  - 2 = Sometimes
  - 3 = Rarely
  - 4 = Never
  - 99 = Don't know/Refused
- Q37 Bought something on the spur of the moment that you really did not need?
  - 1 = Frequently
  - 2 = Sometimes
  - 3 = Rarely
  - 4 = Never
  - 99 = Don't know/Refused
- Q38 Took an inexpensive item from a store without paying for it?
  - 1 = Frequently
  - 2 = Sometimes
  - 3 = Rarely
  - 4 = Never
  - 99 = Don't know/Refused
- Q39 Got together socially with people who DO NOT live with you, such as friends, neighbors, and relatives?
  - 1 = Frequently
  - 2 = Sometimes
  - 3 = Rarely
  - 4 = Never
  - 99 = Don't know/Refused
- Q40 Took a higher dosage of medicine than recommended by the doctor or the package insert?
  - 1 = Frequently
  - 2 = Sometimes
  - 3 = Rarely
  - 4 = Never
  - 99 = Don't know/Refused

**Q41** Deliberately wrote a bad check? 1 = Frequently2 = Sometimes3 = Rarely4 = Never99 = Don't know/Refused Q42 Went shopping at grocery, drug, hardware, department or convenience stores? 1 = Frequently2 = Sometimes3 = Rarely4 = Never99 = Don't know/Refused **O43** Borrowed something and DID NOT return it? 1 = Frequently2 = Sometimes3 = Rarely4 = Never99 = Don't know/Refused **Q44** Slapped, kicked, or punched another person? 1 = Frequently2 = Sometimes3 = Rarely4 = Never99 = Don't know/Refused **Q45** Went to church, temple, or another place of worship for services or other activities? 1 = Frequently2 = Sometimes3 = Rarely4 = Never99 = Don't know/Refused **Q46** Took medication that was NOT prescribed to you? 1 = Frequently2 = Sometimes3 = Rarely4 = Never99 = Don't know/Refused **Q47** Went to a movie, restaurant, club meeting, or other group event? 1 = Frequently2 = Sometimes3 = Rarely4 = Never99 = Don't know/Refused

- **Q48** Drove a motor vehicle while under the influence of alcohol?
  - 1 = Frequently
  - 2 = Sometimes
  - 3 = Rarely
  - 4 = Never
  - 99 = Don't know/Refused
- **Q49** Went to a drinking establishment, like a bar, tavern, or lounge?
  - 1 = Frequently
  - 2 = Sometimes
  - 3 = Rarely
  - 4 = Never
  - 99 = Don't know/Refused
- **Q50** Broke traffic laws while driving a motor vehicle?
  - 1 = Frequently
  - 2 = Sometimes
  - 3 = Rarely
  - 4 = Never
  - 99 = Don't know/Refused
- **Q51** Exercised and/or participated in leisure sports?
  - 1 = Frequently
  - 2 = Sometimes
  - 3 = Rarely
  - 4 = Never
  - 99 = Don't know/Refused
- **Q52** Parked a car in a place that you were NOT supposed to?
  - 1 = Frequently
  - 2 = Sometimes
  - 3 = Rarely
  - 4 = Never
  - 99 = Don't know/Refused

Sometimes consumers are misled into giving people money who grossly misrepresent or never provide goods and services they promised. The people who do these things may or may not work for legitimate businesses and may contact consumers through email, Internet sites, telemarketing, infomercials, and other ways. (*RANDOMIZE Q53 – Q62 STATEMENTS*)

- Q53 Has anyone ever tried to get you to pay for repairs to your home, an appliance, or automobile for work that was never performed or was unnecessary?
  - $1 = \text{Yes} (go \ to \ Q53a)$
  - $0 = \text{No} (go \ to \ Q54)$
  - 99 = Don't Know (go to Q54)
  - **Q53a** About how many times has this happened to you in your lifetime? (RECORD EXACT NUMBER; -999 Don't Know/Refused) (go to Q53b)

- **Q53b** When was the last time this happened?
  - 1 =Within the last year (go to Q53c)
  - 2 =One to two years ago (go to Q53c)
  - 3 =More than two years ago (go to Q54)
  - 99 = Don't know/Refused (go to Q54)
- **Q53c** Did you pay for the repairs?
  - $1 = \text{Yes} (go \ to \ Q53d)$
  - $0 = \text{No} (go \ to \ Q53e)$
  - 99 = Don't know/Refused (go to Q54)
- **Q53d** How much did you pay for the repairs? (RECORD EXACT AMOUNT IN DOLLARS; -999 Don't Know/Refused)
- **Q53e** How did the person or company first contact you? (*Read if necessary*)
  - 1 =Internet web site
  - 2 = Email
  - 3 = Television advertisement or infomercial
  - 4 = Mail advertisement, including a catalog
  - 5 = Telephone
  - 6 = At a store you visited
  - 7 = Someone came to your home
  - 8 = A radio advertisement
  - 9 = A poster or flier
  - 10 = A magazine or newspaper advertisement
  - 11 = A bill you received
  - 12 = Other (SPECIFY) (example: word of mouth)
  - 99 = Don't Know/Refused
- **Q53f** Was the incident reported to the police?
  - 1 = Yes
  - 0 = No
  - 99 = Don't Know/Refused
- **Q53g** Was the incident reported to other authorities, like the Better Business Bureau or a government agency?
  - 1 = Yes
  - 0 = No
  - 99 = Don't Know/Refused
- Q54 Has anyone ever tried to sell you a health care, beauty care, weight-loss or other product or service that did not work as claimed?
  - $1 = \text{Yes} (go \ to \ Q54a)$
  - $0 = \text{No} (go \ to \ Q55)$
  - 99 = Don't Know (go to Q55)
  - **Q54a** About how many times has this happened to you in your lifetime? (*RECORD EXACT NUMBER*; -999 Don't Know/Refused) (go to Q54b)

- **Q54b** When was the last time this happened?
  - 1 =Within the last year (go to Q54c)
  - 2 =One to two years ago (go to Q54c)
  - 3 =More than two years ago (go to Q55)
  - 99 = Don't know/Refused (go to Q55)
- **Q54c** Did you pay for the product or service?
  - $1 = \text{Yes} (go \ to \ Q54d)$
  - $0 = \text{No} (go \ to \ Q54e)$
  - 99 = Don't know/Refused (go to Q55)
- **Q54d** How much did you pay for the product or service? (RECORD EXACT AMOUNT IN DOLLARS; -999 Don't Know/Refused)
- **Q54e** How did the person or company first contact you? (*Read if necessary*)
  - 1 = Internet web site
  - 2 = Email
  - 3 = Television advertisement or infomercial
  - 4 = Mail advertisement, including a catalog
  - 5 = Telephone
  - 6 = At a store you visited
  - 7 = Someone came to your home
  - 8 = A radio advertisement
  - 9 = A poster or flier
  - 10 = A magazine or newspaper advertisement
  - 11 = A bill you received
  - 12 = Other (SPECIFY)\_\_\_\_\_ (example: word of mouth)
  - 99 = Don't Know/Refused
- **Q54f** Was the incident reported to the police?
  - 1 = Yes
  - 0 = No
  - 99 = Don't Know/Refused
- **Q54g** Was the incident reported to other authorities, like the Better Business Bureau or a government agency?
  - 1 = Yes
  - 0 = No
  - 99 = Don't Know/Refused
- Q55 Has anyone ever tried to sell you a phony subscription to magazines or something else?
  - $1 = \text{Yes} (go \ to \ Q55a)$
  - $0 = \text{No} (go \ to \ Q56)$
  - 99 = Don't Know/Refused (go to Q56)
  - **Q55a** About how many times has this happened to you in your lifetime? (RECORD EXACT NUMBER; -999 Don't Know/Refused) (go to Q55b)

- **Q55b** When was the last time this happened?
  - 1 =Within the last year (go to Q55c)
  - 2 =One to two years ago (go to Q55c)
  - 3 =More than two years ago (go to Q56)
  - 99 = Don't know/Refused (go to Q56)
- **Q55c** Did you pay for the subscription?
  - $1 = \text{Yes} (go \ to \ Q55d)$
  - $0 = \text{No} (go \ to \ Q55e)$
  - 99 = Don't know/Refused (go to Q56)
- **Q55d** How much did you pay for the subscription? (*RECORD EXACT AMOUNT IN DOLLARS*; -999 Don't Know/Refused)
- **Q55e** How did the person or company first contact you? (*Read if necessary*)
  - 1 = Internet web site
  - 2 = Email
  - 3 = Television advertisement or infomercial
  - 4 = Mail advertisement, including a catalog
  - 5 = Telephone
  - 6 = At a store you visited
  - 7 = Someone came to your home
  - 8 = A radio advertisement
  - 9 = A poster or flier
  - 10 = A magazine or newspaper advertisement
  - 11 = A bill you received
  - 12 = Other (SPECIFY)\_\_\_\_\_ (example: word of mouth)
  - 99 = Don't Know/Refused
- **Q55f** Was the incident reported to the police?
  - 1 = Yes
  - 0 = No
  - 99 = Don't Know/Refused
- **Q55g** Was the incident reported to other authorities, like the Better Business Bureau or a government agency?
  - 1 = Yes
  - 0 = No
  - 99 = Don't Know/Refused
- Q56 Has anyone ever tried to trick you into giving them money to improve your financial situation, like repair credit or get equity out of your home?
  - $1 = \text{Yes} (go \ to \ Q56a)$
  - $0 = \text{No} (go \ to \ Q57)$
  - 99 = Don't Know/Refused (go to Q57)
  - **Q56a** About how many times has this happened to you in your lifetime? (*RECORD EXACT NUMBER*; -999 Don't Know/Refused) (go to Q56b)

- **Q56b** When was the last time this happened?
  - 1 =Within the last year (go to Q56c)
  - 2 =One to two years ago (go to Q56c)
  - 3 =More than two years ago (go to Q57)
  - 99 = Don't know/Refused (go to Q57)
- **Q56c** Did you pay for this service?
  - $1 = \text{Yes} (go \ to \ Q56d)$
  - $0 = \text{No} (go \ to \ Q56e)$
  - 99 = Don't know/Refused (go to Q57)
- **Q56d** How much did you pay the person or company? (*RECORD EXACT AMOUNT IN DOLLARS*; -999 Don't Know/Refused)
- **Q56e** How did the person or company first contact you? (*Read if necessary*)
  - 1 = Internet web site
  - 2 = Email
  - 3 = Television advertisement or infomercial
  - 4 = Mail advertisement, including a catalog
  - 5 = Telephone
  - 6 = At a store you visited
  - 7 = Someone came to your home
  - 8 = A radio advertisement
  - 9 = A poster or flier
  - 10 = A magazine or newspaper advertisement
  - 11 = A bill you received
  - 12 = Other (SPECIFY)\_\_\_\_\_ (example: word of mouth)
  - 99 = Don't Know/Refused
- **Q56f** Was the incident reported to the police?
  - 1 = Yes
  - 0 = No
  - 99 = Don't Know/Refused
- **Q56g** Was the incident reported to other authorities, like the Better Business Bureau or a government agency?
  - 1 = Yes
  - 0 = No
  - 99 = Don't Know/Refused
- Q57 Has anyone ever tried to get you to invest in a phony business opportunity such as work-at-home scams?
  - $1 = \text{Yes} (go \ to \ Q57a)$
  - $0 = \text{No} (go \ to \ Q58)$
  - 99 = Don't Know (go to Q58)
  - **Q57a** About how many times has this happened to you in your lifetime? (*RECORD EXACT NUMBER*; -999 Don't Know/Refused) (go to Q57b)

- **Q57b** When was the last time this happened?
  - 1 =Within the last year (go to Q57c)
  - 2 =One to two years ago (go to Q57c)
  - 3 =More than two years ago (go to Q58)
  - 99 = Don't know/Refused (go to Q58)
- **Q57c** Did you invest in the business opportunity?
  - $1 = \text{Yes} (go \ to \ Q57d)$
  - $0 = \text{No} (go \ to \ Q57e)$
  - 99 = Don't know/Refused (go to Q58)
- **Q57d** How much money did you invest? (RECORD EXACT AMOUNT IN DOLLARS; -999 Don't Know/Refused)
- **Q57e** How did the person or company first contact you? (*Read if necessary*)
  - 1 = Internet web site
  - 2 = Email
  - 3 = Television advertisement or infomercial
  - 4 = Mail advertisement, including a catalog
  - 5 = Telephone
  - 6 = At a store you visited
  - 7 = Someone came to your home
  - 8 = A radio advertisement
  - 9 = A poster or flier
  - 10 = A magazine or newspaper advertisement
  - 11 = A bill you received
  - 12 = Other (SPECIFY)\_\_\_\_\_ (example: word of mouth)
  - 99 = Don't Know/Refused
- **Q57f** Was the incident reported to the police?
  - 1 = Yes
  - 0 = No
  - 99 = Don't Know/Refused
- **Q57g** Was the incident reported to other authorities, like the Better Business Bureau or a government agency?
  - 1 = Yes
  - 0 = No
  - 99 = Don't Know/Refused
- Q58 Has anyone ever tried to trick you into giving them your financial information, like your credit card number or bank account information?
  - $1 = \text{Yes} (go \ to \ Q58a)$
  - $0 = \text{No} (go \ to \ Q59)$
  - 99 = Don't Know (go to Q59)
  - **Q58a** About how many times has this happened to you in your lifetime? (*RECORD EXACT NUMBER*; -999 Don't Know/Refused) (go to Q58b)

- **Q58b** When was the last time this happened? 1 =Within the last year (go to Q58c) 2 =One to two years ago (go to Q58c) 3 =More than two years ago (go to Q59) 99 = Don't know/Refused (go to Q59) **Q58c** Did the person your financial information?  $1 = \text{Yes} (go \ to \ Q58d)$  $0 = \text{No} (go \ to \ Q58e)$ 99 = Don't know/Refused (go to Q59)**Q58d** How much money did you lose as a result of this incident? (RECORD EXACT AMOUNT IN DOLLARS; -999 Don't Know/Refused) **Q58e** How did the person or company first contact you? (*Read if necessary*) 1 =Internet web site 2 = Email3 = Television advertisement or infomercial 4 = Mail advertisement, including a catalog 5 = Telephone6 = At a store you visited 7 = Someone came to your home 8 = A radio advertisement 9 = A poster or flier 10 = A magazine or newspaper advertisement 11 = A bill you received 12 = Other (SPECIFY)\_\_\_\_\_ (example: word of mouth) 99 = Don't Know/Refused **Q58f** Was the incident reported to the police? 1 = Yes0 = No99 = Don't Know/Refused **Q58g** Was the incident reported to other authorities, like the Better Business Bureau or a government agency? 1 = Yes0 = No99 = Don't Know/Refused
  - 12 = Other (SPECIFY) (example: word of mouth)

99 = Don't Know/Refused

- Q59 Has anyone ever tried to get you to contribute money to a phony charity or religious organization?
  - $1 = \text{Yes} (go \ to \ Q59a)$
  - $0 = \text{No} (go \ to \ O60)$
  - 99 = Don't Know (go to Q60)
  - **O59a** About how many times has this happened to you in your lifetime? (*RECORD*) EXACT NUMBER; -999 Don't Know/Refused) (go to Q59b)

- **Q59b** When was the last time this happened?
  - 1 =Within the last year (go to Q59c)
  - 2 =One to two years ago (go to Q59c)
  - 3 =More than two years ago (go to Q60)
  - 99 = Don't know/Refused (go to Q60)
- **Q59c** Did contribute money to the charity or organization?
  - $1 = \text{Yes} (go \ to \ Q59d)$
  - $0 = \text{No} (go \ to \ Q59e)$
  - 99 = Don't know/Refused (go to Q60)
- **Q59d** How much money did you contribute? (*RECORD EXACT AMOUNT IN DOLLARS*; -999 Don't Know/Refused)
- **Q59e** How did the person or company first contact you? (*Read if necessary*)
  - 1 = Internet web site
  - 2 = Email
  - 3 = Television advertisement or infomercial
  - 4 = Mail advertisement, including a catalog
  - 5 = Telephone
  - 6 = At a store you visited
  - 7 = Someone came to your home
  - 8 = A radio advertisement
  - 9 = A poster or flier
  - 10 = A magazine or newspaper advertisement
  - 11 = A bill you received
  - 12 = Other (SPECIFY)\_\_\_\_\_ (example: word of mouth)
  - 99 = Don't Know/Refused
- **Q59f** Was the incident reported to the police?
  - 1 = Yes
  - 0 = No
  - 99 = Don't Know/Refused
- **Q59g** Was the incident reported to other authorities, like the Better Business Bureau or a government agency?
  - 1 = Yes
  - 0 = No
  - 99 = Don't Know/Refused
- Q60 Has anyone ever tried to get you to pay a fee to claim a phony prize, like a sweepstakes or vacation?
  - $1 = \text{Yes} (go \ to \ Q60a)$
  - $0 = \text{No} (go \ to \ Q61)$
  - 99 = Don't Know (go to Q61)
  - **Q60a** About how many times has this happened to you in your lifetime? (RECORD EXACT NUMBER; -999 Don't Know/Refused) (go to Q60b)

- **Q60b** When was the last time this happened?
  - $1 = \text{Within the last year } (go \ to \ Q60c)$
  - 2 =One to two years ago (go to Q60c)
  - 3 =More than two years ago (go to Q61)
  - 99 = Don't know/Refused (go to Q61)
- **Q60c** Did you end up paying money for the prize?
  - $1 = \text{Yes } (go \ to \ Q60d)$
  - $0 = \text{No} (go \ to \ Q60e)$
  - $99 = \text{Don't know/Refused} (go \ to \ Q61)$
- **Q60d** How much money did you pay to claim the prize? (RECORD EXACT AMOUNT IN DOLLARS; -999 Don't Know/Refused)
- **Q60e** How did the person or company first contact you? (*Read if necessary*)
  - 1 = Internet web site
  - 2 = Email
  - 3 = Television advertisement or infomercial
  - 4 = Mail advertisement, including a catalog
  - 5 = Telephone
  - 6 = At a store you visited
  - 7 = Someone came to your home
  - 8 = A radio advertisement
  - 9 = A poster or flier
  - 10 = A magazine or newspaper advertisement
  - 11 = A bill you received
  - 12 = Other (SPECIFY)\_\_\_\_\_ (example: word of mouth)
  - 99 = Don't Know/Refused
- **Q60f** Was the incident reported to the police?
  - 1 = Yes
  - 0 = No
  - 99 = Don't Know/Refused
- **Q60g** Was the incident reported to other authorities, like the Better Business Bureau or a government agency?
  - 1 = Yes
  - 0 = No
  - 99 = Don't Know/Refused
- Q61 Has anyone ever tried to get you to pay money in advance to reduce your mortgage payments?
  - $1 = \text{Yes} (go \ to \ Q61a)$
  - $0 = \text{No} (go \ to \ Q62)$
  - 99 = Don't Know (go to Q62)
  - **Q61a** About how many times has this happened to you in your lifetime? (*RECORD EXACT NUMBER*; -999 Don't Know/Refused) (go to Q61b)

- **Q61b** When was the last time this happened?
  - 1 =Within the last year (go to Q61c)
  - 2 =One to two years ago (go to Q61c)
  - 3 =More than two years ago (go to Q62)
  - 99 = Don't know/Refused (go to Q62)
- **Q61c** Did you end up paying money in advance?
  - $1 = \text{Yes} (go \ to \ Q61d)$
  - $0 = \text{No} (go \ to \ Q61e)$
  - 99 = Don't know/Refused (go to Q62)
- **Q61d** How much did you pay in advance to have your mortgage reduced? (*RECORD EXACT AMOUNT IN DOLLARS*; -999 Don't Know/Refused)
- **Q61e** How did the person or company first contact you? (*Read if necessary*)
  - 1 = Internet web site
  - 2 = Email
  - 3 = Television advertisement or infomercial
  - 4 = Mail advertisement, including a catalog
  - 5 = Telephone
  - 6 = At a store you visited
  - 7 = Someone came to your home
  - 8 = A radio advertisement
  - 9 = A poster or flier
  - 10 = A magazine or newspaper advertisement
  - 11 = A bill you received
  - 12 = Other (SPECIFY) (example: word of mouth)
  - 99 = Don't Know/Refused
- **Q61f** Was the incident reported to the police?
  - 1 = Yes
  - 0 = No
  - 99 = Don't Know/Refused
- **Q61g** Was the incident reported to other authorities, like the Better Business Bureau or a government agency?
  - 1 = Yes
  - 0 = No
  - 99 = Don't Know/Refused
- Q62 Has anyone ever tried to steal your personal information so they could use it to get a credit card or a loan?
  - $1 = \text{Yes} (go \ to \ Q62a)$
  - $0 = \text{No} (go \ to \ Q63)$
  - 99 = Don't Know (go to Q63)
  - **Q62a** About how many times has this happened to you in your lifetime? (*RECORD EXACT NUMBER*; -999 Don't Know/Refused) (go to Q62b)

- **Q62b** When was the last time this happened?
  - 1 =Within the last year (go to Q62c)
  - 2 =One to two years ago (go to Q62c)
  - 3 =More than two years ago (go to Q63)
  - 99 = Don't know/Refused (go to Q63)
- **Q62c** Did the person steal your personal information?
  - $1 = \text{Yes} (go \ to \ Q62d)$
  - $0 = \text{No} (go \ to \ Q62e)$
  - 99 = Don't know/Refused (go to Q63)
- **Q62d** How much did you lose as a result of this incident? (*RECORD EXACT AMOUNT IN DOLLARS*; -999 Don't Know/Refused)
- **Q62e** How did the person or company first contact you? (*Read if necessary*)
  - 1 = Internet web site
  - 2 = Email
  - 3 = Television advertisement or infomercial
  - 4 = Mail advertisement, including a catalog
  - 5 = Telephone
  - 6 = At a store you visited
  - 7 = Someone came to your home
  - 8 = A radio advertisement
  - 9 = A poster or flier
  - 10 = A magazine or newspaper advertisement
  - 11 = A bill you received
  - 12 = Other (SPECIFY) (example: word of mouth)
  - 99 = Don't Know/Refused
- **Q62f** Was the incident reported to the police?
  - 1 = Yes
  - 0 = No
  - 99 = Don't Know/Refused
- **Q62g** Was the incident reported to other authorities, like the Better Business Bureau or a government agency?
  - 1 = Yes
  - 0 = No
  - 99 = Don't Know/Refused

Now I want to ask you about statewide agencies and programs that help seniors protect themselves.

- **Q63** How familiar are you with the [Arizona Agency on Aging or Florida's Senior vs. Crime program]?
  - $1 = \text{Very familiar} (go \ to \ O63a)$
  - 2 =Somewhat familiar (go to Q63a)
  - 3 = Not familiar (go to Q64)
  - 99 = Don't know/Refused (go to Q64)

- **Q63a** How did you first hear about [Arizona Agency on Aging or Florida's Senior vs. Crime program]?
  - 1 = From a friend or family member
  - 2 = From watching television
  - 3 = From the radio
  - 4 = From the newspaper
  - 5 = From an Internet web page or email
  - 6 = From something I received in the mail
  - 7 = Other (Specify)
  - 99 = Don't know/Refused
- **Q63b** In the past year, have you contacted [Arizona Agency on Aging or Florida's Senior vs. Crime program]?
  - $1 = \text{Yes} (go \ to \ Q63c)$
  - 0 = No (go to Q64)
  - 99 = Don't know/Refused (go to Q64)
- **Q63c** How satisfied were you with your experience with [Arizona Agency on Aging or Florida's Senior vs. Crime program]?
  - 1 = Very satisfied
  - 2 = Satisfied
  - 3 = Dissatisfied
  - 4 = Very dissatisfied
  - 99 = Don't know/Refused
- **Q63d** Did you learn anything that led you to take precautions to prevent victimization?
  - $1 = \text{Yes} (go \ to \ Q63e)$
  - $0 = \text{No} (go \ to \ Q64)$
  - 99 = Don't know/Refused (go to Q64)
- **Q63e** Did you talk with others about what you learned?
  - 1 = Yes
  - 0 = No
  - 99 = Don't know/Refused

Now I want to ask you about another program.

- **Q64** How familiar are you with the Senior Sleuths program?
  - 1 = Very familiar (go to Q64a)
  - 2 =Somewhat familiar (go to Q64a)
  - 3 = Not familiar (go to Q65)
  - 99 = Don't know/Refused (go to Q65)

- **Q64a** How did you first hear about The Senior Sleuths program?
  - 1 = From a friend or family member
  - 2 = From watching television
  - 3 = From the radio
  - 4 = From the newspaper
  - 5 = From an Internet web page or email
  - 6 = From something I received in the mail
  - 7 = Other (Specify)
  - 99 = Don't know/Refused
- **Q64b** In the past year, have you contacted The Senior Sleuths program?
  - $1 = \text{Yes} (go \ to \ Q64c)$
  - $0 = \text{No} (go \ to \ Q65)$
  - 99 = Don't know/Refused (go to Q65)
- **Q64c** How satisfied were your with your experience with The Senior Sleuths program?
  - 1 = Very satisfied
  - 2 = Satisfied
  - 3 = Dissatisfied
  - 4 = Very dissatisfied
  - 99 = Don't know/Refused
- **Q64d** Did you learn anything that led you to take precautions to prevent victimization?
  - $1 = \text{Yes} (go \ to \ Q64e)$
  - $0 = \text{No} (go \ to \ Q65)$
  - 99 = Don't know/Refused (go to Q65)
- **Q64e** Did you talk with others about what you learned?
  - 1 = Yes
  - 0 = No
  - 99 = Don't know/Refused
- Q65 In the past year, which of the following sources have provided you with information about how to protect yourself against consumer fraud? (CHECK ALL THAT APPLY)
  - 1 = Internet websites
  - 2 = Email
  - 3 = Television
  - 4 = Radio
  - 5 = Magazines
  - 6 = Brochure or Flier
  - 7 = Other (Specify)
  - 8 =None of these sources
  - 99 = Don't know/Refused

People sometimes illegally use other people's money or property for their own benefit. The individuals doing these things could be close to you, like a family member or friend, or someone you don't know very well. (RANDOMIZE Q66 – Q69 STATEMENTS)

- Q66 Has anyone ever spent your money or sold something of yours without your permission?
  - $1 = \text{Yes} (go \ to \ Q66a)$
  - $0 = \text{No} (go \ to \ Q67)$
  - 99 = Don't Know (go to Q67)
  - **Q66a** About how many times has this happened to you in your lifetime? (RECORD EXACT NUMBER; -999 Don't Know/Refused) (go to Q66b)
  - **Q66b** When was the last time this happened?
    - $1 = \text{Within the last year } (go \ to \ Q66c)$
    - 2 =One to two years ago (go to Q66c)
    - 3 = More than two years ago (go to Q67)
    - 99 = Don't know/Refused (go to Q67)
  - **Q66c** Thinking about the most recent incident, how were you related to the person?
    - 1 = A spouse or partner
    - 2 = An EX-spouse or partner
    - 3 = A son or daughter
    - 4 = A brother or sister
    - 5 = A parent or step-parent
    - 6 = Another relative (Specify)
    - 7 = A friend
    - 8 = A neighbor
    - 9 =Some other non-relative (Specify)
    - 99 = Don't know/Refused (go to Q67)
  - **Q66d** What was the approximate value of the property or amount of money that was involved? (*RECORD EXACT AMOUNT IN DOLLARS*; -999 Don't Know/Refused)
  - **Q66e** Was the incident reported to the police?
    - 1 = Yes
    - 0 = No
    - 99 = Don't Know/Refused
  - **Q66f** Was the incident reported to other authorities, such as social services?
    - 1 = Yes
    - 0 = No
    - 99 = Don't Know/Refused

- Q67 Has anyone ever forged your signature without your permission in order to sell your things or to get money from your accounts?
  - $1 = \text{Yes } (go \ to \ Q67a)$
  - $0 = \text{No} (go \ to \ Q68)$
  - 99 = Don't Know/Refused (go to Q68)
  - **Q67a** About how many times has this happened to you in your lifetime? (RECORD EXACT NUMBER; -999 Don't Know/Refused) (go to Q67b)
  - **Q67b** When was the last time this happened?
    - 1 =Within the last year (go to Q67c)
    - 2 =One to two years ago (go to Q67c)
    - 3 =More than two years ago (go to Q68)
    - 99 = Don't know/Refused (go to Q68)
  - **Q67c** Thinking about the most recent incident, how were you related to the person?
    - 1 = A spouse or partner
    - 2 = An EX-spouse or partner
    - 3 = A son or daughter
    - 4 = A brother or sister
    - 5 = A parent or step-parent
    - 6 = Another relative (Specify)
    - 7 = A friend
    - 8 = A neighbor
    - 9 =Some other non-relative (Specify)
    - 99 = Don't know/Refused (go to Q68)
  - **Q67d** What was the approximate value of the property or amount of money that was involved? (*RECORD EXACT AMOUNT IN DOLLARS*; -999 Don't Know/Refused)
  - **Q67e** Was the incident reported to the police?
    - 1 = Yes
    - 0 = No
    - 99 = Don't Know/Refused
  - **Q67f** Was the incident reported to other authorities, such as social services?
    - 1 = Yes
    - 0 = No
    - 99 = Don't Know/Refused
- Q68 Has anyone ever stolen your money or taken your things for themselves, for their friends, or to sell?
  - $1 = \text{Yes} (go \ to \ Q68a)$
  - $0 = \text{No} (go \ to \ Q69)$
  - 99 = Don't Know (go to Q69)

- **Q68a** About how many times has this happened to you in your lifetime? (RECORD EXACT NUMBER; -999 Don't Know/Refused) (go to Q68b)
- **Q68b** When was the last time this happened?
  - 1 =Within the last year (go to Q68c)
  - 2 =One to two years ago (go to Q68c)
  - 3 =More than two years ago (go to Q69)
  - 99 = Don't know/Refused (go to Q69)
- **Q68c** Thinking about the most recent incident, how were you related to the person?
  - 1 = A spouse or partner
  - 2 = An EX-spouse or partner
  - 3 = A son or daughter
  - 4 = A brother or sister
  - 5 = A parent or step-parent
  - 6 = Another relative (Specify)
  - 7 = A friend
  - 8 = A neighbor
  - 9 =Some other non-relative (Specify)
  - 99 = Don't know/Refused (go to Q69)
- **Q68d** What was the approximate value of the property or amount of money that was involved? (*RECORD EXACT AMOUNT IN DOLLARS*; -999 Don't Know/Refused)
- **Q68e** Was the incident reported to the police?
  - 1 = Yes
  - 0 = No
  - 99 = Don't Know/Refused
- **Q68f** Was the incident reported to other authorities, such as social services?
  - 1 = Yes
  - 0 = No
  - 99 = Don't Know/Refused
- **Q69** Has anyone ever forced you to give them money or something else of yours?
  - $1 = \text{Yes} (go \ to \ Q69a)$
  - $0 = \text{No} (go \ to \ Q70)$
  - 99 = Don't Know (go to Q70)
  - **Q69a** About how many times has this happened to you in your lifetime? (RECORD EXACT NUMBER; -999 Don't Know/Refused) (go to Q69b)
  - **Q69b** When was the last time this happened?
    - 1 =Within the last year (go to Q69c)
    - 2 =One to two years ago (go to Q69c)
    - 3 =More than two years ago (go to Q70)
    - 99 = Don't know/Refused (go to Q70)

- **Q69c** Thinking about the most recent incident, how were you related to the person?
  - 1 = A spouse or partner
  - 2 = An EX-spouse or partner
  - 3 = A son or daughter
  - 4 = A brother or sister
  - 5 = A parent or step-parent
  - 6 = Another relative (Specify)
  - 7 = A friend
  - 8 = A neighbor
  - 9 =Some other non-relative (Specify)
  - 99 = Don't know/Refused (go to Q70)
- **Q69d** What was the approximate value of the property or amount of money that was involved? (*RECORD EXACT AMOUNT IN DOLLARS*; -999 Don't Know/Refused)
- **Q69e** Was the incident reported to the police?
  - 1 = Yes
  - 0 = No
  - 99 = Don't Know/Refused
- **Q69f** Was the incident reported to other authorities, such as social services?
  - 1 = Yes
  - 0 = No
  - 99 = Don't Know/Refused

People are sometimes physically hurt by other people. The person doing these things could be someone close to you, like a family member or friend, or someone you don't know very well. (RANDOMIZE Q70 – Q72 STATEMENTS)

- Q70 Has anyone ever hit you with their hand or object, slapped you, kicked you, or threatened you with a weapon?
  - $1 = \text{Yes} (go \ to \ Q70a)$
  - $0 = \text{No} (go \ to \ Q71)$
  - 99 = Don't Know (go to Q71)
  - **Q70a** About how many times has this happened to you in your lifetime? (RECORD EXACT NUMBER; -999 Don't Know/Refused) (go to Q70b)
  - **Q70b** When was the last time this happened?
    - 1 =Within the last year (go to Q70c)
    - 2 =One to two years ago (go to Q70c)
    - 3 =More than two years ago (go to Q71)
    - 99 = Don't know/Refused (go to Q71)

- Q70c Thinking about the most recent incident, how were you related to the person?
  - 1 = A spouse or partner
  - 2 = An EX-spouse or partner
  - 3 = A son or daughter
  - 4 = A brother or sister
  - 5 = A parent or step-parent
  - 6 = Another relative (Specify)
  - 7 = A friend
  - 8 = A neighbor
  - 9 =Some other non-relative (Specify)
  - 99 = Don't know/Refused (go to Q71)
- **Q70d** Did you receive medical attention as a result of the most recent incident?
  - 1 = Yes
  - 0 = No
  - 99 = Don't Know/Refused
- **Q70e** Was the incident reported to the police?
  - 1 = Yes
  - 0 = No
  - 99 = Don't Know/Refused
- **Q70f** Was the incident reported to other authorities, such as social services?
  - 1 = Yes
  - 0 = No
  - 99 = Don't Know/Refused
- Q71 Has anyone ever held you down, tied you up, or locked you in your room or house or some other place against your will?
  - $1 = \text{Yes} (go \ to \ Q71a)$
  - $0 = \text{No} (go \ to \ Q72)$
  - 99 = Don't Know (go to Q72)
  - **Q71a** About how many times has this happened to you in your lifetime? (*RECORD EXACT NUMBER*; -999 Don't Know/Refused) (go to Q71b)
  - **Q71b** When was the last time this happened?
    - 1 =Within the last year (go to Q71c)
    - 2 =One to two years ago (go to Q71c)
    - 3 =More than two years ago (go to Q72)
    - 99 = Don't know/Refused (go to Q72)

- **Q71c** Thinking about the most recent incident, how were you related to the person?
  - 1 = A spouse or partner
  - 2 = An EX-spouse or partner
  - 3 = A son or daughter
  - 4 = A brother or sister
  - 5 = A parent or step-parent
  - 6 = Another relative (Specify)
  - 7 = A friend
  - 8 = A neighbor
  - 9 =Some other non-relative (Specify)
  - $99 = Don't \, know/Refused (go to Q72)$
- **Q71d** Did you receive medical attention as a result of the most recent incident?
  - 1 = Yes
  - 0 = No
  - 99 = Don't Know/Refused
- **Q71e** Was the incident reported to the police?
  - 1 = Yes
  - 0 = No
  - 99 = Don't Know/Refused
- **Q71f** Was the incident reported to other authorities, such as social services?
  - 1 = Yes
  - 0 = No
  - 99 = Don't Know/Refused
- Q72 Has anyone ever physically hurt you so that you suffered some degree of injury, including cuts, bruises, or other marks?
  - $1 = \text{Yes} (go \ to \ Q72a)$
  - $0 = \text{No} (go \ to \ Q73)$
  - 99 = Don't Know (go to Q73)
  - Q72a About how many times has this happened to you in your lifetime? (RECORD EXACT NUMBER; -999 Don't Know/Refused) (go to Q72b)
  - **Q72b** When was the last time this happened?
    - 1 =Within the last year (go to Q72c)
    - 2 =One to two years ago (go to Q72c)
    - 3 =More than two years ago (go to Q73)
    - 99 = Don't know/Refused (go to Q73)

- **Q72c** Thinking about the most recent incident, how were you related to the person?
  - 1 = A spouse or partner
  - 2 = An EX-spouse or partner
  - 3 = A son or daughter
  - 4 = A brother or sister
  - 5 = A parent or step-parent
  - 6 = Another relative (Specify)
  - 7 = A friend
  - 8 = A neighbor
  - 9 =Some other non-relative (Specify)
  - 99 = Don't know/Refused (go to Q73)
- Q72d Did you receive medical attention as a result of the most recent incident?
  - 1 = Yes
  - 0 = No
  - 99 = Don't Know/Refused
- **Q72e** Was the incident reported to the police?
  - 1 = Yes
  - $0 = N_0$
  - 99 = Don't Know/Refused
- **Q72f** Was the incident reported to other authorities, such as social services?
  - 1 = Yes
  - 0 = No
  - 99 = Don't Know/Refused

Thanks. That is helpful. We have just a few more questions.

- Q73 Considering all types of alcoholic beverages, how many times during the past month did you have [five or more drinks for men, four or more drinks for women] on a single occasion? (RECORD EXACT NUMBER; -999 Don't Know/Refused)
- Q74 Overall, how would you rate your health during the past month? Would you say it has been ... (*READ LIST*)
  - 1 = Excellent
  - 2 = Good
  - 3 = Fair
  - 4 = Poor
  - 5 = Very poor
  - 99 = Don't know/refused
- Q75 Are you now working full-time, working part-time, retired, or unemployed?
  - 1 =Working full-time (go to Q75a)
  - 2 =Working part-time (go to Q75a)
  - $3 = \text{Retired} (go \ to \ Q76)$
  - $4 = \text{Unemployed} (go \ to \ Q76)$
  - $5 = \text{Homemaker} (go \ to \ Q76)$
  - 99 = Don't know/Refused (go to Q76)

- Q75a All things considered, how satisfied are you with your current job? (*READ OPTIONS*)
  - 1 = Very satisfied
  - 2 = Satisfied
  - 3 = Dissatisfied
  - 4 = Very dissatisfied
  - 99 = Don't know/Refused
- Q76 Are you now married, widowed, divorced, separated, or have you never been married?
  - 1 = Married (go to Q76a)
  - 2 =Widowed (go to Q77)
  - 3 = Divorced (go to Q77)
  - 4 =Separated (go to Q77)
  - 5 =Never Married (go to Q77)
  - 99 = Don't Know/Refused (go to Q77)
  - **Q76a** Overall, how happy do you feel about your marriage? Would you say that you are (*READ OPTIONS*)
    - 1 = Extremely happy
    - 2 = Fairly happy
    - 3 = Fairly unhappy
    - 4 = Extremely unhappy
    - 99 = Don't know/Refused
- Q77 How many children do you have? (RECORD EXACT NUMBER; -999 Don't Know/Refused) (If '0', go to Q78)
  - **Q77a** Overall, how happy do you feel about your relationship with your child(ren)? Would you say that you are (*READ OPTIONS*)
    - 1 = Extremely happy
    - 2 = Fairly happy
    - 3 = Fairly unhappy
    - 4 = Extremely unhappy
    - 99 = Don't know/Refused
- Q78 Including you, how many people live in your household? (RECORD EXACT NUMBER; -999 Don't Know/Refused) (If '0', go to Q79)
  - **Q78a** What is (are) their relationship to you? (Mark all that apply)
    - 1 = Spouse
    - 2 = Child(ren)
    - 3 = Parent(s)
    - 4 = Brother or sister
    - 5 = Other relative (*Specify*)
    - 6 = Nonrelative (*Specify*)
    - 99 = Don't know/Refused

Now, I have a few questions about you and your family to ensure that people from all walks of life are included in the study.

- Q79 How would you describe the place you currently live? (*Read if necessary*)
  - 1 = House
  - 2 = A condominium
  - 3 = Regular apartment
  - 4 = A duplex
  - 5 = A mobile home
  - 6 = Retirement home
  - 7 = Supervised apartment
  - 8 = Assisted living facility
  - 9 =Nursing or rest home
  - 10 =Something else (*Specify*)
  - 99 = Don't know/Refused
- **Q80** What was the last grade you completed in school? (DO NOT READ CATEGORIES)
  - 1 =Some grade school (1-8)
  - 2 =Some high school (9-12)
  - 3 = High school graduate (or equivalency) (completed 12)
  - 4 = Technical or Vocational School
  - 5 =Some college (13-15)
  - 6 = Graduated college (16)
  - 7 = Graduate/professional school
  - 99 = Don't know/Refused
- **Q81** Are you of Hispanic or Latino origin?
  - 1 = Yes
  - 0 = No
  - 99 = Don't know/Refused
- **Q82** Which of the following racial categories best describes you? (*READ OPTIONS*; *You may mark more than one*)
  - 1 = White
  - 2 = Black or African American
  - 3 = American Indian or Alaska Native
  - 4 = Asian
  - 5 = Native Hawaiian or Other Pacific Islander
  - 6 = Other (Specify)
  - 7 = Hispanic / Latino (*Do Not Read*)
  - 99 = Don't know/Refused
- **Q83** In what year were you born? (RECORD YEAR; -999 Don't Know/Refused)
- **Q84** Gender (BY OBSERVATION, BUT ASK EVERYONE)
  - 1 = Male
  - 0 = Female
  - 99 = Don't know/Refused

- **Q85** Have you ever served in the United States Military?
  - $1 = \text{Yes} (go \ to \ Q85a)$
  - $0 = \text{No} (go \ to \ Q86)$
  - 99 = Don't know/Refused
    - **Q85a** How many years did you serve? (RECORD EXACT NUMBER; -999 Don't Know/Refused)
- **Q86** Do you own or have access to a motor vehicle?
  - 1 = Yes
  - 0 = No
  - 99 = Don't know/Refused
- **Q87** What is your 5-digit zip code? (RECORD CODE; -999 Don't Know/Refused)

Thank you very much for participating in this study.

If you have any questions about the study or your participation in the study, please call Dr. Kristy Holtfreter at 602-496-2344.

If you have questions about your rights as a participant in this research, or if you feel you have been placed at risk, you can call the ASU Research Compliance Office at 480-965-6788.