THE PSYCHOLOGY OF CONSUMER FRAUD

PROEFSCHRIFT

ter verkrijging van de graad van doctor aan de Universiteit van Tilburg, op gezag van de rector magnificus, prof. dr. F.A. van der Duyn Schouten, in het openbaar te verdedigen ten overstaan van een door het college van promoties aangewezen commissie in de aula van de Universiteit op woensdag 19 december 2007.

om 10.15 uur
door

Douglas Philip Shadel
geboren op 9 december 1957 te Winchester, Virginia, U.S.A.

om 11.15 uur
door

Karla Blair Schweitzer Pak
geboren op 24 september 1976 te Clarkston, Michigan, U.S.A.

Promotores: Prof. Dr. J.B. Rijsman

Submitted by:

Karla Pak and Doug Shadel
Seattle, Washington, USA
206 517-2316

Table of Contents

Abstract:

This study was a three-part inquiry of consumer fraud. In part 1, undercover tapes of fraud pitches were analyzed to determine how con men pitch their victims. Tape analysis revealed con criminals customize their pitch to match the psychological profile of the victim and use a complex combination of influence tactics within each pitch to persuade. In part 2, a 72 question survey was administered to 80 victims of lottery fraud, 80 victims of investment fraud and 160 non-victims of fraud. Investment fraud victims demonstrated a better understanding of basic financial literacy than non-victims. Both investment and lottery victims were more likely to have experienced a negative life event unrelated to their fraud experience. Both victim types were more likely to listen to sales pitches from unknown sales persons. Investment and lottery fraud victims both dramatically underreport fraud. In part 3, a 2nd survey was administered to a different population of 125 investment fraud victims and 258 non-victims to determine if findings from survey 1 could be replicated. In fact, major findings relating to financial literacy were replicated, as were demographic, psychological and behavioral characteristics of investment fraud victims. In addition, new findings relating to "persuasion literacy" were found: victims of investment fraud were less able to identify pitch lines used by con men in fraud schemes than a non-victim population. This suggests that a key strategy for deterring fraud victimization in the future might be to teach both financial literacy and persuasion literacy to investors.

In deze driedelige studie werd consumentenbedrog onderzocht. In het eerste deel werden geheime opnames van zwendelpogingen geanalyseerd om na te gaan hoe zwendelaars hun slachtoffers proberen op te lichten. Uit de analyses bleek dat de criminele zwendelaars hun oplichtingspoging aanpassen aan het psychologisch profiel van hun slachtoffer en daarbij gebruik maken van een ingewikkelde combinatie van beinvloedingstaktieken om hun doel te bereiken. In het tweede deel werd een enquête, bestaande uit 72 vragen, gehouden onder 80 slachtoffers van loterijbedrog, 80 slachtoffers van investeringsbedrog, en 160 niet-slachtoffers. Het bleek dat slachtoffers van investeringsbedrog meer verstand hadden van basale financiele geletterheid dan niet-slachtoffers. Beide typen slachtoffers, zowel die van investeringsbedrog als die van loterijbedrog, hadden relatief meer kans op het hebben meegemaakt van een negatieve levenservaring, anders dan het slachtofferschap van het bedrog zelf, dan niet-slachtoffers. Ook vertoonden beide typen slachtoffers een hogere neiging tot het luisteren naar verkooppraatjes van onbekende mensen. Verder bleek dat de *onder*rapportering van bedrog bij beide typen slachtoffers dramatisch was. In deel drie werd een tweede enquête gehouden in een nieuwe populatie van 125 slachtoffers van investeringsbedrog en 258 niet-slachtoffers, om na te gaan of de bevindingen uit de eerste enquête zouden herhaald worden. En inderdaad, de voornaamste bevindingen met betrekking tot de financiele geletterdheid, alsook met betrekking tot de demografische, psychologische en gedragskarakteristieken van slachtoffers van investeringsbedrog werden herhaald. Er werden echter ook nieuwe vaststellingen gedaan met betrekking tot de geletterdheid op het vlak van 'overtuiging'. Het bleek namelijk dat slachtoffers van investeringsbedrog minder goed in staat waren om oplichtingsgetinte uitspraken van zwendelaars in hun betoog te onderscheiden dan mensen uit de gewone populatie. Dit doet ons veronderstellen dat een goede sleutelstrategie voor het terugdringen van slachtoffers in dit gebied van bedrog zou kunnen bestaan uit het geven van onderwijs aan investeerders, waarbij niet alleen aandacht wordt geschonken aan hun geletterheid op financieel vlak, maar ook aan hun geletterdheid op het vlak van de manier waarop mensen elkaar overtuigen.

i. Introduction

Consumer fraud is a large and growing problem in the United States and around the world. Studies in the U.S. indicate that con artists net approximately 40 billion dollars each year on scams (Titus, Heinzelmann, & Boyle, 1995). A recent Federal Trade Commission study suggested that at least 11.2% of the U.S. population has been victimized by con artists. This adds up to over 24 million victims in the U.S. alone each year (Anderson, 2004). The United Nations administers the "International Crime Victims Survey" once every 4 years in 20 industrialized European countries. That survey asks respondents about their experience with fraud and an average of 7.7% of all respondents across all countries indicated they were victimized by fraud in the previous year (United Nations, 2000).

In addition, further studies suggest that these numbers may under-estimate the extent of the problem. One study found that less than 50% of a population of known victims were willing to admit that they had been scammed when surveyed (AARP, 2003a). We are particularly interested in this crime because we work for AARP, which is an advocacy organization for older people. As we will discuss, there is some debate in the literature about whether older consumers are more or less targeted by fraud crimes. Regardless of the rate of victimization among older consumers, we do know that older victims of fraud often suffer severe negative effects as a result of being fraud victims. Some become repeat victims and lose their life savings while others have been shown to have a lower life expectancy than the general population (Pratkanis & Shadel, 2005).

As we began to think about what aspects of the fraud crime to focus on, it occurred to us to look at fraud through the lens of one of the oldest and most basic models of communication. In communication theory, there is a sender of the message, a message, and a receiver of the message (see Figure 1).

In terms of the crime of fraud, the sender is known as the "con artist", an individual whose intent is to use messages to deceive people into giving them money. The message is referred to as the "pitch" which is used to deceive people and the receiver is referred to as the "victim" who falls for the deceptive message and turns over money. The focus of this study will be on two of these three elements: the pitch and the victim. We intend to learn as much as we can about how con artists persuade their victims and how victims differ from the general population demographically, psychologically and behaviorally.

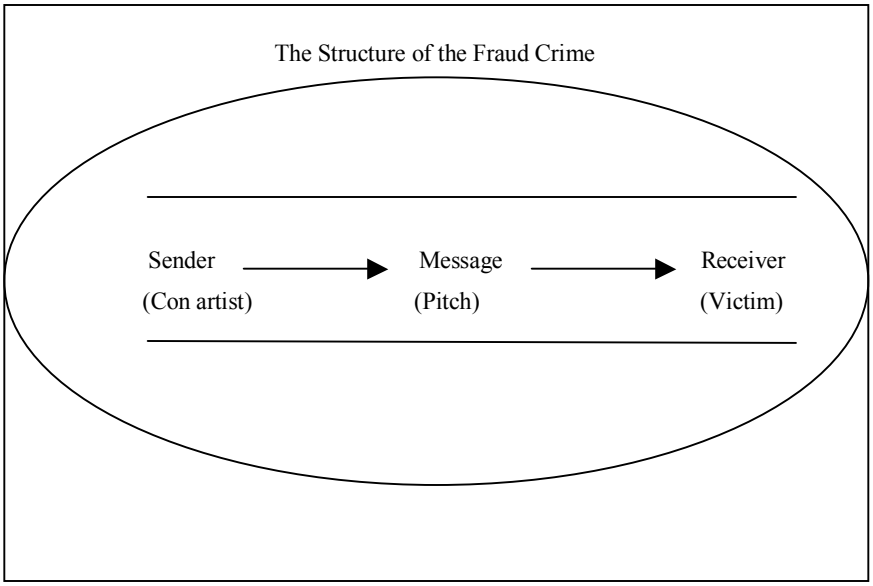

Figure 1: The Structure of the Fraud Crime

Part One – Understanding the Psychology of the Fraud Pitch

We begin our exploration of understanding how con artists persuade or "pitch" their victim by reviewing the literature on social influence tactics. Social influence tactics are methods that individuals use to persuade others. Section 1.1 will provide an overview of this area of the literature. Then in Sections 1.2 and 1.3, we review the relevant social influence literature which is divided into two broad areas: tactics based on *cognitive heuristics* and tactics based on *social norms.*

Once we have reviewed the literature on social influence, we will provide a detailed description in Sections 3.1 through 3.4 of our analysis of 128 undercover tapes of fraud pitches provided by 12 different law enforcement agencies made between 1995 and 2003. The tapes of pitches were made when elderly fraud victims were identified and their phone numbers were transferred to ring into the office of a criminal investigator. The investigator would answer the phone pretending to be the elderly victim and tape-record everything the con artist said. These tapes provide us with an unprecedented verbatim record of what con artists say over the phone to persuade.

Part Two: Profiling Fraud Victims

With regard to our study of victims, in Chapter 2, we provide an overview of relevant literature on fraud victimization. This aspect of the literature review is divided into three main parts: studies relating to the prevalence of fraud in the marketplace; studies that offer different typologies for the kinds of fraud present in the marketplace and studies that seek to profile victims.

With this review of the victim literature in place, we then describe in Chapter 4 the methodology, results and analysis of a 72-question survey administered to 320 individuals, divided into three different populations: a randomly-selected group from the general population, a group of known lottery victims and a group of known investment fraud victims. The purpose of this part of the study is to begin to see how victims of particular types of fraud crimes differ both from each other and from a control group from the general population. Chapter 5 reports on a follow up survey of investment fraud victims and non-victims completed in February, 2007 that replicates a number of the findings in the first survey.

We hope that by better profiling particular types of victims, an instrument can be developed in the future that might help friends and family members of potential victims identify their loved ones as such and take steps to warn or protect them.

This study is not the end of our inquiry into understanding the fraud crime. We very much operate in the tradition of “full cycle” or “action research” (Lewin, 1997). Action research has been described as "a cyclical inquiry process that involves diagnosing a problem situation, planning action steps, and implementing and evaluating outcomes. Evaluation leads to diagnosing the situation anew based on learnings from the previous activities cycle," (Elden & Chisholm, 1993). By better understanding how con artists persuade and uncovering differences between the general population and victims of fraud, we hope to develop new and better ways of preventing this crime in the field, which in turn will lead to the need for more research in the lab. It is very much an iterative process and this study is in some ways a snapshot in time of a much longer chain of “research to action to research” that has come to characterize the most effective use of scholarly endeavor.

Chapter 1: Literature on Social Influence

1.1: Social Influence Tactics, Persuasion and Fraud Crimes

Social influence tactics are methods that individuals use to persuade others. There are a variety of social influence tactics that individuals employ on a regular basis. Psychologists, marketers and others have conducted numerous studies examining how individuals respond to these tactics, the effectiveness of their use in advertising, and in some cases, how to defend against them. Con artists have not studied the tactics in an academic fashion and may not label them in the same ways, but through their practice and experience they have become experts in actually employing the tactics. This chapter will focus on the academic research of social influence tactics; later in Sections 3.2 through 3.4 we will examine the con artists' use of the tactics.

Persuasion and the social influence tactics used to persuade have probably been around since the beginning of civilization. Whether informally, in a public debate, or a court of law, people have been trying to convince others to believe in their ideas for many years. In ancient Babylon, the Code of Hammurabi set forth a code of laws which people must follow; in the Roman Empire a jury system was established for individuals to argue their cases; and in our current legal system, individuals usually employ lawyers to provide their arguments. In each of these legal systems, individuals try to convince a judge or jury to believe in a specific point of view or story. Before psychologists and other researchers began officially studying the topic, philosophers and layman alike developed theories for which tactics worked and which tactics did not work. In many cases, like a court of law, or a philosophical debate, these persuasion tactics are relatively harmless. However, when put to use by some individuals, like con artists, they become extremely dangerous.

A number of researchers have made social influence their main field of study. In the 1950's, Asch conducted his famous line studies which demonstrated conformity and group pressure in an academic study. A few years later, Festinger developed his theory of Cognitive Dissonance and how previous commitments can impact behavior. In the 1960's and early 1970's, Stanley Milgram conducted his well-known studies which demonstrated people's compliance with authority. And more recently, researchers like Robert Cialdini and Anthony Pratkanis have made large contributions to the field of Social Influence. This discussion will draw on their work and others' work to describe

some of the studies conducted on social influence tactics. Later, we will talk about how con artists use these tactics.

In the next two sections, we will introduce a selection of 12 social influence tactics. This is not a complete list of every tactic out there. Researchers have found and labeled many more means of persuasion. We chose to focus on these influence tactics for two reasons. First, after preliminary research and reading, it appeared that these tactics would be the most commonly-used by con artists. Second, we felt that examining a select number of tactics would allow for a more focused analysis of the transcripts. This will also not be a complete literature review of each of the 12 tactics; to do so would go beyond the scope and needs of this paper. For a thorough review of social influence tactics, see Pratkanis' Social Influence Analysis: An Index of Tactics (Pratkanis, 2007). This discussion should provide a description and background of these tactics that will allow us to go forward and examine the use of the tactics by con artists.

We will discuss three groups of tactics. The first group includes only one tactic, profiling. In some ways, this might be considered a pre-tactic. It is generally used at the very beginning of a crime. Rather than actually persuading the potential victim to do anything, profiling simply provides information about which tactics and pitches to use. That tactic will be described at the end of this section.

The second group includes tactics based on cognitive heuristics. Heuristics are short-cuts or rules-of-thumb that individuals use when making decisions or analyzing a situation. In many cases, these short-cuts allow them to make their judgments more quickly, without doing a thorough analysis of the situation and without giving up a great deal of accuracy. However, in some cases, these heuristics lead to errors. Because the short-cuts usually work, influence tactics based on them can often be an effective method of persuasion.

Similarly, the third group of tactics is also based on a set of short-cuts. These short-cuts are based on social norms or social conventions. Social norms are general rules that people follow when interacting with others. As with cognitive heuristics, social norms are useful rules to follow most of the time. Because of this, individuals trying to persuade can also take advantage of people using these rules.

Profiling

As mentioned above, profiling is essentially the practice of gathering information about an individual. This information can be used to develop a customized pitch to be delivered later. In the case of a con artist, the con will typically question the

victim in order to find out how likely the potential victim is to send money, how much money they might send in, and how the con artist can persuade them to send in money. These questions range from demographic information, to experience with investments and lotteries, to financial information and finally to personal interests such as favorite charities, numbers of children, or other personal facts. Once armed with this information, the con artist knows what scams he should pitch to the potential victim.

Con artists have different ways of collecting this information. Some con artists use "open sheets." An open sheet is essentially a worksheet that contains a number of questions to ask and spaces to fill in the answers. When using an open sheet, an *opener* will call the potential victims with the primary motive of gaining personal information about them. He fills this information in on the open sheet. After this a second caller, the *closer*, calls with an actual pitch. The pitch is customized based on the information found on the open sheet.

Prior to doing the tape analysis, we examined a few different types of open sheets which were seized in law enforcement raids of fraudulent boiler rooms. Figure 2 shows a prototypical open sheet. In addition to asking the standard questions on the sheets, the opener frequently makes other notes in the margin. These notes contain additional information and advice for the closer. Some of the notes we found on the open sheets included, "Convince him the money can do a world of good, he has health problems," "If he wins money, he will give to family and put towards business," "I think she has more money than she's letting on. Her and her husband owned the car dealership. Good luck," "Explain that she can help a lot of people and charities that leave a legacy," "Tell him to cancel those cheques and tell him to send you that money. He's a player. Hit big, but keep in mind not much money left, i.e., sell house, mortgage, work him," and "Husband died of cancer- ask to donate to cancer society." These comments provide valuable information to the con artist and demonstrate their ruthlessness.

In order to create a personalized pitch, the con artist needs to obtain personal information. And it is impressive and frightening what a good con artist can and will do with a few facts about an individual. Information that seems harmless may not be so harmless when in the hands of a con artist. Armed with information gathered from profiling a potential victim, the con artist can customize the influence tactics used and the products pitched to maximize his odds of being successful.

Open Sheet

General Information

Agent's Name_____ Date_____
Time_____ Lead_____ Page_____

Name_____ Phone #_____
Address_____
City_____ State_____ Zip_____

Customer Questionnaire:

1. Are you an American citizen?
2. Are you working or retired? (Discuss this with them)
3. How old are you? _____
4. Are you married, single or divorced?
5. Do you own your own home? _____
6. How long have you been playing the sweepstakes and lotteries? _
7. Have you had any big wins, say, over $50,000? _____
8. Does he/she have a problem with a fee? _____
9. Do you handle your own financial affairs?_____
10. What is your annual income?

Type of Banking: ___Savings ___Checking ___Combo

Credit cards: __Visa __Mastercard ____Amex ___Disc

Excitement level: Choose one of the following:

A. Casual response, or doubtful, yet co-operative, calm
B. Had these calls before and is a player
C. Not interested
D. Interested but I cannot afford it.
E. Interested
F. Enthusiastic
G. Financially stable

1.2: Cognitive-Based Social Influence Tactics

Cognitive heuristics are short-cuts or sets of rules individuals use when making decisions. An individual can evaluate a situation or problem using these rules instead of evaluating the entire situation fully. These short-cuts are usually successful at leading people to the appropriate conclusion and they save time and energy. However, in some cases, they fail. Understanding how these short-cuts work makes it possible to take advantage of them and influence others' reasoning about a situation.

In this section, we will discuss seven social influence tactics that are based on cognitive heuristics. These tactics include: 1) Commitment and Consistency, 2) Comparison, 3) Landscaping, 4) Phantom Fixation, 5) Scarcity, 6) Social Proof and 7) Source Credibility.

Commitment and Consistency

In the Commitment and Consistency tactic, an individual will initially be asked to make a small commitment. Then this commitment will be used to persuade them to make a larger commitment. The commitments can be made directly to the persuader; for example the individual may admit to an interest in a particular idea or topic. The commitment can also be made earlier to another individual or be based on a previous behavior like shopping in a given store or voting on a certain issue. The persuader can remind the individual of the previous verbal commitment or behavior, in order to convince them to do a similar or related behavior.

Previous research shows that most people like to view themselves as consistent. Leon Festinger developed the Theory of Cognitive Dissonance in 1957 (Aronson, 1995). In general, this theory states that a person will feel uncomfortable if they have two dissonant or contradicting ideas, attitudes, beliefs, or opinions. Because of the discomfort they feel, they are motivated to reduce this dissonance. Generally this is done by changing one or more of their ideas, attitudes, beliefs, or opinions so that they are in better agreement (Aronson, 1995).

How does cognitive dissonance relate to the Commitment and Consistency influence tactic? People do not like to hold two contrasting ideas. For example, the ideas: "I played the lottery in the past," and "Playing the lottery is irrational." Therefore, they will usually attempt to create an agreement between the ideas. In this case, either the individual needs to add an idea, "I did an irrational thing (playing the lottery) in the past," to account for playing the lottery, or needs to change their idea about playing the lottery to, "Playing the lottery is fun," or some other positive view of playing the lottery.

In addition to desiring to be consistent, people like to make good decisions. Because it can be difficult to admit to having made a mistake, it may be more likely that people will change their views of playing the lottery than to admit to making a foolish decision. If they are reminded of their previous behavior by someone trying to persuade them, that may increase the likelihood that they will continue with that behavior.

Researchers have also shown that once people make a commitment, they are less likely to change their minds. This commitment may persist, even when the person knows the decision they made is not optimal. In a study of business school students, participants role-playing investment decisions and behaviors continued to commit resources to their chosen course of action (Staw, 1976). They found that their subjects put the greatest amount of resources into an investment when they were personally responsible for the negative outcomes. A follow-up study showed that students did not continue to place resources into a previously-chosen course of action over an extended period of time (Staw & Fox, 1977). This suggests that while the original commitment may lead to similar behavior in the short-term, this tactic may not impact behavior in the long run.

Additional research shows that once an individual makes a small initial commitment, it is more likely that they will make a larger commitment later on; this is also called the foot-in-the-door technique (Freedman & Fraser, 1966). In their first experiment, Freedman and Fraser demonstrated that compliance with a small initial request will increase the likelihood of compliance with a larger related request. They found that an experimental group who answered eight questions about their soap use was over twice as likely (52.8% compared to 22.2%) to agree to a larger request for five or six men to come to their home and inventory all of their household products than a group who was only contacted with the large request. Agreeing to answer the questions doubled the rate of compliance compared to a group who made no initial commitment. In their second experiment, they demonstrated that the second larger request did not necessarily have to be related to the first one to increase compliance. In this experiment, they asked one group of participants to place a small "Drive Safely" sign on their car as a reminder of safe driving and they asked another group to promote "Keeping California Beautiful." Two weeks later, both groups were asked to display a large sign in their yard for one week that said "Drive Carefully." Over 55% of subjects in the experimental conditions agreed to this request compared to less than 20% who had not been previously approached. The authors concluded that the commitment to or involvement with the person making the request can lead to increased compliance. Although the first request

and second request were not necessarily related, the individual may have felt obligated to comply with the second request.

In another study, Robert Cialdini examined Commitment and Consistency in college students. He asked undergraduates if they would participate in a research study. One group of subjects was informed that the study took place at 7am *before* they made a commitment to participating. A second group was informed about the early time *after* they committed to participating. A larger percentage of individuals who were informed after they committed actually signed up and participated in the study than those who were informed before committing (Cialdini, 1978 as cited in Cialdini, 2001).

Sometimes making a commitment is more than it appears. Although saying yes to a small favor may not seem like a big deal, making a small commitment to a behavior, a belief, or even to an individual can later be used as a powerful means of persuasion. This tactic is used by legitimate sales people and con artists to trap people into purchasing a product or service which they have previously bought or for which they have demonstrated an interest.

Comparison

In the Comparison tactic, two values are compared to one another, in order to make one of them look particularly good. Usually these values are two prices, for example, a high price and a low price, "Usually this would cost you $500, but today I can sell it to you for only $350!" Sometimes, only an initial price will be offered, and when an individual declines the offer, a lower price will be counter-offered. In this case, the Comparison tactic is being combined with the Reciprocity tactic, discussed in the next section. For simplicity, this specific case will be considered as part of the Comparison tactic. The main goal of this tactic is to make buyers feel like they are getting a good deal. This tactic is used regularly by legitimate businesses. Supermarkets and other stores will sometimes display both how much they charge for a given item and how much a competing store charges for that same item. This is a comparison used to make customers feel better that they are shopping in that store rather than the competing store. In addition, any sale is essentially using the Comparison tactic. An item discounted from an original price seems like a better deal. This tactic is used so often in some settings that a colleague once asked, "Is it possible to buy an Oriental rug for full price?"

This tactic is related to the psychological literature on the anchoring and adjustment heuristic, originally described by Tversky and Kahneman (1974). They showed that if an individual is asked to make a numerical estimation, a previously-

considered value will influence that estimation. In their well-known study, they asked participants to spin a roulette wheel. The roulette wheel landed either on 10 or 65. Participants were then asked whether the number of African countries in the United Nations was greater than or less than the number on the roulette wheel. And finally they were asked to provide a numerical estimation for the exact number of countries. They found that those who saw 10 on the roulette wheel provided significantly lower estimates (median 25) than those who saw 65 (median 45). Even though all the participants knew that the roulette wheel had nothing to do with the number of countries, they still used this number in coming up with their estimate. Tversky and Kahneman suggested that individuals use the original number as an anchor and then they adjust higher or lower from that number.

Since Tversky and Kahneman's original studies, many researchers have examined the anchoring effect further. Anchoring has been demonstrated even when a number should be completely uninformative and not related to the target value (Wilson, Houston, Etling, Brekke, 1996). In this study, participants were asked to estimate whether an anchor value was less than, equal to, or more than either the target question (number of countries in the United Nations) or an irrelevant question (number of physicians and surgeons in the local telephone book). Afterwards, they were asked to estimate the number of countries in the United Nations. Anchoring occurred in both conditions, so that even when the comparison was about an unrelated topic, the anchor still influenced the subsequent judgment. However, this effect only occurred for those who rated themselves as low in actual knowledge about the number of countries in the United Nations. People who are knowledgeable about the target question (in this case the number of countries in the United Nations) will be less influenced by arbitrary anchors.

The anchoring effect is stronger when the anchor is the same dimension as the target estimation (for example both pertain to the height of an object) (Strack & Mussweiler, 1997). Half of the participants were asked to judge whether the height of a particular gate was taller or shorter than 150 meters and then asked to estimate the actual height. The remaining participants were asked to judge whether the width of the gate was wider or narrower than 150 meters and then asked to estimate the actual height. Though anchoring occurred in both situations, the effect was stronger in the same dimension condition than the different dimension condition.

Sufficient attention must be given to the anchor for an anchoring effect to occur. In a subsequent study, participants paid varying levels of attention to an identification number; those who paid more attention showed a greater anchoring effect

(Wilson, et al., 1996). Participants were divided into five experimental groups. Each group was asked to make a different judgment about their identification number. These judgments required different levels of processing or attention. The judgments included if the identification number was: 1) written in red or blue ink, 2) a 4-digit number or not, 3) greater than 100, 4) greater than 1920, 5) equal to, greater or less than the number of physicians listed in the local yellow pages. The anchoring effect increased with the level of processing or attention to the identification number.

In the same study, researchers found that forewarning participants about the anchoring effect and providing incentives to be accurate did not eliminate the anchoring effect (Wilson, et al., 1996). In one study, they told participants they would be given a prize for a correct estimation. This incentive did not correct the anchoring effect. In a second study, they forewarned participants about the anchoring effect and told them to not let the anchor affect their answers. They tried a variety of forewarning manipulations; however none of them were successful. They found that in each experimental condition, the participants were influenced by the anchor.

Finally, increased compliance has been found with a comparison type offer and anchoring is suggested as a possible mechanism for this increased compliance (Burger, 1986). In a series of experiments, participants were offered a cupcake at a psychology bake sale. They were initially told that the cupcake cost $1.00, however before the participant had a chance to respond, the price was reduced to $0.75. In all experiments, this reduction increased the likelihood of purchasing a cupcake. Furthermore, another group of subjects was asked to indicate how much they would pay for a cupcake and what an honest price for the cupcake would be in a hypothetical bake sale. Some participants were told that the cupcake was being sold for $1.00; the other participants were told it was being sold for $0.75. Overall, the participants in the $1.00 condition said that they would pay more for the cupcake and stated a higher honest price. Though the values fell short of significance, this trend suggests that the original offered price (either $1.00 or $0.75) acted as an anchor for the actual value of the cupcake. Participants, perhaps unconsciously, based how much they would pay and the honest price on the original value.

These studies demonstrate the power of the anchoring effect. When making a numerical estimate, without actual knowledge of the correct value, unrelated values that receive some attention can have a large impact on the final estimation. Even when participants were warned about the effect and offered a prize for accuracy, the anchoring effect was difficult for them to overcome. With the Comparison tactic, the salesman, con

artist, or other persuader provides the anchor value as well as the adjusted number. If the potential victim believes in the anchor, then they may use that number as a reference and the adjusted value or sale price will look good in comparison.

Landscaping

Landscaping is a tactic used to set up a situation so that taking a certain course of action becomes more likely. This tactic is similar to landscaping that may be done in the real world; if I want someone to take a certain route from point A to point B, I can build a sidewalk on that route. This does not force someone to take the provided path, however it influences them to do so. As a social influence tactic, the landscaping is done psychologically.

There are many different methods to create this landscape. As in the physical world, we can build different paths to make one route easier, or we can put up barriers and walls to make other routes more difficult; in the psychological world we can also use different methods. We will discuss three types of the Landscaping tactic: Agenda Setting, Limiting Choices and Controlling Information.

In Agenda Setting, a landscape is created through a story. The story serves two purposes. First, by putting information into a story form, it helps to make the information more believable. Second, the story can frame the information in such a way that the individual being persuaded is led to make the desired choice or action.

Researchers have shown that a complete and coherent story allows individuals to create a mental representation of events, which makes the story seem more plausible (Pennington & Hastie, 1992). In a mock trial, jurors' decisions and confidence in their decisions was mediated by the organization of evidence. Information was either organized by story or by issue. When the information was organized by story, evidence was presented so that each witness provided a relatively complete description of the crime. When information was organized by issue, evidence pertaining to each issue (for example, motive) was presented together. In the story order, participants had stronger and more confident decisions in the expected direction. The authors concluded that their study provides further support that providing evidence in a story structure impacts the outcome of the jurors' decisions in a court room. Whether presenting evidence in a courtroom for jurors' to judge or trying to persuade someone in another setting, telling a story can impact the final decision.

In addition to using the story structure to persuade, how the details are described in the story can make a considerable difference. Another famous study by

Tversky and Kahneman (1981) demonstrated that it is possible to frame a situation in more than one way, and that alternate frames can lead to different decisions. When presenting details in a story or a problem, it is possible to present the same information in different ways. A simple example of two ways to frame a situation is illustrated in the classic question: Is the glass half-full or is the glass half-empty?

Tversky and Kahneman (1981) presented their subjects with a problem known as the Asian Disease problem. Approximately half of the participants were given the following version:

> Imagine that the U.S. is preparing for an outbreak of an unusual Asian disease, which is expected to kill 600 people. Two alternative programs to combat the disease have been proposed. Assume that the exact scientific estimates of the consequences of the program are as follows:
>
> - If Program A is adopted, 200 people will be saved.
> - If Program B is adopted, there is a 1/3 probability that 600 people will be saved and a 2/3 probability that no people will be saved.

The other half of the participants were given the same question, but were provided with two different programs:

- If Program 1 is adopted, 400 people will die.
- If Program 2 is adopted, there is a 1/3 probability that nobody will die and a 2/3 probability that 600 people will die.

When given the option between Program A and Program B, the majority of participants (72%) chose Program A. However, when given the option between Program 1 and Program 2, the majority (78%) chose Program 2. In actuality, Program A and Program 1 are identical and Programs B and 2 are also identical. The framing of the option is influential on which choice is selected. According to Prospect Theory, people will be risk averse for choices involving gains and risk seeking in choices involving losses (Tversky & Kahneman, 1981). As a persuasion tactic, knowing how to tell a good story can allow someone to influence another's decision and confidence in that decision and knowing how to spin the story allows them to manipulate another's risk-taking behaviors.

Limiting choices is another way to create a psychological landscape to influence. In the Limiting Choice tactic, the decision set or possible alternatives are manipulated. If an individual is focused on one or two possible alternatives, they may not consider other alternatives at the time of decision.

This tactic may be related to the cognitive heuristic of availability. Availability is a heuristic first described by Amos Tversky and Daniel Kahneman (1974). It refers to people's tendency to make judgments and decisions based on how easily information can be brought to mind. One reason events or ideas are more easily brought to mind is based on their level of activation. Collins & Loftus' (1975) spreading activation theory suggests that information is stored in the brain in a network where concepts or ideas are stored at nodes and these nodes are connected to other related nodes by pathways. All of these concepts and ideas are at some resting level of activation, with more familiar or recently-considered nodes at a higher level of activation. This higher level of activation makes them easier to bring to consciousness compared to an idea at a lower level of consciousness.

Because more familiar or recently-considered nodes are at higher levels of activation, when the time comes to make a decision, these are the first ideas or concepts thought about. Therefore, they are likely to be influential in the decision. In one study, participants were read a list of names (Tversky & Kahneman, 1974). The list included the names of very well-known individuals (e.g. George Washington) and less well-known individuals (John Breckenridge). After hearing the list, participants were asked to judge if there were more males or females on the list. When the list included more well-known men than well-known women, participants judged the list to have more men overall. Similarly, when the list had more well-known women than well-known men, participants judged the list to have more women overall. Participants based their judgment on the information that was more available to them; because the famous individuals' names had higher base levels of activation, they were easier to retrieve from memory. As a persuasion tactic, providing a limited set of desirable outcomes to an individual may make these options more available at decision time. And the goal of the tactic is that one of these desired options may be chosen.

And finally, the Controlling Information tactic is less related to a cognitive heuristic and is somewhat related to the Authority Role tactic, discussed in the next chapter. In this tactic, the persuader attempts to control the information an individual gets about a given topic. This way all decisions will be based on a limited set of information, potentially biased in the persuader's favor. Usually this tactic is achieved by discouraging communication with individuals outside the sphere of influence in order to prevent dissenting ideas or opinions from being presented.

Altogether, the Landscaping tactics are methods to move an individual from point A to point B without exerting any actual force. These methods are designed to

make the individuals being persuaded feel as though they chose this route, not that they were pushed down it. By setting the situation in such a manner that it is the easiest route to follow, it increases the likelihood that it will be followed.

Phantom Fixation

Phantom Fixation is when an extremely-desirable object is presented to an individual so that they will do anything to obtain it. This phantom could be fashionable clothing, a high-paying job, a new car, an exotic vacation, a large sum of money, etc. Essentially it is anything that an individual strongly desires. If a salesman or con artist already knows what an individual wants, then they can use this to find the perfect phantom to sell. For this reason, Profiling and Phantom Fixation frequently work together. The goal is to focus someone on a particular prize or desire so that they will fail to carefully evaluate the rest of the offer.

One way to get the potential victim to focus on the prize is to describe it vividly. When college students are making decisions about which courses to take, vivid information is shown to impact their decision more than statistical information (Borgida & Nisbett, 1977). Undergraduate students were shown average ratings of previous classes or they were given information from students face-to-face. The face-to-face comments were highly influential on the students' decisions whether or not to take a class in the future. In a quasi-experiment, home-owners were more likely to follow the advice of energy auditors who were trained to use vivid imagery, commitment, framing and personalization of information (Gonzalez, Aronson, and Costanzo, 1988). Though the study combined four tactics, it suggests that vivid imagery may work as a persuasion tactic in real world situations.

Vivid imagery may impact decisions because it allows the participants to imagine a situation more fully than they may with a plain description. Studies have shown that imagining oneself doing some task or behavior will increase likelihood ratings of doing that behavior in the near future. This effect was found when participants simply heard a story that they had done some task and how they did it (Gregory, Cialdini, Carpenter, 1982) and when they sketched out action scenarios of given events (Anderson, 1983). Regardless of whether or not the participants made up the story, imagining a behavior made them believe it was more likely that they would do that behavior in the future.

Pratkanis and Horvitz (2002) demonstrated how the Phantom Fixation tactic works in a laboratory setting. After an unrelated experiment, they asked students to stay

longer than scheduled to write essays. The essay writing would take approximately two hours. Generally speaking, this is not an activity for which most college students would volunteer. Half of the students were simply asked if they would be willing to stay without any incentive. The other half were told that they had won one of five prizes, but in order to be awarded the prize, they must stay to write the essays. The prizes included a TV, a portable CD player, a multi-color university mug, a videocassette recorder or a $50 mall gift certificate. The university mug is "a gimme prize- a near worthless item which in the context of the other luxury goods sounds great," (Pratkanis and Horvitz, 2002). As in real one-in-five offers, the only prize anyone could win was the gimme prize, in this case the university mug. It is possible that the mug sounded more exciting in the context of the four other prizes. In addition, the students may have inferred there was a four out of five chance that they would win another prize. Because the other prizes are all things that college students would generally find highly desirable, the idea of winning could act as a phantom. While only 20% of the control group, who was offered no incentive, stayed to write essays, 100% of the experimental group agreed to stay. The students were apparently motivated by the idea that they could win a prize and were willing to do extra work to obtain it, even when one of the prizes was not particularly valuable or exciting. Con artists use the same tactic; however both the prizes offered and the price to pay for them tend to be greater.

This tactic may also work in similar ways to the Landscaping tactic. As mentioned before, people tend to rate an outcome more likely if it is part of a story or if they can imagine the event. With phantoms, individuals are encouraged to imagine exactly what they would do with their prize. This imagining may increase the likelihood that they believe they will actually win the prize. Additionally, this imagining may make people more emotionally attached to the idea of obtaining the prize. This attachment may make them more motivated to do whatever is necessary to get the prize.

Scarcity

The Scarcity tactic is based on the principle that if something is scarce, it must be rare and valuable. We discuss four types of Scarcity: Product Scarcity, Winner Scarcity, Time Scarcity, and Fear-of-Loss Scarcity. Product Scarcity is when a given product or item itself is scarce or rare. A limited supply of something usually leads to higher prices and an increased demand for it. Winner Scarcity is when the particular item is only being offered to a select few individuals. Therefore, in addition to the fact that they will have a scarce item, it is a privilege and an honor to be one of those selected.

Time Scarcity is when the offer is available for only a limited time. In this case, action should be taken immediately. And finally, Fear-of-Loss Scarcity is based on the idea that your item or prize could be taken away and given to someone else. Therefore it is important to make sure you do what is necessary to keep it.

Students rating cookies demonstrated Product Scarcity (Worchel, Lee, Adeole, 1975). The students were shown a jar of cookies in a variety of experimental conditions. The overall finding was that students who were rating cookies from a jar containing only two cookies (scarce condition) rated the cookies as being worth more and more desirable than identical cookies from a jar containing ten cookies (plentiful condition). Even though the cookies were the same, the students said they would be willing to pay more for a cookie from the jar with two cookies than a cookie from the jar with ten cookies. If a product is scarce, it appears more valuable.

A real life example of Product Scarcity is the Cabbage Patch Doll craze in the United States in the 1980's. The scarcity and the high cost of these dolls intensified people's desire to own one. Lynn (1992) describes four critical aspects of scarce items: 1) Because few people have scarce items, possessing a scarce item makes those who have it feel unique; 2) Because scarce items are usually costly, possessing a scarce item is a status symbol; 3) Not being able to possess a scarce item threatens freedom to obtain the object, which increases their desire for it; and 4) Scarcity is often used as a heuristic cue that can suggest quality or other attractive attributes.

Time Scarcity is meant to create a sense of urgency in an individual. If they do not act now, they will lose the opportunity. This tactic is based on forcing an individual into a quick decision. This may prevent them from thoroughly researching or thinking through their options.

Fear-of Loss Scarcity is related to two different cognitive principles. The first is counterfactual thought: imagining what might be or what might have been. Even in situations with low probabilities of a positive outcome, like playing the lottery, counterfactual thought may be a motivating factor in playing (Landman & Petty, 2000). Imagining what you would do with a large prize is a form of counterfactual thinking. This thinking can lead you to play a lottery, because by not playing you might lose your potential winnings.

The second principle is the endowment effect or loss aversion. The endowment effect is when an individual places more value on something that they already than they would if they did not already own it; loss aversion is a related phenomena that people are willing to do more to avoid losing something they already possess than gaining

something of similar value. (Kahneman, Knetsch, & Thaler, 1991). Kahneman (1992) describes a demonstration of this that can be easily done in the classroom. One-third of the students are given decorated mugs (or some other attractive object); these students are the *sellers*. One-third of the students are given the opportunity to choose between a mug and an amount of money; this group is called the *choosers*. And one-third of the students are asked to indicate what amount they would be willing to pay to acquire the mug; these students are the *buyers*. In one experiment like this, the *sellers* wanted $7.12 for the mug; the *choosers*' cash equivalent for the mug was $3.12, and the *buyers* were willing to pay $2.88 for the mug. The simple fact of owning the mug, even for a short period of time, made it seem more valuable to the *sellers.* Knetsch (1989, as cited in Kahneman 1992) conducted a study in which he gave students in one class mugs for completing a questionnaire and he gave chocolate bars to students in another class. At the end of the class, he gave the students the opportunity to trade their gift. He found that only 10% of the students took this opportunity. It appears that ownership of an item increases the preference for that item over another item, in direct comparison (Kahneman, 1992). People will do more to avoid the loss of something than to achieve the same gain. If a salesman can convince you that an item is already yours, you may be willing to do more to prevent losing it than you would have originally done to obtain it in the first place.

Altogether, the Scarcity tactics are used to persuade people that an item is valuable; that they would be lucky to own the item; that they must act now to get it, before it's too late; and that if they don't act, someone else is going to get their item.

Source Credibility and Social Proof

The Social Proof tactic is used to make it seem like everyone else wants to buy the object being sold. It is based on the follow-the-crowd mentality—if everyone else thinks it is a good idea, it must be a good idea. And if everyone else has it, and I do not, then I will regret it. In addition to using Social Proof as an influence tactic, individuals try to establish their credibility. Source Credibility can be established for an entire business by describing business partners or a long business history. Individuals can also establish personal credibility by describing certifications, credentials or personal expertise. Both Social Proof and Source Credibility are used to generate trust. These tactics are a combination of cognitive and social heuristics. On one hand, they are cognitive because they involve evaluation of credibility. On the other hand, they are based on trust, which falls more under the social norms.

Social Proof, in some ways, is similar to conformity. If everyone else is doing something, then you should be doing it too. A 1955 study of charitable donors showed that the donors were influenced by the amount other donors gave (Blake, Rosenbaum, Duryea, 1955). Individuals who saw that the average donation was $0.25 gave significantly less than those who saw an average donation of $0.75. Additionally, Asch demonstrated in a famous study that people will conform with those around them because they don't want to be different (Asch, 1951 as cited in Aronson, 1995). In his famous line study, he asked participants to compare the lengths of lines. When they were making these judgments aloud, in a group of other people, subjects tended to conform with the group, even when the group was clearly wrong. These studies simply demonstrate that people tend to base their behavior on the behavior of others, either to find an acceptable norm, as in the charitable donor study or because they don't want to be different from the group, as in the line study. People seem to reason that if others think something is a good idea, deal, etc., that this provides evidence that it really is a good idea.

Research on Source Credibility suggests that individuals may integrate information about a source to determine credibility. Yaniv (1997) found that people will judge a source based on his confidence. If a source appears to be more confident in his judgment, individuals will rate him as more credible. In this study, confidence was operationalized as the size of a confidence interval. Sources provided numerical estimates to trivia questions. They gave their estimates in ranges. Sources who gave smaller ranges (i.e., 6-8) were considered more confident than sources who gave larger ranges (i.e., 2-14). Birnbaum (1976, 1979) demonstrated that individuals integrate information about source bias when combining information. In doing so, they adjust the sources' advice based on his presumed bias. Salespeople and con artists attempt to convince individuals that they are either unbiased, or perhaps working for them (biased in their favor), rather than the likely true scenario that they are working only for themselves. If the sales person can do this, they can perhaps prevent an individual from discounting their advice as one might discount advice from a biased source.

In general, Social Proof and Source Credibility are methods of creating trust. This trust is not based on friendship. Instead, it is based on an evaluation of how the community or well-respected experts view the individual or organization, the experiences of the individual or organization, as well as things like the perceived confidence or bias of the individual or organization.

Summary

Seven social influence tactics, based on cognitive heuristics or short-cuts, were discussed. These tactics, Commitment & Consistency, Comparison, Landscaping, Phantom Fixation, Scarcity, Social Proof and Source Credibility are all based on common rules for judging situations and making decisions. Manipulation of these rules allows individuals to use them as tools of persuasion. In the next section, we will discuss tactics which manipulate social norms to use as a tool of persuasion.

1.3: Social Norms-Based Social Influence Tactics

Social norms are general rules that people follow when interacting with others. As with cognitive heuristics, they are usually useful rules to follow. And they can be taken advantage of as easily.

In this section, we will discuss four social influence tactics that are based on social norms. These tactics include: 1) The Authority Role, 2) The Dependent Role, 3) The Friendship Role, and 4) Reciprocity.

The Authority Role

The Authority Role is based on the general rule that you should obey authority figures. Usually, authority figures provide accurate information and it is in your best interest to follow their directions. When using this tactic, someone will play the role of an authority figure. In the case of con artists, they may claim to be an FBI agent, a customs agent, a bank president, a state attorney general, or some other authority figure. As an authority figure, they will attempt to order an individual around. This tactic is based on acting from a position of power, in hopes that others will obey.

In a classic study, Bickman (1974) demonstrated people's obedience to authority figures. In one experiment, he had an individual dressed in regular street clothes tell passersby to put a dime in a nearby parking meter. Only 3 out of 10 complied. However, when he had an individual dressed in a security guard/police officer type uniform instructing individuals to put a dime in a nearby parking meter, 7 out of 10 complied. People tend to listen to authority figures.

In a more extreme experiment, Stanley Milgram demonstrated just how far people would go when obeying an authority figure (Milgram, 1963, 1965, 1974, as cited in Aronson, 1995). In his studies, he demonstrated that under the direction of an authority—a professor—participants would administer high-voltage shocks to other subjects. (Real shocks were never administered, but the participant believed that they

were.) Even when the subject screamed and begged the participant to stop, the participant would follow the directions of the authority figure. As they administered more powerful shocks, the participants would express stress or agitation, but would frequently continue to follow the professor's orders. Perhaps not everyone can imagine following orders to administer painful and dangerous electric shocks in an experiment, but it is not difficult to imagine following a simple order from a police officer, or sending a check to pay taxes when ordered by a government official. The power of the situation can have a large impact on a person's behavior.

The Dependent Role

The Dependent Role works in a similar way to the Authority Role. Only in this case, it is based on the rule that you should take care of those who depend on you. This role occurs most frequently between adults and children. Because children are dependent on adults for many things, most adults feel responsible for taking care of children. This role does not always have to do with adults and children though. There are many relationships in which someone can depend on another person for help.

Pratkanis & Gliner (2004-2005) demonstrated how the Dependent Role works. They had both a university professor and a 2nd grade child present two arguments. The first argument was that there is a 10th planet in the solar system. The second argument addressed why nuclear war should be prevented. Participants found the professor's argument for a 10th planet more compelling than the 2nd grade child's argument. This is not surprising, since the professor is an expert in the field and therefore should be educated on the topic, whereas the child probably has less knowledge than he does. However, in the case against nuclear war, the 2nd grade child was more convincing. Again, she probably had less technical knowledge than the professor. However, Pratkanis argues that because people feel responsible for taking care of and protecting the child, her argument was more compelling to them. The child's argument invoked a responsibility role in the listener.

This tactic creates an obligation to do the right thing and take care of another individual. Solicitations for charities, especially those involving giving to children's needs, use this tactic. It is difficult to refuse to help someone in need.

The Friendship Role

The Friendship Role tactic is based on the general social convention of doing favors for your friends. In many ways, it does not seem surprising that we are more

likely to agree to a request from a friend than from a stranger. In the Friendship Role, the seller will try to make an individual feel connected to him in some way, in order to increase the likelihood that for a few moments at least, they might treat him like a friend. There are a number of ways that this perceived connection can be achieved.

Believing that you share some incidental similarity with another has been shown to increase compliance to a request. In a series of studies, undergraduates were significantly more likely to comply to a request if they believed that they shared the same birthday, the same first name, or the same unique finger-print type with the requestor (Burger, Messian, Patel, del Prado, Anderson, 2004). In two of the three experiments, participants were asked to read, critique, and provide a one-page summary of an eight-page English paper. This request required a moderate amount of time and effort. Despite this effort, a high rate of compliance was found among participants in experimental conditions who believed they were somehow similar to the requestor (62% and 82%). In the third experiment, participants were asked to donate money to a charitable foundation. In this case, participants donated significantly more money when they believed they shared the same name with the requestor ($2.81) than when they had no perceived similarity ($1.00). Superficial similarities proved to go a long way in obtaining compliance in these studies.

In similar studies, mere exposure to an individual increased the likelihood of complying with a request (Burger, Soroka, Gonzago, Murphy, Somervell, 2001). In two studies, participants silently completed an experimental task with a confederate in the room or alone. Following the completion of the task, the participants either sat for 2 minutes silently (with the confederate or alone if the task was completed alone) or talked briefly with the confederate during this time. Afterwards, the confederate asked the participant to proof-read and critique an eight-page English essay, as in the previous study. In this case, participants who either sat silently with the confederate (44.6%) or conversed with them (44.7%) were significantly more likely to comply with the request than those who had not been previously exposed to the confederate (26.3%). Previous research shows that familiarity tends to increase liking for something or someone. In this case, a small amount of familiarity also increased willingness to comply with a request.

Finally, participants who engaged in a dialogue, as opposed to a monologue were more likely to comply with a request from a stranger (Dolinski, Nawrat, Rudak, 2001). In a series of five experiments, participants were engaged in some type of dialogue before receiving a request or they heard only a short monologue from the experimenter before the request was made. In all experiments, participants were more

likely to agree to the request in the dialogue condition than the monologue condition. The experimenters manipulated a variety of aspects of the conversation, and concluded that it was the act of having a conversation that led to the increased compliance rate, rather than other factors. They suggest that this effect is based on the fact that interactions that involve dialogues are associated with acquaintances and friends whereas monologues are associated with strangers.

In these studies, increased compliance was shown after mere exposure to the requestor, a short conversation with the requestor or perceived similarities with the requestor. These are a few ways that the requestor can appear to be slightly more like a friend, at least for the brief period of time that the request is being considered.

Reciprocity

The Reciprocity tactic is based on the norm of reciprocity, which most people abide by (Gouldner, 1960). According to this norm, favors must be returned. So, when someone does you a favor, you feel the obligation to return or reciprocate that favor. A salesman can use this tactic by appearing to do an individual a favor, so that the individual feels obligated to return the favor, and potentially purchase what is being sold.

A few studies demonstrate this tactic. In one study, Cialdini (2001) showed that charity solicitations containing a gummed address label yielded a 35% response rate, whereas solicitations without the address labels yielded only a 17% response rate. Simply including something for the solicitation recipient- the gummed address labels- doubled the rate of response. If I do something for you, you should do something for me. In another study, students selected names and addresses from a phone book. They mailed out Christmas cards to these randomly-selected people (whom they did not know). They received a significant number of Christmas cards from these randomly-selected individuals (Kunz & Woolcott, 1976, cited in Cialdini, 2001). Again, if you do something for me, I will do something for you. However, favors frequently come with strings attached.

As mentioned above, the Reciprocity tactic is related to the Comparison tactic, when the reduction in price seems to be a favor done by the requestor. Burger (1986) demonstrated that the norm of reciprocity was another factor leading to increased compliance, when the cupcakes were reduced from $1.00 to $0.75. Similarly, Friendship and Reciprocity are tactics which may frequently occur together, because it is common to do favors for your friends, and also to expect some type of favor in return. Feelings of obligation can be a powerful motivator to perform some action or provide some service.

Summary

Four social influence tactics based on social norms or heuristics were discussed: the Authority Role, the Dependent Role, the Friendship Role and Reciprocity. They are all based on common rules or behaviors when interacting with others. Like the cognitive heuristics, manipulating these rules allows individuals to use them as tools of persuasion.

Chapter 2: Literature on Fraud Victimization

> Fraud may be defined as the deliberate deception or intention of deception of an individual with the promise of goods, services or other financial benefits that are actually nonexistent, were never intended to be provided, or were grossly misrepresented.
>
> -Richard Titus, National Institute of Justice

2.1: Overview of Literature on Fraud Victimization

Prior to 1990, very few scholarly studies had been conducted on the subject of consumer fraud. Most of what had been written was personal accounts by either former perpetrators (con artists), current or former law enforcement officers or members of the news media (Langenderfer, 2001). Over half of the studies cited in this literature review were published since 2000 and over 90% were published since 1990. This still-early but growing body of research has been driven by organizations like AARP, the United States Department of Justice, the Federal Trade Commission and a handful of academics who have taken on the study of fraud in a systematic way (Titus et al., 1995; Pratkanis & Shadel, 2005). Our review of the literature has identified three primary types of studies:

1. Prevalence Studies: How many people are being taken? Research that seeks to measure the frequency and extent of consumer fraud in the marketplace;
2. Fraud Typology Studies: What kinds of scams are out there? Research that seeks to identify and document the different types of fraud in the marketplace; and
3. Victim Profile Studies: Who is being taken? Research that seeks to identify the characteristics of individuals who fall victim to particular fraud crimes.

There is a fourth area that deserves mention and that is the literature on the con artists themselves. As we mentioned, most of the literature about con artists has been written by law enforcement investigators (Shadel & John T., 1994) or by con artists themselves such as Frank Abignale who wrote an autobiography entitled *Catch Me If You Can* (Abignale, 1980). One notable exception was Neal Shover's study of con artists, based on extensive interviews conducted in federal penitentiaries with forty-seven convicted telemarketing fraud swindlers (Shover, 2004). Because the focus of this

dissertation is on the social influence tactics used by con artists and the various characteristics of their victims, we have chosen not to conduct an extensive review of the literature about the con artists themselves. The research we are conducting however is informed by numerous personal interviews we have done with con artists over the years.

2.2: Prevalence Studies: How many people are being taken?

When it comes to the prevalence of certain crimes in the United States, the biggest study conducted each year is the Federal Bureau of Investigation's Uniform Crime Report (UCR), a U.S. report that produces a summary of crime throughout the United States based upon reports from all government entities: city, county and state law enforcement entities (Uniform Crime Reports, 1991-1998). These data record offender crime incidents, such as the number of burglaries, robberies, and assaults that were reported in a given year. A downside of this data is that it is based on reported crime rates and it calculates crime based on the number of offenders rather than victims. This leaves room for inaccuracies associated with the number of fraud crimes that go unreported. Nevertheless, Uniform Crime Reports of arrests for fraud were dramatically increased from 1991 to 1998, increasing 8.6% while most other crimes were on the decline (Kerley & Copes, 2002).

The National Crime Victimization Survey (NCVS) collects information about victims, offenders, and crime even if the event was not reported. Unfortunately, it has only been recently that this survey includes any questions regarding fraud, and it is limited to identity theft fraud (Baum, 2004).

The United Nations Interregional Crime and Justice Research Institute (UNICRI) has conducted standardized crime surveys of between 1,000 and 2,000 randomly-selected individuals over the age of 16 in twenty industrialized countries since 1992. These surveys are called the International Crime Victims Survey (ICVS). The surveys ask a range of questions about individual's experiences with crime victimization. Among the questions asked is the following: "In the last year, were you the victim of a consumer fraud? In other words, has someone, when selling you something, or delivering you a service, cheated you in terms of quantity or quality or price of the goods or services?" Table 1 shows the reported fraud prevalence rates for various years and countries. The ICVS is administered every four years and data provided is for 2000, the most recent year available (UNICRI, 2000).

The ICVS provides a very interesting snapshot of self-reported fraud victim rates in primarily Western European and industrialized countries. The average reported

Table 1: Fraud Prevalence - 2000 International Crime Victim Survey

Country	Year	% Victimized	N	% Reported
Australia	2000	8.8%	177	21%
Austria	2000	10.5%	158	14%
Belgium	2000	6.4%	160	17%
Canada	2000	7.5%	156	21%
Spain	2000	8.7%	253	8%
Denmark	2000	11.5%	345	4%
England/Wales	2000	6.0%	117	40%
Finland	2000	10.0%	182	1%
France	2000	4.4%	44	52%
Italy	1992	10.6%	214	2%
Japan	2000	2.3%	51	29%
Netherlands	2000	4.4%	87	54%
New Zealand	1992	7.4%	152	14%
No. Ireland	2000	3.8%	58	79%
Poland	2000	12.8%	677	1%
Portugal	2000	7.0%	139	14%
Scotland	2000	4.9%	101	37%
Sweden	2000	9.4%	188	5%
Switzerland	1996	9.9%	99	11%
USA	2000	11.4%	114	32%
All Countries	2000	7.7%	2963	24%

victimization rate across all countries of 7.7% is a useful point of demarcation for the rest of our discussion of prevalence rates, primarily in the United States. The average report rate of 24% also provides some insight into just how under-reported this crime has been and should provide valuable perspective for other self-report prevalence studies contained in this review. The report rate of 24% has been found in a number of other studies (Rebovich & Layne, 2000; Kerley & Copes, 2002).

One of the first comprehensive national studies about consumer fraud was a survey conducted by Richard Titus and his colleagues at the U.S. Department of Justice in 1991 (Titus et al., 1995). They telephone surveyed 1,246 individuals and asked specific questions about 21 different types of fraud and their experiences with them. The study found that 15% of respondents reported having been victimized in the past year and 58% had been victimized at some point in their lives by at least 1 of these 21 frauds. The average loss was $216 per person, which when projected across the adult population of the U.S., added up to more than $40 billion per year in losses to fraud at that time.

A 1992 survey of Americans found that one in three reported having been cheated out of money through deceptive means in their lifetime (Bass and Hoeffler, 1992). In a survey of Americans conducted in 2004, the FTC found that 11.2% of the respondents felt they had been victims of a fraud in the previous year. When this figure is extrapolated to the U.S. population (based upon U.S. Census Bureau data that showed an adult population of 217.76 million in 2003 when the survey was taken) it comes to approximately 24.4 million adult fraud victims per year (Anderson, 2004). When AARP asked a similar question in one of its surveys, they found that 17% said they had been the victim of a major swindle in their lifetime (AARP, 1996a). And when they asked the same question a few years later, 21% said they had been victims at some point in their lifetime. Eight percent said they had been victimized in the past year (AARP, 1999).

The general prevalence rate of self-reported fraud is further corroborated by recent AARP statewide surveys in Washington, Montana and Hawaii. The question asked in these surveys was very similar to that posed in the International Crime Victim Survey: "Thinking about all the bad experiences you have ever had when purchasing products or services, was there ever a time that you felt you were the victim of a consumer swindle or fraud? In other words, has someone – when selling something to you or delivering a service – deceived you in terms of quantity or quality of a product or service?" Statewide samples of the 18 and older population were conducted between 1999 and 2005 and the average self-reported victim prevalence rate was 26% over a lifetime and 12% during the past year (AARP, 2004). This 12% self-report rate is fairly close to the 11.4% rate

captured by the ICVS in 2000 for the United States (UNICRI, 2000) and the 11.2% rate founding the FTC's 2004 study.

Finally, the National White Collar Crime Center conducted a national study in 2000 of American's perceptions of and experience with fraud crimes. They specifically asked the national sample about their experiences in nine discrete areas of fraud and found that in the aggregate, 36% of respondents had been defrauded at least once in the past 12 months (Rebovich & Layne, 2000).

There are a couple of potential explanations for why the prevalence rates for fraud in these studies vary so widely (from 17% to 58% lifetime and from 8% to 36% in the past year.) The response rate is frequently determined by the wording of the question and the respondent's interpretation of that wording (Anderson, 2004). Researchers ask the question about fraud victimization in a variety of ways, making the rates difficult to compare. For instance, Titus asked respondents very specific questions about 21 different types of fraud in his survey and found the overall prevalence rate across all 21 frauds during the previous year to be 15%. When AARP's survey and the International Crime Victim's Survey asked a single question, (whether the respondent had ever been the victim of a consumer fraud or swindle, leaving it to the respondent to remember without being aided), the response was 8%.

Secondly, self-reporting of fraud in surveys has been shown to be a notoriously unreliable measure. In "Off the Hook", AARP researchers asked known victims (individuals whose victim status had been verified) to answer the question, "Have you ever lost more than $1,000 in a consumer fraud or swindle?" When lottery victims (who had each lost at least $1,000) were asked this question, only 50% admitted they had lost such an amount. Similarly, when a group of investment fraud victims (who had also lost at least $1,000) were asked this question, only 27% admitted it (AARP, 2003a). These are fairly astounding self-report error rates and they reinforce the need to improve how fraud victim prevalence rates are determined.

One important distinction is the difference between low report rates (not reporting crime to authorities) versus self-report error rates (refusing to admit victimization in a telephone survey.) While these two rates are different, the reasons why they tend to both be low may be related. Personal embarrassment has often been cited in the literature as a reason why many do not report fraud victimization (Pratkanis & Shadel, 2005).

The National White Collar Crime study found different reporting rates for different types of fraud. For instance, the report rate for auto repair fraud was 47%

whereas the report rate for victims falling for various "free prize" scams was only 14% (Rebovich & Layne, 2000). Studies of other types of crime reveal reporting rates that are higher than for fraud crimes. For example, household burglary report rates average 50% and motor vehicle theft reporting rates average 78% (Shadel & Ward, 1995; O'Brien, 2000). It is worth noting that even this data is subject to self-report error because it relies on 1) self-report of having reported and 2) self-report of being a victim. There is little reason intellectually to question the veracity of the former, quite another to trust the latter.

Some studies have explored situational factors that might alter reporting rates. In 2001, researchers investigated the role of socialization in increased reporting rates for fraud and found no correlation between increased socialization and reporting. They did find a correlation between fraud victimization and socialization (Van Wyk & Mason, 2001).

One last factor in terms of prevalence of fraud is exposure to it. AARP did a study in 1996 to gauge the incidence of telemarketing fraud. The study found that telemarketing is extremely pervasive, with 82% reporting they received one or more calls involving the sale of a product, contribution to a charity or to enter a contest; 42% said they received five or more of such calls in the past six months and 46% had received such a call within the past week (AARP, 1996c). The 2004 FTC Consumer Fraud Study also found that 85.8% of all respondents had received a telemarketing call during the past year (Anderson, 2004). While not all telemarketing companies are fraudulent, such relentless exposure to telephone sales offers is another factor in the equation of how many people are victimized by fraud.

Summary

Overall, the exact prevalence of fraud in any given area at any given time is virtually impossible to determine. Issues of embarrassment, privacy and psychological pressures make victims reluctant to come forward (Pratkanis & Shadel, 2005). Furthermore, methodological problems associated with the wording of survey questions make the accuracy of responses difficult to sort out. However, if AARP's 2003 study of known victims is any guide, self-report error rates for fraud may be as high as 50% (AARP, 2003a). If one takes the conservative figure we began with in this section of 7.7%, which is the average self-report fraud rate across 15 European countries including the United States, and double it, you get an overall prevalence estimate for fraud of just over 15%. Until self-reporting methods improve, this is our best estimate of prevalence.

2.3: Fraud Typology Studies: What kinds of scams are out there?

For many years, a key role of law enforcement and regulatory agencies was to enforce the laws against swindlers who commit fraud, but also to catalog the various types of schemes in the marketplaces so that consumers could be forewarned (AARP, 2003a). Every state attorney general office and consumer agency at every level of government seems to come out with a list each year of the top scams going around the country. In this section, we will provide a snapshot of some of those lists and describe how they change over time. There are essentially three sources for determining what types of scams exist in the marketplace: Consumer surveys, analysis of complaint data, and investigative work.

Consumer Surveys

The Federal Trade Commission, the oldest consumer agency in the U.S., established in 1916 (Holtfeter, Slyke & Blomberg, 2005), has probably done the most thorough analysis of the kinds of fraud that are being perpetrated on Americans. Their 2004 survey of 2,500 Americans revealed the top ten most common fraud areas reported, see Table 2.

The FTC estimates that of all respondents who said they were victims of fraud in one domain or another in 2004, just over half were victims of one of these ten scams (Anderson, 2004). It should be noted that this list was not derived from individuals filing complaints with the FTC. Rather, respondents were randomly selected and proactively called by the agency to determine their experiences with fraud. Most government agency "top ten" lists on the other hand, including the FTC's own consumer sentinel program, are generated from complaint records.

By way of comparison, consider the list of frauds by type compiled ten years earlier in 1995 by Titus in his survey of fraud victimization (Titus et al., 1995). Table 3 shows the top ten list in that study. The most notable thing about these two lists is how different they are. With the exception of free-prize scams, most of the frauds in the two lists are different, a startling change in just ten years. This is in part why there has been a move to teach consumers the psychological tactics used by con artists, rather than focusing on the precise types of fraud out there since the tactics tend not to change as quickly (Pratkanis & Shadel, 2005).

Table 2: Top 10 fraud areas reported by the FTC and a description of the fraud (2004)

Type of Fraud	Description
Slamming	Billed for unauthorized long distance phone charges
Advance Fee Schemes	Paid an advance fee for a loan or credit card
Buyers Club	Billed for a buyer club you did not intend or agree to join
Credit Card Insurance	Paid for bogus credit card insurance
Credit Repair	Paid for service to supposedly repair your credit
Sweepstakes/Lottery	Paid money to "win" a prize
Internet Services	Billed for internet services you did not agree to purchase
Pyramids	Paid for a membership in a pyramid scheme
Information Services	Billed for service over the internet you did not purchase
Job Scams	Paid money to someone guaranteeing you a government job

Table 3: Top 10 fraud areas reported in Titus, 1995 and a description of the fraud

Type of Fraud	Description
Free Prize	Paid money to "win" a prize
Appliance/auto repair	Paid for unnecessary/never performed repair.
Card Number	Tricked into providing credit card/bank account number.
Price	Lied to about price of product or service and overcharged
900 Number	Used a 900 number to cheat you out of money
Other	Other situations where you were cheated out of money
Subscriptions	Purchased subscriptions which you never received
Charity	Donated money for a fraudulent or false charity
Warranty	Purchased a warranty which did not cover promised things
Work at home	Paid for kits promising profits from working at home.

Analysis of Complaint Data

Researchers have long known that consumer complaint data provides a limited snapshot of the fraud activity occurring in the marketplace. This has to do with the low self-report rates for this crime and also the fact that those who file complaints with government agencies tend to match a particular demographic profile that is not representative of the public at large (Shadel & John T., 1994). Nevertheless, analysis of government complaint files does provide some information about the kinds of crimes being committed in any given year. The National Fraud Information Center (NFIC) generates a top ten list of telemarketing fraud scams from complaints filed from consumers each year. Table 4 shows their list for 2005. The NFIC indicates in this report that the top three scam types among the 60-plus population were prize/sweepstakes, phishing, and magazine sales. An astonishing 33% of all telemarketing fraud complaints filed with the NFIC in 2005 were by consumers over 60 years of age (NFIC, 2005).

Perhaps the most significant trend in terms of consumer fraud is the role of the internet. One researcher goes so far as to say that if a con artist is not using the internet as a tool of his or her trade, he is guilty of "fraud malpractice," (Langenderfer & Shimp, 2001). The internet has had the effect of shrinking the globe, eliminating national borders and allowing every con artist, regardless of where they live, to be a threat. In light of this powerful trend, the NFIC publishes another top ten list: the top ten internet scams in 2005 based on complaints they received (see Table 5).

The Federal Trade Commission also receives complaints nationwide through a program they call "Consumer Sentinel." A comparison of complaint data over a three year period from 2003 to 2005 is listed in Table 6 (FTC, 2006).

Investigative work

Not all typology lists come from complaint files. One interesting source for fraud complaints comes from investigations of companies that, wittingly or unwittingly, participated in the carrying out of the fraud crime. One wire transfer company has been doing more than most to help consumers avoid fraud, including donating $8.1 million to the AARP Foundation in 2005 to create a nationwide network of fraud prevention call centers that warn people about fraud. Unfortunately, many fraud operations still use wire transfer company services to wire money as part of their scam (Pratkanis & Shadel, 2005). Periodically, the AARP Foundation receives fraud reports as these companies identify victims. One such victim list revealed the top five frauds being perpetrated that

used wired transfer services were: 1) Internet auctions, 2) Lottery scams, 3) Nigerian/foreign money scams, 4) Bride fraud (fraud from personal interaction on internet websites), and 5) Advance fee loan scams.

Table 4: Top 10 fraud areas reported to the National Fraud Information Center (2005)

Type of Fraud	Description
Prize/Sweepstakes	Paid money to "win" a prize
Scholarships/grants	Paid fees on promise of lucrative scholarship
Magazine sales	Purchased magazine subscriptions that you never received
Credit card offers	Was offered fraudulent credit cards or credit card protections
Fake check scams	Consumers are paid with phony checks for work or items, instructed to wire money back
Advance fee scams	Paid an advance fee for a loan or credit card
Lottery/lottery clubs	Requests for payment to claim winnings or get help to win
Work at home plans	Bought kits promising big profits from working at home
Phishing scams	Emails pretending to be from well-known source asking to confirm personal information
Travel/vacation	Paid to receive discounted travel that could never be used or cost more than the promised price

Table 5: Top 10 internet frauds reported to the National Fraud Information Center (2005)

Type of Fraud	Description
Auctions	Goods never delivered or misrepresented
General Merchandise	Goods never delivered
Nigerian Money Offers	Promises of riches if consumer pays to transfer money into their own bank account
Fake checks	Consumers are paid with phony checks for work or items, instructed to wire money back
Lotteries/Lottery Clubs	Requests for payment to claim winnings or get help to win
Phishing	Emails pretending to be from well-known source asking to confirm personal information
Advance fee loans	Paid an advance fee for a loan or credit card
Information/Adult Services	Cost and terms of services not disclosed or represented
Work at home	Bought kits promising big profits working at home
Internet Access Services	Cost of internet access and other services misrepresented

Table 6: Top 10 fraud areas reported to the FTC's Consumer Sentinel Program

Scam Type	2003	2004	2005
Identity theft	40%	38%	37%
Internet auctions	15%	15%	12%
Shop-at-home/Catalog sales	10%	8%	8%
Internet services/Computer complaints	6%	6%	5%
Prize/Sweepstakes/Lottery	5%	5%	7%
Foreign money offers	4%	5%	8%
Advance Fee Loans/Credit repair	4%	3%	2%
Business opportunities/work-at-home	3%	2%	2%
Telephone services	2%	2%	2%
Magazine and buyers clubs	2%	1%	1%

These types of scams can target consumers of any age, but the vast majority of victims identified by wire transfer companies are older. Another type of scam that does not typically show up on government agency lists or wire transfer company lists is the living trust scam (Finberg, 2003). A living trust is a legal document that can have the effect of streamlining the probate process for older people. Many scams have been operated using the threat of inheritance taxes and expensive probate proceedings to induce older consumers to pay up to $5,000 for a living trust. Not only are insurance sales people selling these documents (often without advice or review from a lawyer), but they also try to sell older consumers high-commission investments that may or may not suit them (Finberg, 2003).

Summary

In reviewing the literature on fraud typology, three clear patterns emerge. One is that there is a wide variety of frauds taking place in the marketplace each year and the types of fraud change over time. This makes it very difficult for those in the business of preventing this crime to know how to warn consumers. It also brings into sharp relief the importance of understanding the underlying social influence techniques that are present across all frauds, which do not seem to change as frequently as the types of frauds themselves.

The second major finding from this review is that there is at least one kind of fraud scheme that is in the top ten lists every year: lottery and prize promotion scams. This is significant because it means that despite a rapidly-changing fraud industry, the lottery and free-prize frauds never seem to go away. It makes our focus on profiling lottery victims in this study all the more important.

And finally, there is a noticeable absence in any of the typology reports we have reviewed here of investment scams being at or near the top of the lists of scam types. There may be several explanations for this. One is that, as we have noted previously, the error rate for admitting one has been taken in a survey for victims of investment fraud has been documented to be as high as 77% (AARP, 2003a). The rate at which known investment fraud victims report crime to authorities is similarly low. In addition, the regulatory agencies at both the state and federal level that enforce laws against fraudulent investment brokers rarely publish typology lists like other consumer protection agencies and this makes it difficult to track trends in the domain of investment fraud.

Nevertheless, it is vital that we begin to understand the profile of the typical investment fraud victim. At a time when there is a major seismic shift in responsibility for wealth accumulation and retirement security in the United States from the government and the corporation to the private individual, it is vital that those who are vulnerable to being defrauded be identified and protected.

2.4: Victim Profiles: Who is being taken?

When it comes to profiling victims of fraud, the literature contains four main types of profiling analysis: 1) Demographic, 2) Consumer literacy, 3) Behavioral and psychological mindset, and 4) Situational. We will review the literature for each of these four types of profiling analysis.

Demographic Variables

The Federal Trade Commission, the United States Department of Justice, AARP, and the United Nations Interregional Crime and Justice Research Institute (UNICRI) seem to have done the most comprehensive studies of the demographics of fraud victimization during the past 15 years. As we proceed through the review of the literature, you will see these sources utilized repeatedly because they have done the most work in this area. We will examine the following demographic variables: age, gender, income/financial status, education and marital status.

Age

The literature is mixed on the question of whether younger or older people are more likely to be victimized by fraud. Before there were academic studies conducted on fraud, anecdotal evidence from investigators and prosecutors abounded with the impression that older consumers were much more vulnerable to and therefore victimized by fraud. This was likely because investigators only interviewed individuals who filed complaints and older consumers are known to file more complaints than younger consumers (Titus et al., 1995) and because con artists told investigators in interviews that older victims were their prime targets because they were home to answer the phone and they had money (Shadel & John T., 1994).

The notion that older people were more victimized than younger people was not limited to law enforcement. A survey of Americans in 2000 found that 60% thought that older consumers were the most likely victims of fraud (Rebovich & Layne, 2000). Further supporting the notion that older consumers are more victimized by fraud was a 1996 study by AARP that found that while individuals over 50 comprised 35% of the

American population, they accounted for 57% of all the victims of fraud (AARP, 1996a). Furthermore, AARP research of sample populations of lottery and investment fraud victims found the percentage of victims over age 50 to be overwhelmingly high (AARP, 2003a). The NFIC collects complaints nationwide each year from telemarketing fraud victims and they found that 33% of their complaints about telemarketing fraud were from individuals 60 and over and 22% were from those 70 and older (NFIC, 2005).

Additionally, an AARP study conducted in 1999 found that the 50-64 year old age cohort was the most likely group to report having been victimized by a major fraud (23%), compared to those under 50 (18%) and those over 65 (8%), (AARP, 1999). And a survey conducted by the North American Securities Administrator's Association (NASAA) recently found that 44% of the people complaining to their agency about being defrauded were over the age of 65. In Florida, 75% of all complaints to the securities division were over 65 (Struck, 2006).

In contrast, Titus found overall across all scam types that older consumers were three times *less* likely to be fraud victims than younger people (Titus et al., 1995). This finding is confirmed by the FTC study that found 17-19% of the 25-54 year old population were victims of fraud, but that figure falls to 11% for consumers over 55 years of age (Anderson, 2004). Another study conducted in 1994 found a similar decline in victimization for those over 55 years old (Kerley & Copes, 2002).

As part of the International Crime Victim Survey (UNICRI, 2000), the Australian Institute of Criminology surveyed 3,000 individuals in 1999 about their experiences with consumer fraud. They found that 9.3% of the 18-64 year old population were victimized, compared to 3.9% of the 65 and older population, based on self reports of having been a fraud victim in the previous year (Muscat, James & Graycar, 2002).

For purposes of this review, we secured access to the entire data set for the 2000 International Crime Victim Study and ran demographic profiles on respondents in 15 industrialized countries to determine age breakdowns for those who self-report they were victims of fraud in 1999 (Pak & Shadel, 2006). Respondent's victim status was self-reported and based on responses to the general question, "In the last year, were you the victim of a consumer fraud? In other words, has someone, when selling you something, or delivering you a service, cheated you in terms of quantity or quality or price of the goods or services?" Despite issues of self-report error and the general nature of the question, the results nevertheless shed some light on the general trends by age for those 15 countries. Those 60 and older were 23.58% of the total population surveyed across all countries, but they were only 13.46% of all the victims. In contrast, 54.56% of

all respondents were between the ages of 20 and 49 and yet they comprised 67.35% of all the victims. The largest difference by age cohort was the 20-29 year olds, who were 16.84% of the population surveyed and yet 21.64% of the victims, a margin of almost 5%. This suggests that across 15 industrialized countries in Europe, younger people are disproportionately victimized by fraud. By the time they get to age 60 and above, they are less victimized, (Pak & Shadel, 2006).

Thus, the literature as it pertains to the age of fraud victims is mixed. General surveys across all scam types tend to find that older consumers are less victimized as a percentage of the population. This follows the general trend in crime victimization: the older the person, the less likely they are to be a victim of any kind of crime, (Shadel & Ward, 1995). However, research that has analyzed victims by scam type has found that crimes such as telemarketing, investment, and lottery fraud seem to target seniors and have disproportionately high numbers of them in their victim populations (AARP, 2003a; NFIC, 2005).

While the research is mixed on the question of whether older consumers are victimized more or less than younger people as a percentage of the population, older people have a tougher time recovering from fraud and may lose everything once they are targeted by a con artist (Shadel & John T., 1994). This is why it is of particular interest to AARP and other organizations to target prevention messages and resources to protect those in the older person category.

Gender

There is evidence to suggest that when it comes to fraud victimization in general, gender is not a significant variable (Titus et al., 1995; Kerley & Copes, 2002; Anderson, 2004). All three of these studies found little or no differences based on gender. However, there are some minor exceptions to this finding. Our analysis of the International Crime Victims Survey found a slight difference between male victims of fraud (52.57% of all victims) versus men in the general sample (48.31%) across all 15 countries. In the U.S., the difference was slightly greater (male victims: 52.20%; general survey population of males: 47.06%). Other noticeable exceptions were Belgium (male victims: 58.50%; general survey population of males: 48.98%), France (male victims: 57.10%; general survey population of males: 48.69%) and Scotland (male victims: 62.70%; general survey population of males: 48.88%) (Pak & Shadel, 2006). What is not known is how much, if any, of these differences are the result of reporting biases based on gender.

AARP's study in 2003 found that when it came to victims of particular types of fraud, there were significant differences in gender. For example, the AARP study found that victims of investment fraud were more likely to be male than a general population control group. The same study found that victims of lottery fraud were overwhelmingly more likely to be female than the general population control group (AARP, 2003a). A study of predatory lending victims found that the victim pool contained slightly more women (56%) than the general population pool (52%), but the difference was not found to be statistically significant (Moore, 2003).

Thus, it appears that overall gender does not play a significant role in profiling fraud victims in general. But when it comes to specific types of fraud, such as lottery and investment fraud, gender is a factor.

Income/Financial Status

The literature on the role of income and financial status in fraud crimes seems to follow what is a consistent emerging pattern: when fraud victims are studied as a whole, the research is mixed on the role of income; when specific types of fraud victims are analyzed by income, much clearer patterns emerge.

The FTC study analyzed the role of income and finances among fraud victims in three different ways: current income, future income, and debt. With regard to current income, they found a difference between those who made between $20,000 and $40,000 (12.8% were victims) and those who made between $40,000 and $60,000 (6.7% were victims). However, they also found that among those making between $60,000 and $80,000, 10.8% were victims. This is an interesting pattern, showing victim status is not monotonically related to current levels of income. Similar to the FTC finding for lower income individuals, a 1994 study found that those individuals who earned between $15,000 and $24,000 were more likely to be fraud victims (Kerley & Copes, 2002).

With regard to future income, they found that respondents who thought their income would remain relatively stable over the next three years had the lowest rate of victimization (11.3%), while those who thought their income would either go up significantly (23.5%) or down significantly (21.3%) had the highest rates of victimization. One possible explanation for this pattern is that participation in fraud scams has been linked to risky behavior (Van Wyk & Benson, 1997) and the anticipation of significant changes in income, negatively or positively, may make individuals more inclined to take risks. With regard to debt burden, the FTC study found that those who reported they had too much debt were three times more likely to be victims (27.3%) than those who reported they had no debt (8.6%) (Anderson, 2004).

More recent AARP research looked at the role of income for specific types of fraud victims and found that investment fraud victims had a higher income than the general population (AARP, 2003a). Forty-five percent of investment victims made more than $75,000 per year, whereas only 15% of the general population made this much. In contrast, lottery fraud victims had lower incomes than the general population, with 51% of lottery victims making under $30,000 per year, whereas only 37% of the general population made under $30,000 per year.

Education

The literature as it relates to the role of education in fraud victimization follows a similar pattern. The research is mixed when all victims are analyzed together. Much firmer findings emerge with regard to specific scam types.

The FTC study found no significant differences among fraud victims based on educational attainment (Anderson, 2004). The Titus study found those with a master's degree or higher and those who had dropped out of high school were less likely to be fraud victims than those with some college or a college degree (Titus et al., 1995). A 1994 study of 224 fraud victims also found that individuals with some college or a college degree were more likely to be fraud victims than those with a high school diploma or less or a graduate or professional degree (Kerley & Copes, 2002).

A study by AARP found that victims of fraud had a higher level of educational attainment than the general population (AARP, 1996a). Another study found that predatory lending fraud victims had a lower level of educational attainment than the general population (Moore, 2003). Specifically, 38% of the victims of predatory lending fraud had an associate's degree, a college degree or higher, while 51% of the non-victim control group had the same level of education.

Finally, the role of education is clearer when it comes to specific types of scam victims, such as lottery and investment fraud. An AARP study found that investment fraud victims had a higher educational attainment than a sample non-victim population, yet lottery fraud victims had a lower level of educational attainment than a sample non-victim population (AARP, 2003a).

Ethnicity

The FTC (Anderson, 2004) found significant differences between some ethnic groups in terms of fraud victimization. Specifically, they found that Native Americans and Native Alaskans were significantly more likely to be victims of fraud (38%) than non-Hispanic whites (12.5%). The study also found that Hispanics had the second highest rate of victimization at 26.7% and African Americans were the third highest

ethnic population in terms of fraud victimization at just over 22%. The National White Collar Center survey found that 53% of those minorities surveyed were in the "high risk" category compared to 49% for the Caucasian population, when analyzing risky behaviors that can lead to fraud (Rebovich & Layne, 2000). None of the other studies found major difference among victims in terms of ethnicity.

Marital Status

Here again, the literature is mixed in terms of the role of marriage in fraud victimization in general. An AARP study found that fraud victims were more likely to be married and more socially connected than the general population, which debunked some myths about the stereotype of the isolated, lonely victim (AARP, 1996a). However, the FTC study found no statistically-significant difference between married people and single people in terms of their fraud victim status (Anderson, 2004). Our analysis of data from the International Crime Victim Survey found no difference between victims and those surveyed overall: 64.91% of all victims were married or living together and exactly 64.91% of those surveyed were married or living together (Pak & Shadel, 2006).

Soberon-Ferrer and Lee (1997) used data collected from a 1993 AARP survey of older consumers' behavior to develop a vulnerability scale and then analyzed the data by age cohorts and found that married people scored lower than single people on the scale. This suggests that married people are less vulnerable to fraud.

Once again, the pattern as it relates to the role of marital status becomes much clearer when specific victims are analyzed by type of scam. Predatory lending victims were found to be more likely to be married (71%) compared to the general population (63%), (Moore, 2003); investment fraud victims were more likely to be married and lottery fraud victims were more likely to be widowed or divorced than the general population (AARP, 2003a).

Consumer Literacy

Demographic characteristics are only one set of variables to look for when seeking to identify or profile vulnerable consumers. Consumer knowledge or what some refer to as "consumer literacy" is another variable. In 1999, AARP conducted a survey intended to measure consumer's vulnerability to fraud. A "vulnerability index" was created that tested consumer's knowledge on a broad range of issues from investing to consumer privacy to levels of trust in certain businesses to banking. Examples of selected measures were as follows:

- Does not know that the financial institution can take ownership of the home for non-payment of the mortgage.
- Does not know where to turn with a complaint about a product or service.
- Does not know that consumers have a right to see their credit report if they have been denied credit.
- Does not know that diversifying investments reduces risk.
- Does not know that a no-load mutual fund involves fees even though there are no sales charges.
- Does not know that the FDIC will not cover losses in a mutual fund invested at the bank.
- Does not know that full-service brokers and financial planners are compensated based on the amount and type of investments they sell to clients.

For each question answered incorrectly, the respondent received one point (a "vulnerability point"). The findings in this study revealed that 8% of all respondents had a score of 10 or more out of 19, which put them at high risk of vulnerability to fraud. From a demographic standpoint, 21% of those 75 and older scored in the high risk range, whereas only 11% of the 65-74 year olds were in the high risk range, and only 6% of those under 65 were in that range. This suggests that the oldest consumers are the most vulnerable, based on their lack of consumer knowledge (AARP, 1999).

With regard to the four financial literacy questions that were asked, only 11% of the respondents got all four correct; only 25% got three out of four correct; 46% got half of the questions correct; and 18% got one question in four correct (AARP, 1999). This means that 64% of the respondents flunked. Such low scores on financial literacy have been replicated in the literature. A study conducted by the Investor Protection Trust (IPT) found that four out of five investors (83%) flunked a financial literacy test administered in a nationwide survey (Opinion Research Corporation, 2005). Women (91%) were substantially more likely to flunk than men (77%). The IPT did a similar study in 1996 with similar results (IPT, 1996). In this case, only 18% of respondents got seven or eight answers correct out of eight. Fifty percent got between four and six correct and 32% scored zero to three points.

Another interesting study that sought to measure financial literacy in the context of fraud victimization was the WSU study. Moore and her colleagues developed

a survey that included a battery of 12 financial literacy questions that they administered to both victims and a randomly-selected group from the general population. They were testing the hypothesis that victims of predatory lending would score lower on financial literacy questions than the general population. Overall, this hypothesis was supported. Participants in the general population scored higher than the victims; 30.9% of the general population scored 10 or more out of 12 while only 21.9% of the victims scored this well (Moore, 2003).

The interesting subtext to this study was how the victims of predatory lending fraud did on questions related to lending practices. When one calculates the scores for each group on the six questions related to borrowing money (for example, questions about APR, rules about late payments, etc.), the predatory lending victims actually *outscore* the general population. What they score poorly on is the investment-related questions (questions about diversification, no-load mutual funds, etc.). The inference one might draw from this is that even fraud victims know quite a bit about the rules of the game *in the domain in which they play*. As it turns out, a victim of loan sharking or predatory lending is familiar with the rules about loans. Yet, they are still victimized, which calls into question the inoculation effects of financial literacy against fraud.

Behavior and Psychological Mindset

Scholars who study crime and its' victims have long been interested in the role victims might play in becoming the target of criminal behavior. Early researchers in the field of victimology argued for example that in the case of homicide, murderers may be driven to kill as much by the actions of their victims as by their own inclinations. The theoretical framework for this notion is described in *The Criminal and his Victim* by Hans von Hentig:

> Here are two human beings. As soon as they draw near to one another…a wide range of interactions, repulsions as well as attractions, is set into motion. What the law does is to watch the one who acts and the one who is acted upon. By this external criteria a subject and object, a perpetrator and a victim, are distinguished. In sociological and psychological quality, the situation may be completely different. It may happen that the two distinct categories merge. There are cases in which they are reversed and in the long chain of causative forces, the victim assumes the role of "determinant." In a sense, the victim shapes and molds the criminal…Although it looks one-sided as far as the final outcome goes, it is not a totally unilateral form of relationship. They work upon each other profoundly and continually, even before the moment of disaster. To know one, we must be acquainted with the complementary other. (Von Hentig, 1948).

The notion that the victim may play a role in the criminal act gained momentum with the release in 1958 of Marvin E. Wolfgang's *Patterns in Criminal Homicide* in which he reported results from a major study of homicide in Philadelphia that found over one quarter of the homicide victims had initiated the violence against their eventual murderer and over half of the victims had a previous relationship with their attacker (Wolfgang, 1958). In introducing the term "victim precipitation", Wolfgang writes: "In many crimes, especially in criminal homicide, the victim is often a major contributor to the criminal act. Except in cases where the victim is an innocent bystander and is killed in lieu of an intended victim…the victim may be one of the major precipitating causes of his own demise." (Wolfgang, 1958).

Theories of victim precipitation continue to be taught in criminology courses in the U.S. and around the world to this day and scholars such as von Hentig and Wolfgang are cited as pioneers in this area. However, with the emergence of the civil rights and feminist movements in the 1970s and 1980s in the United States, theories of victim precipitation as a central cause of crime have become less universally accepted as more and more individuals revolted against what has been perceived as a "blame the victim" mindset. This was especially true for rape victims who, under previous theories of victim precipitation, were presumed to have invited the crime through suggestive sexual behavior. One researcher actually posited that a woman sitting alone in a bar having a drink constituted "victim precipitation" (Timmer, 1984). The explosion of victim advocacy groups in the U.S. in the 1980s and 90s has also had a chilling effect on this line of thinking and research.

With regard to consumer fraud, the role of the victim in precipitating the crime has been put forth mainly by the con men committing the crime. Yellow Kid Weil, an investment fraud con man operating in Chicago in the 1920s and 30s, was widely quoted in the popular media towards the end of his career as saying "you can't cheat an honest man". His argument was that the only reason his victims were taken was because they were greedy and that lust for wealth led to their downfall. "They wanted something for nothing." said Weil. "I gave them nothing for something," (Pratkanis and Shadel, 2005).

We have interviewed numerous other con men more recently who have all had the same assessment of the role their victims played in their own demise. John T., Stephen Michaels and Rocky were ruthless con men operating in the 1980s and 90s and all three of them referred to their victims as "mooches." "A mooch is someone who wants something for nothing", said John T. quoting Weil without attribution in a book about fraud 40 years later. (Shadel and John T., 1994). While it is entirely plausible that

the victims of fraud and their desire for money play some role in their own victimization, the bigger dynamic at play with this explanation may be the con man's desire to reduce his or her own guilt resulting from making a living stealing from others. After all, if one experiences feelings of guilt after stealing the life savings of an 80 year old grandmother (which all three of these guys and Yellow Kid Weil have done), what better way to relieve that guilt than to say to oneself, "She had it coming – she wanted something for nothing."

Sigmund Freud would have most certainly labeled what these con men were saying about their victims as psychological projection: a defense mechanism in which one attributes to others one's own undesirable thoughts or emotions. Replace the word "mooch" with "con man" in the quotation above by John T. and what you have is, "A *con man* is someone who wants something for nothing."

This is not to suggest that victim behavior plays no role in the process of fraud. There have been academic studies that looked at the role of the victim in precipitating the fraud crime. Richard Titus, a researcher with the U.S. Department of Justice who himself acknowledges that he started his career as a con man, explored how some consumers might facilitate becoming a fraud victim. He did so by asking questions like: how much did the victim cooperate with the con; how much did the victim's good nature contribute to the fraud; and how much did their lower nature (greed, susceptibility to flattery, etc.) contribute to the fraud. Titus found certain "facilitating" behaviors that corresponded with victimization. These included:

- Victim makes the initial contact with the offender, like mailing in a free coupon or a chance to win a trip.
- Victim provides information about him or herself.
- Victim allows the offender to convert what should be a business relationship into a personal relationship to create trust.
- Victim allows the offender to create a scenario or version of events that when believed sets the stage for fraud.
- Victim provides access to funds by writing checks or giving out credit card numbers.

The National White Collar Crime Center study, informed by the Titus facilitating behaviors list, developed a "risk" index of behaviors thought to expose consumers to fraud (Rebovich & Layne, 2000). These factors were as follows:

- Had ever responded to unsolicited mailings by purchasing an item to become eligible to win a free prize.
- Had given their PIN or ATM code to others.
- Neglected to perform background checks on contractors.
- Neglected to destroy credit card solicitations.
- Gave their credit card numbers over a cordless phone.
- Had difficulty in resisting sales pitches.

The average respondent had engaged in 2.0 of these behaviors. Then a demographic analysis was performed to determine the profiles of those scoring above the mean versus below the mean in order to see if any patterns emerged. Respondents were categorized into high risk and low risk, with those scoring exactly at the mean (2.0) not categorized. The first finding was that more 18-39 year olds (56%) than 60 plus year olds (36%) scored in the high risk category. Forty-nine percent of 40-59 year olds were in the high-risk behavior category. They also found a higher percentage of women (53%) engage in the high-risk behavior than men (45%) (Rebovich & Layne, 2000).

AARP did a study around this same time that identified 745 known telemarketing fraud victims and sought to develop a profile of their demographic and behavioral characteristics (AARP, 1996a). This research placed consumer fraud victims into one of five types, based on responses to behavioral questions. These five types were:

1. Open to anything: This group was very open to anything anyone suggested to them over the phone.
2. You can't fool me: These individuals self-identified as individuals who were impossible to fool because they had the experience and intelligence to avoid fraud (yet they were among the victims).
3. Polite and vulnerable: These individuals were reluctant to hang up the phone or be impolite to anyone, which of course made them vulnerable to crooks calling them on the phone.
4. Likes to buy: These individuals are just people who like to shop and spend money. Consequently they are a relatively easy group to swindle.
5. Naïve: These individuals seemed to be very trusting of anyone who called and were therefore vulnerable based on their relative naivety.

AARP also conducted a series of focus groups of both fraud victims and the general population, designed to understand differences in motivation and behavior with respect to telemarketing fraud (AARP, 1996b). The sessions revealed there are three kinds of victims: 1) those who are repeatedly victimized and unable to distinguish legitimate from illegitimate sales pitches; 2) those who are wary of telemarketers but feel unable to control the situation when they stay on the line; and 3) those who, as a result of their victim status have become so cautious that they are at low risk of being defrauded in the future. This study also corroborated earlier findings that the general population generally hang up on telemarketers, while victims typically were reluctant to do so. The inability to hang up on a telemarketer implies that victims are more willing to listen to the con's pitch, which makes them more vulnerable.

With regard to behavior and technology, an AARP (2003a) survey comparing victims to the general population 45 and older found that investment fraud victims were much more likely to use the internet (74%) than the general population (45%). Lottery victims were much less likely to use the internet (20%).

Another important variable in profiling victims is to assess their psychological mindset. Lottery victims were found to have a higher external locus of control than the general population and investment fraud victims (AARP, 2003a). A high external locus of control essentially indicates that a person believes that their life is out of their control or in the control of external forces (Rotter, 1954.) To measure this, respondents were given a series of paired statements and asked which came closest to their opinion. Three questions, known to predict locus of control were asked:

1. "Getting what you want has little to do with luck," (69% lottery victims, 78% general population and 86% investment victims) or "Many times, you might as well make a decision by just flipping a coin."
2. "You don't have much influence over the things that happen to you," (50% lottery victims, 40% general population, 26% investment victims) or "Luck is not important in what happens in life."
3. "If you plan ahead, you can get things to work out your way," (85% lottery victims, 83% general population, 93% investment victims) or "planning is a waste of time because many things are a matter of luck."

The above findings show that lottery victims tend to have an external locus of control compared to the general population. In contrast, the investment victims tend to have a more internal locus of control than the general population. This means that their

psychological outlook tends to be more self-reliant, believing that life is what you make of it.

Another aspect of the AARP (2003a) research that supports this self-reliant mindset is "need for cognition." Victims and the general population were asked, "Are you the kind of person who avoids situations that require a lot of thinking?" Investment fraud victims were much more likely to answer "definitely not me" or "probably not me" (92%) compared to the general population (72%) and lottery victims (63%). Investment victims are self-reliant and that means that they like to figure things out on their own.

In terms of behavior in response to telemarketers, AARP found that investment fraud victims were much less likely to immediately hang up on a telemarketer (17%) than the general population (40%) or lottery fraud victims (37%). However, when asked if they ever interrupted an unknown caller, investment fraud victims were much more likely to say yes (91%) than the general population (79%) or lottery victims (71%). The difference between lottery victims and the general population is worth noting.

To summarize, the behavior and psychological mindset of fraud victims are important factors to consider when trying to understand who is victimized by fraud. With regard to the question of victim precipitation – how victims may precipitate their own losses - our view is that it should not be considered as the central factor in who is taken by fraud, but rather as one of a complex mix of several behavioral and psychological factors.

Situational

Situational factors are important to address in terms of fraud victimization because so much of the time, the things that are happening in a person's life impact how they cope with other things in their life (Cialdini, 2001). Interviews with professionals dealing with victims of fraud have routinely been told that there were lots of things going on in the victim's life at the time they were scammed. The emerging hypothesis is that life events, particularly negative life events, may contribute to consumers' vulnerability to fraud by using valuable cognitive capacity which otherwise might have allowed them to defend against fraud.

In 2003, AARP tested this hypothesis with victims of investment and lottery fraud and the general population by asking a series of questions about life events. For example, they were asked, "In the past three years, have you developed a condition that limits your physical abilities?" There was a statistically significant difference between the lottery victims who said yes to this question (42%) compared to the general

population of the general population (28%). The investment victims' response rate (23%) was not significantly different from the general population. Other life events where a difference was found between lottery victims and the general population were: been ill or hospitalized (33% lottery; 24% the general population), lost a loved one (39% lottery; 34% the general population), and had anything else happen that changed your daily routine (27% lottery; 19% the general population). No differences were found in comparing investment fraud victims' life events to the general population in any of these areas (AARP, 2003a).

Another important situation factor is living arrangements. Early studies by AARP found that samples of victims were more likely to be married, were of higher educational attainment, and were more likely to interact with neighbors and be more socially active than the general population (AARP, 1996a). These findings were headline news in 1996 when the study was released because it debunked some of the stereotypes law enforcement and the media had created.

However, a point we have made repeatedly in this review is that to accurately profile victims, one must segment them by scam type. A study that focused on known victims of lottery fraud found that they were much more likely to live alone (42%) than the general population (19%) and they were more likely to be widowed, have a lower income and lower educational attainment than the general population (AARP, 2003a). This profile of lottery victims is in direct contradiction to the 1996 AARP study of *all* victims. When investment fraud victims were profiled in that same 2003 study, they were found to more closely resemble the 1996 AARP profile of all victims: more likely to be married, higher income, higher educational attainment, etc.

What is one to make of these seemingly contradictory profiles? One explanation is that lumping together victims of different fraud crimes has the effect of disguising actual profiles that exist within each scam victim type. So when AARP sought to build a single profile of all kinds of different victims in 1996, they were losing some of the descriptive detail and richness that emerges when scam types are segmented. If lottery victims and investment fraud victims had been analyzed together instead of separately, the discrete profiles that have emerged would have been lost.

There are other situational factors in the environment of the marketplace itself that should be noted in this review. One is the increasing presence of legitimate lotteries being operated by state governments around the United States. Currently, 38 state governments run state-sponsored lotteries and spend in excess of $400 million per year advertising these lotteries (Clotfelder, Cook, Edell, & Moore, 1999). Most of these

advertisements are 30 second commercials promoting state lotteries. One of the surprising findings in the Gambling Impact Commission Report in 1999 was that only three states require lottery commissions to disclose the odds of winning the lottery (Clotfelder et al.). Thus, millions of television viewers watch commercial after commercial that show happy lottery players winning the lottery without any disclosure of the odds of winning. In addition to the proliferation of state sponsored lotteries and lottery advertising, there has been a huge increase in casino gambling in the past ten years in the U.S. (Clotfelder et al.).

The rise in legal lotteries and casinos has created a cultural situation in the United States and in many countries around the world that sends the message that gambling is an acceptable activity and, perhaps more significantly, it is actually possible to win. A recent survey of Americans found that 21% said the best way to accumulate wealth was by winning the lottery (Consumer Federation of America, 2006). This number increases to 31% for older consumers and 38% for those who earn less than $25,000 per year. No wonder then that in this environment, when a con artist calls up a low-income older consumer and tells them they have won the lottery, they believe it. Con artist John T. commented about this phenomenon in 1994. He said, "If it weren't for legitimate companies running sweepstakes and lotteries all over the country, those of us trying to scam people with fake lotteries would never be successful. The U.S. has a sweepstakes mentality and it makes my job that much easier," (Shadel and John T., 1994).

Another reason the lottery scam may be so successful is because of the availability heuristic (Tversky- Kahneman, 1974). This is the idea, mentioned earlier in this review, that when confronted with a decision, we draw from information that is most available to us. In the case of deciding whether to play the lottery or to believe the con artist who calls you and tells you you've won, the information available might well be the lotto ad you just saw on television showing a happy couple collecting their $5 million check.

We did a content analysis of 100 different 30 second lottery ads from 14 states and 9 countries that were available for download on the internet. Each ad was coded for types of disclosure about odds, thematic content and source. Among the findings in this study were that only 9 of the 100 ads had any kind of disclosure at all about the odds of winning and in those 9 cases, the odds were flashed on the screen briefly in tiny print. Another finding was that in 85% of the cases where a consumer is shown buying a lottery

ticket, they are shown later in the ad winning the jackpot, despite the fact that the actual odds of winning a multimillion dollar jackpot are astronomically small (Shadel, 2006).

Two additional situational factors have played a role in the proliferation of investment fraud in the United States in the past six years. One is the dot-com boom in the late 1990s that made the con artist's pitch of instant wealth all the more plausible, because thousands of investors were doubling and tripling their investments in internet start-ups in as little as two years. The second situational factor was the inevitable dot-com bust, which found many investors losing one-third to half of the value of their portfolio in a short amount of time. This created an environment where scores of investors were chomping at the bit to get the values of their portfolios back up to the pre-bust levels and so they became willing to take more risks than they might have otherwise (Cox, 2006). But as one insurance executive has said, "When you chase rate, you chase risk," (McNaughton, 1995).

Further exacerbating the environment for investors has been the virtual wholesale shift in priorities among Federal law enforcement agencies, such as the FBI, away from prosecuting telemarketing, investor and lottery fraud and towards the pursuit of Osama bin Laden and other terrorists, both foreign and domestic. As one FBI agent, who asked to remain anonymous said, "The Bureau's shifting resources away from con men towards terrorists makes it open season on investors," (FBI Agent, 2005).

Summary

It is clear that much more research needs to be done before instruments can be developed that would predict victimization of particular individuals. The complexity of the human animal, combined with the growing complexity of the marketplace, makes the task of protecting consumers from fraud a daunting one. We hope that this study will nevertheless move the knowledge base on fraud in the direction of clearer understanding and provide impetus for more profiling work to be done in the future.

Chapter 3: Undercover Taping Project

3.1: Introduction to Research Studies

In the past two chapters, we have discussed a variety of factors related to consumer fraud in the United States and abroad. Based on these discussions, it is hopefully clear that this is a large problem that needs to be addressed. The umbrella of consumer fraud covers a wide variety of individual frauds; and in order to focus our discussion, we will not cover all types of consumer fraud. Our research will focus on telemarketing fraud in general, with a special emphasis on lottery and investment scams.

We began by talking about influence tactics: methods people use to persuade others. These tactics are commonly found in advertising, in courtrooms and in everyday conversations among people. The tactics we discussed included: The Authority Role, Commitment & Consistency, Comparison, the Dependent Role, the Friendship Role, Landscaping, Phantom Fixation, Profiling, Reciprocity, Scarcity, Social Proof, and Source Credibility. Each tactic is briefly defined again in section 3.2. We divided these tactics into two broad groups: those based on cognitive heuristics and those based on social norms. In general, all of the tactics are partly based on rules that people regularly follow. Though these rules are usually effective, in some cases they can lead to error. Once someone understands the rules, it is possible to manipulate them in order to influence another's decision or judgment.

We suggest that these influence tactics are used not only among legitimate enterprises but also that con artists use these persuasion tactics when attempting to defraud individuals. In the next three chapters, we will describe a study which examined what con artists say to their potential victims. In this study, we analyzed actual transcripts of conversations in which con artists were attempting to pitch their scams. This undercover taping project provided us with an inside look at what is really said and how the con artists attempt to persuade.

After examining and analyzing the methods con artists use to defraud individuals, we took a closer look at who is being defrauded. The literature review demonstrated that the question of who is being defrauded remains unclear. Many of the previous studies have contradictory findings on some or all of the characteristics of the victims. In our second research study, we aimed to get a better picture of the victims of consumer fraud.

In this study, we focused on victims of two types of frauds: lottery scams and investment scams. These scams were chosen for two reasons. First, they are both extremely prevalent in the current environment. Among the tapes/transcripts provided to us by law enforcement agencies, Lottery scams, Investment scams, and Sweepstakes scams were the three most prevalent. Because Sweepstakes scams are very similar to Lottery scams, we decided to examine only one of these scams. Second, previous research suggests that victims of Lottery scams and Investment scams may differ from one another on a variety of psychological, behavioral, and demographic characteristics (AARP, 2003a). Through an extensive survey, we were able to compare both victim populations (Lottery and Investment victims) to one another and to the general population. This survey allowed us to gather more evidence on the differences that exist between the groups on a number of key characteristics.

We will spend the next three sections (3.2 through 3.4) examining the undercover taping project. This study will provide a broader picture of what tools the con artists use to persuade their victims. After this, we will move on to a discussion of the victims and the general population in Chapter 4. This will paint a more detailed picture of who the victims are and provide a basic profile of each type of victim. Chapter 5 provides a summary of a 2007 replication study that supports a number of the findings in the first survey. Finally, in Chapter 6, we will summarize all of the findings and provide recommendations for future research in fraud prevention. Together, an understanding of who is being targeted and how they are targeted will allow us to develop recommendations for fraud prevention messages and strategies.

3.2: Overview and Research Methods of Undercover Taping Project

The data to be discussed in this and the next two chapters comes from audio tapes provided to AARP by law enforcement agencies. All of these tapes were part of undercover taping projects to investigate and prosecute telemarketing fraud. These tapes were made when individuals were identified as chronic fraud victims. Usually, when an individual is victimized, their name will quickly get onto lists that are bought and sold by con artists. Being taken by a scam once will lead to more calls and more attempts by additional con artists to take the individual for another scam. Investigators began an undercover taping project in order to learn more about the crime and provide evidence in criminal cases. When a victim was identified, law enforcement investigators would take over the phone line. They would answer incoming calls pretending to be the victim. And then they would record everything the con artist said. The con artist believed they were

calling individuals who had previously lost money to scams but they were really talking to and being recorded by investigators. Through these tapes, we can hear exactly what the con artists are saying, what methods of persuasion they are using, and what kinds of scams they are pitching.

Methods

Materials

Audio tapes given to AARP by six different law enforcement agencies were used in this study. These tapes were recorded by Attorney General Offices in Ohio, Oregon, North Carolina and California; the FBI in San Diego; and the United States Department of Justice in Los Angeles. They were recorded between 1995 and 2003. The tapes were transcribed verbatim by the researchers and all analysis was done using the written transcripts. In addition to reading the transcripts, both researchers listened to at least half of the tapes used in the analysis. All calls have conversations between con artists and potential victims/investigators discussing some possible prize, investment, or other scam.

Procedure

Over 300 tapes were initially transcribed. Tapes were categorized based on the type of scam being pitched. The categories were adapted from those used by the Ohio Attorney General's Office. These categories included: Charity, Coin Investment, Collection Agency, Credit Card/Identity Theft, Extended Warranty, Foreign Tax, Home Repair, General Investment, Jewelry, Loan, Lottery, Magazine Offer, Sweepstakes, Recovery Room, Travel, and Other scams.

In order to examine whether or not differences existed between different types of pitches, we looked for scam types for which we had more than 10 transcripts. Based on this criterion, we identified the seven most common types of scams in these tapes. These were: General Investment scams, Coin scams, Recovery Room scams, Credit Card/Identity Theft scams, Sweepstakes scams, Lottery scams and Travel scams. Each type is described in further detail below. We did not analyze transcripts from the remaining categories because we had less than 10 unique transcripts for each type.

We aimed to analyze 20 transcripts from each type of these common scams. This was not possible for Credit Card/Identity Theft (for which we coded 15) or for Travel scams (for which we coded 13). In both of these cases, we did not have 20 complete transcripts.

Transcripts from each scam type were randomly selected, when possible. In cases where there were 20 or fewer transcripts (Credit Card/ID Theft and Travel), all possible transcripts were coded. In the remaining cases, all transcripts were assigned a random number and sorted in ascending order. The first 20 transcripts were coded. Transcripts were discarded in situations when there was no pitch. For example, if the con artist was told that the individual they were trying to call was not home and the call ended. In addition, the transcript was not coded if the tape was not fully transcribed because the con artist was too difficult to understand.

Seven Scam Types

Investment Scams

These are simply scams in which the con artist is attempting to get a potential victim to make an investment. The investment might be in a new company, a new technology, a website, a movie deal, etc. The con artist will either lie outright or misrepresent the potential returns on the investment. In some cases, the object or business being sold or pitched does not even exist. In other cases, the business technically exists, but only as a front for the scam. In reality, the money invested is not going to the company, technology, website, or movie. Instead, it is going into the pocket of the con artist.

Coin Investment Scams

These are a specialized version of the investment scams, in which the con artist is selling coins as an investment or as a keepsake or collectible item. In these cases, the coins are usually gold or silver coins, from many years ago. Usually the victim actually receives the coins; however the con greatly exaggerates the value of the coins and the victim usually pays considerably more than the coins are worth.

Recovery Room or Reload Scam

These are scams in which con artists claim that they can recover money that the victim previously lost to fraudulent companies. Usually, the con claims to be some sort of government, bank or law enforcement official who was involved in the capture of another con artist. They claim that this capture has led to the recovery of money lost by victims, including the current potential victim. In order to receive the lost money, the victim is responsible for paying “taxes” or “fees” for this service. Again, these taxes or fees do not go towards recovering lost money; instead they go to funding the con artist.

Credit Card/Identity Theft Scams

In these scams, the con artist offers protection from identity theft or from credit card theft. Usually the cons claim this protection covers fraudulent charges to credit cards or unauthorized bank transactions. The purpose of these scams is usually to obtain the victims' credit card numbers, banking information, or social security number to use in making unauthorized bank withdrawals or credit card charges. In many cases, the real motive is to steal the victims' identity, for their own purpose or to sell to other con artists. Usually the con collects money from the initial call as well, because these protective services commonly cost the victim some fee.

Sweepstakes Scams

In these scams, the con artist claims the victim is the winner of a sweepstakes contest. The prizes may include cash, cars, vacations, electronics, jewelry, etc. Usually the victim must pay "taxes" on the prize or make a purchase from the company in order to receive the prize. In many cases, the victim may receive a prize that is considerably less valuable than the con originally claimed and worth less than the "taxes" paid or the cost of the purchase. In one variant of the sweepstakes scam, the con will claim that the victim has won one-of-five prizes. Usually there are a few highly sought after prizes, such as large sums of cash or a new car. In addition to these prizes, there is often something such as a TV and VCR combination, a "gimme" prize. The victim never wins the large prizes, but instead wins the "gimme" prize, which as mentioned earlier is usually worth less than the fees the victim must send.

Lottery Scams

These are scams in which the con artist sells tickets to play in lottery clubs or tells the victim they have already won a lottery. In some ways, these scams are quite similar to the Sweepstakes scams described above. In the lottery club variant, the victim joins a club which plays a set of numbers in a lottery with a number of other club members. Frequently these lottery clubs are in Florida or they are international lottery clubs, like the Lottery 649 in Canada or the El Gordo in Spain. The con misleads the victim on the odds of winning and the amounts to be won. If there are winnings, they are split between all members in the club and are therefore usually very small amounts (sometimes less than $1.00). And in many cases, there is no club, no other members, and no winnings.

Travel Scams

In these scams, the con offers various travel packages. These packages usually involve a one-time fee, for a variety of vacation destinations. Usually, in these cases, the

seller makes it difficult or impossible for the victim to use these travel packages due to black-out dates or travel restrictions, which were not discussed in the original call. If the victim is able to travel, the resort destinations are frequently far less nice than originally described. In some cases, the packages may cover airfare or hotel accommodations, but not both. In these cases, the victim must go through a given travel agency to book the remainder of the trip. They are then charged extremely high prices for the rest of their travel, forcing them to spend more money than they would have without the travel prize in the first place.

Coding Influence Tactics

Prior to receiving the transcripts, we were unsure exactly which tactics the con artists would use. Based on Pratkanis' review of Social Influence Tactics (Pratkanis, in prep.) we compiled a list of possible tactics to look for in the transcripts. These tactics included the tactics described in the introduction, in addition to Fear & Intimidation, Self-Generated Persuasion, Door-in-the-Face, Expert Snare, and Reactance, (see Pratkanis & Shadel, 2005 for a description of tactics not discussed in the introduction). Two coders independently read and coded practice transcripts until they reached reliability. At this point, the list of tactics was reviewed, and some tactics were discarded because very few instances of them were found in the transcripts. This resulted in a final list of 13 influence tactics (Authority Role, Commitment & Consistency, Comparison, the Dependent Role, Fear & Intimidation, the Friendship Role, Landscaping, Phantom Fixation, Profiling, Reciprocity, Scarcity, Social Proof and Source Credibility). Additionally, definitions of the codes were fine-tuned in order to account for questions raised during the practice coding.

Following that, transcripts were coded by individual coders. Any questions were worked out in discussions between the coders and an independent expert in the field of social influence. The final codes were based on the following definitions of the 13 influence tactics:

1. Authority: The con plays the role of an authority figure, like an FBI agent or a bank president, in order to put the victim in the role of someone who is an agent of that authority. The con is ordering the victim around from a position of power.
2. Commitment: The con will get the victim to make a commitment early on. Then when he or she balks at an offer, the con can use the commitment against the victim. This tactic includes reminders of the victims' previous commitments, pretending a

commitment was made when it was not, and using the foot-in-the-door to establish this commitment.

3. Comparison: The con will compare the cost (or some other attribute) that the victim could be paying with what they really are paying. This can be done by comparing a higher price to a lower price.
4. Dependent Role: The con plays the role of a helpless person in order to get the victim to play the role of a helper. The way the victim can help is to send money or otherwise go along with the deal. The con also tries to guilt the victim into helping.
5. Fear & Intimidation: The con will simply badger and threaten the victim until they are afraid enough or intimidated enough to give in.
6. Friendship Role: The con plays the role of someone who is friendly by saying, "We have a lot in common," "I'm on your side," or "I have nothing to gain." The con may also share a secret or show empathy for the victim.
7. Landscaping: The con will establish rules of engagement that sculpt the conversation landscape. He or she does this by agenda setting, limiting choices, and/or controlling information. All of this is done in an effort to control the victim and the situation.
8. Phantom Fixation: The con dangles something that seems real but is unavailable such as a huge prize or award in order to get the victim to be willing to do anything to obtain it.
9. Profiling: The con asks the potential victim questions in order to customize their pitch to meet the victim's profile. These questions involve demographic information, experience in investments or lotteries, financial information, and personal interests such as favorite charities, number of children, or other important issues.
10. Reciprocity: This tactic uses the rule: "If I do something for you, then you do something for me." Con artists will offer gifts or appear to do favors for the victim to increase a sense of obligation to return the favor by going along with the scam.
11. Scarcity: Making an object look scarce and rare increases its' perceived value. Con artists generally use four kinds of scarcity: Product Scarcity: if the product is rare, then it must be valuable; Winner Scarcity: you are the ONLY winner in the contest; Time Scarcity: the offer is only available for a limited time; and Fear-of-Loss: if you do not want your prize, I will give it to someone else.
12. Social Proof: The con makes it appear that many people want in on the deal. It follows the rule, "If everyone agrees, it must be right."

13. Source Credibility: The con tries to appear credible by mentioning certifications, claiming to be bonded or in business for many years, and having well-established business partners.

After the transcripts were coded, the social influence tactics found in the transcripts were analyzed. The primary goal of the analysis was exploratory. We hoped to determine whether or not con artists used social influence tactics and if so to examine the number and the types of tactics used. However, we expected to find the following:

Hypothesis 1a: Con artists would use social influence tactics when pitching various scams.
Hypothesis 2a: The type of influence tactics used would vary by the type of scam being pitched.

3.3: Taping Project Results

General Trends

Our first question was whether or not con artists use social influence tactics. We coded a total of 1,112 influence tactics in the 128 transcripts. The most commonly-used tactic was Phantom Fixation, with 249 instances. This was followed by Scarcity (168 instances), Source Credibility (121 instances) and Comparison (106 instances). The least-commonly used tactics were Dependent Role (15 instances) and the Authority Role (25 instances). Table 7 shows the number of times and the percentage that each tactic was used, by scam type.

We expected to find some differences in the overall number of tactics used, the types of tactics used and/or the number of unique tactics used by scam type. The data was analyzed using analysis of variance to answer these questions. Additionally, we analyzed the distribution of tactics used for each scam type with a series of chi-square analyses. Figure 3 shows the mean number of tactics used by each scam type.

Overall Number of Tactics by Scam Type

First, we examined the overall number of tactics used in each scam type and found that the number of tactics used overall varied by scam type, F (6, 121) = 11.71, p=.000. The Coin scams contained significantly more tactics per transcript (M= 14.05, SD= 5.39) than all other types of scams, except Investment scams (M= 13.10, SD= 6.09).

Table 7: Influence Tactics by Scam Type- raw numbers and percentage per tactic

Tactic	Investment	Coins	Recovery Room	Credit/ID Theft	Sweepstakes	Lottery	Travel	Total
Phan-Tom	50 (19.08%)	44 (15.83%)	22 (28.95%)	1 (1.19%)	60 (32.43%)	39 (30.95%)	33 (32.67%)	249 (22.39%)
Scarcity	35 (13.36%)	47 (16.91%)	11 (14.47%)	1 (1.19%)	30 (16.22%)	21 (16.67%)	23 (22.77%)	168 (15.11%)
Source Credibi-lity	68 (25.95%)	14 (5.04%)	6 (7.89%)	6 (7.14%)	9 (4.86%)	14 (11.11%)	4 (3.96%)	121 (10.88%)
Compar-ison	31 (11.83%)	45 (16.19%)	8 (10.53%)	1 (1.19%)	10 (5.41%)	5 (3.97%)	6 (5.94%)	106 (9.53%)
Friend-Ship	13 (4.96%)	48 (17.27%)	7 (9.21%)	2 (2.38%)	11 (5.95%)	13 (10.32%)	5 (4.95%)	99 (8.90%)
Commit-ment	0 (0.00%)	32 (11.51%)	2 (2.63%)	2 (2.38%)	5 (2.70%)	9 (7.14%)	13 (12.87%)	63 (5.67%)
Social Proof	37 (14.12%)	10 (3.60%)	0 (0.00%)	6 (7.14%)	3 (1.62%)	6 (4.76%)	0 (0.00%)	62 (5.58%)
Recipro-city	0 (0.00%)	15 (5.40%)	2 (2.63%)	6 (7.14%)	16 (8.65%)	7 (5.56%)	10 (9.90%)	56 (5.04%)
Land-scaping	2 (0.76%)	5 (1.80%)	11 (14.47%)	11 (13.10%)	21 (11.35%)	2 (1.59%)	2 (1.98%)	54 (4.86%)
Profil-Ing	25 (9.54%)	4 (1.44%)	1 (1.32%)	2 (2.38%)	6 (3.24%)	10 (7.94%)	4 (3.96%)	52 (4.68%)
Fear & Intimi-dation	0 (0.00%)	2 (0.72%)	0 (0.00%)	38 (45.24%)	1 (0.54%)	0 (0.00%)	1 (1.04%)	42 (3.78%)
Author-ity	1 (0.38%)	1 (0.36%)	4 (5.26%)	8 (9.52%)	11 (5.92%)	0 (0.00%)	0 (0.00%)	25 (2.25%)
Dependent Role	0 (0.00%)	11 (3.96%)	2 (2.63%)	0 (0.00%)	2 (1.08%)	0 (0.00%)	0 (0.00%)	15 (1.35%)
TOTAL	262	278	76	84	185	126	101	1112
Average # tactics	13.10 (n=20)	13.90 (n=20)	3.80 (n=20)	5.60 (n=15)	9.25 (n=20)	6.30 (n=20)	7.77 (n=13)	8.69 (n=128)

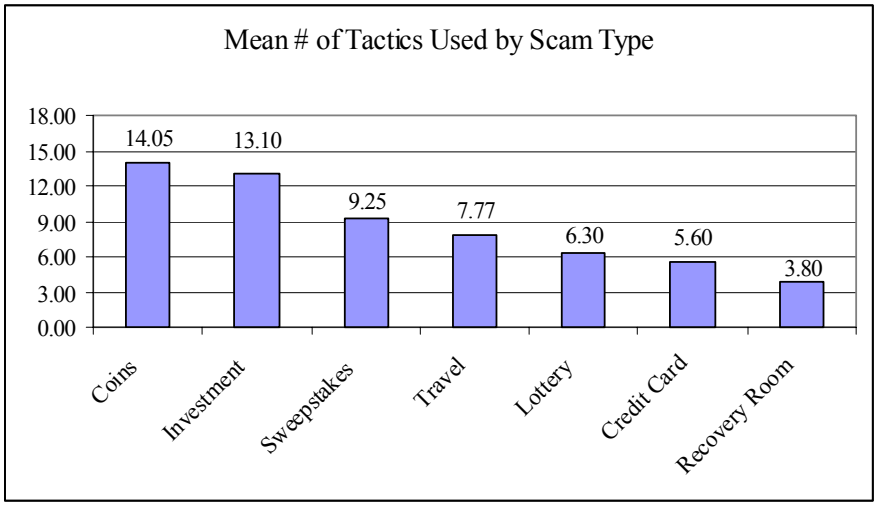

Figure 3: Mean number of tactics used by scam type

See Appendix 1 for specific contrasts. Investment scams also contained significantly more tactics per transcript than all other types of scams, except Sweepstakes (*M*= 9.25, *SD*= 6.63). Sweepstakes scams were not significantly different than Travel (*M*= 7.77, *SD*= 4.59), Lottery (*M*= 6.30, *SD*= 3.56), or Credit Card scams (*M*= 5.60, *SD*= 3.91). However Sweepstakes scams contained significantly more tactics than Recovery Room scams (*M*= 3.80, *SD*= 2.91). No other specific post-hoc contrasts were significant.

Types of Tactics Used by Scam Type

As mentioned above, we expected to find different distributions of tactics in the scam types. We had no a priori predictions about how they would differ. We compared the distribution of tactics in each type of scam with a series of chi-square analyses. The data was corrected using the Yates Correction, because some of the cells had frequencies less than five. Additionally, when an individual tactic was not used in either of the scam types being compared, the cell was deleted, to avoid having any cells with a zero value. Nineteen of the twenty-one pair-wise chi-square analyses were significant, $p<.05$. Comparisons between Recovery Room and Sweepstakes scams and Lottery and Travel scams were not found to be significantly different. Appendix 2 displays the results of all of the chi-square tests. The actual distribution of tactics is discussed more below.

Investment scams tended to use a more even distribution of tactics than many of the other scam types. Source Credibility was the most commonly-used tactic,

accounting for 25.95% of all influence tactics used. This was followed by Phantom Fixation (19.08%), Social Proof (14.12%), Scarcity (13.36%) and Comparison (11.83%). These five tactics accounted for approximately 84% of the tactics used in investment pitches. The remaining four tactics each accounted for less than 10% of the total tactics. Similarly, Coin scams used a somewhat even distribution of tactics. In these transcripts, the Friendship Role was most frequently used (17.27%), followed closely by Scarcity (16.91%), Comparison (16.19%), Phantom (15.83%) and Commitment (11.51%). These tactics account for 61.88% of the tactics used; however, none of the remaining eight tactics accounted for more than 6% of the total tactics used.

Credit Card/Identity Theft Protection scams were heavily based on one tactic, Fear and Intimidation. In these scams, Fear and Intimidation accounted for 45.24% of all tactics used. The two most frequently-used tactics following Fear and Intimidation were Landscaping (13.10%) and the Authority Role (9.52%). The remaining nine tactics each accounted for less than 8% of the total tactics used.

Finally, Recovery Room, Sweepstakes, Lottery and Travel scams tended to use similar tactics. In each of these four scams, Phantom Fixation was the most commonly-used tactic (ranging from 28.95% to 32.67%). Scarcity was the next most commonly-used (ranging from 14.47% to 22.77%; in the Recovery Room scam, Scarcity tied for second with Landscaping). In addition to Phantom Fixation and Scarcity, Landscaping (14.47%) and Comparison (10.53%) had the next highest frequencies for the Recovery Room scam. Landscaping was also high on the list for Sweepstakes (11.35%). Source Credibility (11.11%) and Friendship (10.32%) were next most common for Lottery scams and Commitment (12.87%) and Reciprocity (9.90%) were next most common for Travel scams. For all four scam types, three or four tactics accounted for the majority of tactics used.

Number of Unique Tactics Used per Transcript

Overall, the number of unique transcripts used varied by scam type, F (6,121) = 7.044, p= .000. The Coin and Sweepstakes transcripts contained at least 1 example of all 13 influence tactics. Credit Card/Identity Theft contained an example of 12 of the influence tactics, Recovery Room contained 11, both Lottery and Travel contained 10, and Investment transcripts contained 9. Across all scam types, the transcripts had at least 1 occurrence of 4 different influence tactics per conversation. The findings for the number of unique tactics per transcript were similar to the overall number of tactics per transcript.

The Coin scams contained significantly more unique tactics per transcript (*M*=5.45, *SD*= 1.73) than all other types of scams, except Investment scams (*M*=5.10, *SD*= 1.41), see Appendix 4 for all significant contrasts. Investment scams also contained significantly more unique tactics than Recovery Room (*M*=2.75, *SD*=1.55), Credit Card (*M*=3.07, *SD*= 1.28), and Lottery scams (*M*=3.40, *SD*= 2.01). Sweepstakes scams (*M*=4.55, *SD*= 1.82) contained significantly more unique tactics than Recovery Room scams as well. Travel scams (*M*=4.38, *SD*= 2.06) were not found to be significantly different than any other group.

Results by Tactic

Commitment & Consistency

The con uses the Commitment tactic to appeal to a natural desire to be consistent. The con will use an early commitment against a potential victim by reminding the individual that they had previously agreed to do something or participated in the past. Frequently the con will get the potential victim to make a commitment almost without realizing it. This tactic was most often identified in Travel (12.87%), Coin (11.51%) and Lottery (7.14%) scams. It was identified a total of 63 times and ranked 6th out of the 13 tactics. An analysis of variance showed that the number of times the Commitment and Consistency tactic was used differed by type of scam, F (6,121) = 5.82, p=.000. Coin scams (*M*=1.60, *SD*=2.33) used this tactic more than any other type of scam, except Travel scams (*M*=1.00, *SD*= 0.82). No other significant differences were found between Recovery Room (*M*=0.10, *SD*=0.31), Credit Card (*M*=0.13, *SD*= .35), Sweepstakes (*M*=0.25, *SD*= .44) or Lottery scams (*M*=.45, *SD*= .94). This tactic was not found in any of the Investment scams. Appendix 5 shows all significant differences for all tactics.

In Travel scams, the Commitment tactic frequently was used as a reminder that the potential victim had previously requested information or filled out a travel request form. For example, "Mr. Anderson, awhile back sir, you'd filled out a travel request form. You did indicate here, Louis, that you like to travel. You requested us, sir, to give you a call at this number if anything came up," (Tape 104). In Coin scams, the tactic was used in a slightly-different way. Usually, the cons made appeals to the fact that the potential victim had previously agreed to purchase a coin and that they should not change their mind now. For example, "Alright, but you can't just buy a coin and then renege on it five weeks later. You just can't do that," (Tape 100), or "No, we did not just talk about it. You ordered it. You said yes. You said yes," (Tape 78). And finally, in Lottery and

Sweepstakes scams, the callers use a combination of telling the potential victim that they had previously ordered tickets or a membership in the lottery club and reminding them how much money they have previously spent. One con artist said, "Well, you signed up for it last month, you don't remember," (Tape 173), claiming that the victim had already signed up for the lottery club. Commitment was rarely found in Recovery Room and Credit Card/Identity Theft scams and it was not found in any of the Investment scams.

Comparison

When two amounts are compared in order to make one of them look better, the con is using the Comparison tactic. Frequently, this involves comparing the cost the potential victim could be paying to what they really will be paying. This can be done either by comparing a high price to a lower price or it can be done when the con offers one price, and then lowers it in attempt to get the potential victim to agree.

This tactic is one of the more commonly-used tactics and was found in all seven scam types. It was identified 106 times and ranked 4th out of the 13 tactics. This tactic was most often identified in Coin (16.19%), Investment (11.83%), and Recovery Room scams (10.53%). It accounted for a little over 5% of Sweepstakes and Travel scam tactics, about 4% of Lottery and about 1% of Credit Card/Identity Theft tactics. An analysis of variance showed that the number of times the Comparison tactic was used differed by the type of scam, $F(6,121) = 12.16$, $p=.000$. Coin scams ($M=2.25$, $SD=1.65$) and Investment scams ($M=1.55$, $SD=1.50$) used this tactic more than any of the other types of scams. No other significant differences were found among Sweepstakes ($M=0.50$, $SD=0.76$), Travel ($M=0.46$, $SD=0.66$), Recovery Room ($M=0.40$, $SD= .60$), Lottery ($M=0.25$, $SD= .44$) or Credit Card scams ($M=.06$, $SD= .26$).

The cons selling gold coins use this tactic repeatedly. They often emphasize that they are giving the potential victim a discounted price. For example, one con said, "We were supposed to get that coin at $695, but we actually got it for $595," (Tape 68). This emphasizes the $100 savings the potential victim could get on this coin. In addition, the callers also emphasize the amount of profit that can be made on the coins. The above statement was immediately followed by, "And it's trading on the market for $900," (Tape 68). Not only has the con compared the potential sale price to the actual sale price, but he has also compared the price of the coin and the value of the coin.

In the Investment scams, this tactic is used frequently to compare the amount of money that the investor will put in, either in terms of a share price or a total investment amount to the amount that the investor will be making overall. For example, you could

get, "$80,000 on a $10,000 investment," (Tape 6) or "we have $2.50 stock estimated to go to $15 a share when it goes public," (Tape 12).

In Recovery Room, Sweepstakes, and Lottery scams, this tactic was frequently used to compare the small fee that the potential victim would have to pay, to the very large sum of money that would be received in return. For example, "The courts require a registration fee now. It's pretty small compared to the award that you're getting… the registration fee on the award of $100,000 is $800," (Tape 119). The $800 fee does not sound so expensive when compared to a $10,000 prize. These tapes also utilize the method of discounting the potential victim's fees. For example, "We are prepared to drop that down to $1250. That's $750 off the $2000," (Tape 42). The con not only drops the fee, but reminds the victim how much is being discounted.

Landscaping

Landscaping occurs when the con establishes rules of engagement that sculpt the conversation by Agenda Setting, Limiting Choices, or Controlling Information. All of this is done in order to control the victim. Cases that were coded as Landscaping included situations where the caller was manipulating the situation so that a certain behavior or course of action would be more likely or salient to the potential victim.

This tactic was identified 54 times and ranked 9th out of the 13 tactics. This tactic was most often identified in Recovery Room (14.47%), Credit Card/Identity Theft (13.10%) and Sweepstakes scams (11.35%). An analysis of variance showed the number of times Landscaping was used differed by scam type, F (6,121) =5.27, p=.000. Sweepstakes scams (M=1.05, SD=1.10) used the Landscaping tactic significantly more than Investment (M=0.10, SD=0.31), Coin (M=0.25, SD=.55), Lottery (M=0.10, SD=.45) and Travel scams (M=0.15, SD=.38). There were no significant differences between the other scams and Recovery Room (M=0.50, SD=0.83) and Credit Card (M=0.73, SD=0.80).

There are a number of ways that Landscaping is used. Three specific ways were coded in the transcripts: Agenda Setting, Limiting Choices, and Controlling Information. In Agenda Setting, usually the caller is weaving a story of what is going to happen. One example of Agenda Setting in the transcripts is a con explaining that a verification department would call back to verify the name and the address in order to ensure that the check was not mailed to the wrong address; that all credit card and banking information would be shredded immediately to protect the consumer; and that Federal Express would deliver a confirmation packet with a document that needed to be

signed and returned (Tape 114). In situations like this, the caller is simply framing the situation and defining the scenario for the potential victim.

To Limit Choices, the con attempts to make the victim believe that only a few choices or options are available. One example of this is, are you "gonna do the $395 for one or the $790 for two," (Tape 76). Here, the con attempts to make the victim choose between the two options presented: purchase one coin for $390 or purchase two coins for $790. The con hopes that the third option, buy 0 coins for $0, will be forgotten. And finally, the most common way the cons Control Information is by telling a story to explain why the potential victim should not tell anyone about the money that is being sent in or being won. This usually involves something like, "Now another thing is that because there is still an ongoing criminal investigation that is going on in your country as well as our country, presently you are under oath right now not to disclose any details of this case to anybody. So you do have to keep all details confidential," (Tape 131) or "Just keep it secret… because there are lots of jealousies," (Tape 227).

Phantom Fixation

The Phantom Fixation tactic works by tempting the victim with some prize, award, or other offer that the victim really wants—a phantom prize—in order to get them to be willing to do anything to obtain it. Overall, this was the most commonly-used tactic. It was identified 249 times and accounted for 22.39% of all tactics found in the transcripts. It accounted for a large percentage of tactics used in all of the scam types (between 15.83% and 32.43%), with the exception of Credit Card/Identity Theft, where it only accounted for 1.19% of the tactics used. An analysis of variance showed that the Phantom Fixation tactic was used a different number of times in the different scam types, F (6,121) =5.70, p=.000. Sweepstakes (M=3.00, SD=2.70) used this tactic significantly more than Recovery Room (M=1.10, SD=0.97) and Credit Card scams (M=0.07, SD=0.26). Travel (M=2.54, SD=2.33), Investment (M=2.50, SD=1.36), Coin (M=2.20, SD=1.79) and Lottery scams (M=1.95, SD=1.47) all used Phantom Fixation significantly more than Credit Card scams.

This tactic accounted for the highest percentage of tactics used in Travel scams (32.67%). In these scams, the con artist was usually trying to sell the victim some fabulous vacation package. In addition, many of the travel packages included multiple destinations, so there were a variety of different 'travel phantoms' in each transcript. For example, "Now you're sailing along the Sea Escape Cruise Line… this is a 1300 passenger luxury liner," (Tape 309), "Once you arrive in the Bahamas, we'll give you another 3 days and 2 nights right there on the island at the Bahamas Princess Resort and

Casino. This is rated 4 stars out of 5," (Tape 309), or "As a bonus, Sally, you will also receive 4 days and 3 nights in New Orleans," (Tape 158). In each case, the caller is trying hard to make the vacations, destinations, cruises and airfare deals sound interesting and exotic, in order to get the potential victim caught up in the excitement.

Sweepstakes (32.43%), Lottery (30.95%) and Recovery Room (28.95%) had similar phantoms in their pitches. All of these scams revolve around the potential victim getting money or prizes. In Sweepstakes scams, the cons emphasize the fabulous prizes the potential victim has won. Usually the prize is a large amount of money, "You came in first place for $100,000," (Tape 119), or some selection of a variety of prizes, "You're receiving one of three awards: $100,000 in cash, a five-year vacation package, or a brand new Ford Explorer," (Tape 161). In some Sweepstakes scams, the con will not tell the potential victim the exact prize amount, but instead alludes to a large sum of money, "All I can tell you is that you are getting one of the biggest awards we have ever given out in the whole history of this company. And it's enough to make you very secure, probably for the rest of your life," (Tape 312). In the Lottery scams, the emphasis is all on the potential jackpots and the high odds of winning. For example, "Because the jackpot starts at 15 million weekly and right now, it's standing at 35 million," (Tape 204). And finally, in Recovery Rooms, the phantom is getting back money lost in a previous scam. In most cases, the amount to be recovered exceeds the amount that was originally lost. This amount ranges from, "What you'll receive is $17,000," (Tape 236) to "The first sealed envelope will contain your certified check of $100,000," (Tape 131).

Finally, both Investment (19.08%) and Coin scams (15.83%) also use Phantom Fixation frequently. In these cases, the phantom is still generally a large amount of money. However, the money is based on the amount of profit to be earned on the investment. For example, "Off the record, you stand to make a little more than double what you paid," (Tape 91) or "If you invested $500,000 right now, in two years you could have $30 to $50 million," (Tape 8). Another type of phantom frequently found in the Coin scams is the idea that a particular coin is very rare and unique. For example, "This is a phenomenal coin from 1912. It's nostalgic because of the Titanic," (Tape 170), "When you hold one of these coins, you become a part of history," (Tape 93), or "It's extremely rare to get a… 147 year old coin. And it's about 4 ounces of gold… these are museum pieces normally… this is a marquis piece," (Tape 124). This type of phantom usually works with the Scarcity tactic, described below.

Scarcity

This tactic is used when the con artist is taking advantage of the idea that if something is rare, then it must be valuable; if it's a special opportunity, then you should take advantage of it. There are four sub-categories of scarcity: The first one, Product Scarcity, is the basic idea that some good, product or service is scarce. The second one, Winner Scarcity, is the idea that the opportunity is scarce, or that as a winner, you are special because only a few other people have won. The third sub-category is Time Scarcity, the idea that time is scarce and that this offer only lasts for a short period of time. And finally, the fourth type, Fear-of-Loss Scarcity, is making the victim fear losing the prize, usually by suggesting that if they do not want the prize, then the con can give it to someone else.

Scarcity is the second most common tactic used in all scams. It was identified 168 times. It is found consistently across all scams, accounting for between 13.36% and 22.77% of the tactics used in six of the seven scams. It was found only once in the Credit Card/Identity Theft scams. The only instance in this type of scam was a Fear-of-Loss Scarcity, which is fitting, based on the fact that these con artists base the vast majority of their pitch on the Fear tactic. An analysis of variance showed that Scarcity was used a different number of times across the scam types, $F(6,121)=4.96$, $p=.000$. Coin scams ($M=2.35$, $SD=1.95$) used the Scarcity tactic significantly more than Recovery Room ($M=0.55$, $SD=0.76$) and Credit Card ($M=0.07$, $SD=0.26$). Investment ($M=1.75$, $SD=1.55$) and Travel ($M=1.77$, $SD=1.42$) also used Scarcity significantly more than Credit Card. There were no other significant differences between Sweepstakes ($M=1.50$, $SD=2.04$) and Lottery ($M=1.05$, $SD=1.28$) and the other tactics.

The scam types use the Scarcity tactic slightly differently from one another. With Travel (22.77%) scams, the majority of the Scarcity tactics are related to Winner Scarcity. In these cases, the caller is trying to make the potential victim feel as though they have been given a special deal, "I told you at that time, it is a limited offer, not available to the general public," (Tape 323). Product and Fear-of-Loss Scarcity are also each used frequently. The travel cons pressured the victim for time in a few occasions, but this was the least frequently used Scarcity tactic in Travel scams.

Sweepstakes (16.22%) and Lottery (16.67%) scams also used a majority of Winner Scarcity tactics. These were similar to the Travel scams, where the caller might say, "Only 9 out of 967,000 were selected! This is a privilege," (Tape 107). Again, the callers are highlighting that the potential victim is special. The Sweepstakes scams also contained a large proportion of Fear-of-Loss Scarcity tactics, "So, when I send you a

copy of the cashier's check (of your winnings that went to the runner-up) what are you going to think then," (Tape 39)? Lottery had more Product Scarcity tactics, such as, "This is a sold out club," (Tape 190).

Coin scams focused on the Product Scarcity rather than the Fear-of-Loss or Winner Scarcity. These calls emphasized the age, the rarity, and the mint state or quality of the coins. For example, "We have a fifty dollar gold piece that's very rare, about four ounces of gold in that, from 1851; it's pre-Civil War by 10 years. It's very rare," (Tape 124). In these cases, the scarcity and rarity of the coin also works as a phantom (as mentioned above.) Occasionally, the coin dealers also put pressure on the potential victim by saying that this deal will only last for a short period of time.

The Investment scams also focus on Product Scarcity, but that was second to their focus on Time Scarcity. Many of their statements encouraged the victim to invest quickly, because the deal was going to close or the prices were going to go up soon. For example, the investment opportunity "might close in 3 days," (Tape 9) or "We are ending this soon; this is a one-time deal… We will close this out on Friday," (Tape 4). The Investment scams did not use Winner Scarcity or Fear-of-Loss Scarcity frequently.

And finally, Recovery Room cons focused almost solely on time. Nine of the eleven uses of Scarcity were Time Scarcity in Recovery Room pitches. These included statements, like, "Because your deadline is like 2, 3 days," (Tape 225) and "Your deadline is the 5th, so we are the 3rd right now, you know," (Tape 251).

Social Proof

Social Proof is used to make it appear that everyone wants whatever the con is selling. It was identified 62 times and ranked 7th out of the 13 tactics. This tactic was primarily found in Investment scams (14.12%). It was also used in Credit Card/ID Theft (7.14%), Lottery (4.76%), Coins (3.60%), and Sweepstakes scams (1.62%). It was not used in Recovery Room or Travel scams. An analysis of variance showed that Social Proof was used a different number of times by scam type, $F(6,121)=11.03$, $p=.000$. Investment scams ($M=1.85$, $SD=1.76$) used this tactic significantly more than all other scam types, Coin ($M=0.50$, $SD=0.76$), Credit Card ($M=0.40$, $SD=0.74$), Sweepstakes ($M=0.15$, $SD=0.49$) and Lottery ($M=0.30$, $SD=0.57$). There were no other significant differences among the scam types.

In the Investment scams, Social Proof was used to demonstrate that other individuals, including the caller, were holding shares in the con artist's company or investment. One caller claimed that Queen Latifah was going to buy a number of shares (Tape 9). In some cases, especially movie deals, Social Proof also came in the form of

famous actors who wanted roles in upcoming movies. Names such as Martin Sheen, Charleston Heston, and Randy Travis (Tape 13) were dropped as being interested in playing roles in these movies. And finally, callers would sometimes just mention the large number of shareholders, "We have over 800 shareholders," (Tape 17) to establish Social Proof on a broad, general level.

Source Credibility

The cons will attempt to establish the credibility of the firms they are working for by mentioning various certifications, claiming to be bonded or in business for a long period of time, or having well-established companies as business partners. This tactic is used to get the potential victim to trust the company and therefore be less suspicious of potentially-fraudulent activities. Source Credibility can also be developed at the personal level by discussing personal certifications, training, or expertise.

Source Credibility was found in all seven scam types. It was identified 121 times and ranked 3rd out of the 13 tactics. This tactic was primarily found in Investment scams (25.95%). Lottery scams also utilized this tactic somewhat frequently (11.11%). An analysis of variance showed that Source Credibility was used a different number of times by scam type, $F(6,121)=24.32$, $p=.000$. Investment scams ($M=3.40$, $SD=2.01$) used this tactic significantly more than all other scam types, Coin ($M=0.70$, $SD=1.13$), Recovery Room ($M=0.30$, $SD=0.66$), Credit Card ($M=0.40$, $SD=0.63$), Sweepstakes ($M=0.45$, $SD=0.69$), Lottery ($M=0.70$, $SD=1.17$) and Travel ($M=0.31$, $SD=0.48$). There were no other significant differences among the scam types.

Investment scams created Source Credibility by discussing partnerships or marketing with other companies such as Texas Instruments or Microsoft (Tape 7). In addition, callers also mentioned positive press coverage from sources like The Wall Street Journal (Tape 7), CNN (Tape 7 & 8), Dateline (Tape 10) or the Discovery Channel (Tape 14). They also focused on the number of years their company has been around, as an example of their stability.

The Lottery con artists tended to focus on the number of years the lottery had been in operation and the fact that the lottery was licensed and bonded, "We are fully licensed, bonded, and insured in the state of Florida," (Tape 158). Frequently, the lottery callers also mentioned that they were somehow better or more qualified than the other lottery clubs. Additionally, coin dealers focused on these same sources of credibility. They tended to mention that their coins were certified and that they were offered at better prices and were better quality than the other coin dealers and that they had been in business for many years.

Profiling

Profiling occurs when the con attempts to gather personal information about the potential victim. This information is used to customize the current or future pitches. Profiling was identified 52 times and ranked 10th out of the 13 tactics. Though it was not used excessively in any one type of pitch, it appeared in all seven scam pitches. It was the most prevalent in Investment (9.54%) and Lottery scams (7.94%). An analysis of variance showed that Profiling was used a different number of times across scam types, $F(6,121)=3.98$, $p=.001$. This tactic was used significantly more in Investment scams ($M=1.25$, $SD=1.37$) than in Coin ($M=0.20$, $SD=0.52$), Recovery Room ($M=0.05$, $SD=0.22$), Credit Card ($M=0.13$, $SD=0.52$), and Sweepstakes scams ($M=0.30$, $SD=0.66$). No other significant differences were found among those scam types or Lottery ($M=0.50$, $SD=1.40$) or Travel scams ($M=0.31$, $SD=0.75$).

Investment con artists typically asked questions like: are you accredited (Tapes 2, 4, 5, 7, 15); do you make your own decisions (Tapes 2, 4, 5, 10); are you married (Tapes 2, 4, 5); or about the types of investments previously made (Tapes 2, 4, 12, 14). Many also inquired about the amount the potential victim had to invest. Lottery scams asked some of these questions, but also focused on personal issues like, "Who do you have in your family? Do they live with you," (Tape 168), "Do you go to church everyday," (Tape 176), or "What would you do with your extra money," (Tape 149)?

Authority Role

The Authority Role tactic includes situations in which the con is playing the role of an authority figure in order to put the victim in the role of someone who is an agent of that authority. This tactic was identified 25 times and ranked 12th out of the 13 tactics. This tactic was primarily found in Credit Card/ID Theft (9.52%) and was found in limited cases in Sweepstakes (5.92%), Recover Room (5.26%), Investment (0.38%) and Coin (0.36%). No significant differences in the frequency of the Authority tactic were found, $F(6,121) = 2.67$, $p=.395$.

Some examples of how the Authority Role was used in the transcripts include: "I'm with the Federal Unclaimed Assets Department with the government," (Tape 120); "This is Constable Sheehan. I'm with the Canadian Border Patrol and I've been asked to give you a call," (Tape 50); and "I'm calling from U.S. Customs. We're located in Washington, D.C.," (Tape 125).

The Dependent Role

The Dependent Role is a tactic in which the con tries to play the role of a helpless person, in order to get the victim to play the role of a parent or a helper. In some cases, this involves trying to make the potential victim feel guilty if they do not help the caller. Usually the way to help, of course, is to send money or purchase what the con is selling.

This tactic was the least-frequently used, and was only identified 13 times in all 128 transcripts. It was only found in Coin (3.96%), Recovery Room (2.63%) and Sweepstakes scams (1.08%). An analysis of variance showed that the Dependent Role tactic was used a different number of times across the scam types, $F(2,121)= 2.224$, $p=.045$. This difference was largely due to the fact that Investment, Credit Card, Lottery, and Travel scams did not use this tactic at all. No differences were found between scam types which used the Dependent Role (Coin ($M=.55$, $SD=1.43$), Sweepstakes ($M=0.10$, $SD= 0.31$) and Recovery Room ($M=.01$, $SD=.31$)).

In almost all of the cases, the caller was attempting to make the potential victim do something out of guilt. In a few Coin scams, cons said things like, "I'm going to look pretty bad if we don't pick it up now," (Tape 75) or "I've got five people waiting for coins. I'm not gonna be able to order their coins if you don't buy this one," (Tape 75). The callers in the Recovery Room scam used the tactic in a similar way, "I want you to sign them [the papers] and send them back right away with the cashier's check, because I have three kids, I'm going through a divorce, and I don't have this money to put up for a long time," (Tape 233).

Fear and Intimidation

In Fear and Intimidation, the con attempts to scare the potential victim into compliance. The con will either create an unattractive scenario if the potential victim does not follow his directions, or he might badger and threaten the victim into compliance. This tactic was identified 42 times and ranked 11th out of the 13 tactics. It was predominately found in Credit Card/ID Theft scams where it accounted for 45.24% of the tactics used. It was found approximately 1% of the time in Travel, Sweepstakes and Coin transcripts and did not appear in Investment, Lottery or Recovery Room scams. An analysis of variances showed that the occurrence of the Fear and Intimidation tactic varied by scam type, $F(6,121)=15.55$, $p=.000$. Credit Card ($M=2.53$, $SD=2.70$) used this tactic more than any other type of scam. No differences were found among the other scam types, including Coin ($M=0.10$, $SD=0.45$), Sweepstakes ($M=0.05$, $SD=0.22$) or

Travel (*M*=0.08, *SD*=0.28). Investment, Recovery Room, and Lottery scams did not use this tactic at all.

Many of the Credit Card/ID Theft scams involved a cover story that the caller was somehow going to provide protection to the potential victim from identity theft or fraudulent charges to their credit cards or bank accounts. To do so, the callers attempted to frighten the victims about what would happen to them if they did not buy what the con was selling. They said things like, "If you decline this service, if any fraudulent charges are placed on your cards, you're going to be held responsible for them," (Tape 159), "Identity theft happens to one out of every eight people. When it does happen, it can be very devastating," (Tape 96), and "We've had members who've literally had nervous breakdowns over these things. They've lost thousands, tens of thousands and in a few cases, even hundreds of thousands of dollars," (Tape 178). Another way that the cons used fear was to badger and berate the potential victim. One company that called a victim multiple times relied on this tactic. They were simply mean and abusive. They said things like, "Now you're going to shut your mouth and you're going to listen to me Jane. I'm fed up with you talking over me. I'm going to start this verification. Answer my questions with a yes or a no. Do you understand me," (Tape 82), "You know what, you know Jane, I'm going to tell you something. I'm going to pass you to my manager because you're making me sweat. And if you were in front of me old lady, mad, black, white, I would have slapped you by now," (Tape 82), or "Are you stupid? I'm not trying to insult you, but are you mentally ill? Is there something wrong with you that I don't know about? Is there something physically wrong with you? Like are you retarded, are you over age, do you forget things, is there something wrong with you," (Tape 82)?

Friendship Role

In the Friendship Role, the con is trying to befriend the potential victim. People are likely to trust their friends and also do favors for them. The con is attempting to be thought of like a friend. Some ways the cons might establish friendship include: that they and the potential victim have a lot in common, that they are on the victim's side, that they have nothing to gain in the deal, or that they are doing a favor for the potential victim.

This is another tactic that occurred in all seven of the scam types. It was identified 99 times and ranked 5th out of the 13 tactics. This tactic was most often identified in Coin (17.27%), Lottery (10.32%) and Recovery Room scams (9.21%). An analysis of variance showed that Friendship was used a different number of times among the scam types, $F(6,121)=9.392$, $p=.000$. Coin scams (*M*=2.40, *SD*=1.88) used the

Friendship tactic significantly more than any other scam type. There were no other significant differences between Investment (*M*=0.65, *SD*=0.93), Recovery Room (*M*=0.40, *SD*=0.94), Credit Card (*M*=0.13, *SD*=0.52), Sweepstakes (*M*=0.55, *SD*=0.94), Lottery (*M*=0.65, *SD*=.93) or Travel scams (*M*=0.78, *SD*=1.27).

In the Coin transcripts, the callers frequently offered to do favors for the potential victim. These were things like breaking up the cost of the coin into two or more payments, discounting the cost of the coin or selecting out the "best" or "nicest" coin. The Lottery cons also attempted to do favors for the potential victims to gain their friendship. In addition, a few of the callers tried to establish that they had something in common with the potential victims. Some claimed to be from an area near where the potential victim lived; one caller told the victim that her maiden name was the same as the potential victim's last name and even suggested that they might be related. The cons also developed friendship by trying to show that they were on the potential victim's side, by saying things like, "So we're going to work very hard for you. So the more you win, the more we get paid," (Tape 11).

Reciprocity

Reciprocity is being used when the con offers the potential victim something in order to compel the victim to give something back. This is similar to doing a person a favor, like in the Friendship tactic; only in this case, the potential victim is explicitly asked to do something in return. The Reciprocity tactic was found in all of the scam types except Investment scams. It was identified 56 times and ranked 8th of the 13 tactics. This tactic was most often identified in Travel (9.90%), Sweepstakes (8.65%) and Credit Card/ID Theft scams (7.14%). An analysis of variance showed that Reciprocity was used a different number of times among the scam types, $F(6,121)=3.48$, $p=.003$. This difference was primarily due to the fact that Investment scams did not use the Reciprocity tactic at all. There were no significant differences between Coin (*M*=0.75, *SD*=1.12), Recovery Room (*M*=0.10, *SD*=0.31), Credit Card (*M*=0.40, *SD*=0.74), Sweepstakes (*M*=0.80, *SD*=1.06), Lottery (*M*=0.35, *SD*=0.75), or Travel scams (*M*=0.77, *SD*=0.73).

The cons used Reciprocity in slightly different ways in Travel, Sweepstakes, and Credit Card/Identity Theft scams. The Travel scams tended to have a 'catch' in their great deal, which involved this tactic. The con artists explained to the victim that this was a great travel package, with a minimum fee and that the potential victim was getting a fantastic deal, but there was a short information session or tour that was required. For example, "While you're down here on vacation, they'll ask you to go on a tour. But out

of your whole vacation, it's only one hour," (Tape 308). Another way the travel cons used this tactic was to request that in return for the vacation, all other costs of the vacation (usually hotel accommodations or flight arrangements) be booked through the con's agency, "So your only responsibility, sir, would be to book a minimum stay through us, at the lowest discounted rates," (Tape 104).

The Sweepstakes cons usually told the victim that in order to win the sweepstakes prize, they must make a small purchase from the company. They were told that they were guaranteed to win the prize and that the purchase was really just to make it look legitimate. These purchases ranged from magazine subscriptions, to coins, to air purifiers. Frequently, in these cases, the tactic was coupled with the Comparison tactic, where the con compared the magnificent prize that will be won to the small purchase needed. The Sweepstakes con artists also asked for good publicity from the potential victim, "We're looking for a good word out there, Megan, somebody that can tell a few people about us when they get their gift," (Tape 279). They would weave this into their story by explaining that the purpose of the promotion was to get a good word or testimonials from their winners as one form of advertising.

Finally, the Credit Card/Identity Theft scams used a different form of Reciprocity, also found on occasion in the other transcripts. They offered the potential victim a free service, with the implicit idea that the potential victim would tend to continue the service for a fee or upgrade their service. They also offered a full money-back guarantee. And finally, if the potential victim was willing to try the product or service for some period of time, the con would offer the option to return the product or cancel the service for a full refund of the money. For example, "It's a very valuable service, and it's a no-risk proposition. It's a 30-day free trial… if for any reason you decide this service isn't for you, just call our toll-free number and we'll cancel your membership and give you a full refund," (Tape 189). This is a slightly-different form of Reciprocity than that found in the Sweepstakes and Travel scams, but it still works in the same way. In all cases, the con artist is attempting to persuade the potential victim to do something, in return for receiving a favor.

3.4: Discussion of Taping Project

The results of the taping project supported our expectations that con artists use social influence tactics when pitching various scams and that the types of influence tactics vary by the type of scam being pitched. Overall, we found a large number of

influence tactics in the transcripts. We also found differences in the overall number of tactics used, the number of unique tactics used and the types of tactics used by each scam type. We will discuss the implications of these findings below. Throughout the discussion, we will compare the results of the taping project to a recent interview we conducted with Billy, a con artist. Billy (not his real name) has experience with a variety of telemarketing scams and may have been involved in training con artists. It is also interesting to note that the influence tactics used by the con artists are found in legitimate sales pitches. We will spend a short time discussing that as well.

Con artists use multiple influence tactics

The most basic question we asked was whether or not con artists use social influence tactics. We found overwhelming support that they do. In the 128 transcripts, we coded 1,112 influence tactics, an average of 8.69 tactics per transcript. Previous research shows that each of these individual tactics increases the likelihood that an individual will comply with a request, in an experimental setting. Here, the con artists are not using just one tactic; they are repeatedly using a combination of tactics in a short conversation.

If just one tactic will increase compliance in an experimental setting, what will multiple tactics do in an actual conversation? The effect of these influence tactics is to put the potential victim in a kind of psychological haze or ether (as several con artists have called it) that somehow changes the decision-making process. This ether may make it more difficult to spot and resist persuasion. It is not surprising that victims often report to law enforcement officials that they do not know what they were thinking or that they were caught off guard by a scam. The con artist's goal is to get as much money from the victim as possible, before this haze is lifted. Billy told us that a master con artist will put his potential victim in a state of ether that can last between 3 minutes to 3 years. He said it was the con's job to, "keep them in the ether; don't let the ether wear off," (Billy Interview, September 2006). He explained that the way to do this was to continue calling and engaging the victim with more pitches, using the social influence tactics. He did not call the tactics by the same names we use; however, he described many of them in his interview.

When con artists say that they want to sell victims soon and often before the ether wears off, this is a clue about the power of social influence tactics. The social influence tactics are the key part of their pitch, demonstrated by the common occurrence of influence tactics in pitches across all types of scams. While this finding may seem

intuitive, it provides evidence that con artists are working hard to throw their victims off guard, modify their decision-making ability, and sell them as hard and often as they can. It also suggests that individuals need to recognize these social influence tactics. One way to defend against this sophisticated use of social influence tactics may be to understand them before encountering them. It is possible that thoroughly understanding the tactics may make it easier to recognize them when an expert con artist is using them. It is better to avoid the ether altogether than to have to wait for its effects to lift.

Con artists use a different number of tactics in different scams

The various scam types had a relatively wide range in the number of overall tactics and the number of unique tactics per pitch. As mentioned in the results, Coin and Investment scams had the highest number of tactics in each of these categories, followed by Sweepstakes, Travel, Lottery, Credit Card and Recovery Room. There are a variety of explanations for the difference in number of tactics, including the amount of money at-risk, the relationship between the victim and the con artist, characteristics of the victims or simply the length of the call.

It is possible that as the amount of money at risk increases, the number of influence tactics used also increases. This argument holds for some of the scam types. For example, in the Investment scams, the con artists are asking for considerably more money on average than in any other type of scam. In the Investment scams, the cons asked for a minimum investment of $5,000 and suggested that victims invest as much as $100,000. It is reasonable to imagine that only highly-skilled cons could convince people to part with tens of thousands of dollars. And it is also possible that one thing that makes these criminals highly skilled is their ability to use multiple influence tactics. Billy calls skilled con artists or closers, "silver-tongued devils," (Billy Interview, 2006). He explains that it is these skilled closers who can pull off high-stakes investment scams. This suggests that the increase in the number of tactics is related to both the increase in the amount of money at-risk and the higher skill level of the con artists pitching these scams.

If we examine the amount of money at-risk in the other types of scams, we see that it is generally less for Sweepstakes, Travel and Lottery scams. In these scams, the victims were asked for between $500 and $2,000; in only a few cases were they asked for much larger sums of money. Compared to investments, this is a significantly smaller amount of money. The trend does not hold for Coin scams, which use the highest number of tactics, but typically only take the victim for $500 to $1,000. Again, there are

a few exceptions where cons attempt to sell coins for over $10,000. However, the majority of the coins being sold in our transcripts cost less than $1,000. The Recovery Room scams do not necessarily follow this trend either. These scams use the fewest number of overall tactics, yet the cons in our transcripts were asking for between approximately $2,000 and $8,000 from the victims. Here we have one example of a scam that uses many tactics, but results in comparatively small monetary gains for the con artist and another example of a scam that uses very few tactics, but results in a relatively large gain for the con artists. These exceptions may be explained by the number of times the individual is called and the characteristics of the victim.

When we look at the Coin scams, the cons use a large number of influence tactics, but do not ask for exceptionally-large amounts of money at any one time. This could be explained by the number of times the cons call each individual victim. In these cases, if the cons can get one individual hooked on buying and collecting gold coins, they may not make a huge profit (compared to Investment scams) on each individual call, but they can continue to sell coins to the same individual, making a large profit over time. In order to make these repeated sales, the cons selling gold coins need to develop a relationship with the victim and to convince the victim that the coins they are selling are superior to competitor's coins. This ongoing relationship and competition may explain why Coin scams tended to use the highest number of influence tactics.

Recovery Room scams, on the other hand, show the reverse pattern: a low number of influence tactics and a relatively large amount of money. This pattern may be a result of the characteristics of the victim. All victims in a Recovery Room scam have already lost money, usually a large sum of money. The scam itself is based around this loss, and the con artists' promise of recovering the lost money, and possibly more, for the victim. Billy told us, "The hottest leads are the people that just lost money… they're conditioned to sending money, and they want to get even," (Billy Interview, 2006). He even went as far to say that lead lists of victims who have lost money are, "only for the real pro. These are the Glengarry leads. These are gold." On one hand, one might expect that the real pros, using these lead lists and pitching Recovery Room scams, would use a high number of influence tactics to persuade the victims to send in even more money. On the other hand, it is possible that the Recovery Room scams require fewer influence tactics because the victim is more ready and willing to send in the money. Con artists pay more money to purchase the lists of people who have recently lost money because they know they can get more money out of them than other potential victims. Perhaps they also know that they can get this money with less work.

A final factor that we did not control for, which could impact the number of influence tactics per pitch, is the length of the call. Because these were actual calls used by investigators to collect evidence, we could not set a specific length of time for each call. The length of calls varied within each scam type. We hope that random selection of transcripts eliminated any significant effects of call length in the analysis.

The data seem to support the idea that the differences in the number of tactics we found between scam types are related to differences between the actual scams. Con artists are customizing their pitches based on the scam, and possibly based on the characteristics of the individuals being pitched. Differences in the selection of influence tactics used also supports the hypothesis that the con artists are customizing their pitches.

Con artists use different influence tactics to pitch different scams

In order to examine whether or not the con artists customize the influence tactics they use for various scams, we looked at the distribution of influence tactics in each of the scam types, as well as the use of individual influence tactics by scam. As described in the results, we found a significant difference in the distribution of tactics for 19 of the 21 comparisons we made. Similarly, we found a number of significant differences in the use of the individual influence tactics (see Appendix 4 for all significant contrasts). These basic findings provide support that the influence tactics used are customized for different types of scams.

In this section, we will discuss the different uses of tactics by scam type to get a better picture of how each scam works and how the scams differ from one another. While there were individual differences between the transcripts in each scam type, we will describe the common features of each type of scam. We will start with Investment and Lottery scams. Victims of these scams were the focus of the survey discussed in the next three chapters. We will combine our discussion of Lottery, Sweepstakes, and Travel scams, due to the similarities between these pitches.

Investment Scams

The Investment scam transcripts we analyzed were perhaps the most focused of all the scam types. While they used more total (13.10) and unique (5.10) influence tactics than all of the other scams, except Coin scams (13.90, 5.45), they used the fewest number of *different* influence tactics overall. Only 9 of the 13 influence tactics were identified in Investment scams and 5 of these influence tactics accounted for 84% of all tactics found in these 20 transcripts. The tactics used in the Investment scams were remarkably similar across the 20 transcripts. The callers are focused on convincing their potential victims

that their investments are sound, through Source Credibility and Social Proof; that the investments will return a large amount of money for a relatively-small initial investment, through Phantom Fixation and Comparison; and that this offer is only available for a limited period of time, through Scarcity.

It is clear that many different con artists pitched the investments in the 20 transcripts; interestingly, these cons tended to use the same influence tactics. This focus provides further evidence that cons customize their pitch, depending on the scam they are pitching. It also supports the idea that different pitches may appeal to different types of individuals. As suggested in the literature review, not only do the pitch and the influence tactics used in an Investment scam differ from those used in a Lottery or other scams, the characteristics of the victims being pitched in each of these scams may also differ.

In addition to the five influence tactics mentioned above, the investment cons also profiled their potential victims. Billy, the con artist, called profiling "confirming criteria." He said, "Nothing happens with a deal or in the pursuit of money until criteria's confirmed," (Billy Interview, 2006). This means asking questions like, "where the money is; how much money; are you accredited; are you suitable; what kind of work do you do?" He said that he wants "to understand who you are, what you do, where you live, where your money is, and then boom, put you onto a portfolio advisor that is going to have all that data and go after it [the money]." Usually the profiling in the Investment scams occurred near the beginning of the call. It was less common in follow-up calls, when the con artist had already spoken to the victim about a specific investment. It is likely that in the transcripts where we did not see profiling, the victim had already been profiled in some way. This profiling may have taken place in a previous unrelated call, or in an earlier call discussing the same investment.

Four of the influence tactics, Commitment & Consistency, Reciprocity, Fear & Intimidation, and the Dependent Role, were not found in any of the Investment scams, and one, the Authority Role, was only found in one instance. Because many of our investment transcripts were initial calls, it is not surprising that we did not find the Commitment & Consistency tactic. This tactic tends to be found in follow-up calls, more than initial calls. In our transcripts, the victims had not yet made commitments. And while their interest and implicit agreement to listen to the con's pitch may be a type of commitment, it was not coded that way in the transcripts.

The Dependent Role might actually undermine an investment pitch, rather than influence a victim to invest. The Dependent Role puts the caller in a position of relative weakness; while this may increase compliance in some situations, a business partnership

is not one of those situations. It is likely that the caller would lose their credibility if they requested too much assistance or help from the potential victim. Reciprocity, Fear & Intimidation and the Authority Role also do not lend themselves as well to the Investment scams. Investors would not likely take well to being asked to do a favor for a business in which they were investing; fear or mentioning any kind of loss may be ineffective, because highlighting possible losses may deter investors rather than entice them; and while credibility is important, it is doubtful that an authority figure would order someone to make an investment.

Investment scams appear to use a high number of overall influence tactics. As discussed above, this could be because these con artists are highly skilled and asking for significantly larger amounts of money than other scams. The investment con artists are more focused, with the majority of transcripts focusing on the same five influence tactics: Source Credibility, Phantom Fixation, Comparison, Scarcity, and Social Proof. These cons are more likely to profile their victims and evidence suggests that more profiling may take place in calls preceding the ones we have coded.

Lottery, Sweepstakes and Travel Scams

These three scams have many similarities between them, both in the mechanics of the scam as well as the prizes or awards being pitched. Similar to the Investment scams, each of these scams relied primarily on a small number of different influence tactics. All three focused primarily on Phantom Fixation and secondarily on Scarcity. Similarly, all three had little or no use of Fear & Intimidation or the Dependent Role. First we will discuss the similarities between Lottery, Sweepstakes and Travel scams, and then we will spend a short time discussing the differences.

First, the Phantom Fixation tactic drives these three pitches. This influence tactic accounts for approximately one-third of all tactics used in these pitches. The phantoms are similar for each pitch. In Lottery scams, the phantom is the allure of a large lottery jackpot; in the Sweepstakes scams, the phantom is the allure of a fantastic prize, which could be cash, luxury goods or travel; and in the Travel scams, the phantom is the allure of a fantastic and exotic vacation. In all cases, the pitch is about obtaining a valuable good for no cost or minimal cost. In these scams, the cons use the phantom to get their victim in the state of ether Billy described.

They follow this use of Phantom Fixation with Scarcity. For example, the Lottery Club is limited to a few people; you are the lucky winner of the foreign lottery; you are the lucky winner of this fantastic sweepstakes package; you must act now, or we'll give your prize to someone else; this travel promotion is not open to the general

public. The combination of excitement about the phantom being offered and the scarcity of the good creates a situation in which the victim must act quickly because the opportunity, good, or time is scarce to receive their phantom. Billy calls this fear, greed and urgency, (Billy Interview, 2006). As a con artist, it is not surprising that he would attribute negative qualities to the victim, rather than pointing a finger at himself and other cons for misleading and defrauding the victims. Billy equates greed with a phantom; he says cons are drawing on an individual's greed. In reality, the cons are also creating and nurturing that greed or desire with their pitch. He also equates fear and urgency as scarcity. He describes fear as "the fear of not being able to participate in a product." And urgency, of course, is having to act now. We see that the Lottery, Sweepstakes, and Travel scams all follow Billy's suggestion that cons use fear, greed, and urgency; or as we label them Phantom Fixation and Scarcity.

Another similarity in these pitches is the influence tactics that they choose *not* to use. They all rarely use Fear & Intimidation or the Dependent Role. As discussed above, these tactics do not lend themselves well to certain types of pitches, including Lottery, Sweepstakes and Travel scams.

Similar to Investment scams, we found examples of Profiling in the Lottery, Sweepstakes, and Travel scams. The examples we found in these scams tended to focus more on personal information than financial information. Cons asked questions about family and other interests. Billy said you have to "know your customer," (Billy Interview, 2006). He had a saying for a rule of thumb in scams, "To sell John Smith what John Smith buys, you must see John Smith through John Smith's eyes." It is not surprising that we found examples of profiling in Lottery, Sweepstakes, and Travel scams; knowing what the victim wants will allow a con to pitch that to them. Profiling allows the con to customize the phantom to increase the likelihood that it is a phantom that the victim will desire.

Some of the differences we found among these scams are also informative. Lottery scams rely on Source Credibility and Friendship, in addition to Phantom Fixation and Scarcity. The Lottery scam cons frequently explained that the lotteries were legitimate because they were licensed and bonded. They also claimed to be superior to other lottery clubs. The competition with other con artists running similar scams may drive this need to establish credibility. Friendship might work in the same way. If the con can develop a relationship with the victim, it will increase the likelihood that that victim will continue to do business with the con, rather than finding another con and another Lottery scam.

Travel scams focused on Commitment & Consistency in addition to Phantom Fixation and Scarcity. This tactic was used at least once in 10 of the 13 travel transcripts we coded. Usually the cons reminded the victims that they had previously expressed an interest in travel. It is likely that many of these individuals' names were, in fact, found on a lead list which identified them as being interested in travel. In cases like this, the cons do not need to profile the victim as much, because they already have the key information: a detailed list of the victims' interests.

These three scams rely primarily on Phantom Fixation. They use this tactic to draw in their victim. Then they use Scarcity to increase the sense of excitement and urgency. These two tactics together account for almost half of all influence tactics found in these scams. While the remaining influence tactics are important and add to the con's ability to persuade the individual, it appears that these two influence tactics are the driving forces behind the scams.

Coin Scams

Coin scams used the highest number of overall tactics and the highest number of unique tactics per scam. Every influence tactic was used at least once in these transcripts. In some ways, Coin scams are similar to Investment scams. In both, the con is selling a product or service that will supposedly appreciate in value, so that the victim will earn money on the purchase. Two large differences are that the coins usually cost substantially less than the investments and that the coins are also sold as both collectibles and investments. In these scams, the con sells the coin on its beauty in addition to its value.

The Coin scams relied on five primary tactics: Friendship, Scarcity, Comparison, Phantom Fixation, and Commitment. As mentioned earlier, the cons selling coins called victims multiple times, pitching different coins. Through these multiple calls, they developed a relationship and a friendship over time. Another tip from Billy was that a good con: "becomes your [the victim's] buddy, your friend… gains trust," (Billy Interview, 2006). Research showed that even small acts of friendship increased compliance. The cons are using this to their advantage and building up a friendly relationship with their victims, so that they can continue to sell them coins at highly-inflated prices. The cons frequently used the Comparison Tactic in conjunction with Friendship. They would offer coins at a discounted price and claim that the discount was a favor to the victim. Similarly, the Scarcity and Phantom Fixation tactics are frequently used together in Coin scams. Usually, the scarceness or rarity of the coin is what gives it value and appeal as a phantom.

Commitment & Consistency was used in Coin scams more than any other type of scam. This tactic was found in 9 of the 20 Coin scams. However, due to multiple calls by one company, these 9 transcripts only represent 4 different companies. In these transcripts, the cons suggested that the victims had indicated interest in a particular coin. Unlike the travel scams, these suggestions may have been complete fabrications, rather than actual interests expressed by the victim. Because we have multiple conversations on tape, it is possible to verify exactly what commitments were made. And in many cases, the victim did not actually commit to a coin in the previous conversation. It is likely that the cons were hoping the victim would not remember the details of the previous call, and would believe that they had made these previous commitments.

The Coin scams also used the Dependent Role more than any other scam type. The Dependent Role was not a primary influence tactic for these scams, but it is one of the only scams in which it was identified. As previously discussed, this tactic puts the caller in a position of weakness. It is natural to want to help your friend or a child when they are in need. It is possible that in some of the Coin scams, the friendship is well-developed enough to allow the con to use this tactic.

Overall, we see that Coin scams use the highest number of tactics. It is possible that this high number of tactics allows them to both develop and maintain positive relationships with their victims (Friendship, Comparison & Reciprocity Tactics), as well as to keep them in the "state of ether" so that they will continue to buy more and more coins. The Phantom and Scarcity tactics were used to create a sense of desire and urgency, similar to that in the Lottery, Sweepstakes and Travel scams.

Recovery Room Scams

Recovery Room scams used the fewest overall number of tactics. Similar to many of the other scams, they primarily used Phantom Fixation. In Recovery Room scams, the phantom is slightly different. In these scams, the phantom is receiving money that was previously lost. In many cases, the Recovery Room cons will promise a greater return than the amount originally lost, but the main focus is on regaining lost money rather than receiving new money. Research shows that people will do more to avoid loss (or recoup a loss) than they will to achieve the same gain (Kahneman, 1992). This could contribute to the con's ability to pull off Recovery Room scams in general.

Landscaping was another primary tactic used in Recovery Room scams. As Billy described earlier, victims in Recovery Room scams have already lost, they are more ready to spend and they want to get even. The increased willingness of the victim may make the con's job easier. Landscaping is used to control a conversation and a situation.

As Billy told us, "Control is the key… They're [con artists] looking to control," (Billy Interview, 2006). Victims in Recovery Room scams have already demonstrated that they can be controlled based on their previous losses. A well-crafted, believable story created through Landscaping may be a primary factor in these scams. This can be combined with Time Scarcity to create urgency and increase the likelihood that the victim will send in money before there is time to consult with someone else.

Some tactics that were rarely or never found in the Recovery Room scams include Commitment & Consistency, Social Proof, Profiling and Fear & Intimidation. Commitment & Consistency does not work well in situations where previous behaviors are being discouraged. In Recovery Room scams, the previous behavior of sending money to fraudulent companies is being discouraged. Profiling is less common in these scams because the victims have already been profiled. The key information about the victims in this scam is that they have already lost money; the cons pay extra to guarantee this when they purchase the lead lists.

Overall, the cons use the phantom of regaining this lost money and create a landscape to lead the victim to send in more money. Recovery Room scams use fewer tactics in their pitches because the victims are repeat or chronic victims and they are more susceptible to falling for scams than other victims.

Credit Card/Identity Theft Scams

Credit Card/Identity Theft scams differed from all of the scam types. These scams relied primarily on Fear & Intimidation, a tactic rarely found in the other scams. These con artists used the fear tactic as a motivator for their pitch, as opposed to using the Phantom Fixation to create a positive incentive. While the other scams use a phantom to drive their pitches, in Credit Card/Identity Theft scams, the con artists use fear to drive the pitch. Many of these pitches involve stories of the terrible things that will happen if the victim does not do whatever the con artist is telling them. The con uses the victims' desire to avoid these negative consequences to persuade them to follow directions. In this way, the fear tactic is relying on people's natural aversion to loss (Kahneman, 1992).

In other cases, the con artist is literally threatening and badgering the victim. The examples from Tape 82 (see page 108) in the results section show a pair of cons who primarily used Fear & Intimidation this way. It is somewhat surprising that the victims stay on the phone and listen to con artists like this. And though it may not be an extremely effective tactic (based on its limited use in other transcripts), there are clearly con artists who base their pitch on this influence tactic. And in certain scams, it does work. If the con can get victims upset enough, they may be able to convince them to

send money or provide information, either because the con has disrupted the victims' ability to think clearly or even because the victims will do anything to get the con off the phone, including following their directions.

The Credit Card/ID Theft scams use Landscaping and Authority in addition to the Fear & Intimidation tactic. Landscaping allows them to paint a picture of all of the negative things that will happen and how they will happen. And the Authority Role is used to increase the effectiveness of ordering the victim to follow the con's directions.

The stark difference between the tactics used in the Credit Card/Identity Theft scams and all other scam types provides further evidence that con artists customize their pitch for different types of scams. Instead of befriending the victims and portraying a desirable phantom, the cons order the victims around from a supposed position of power and create a demon to fear.

Summary of Scam Types

The main goal of every pitch is to get money or information from the victim. This can be done using a variety of scams and a variety of influence tactics. It is evident that the con artists are customizing their pitches based on the scam, and possibly based on the characteristics of the individuals being pitched. The tape analysis demonstrates that pitches are customized. The survey will provide evidence for differences in the characteristics of individuals falling for different types of scams, specifically Investment and Lottery scams.

Tactics found in fraud pitches are also found in legitimate sales pitches

Another interesting finding from the tape analysis was that most of the persuasion tactics found in these seven scam types are the same tactics legitimate businesses use everyday in the marketplace. One conspicuous example of this is the home shopping type shows. They simultaneously use influence tactics like Comparison, Social Proof, Scarcity and Phantom Fixation. These influence tactics, and the others, can be found in most magazine, television and radio ads and even in places like your neighborhood supermarket. These influence tactics are part of the foundation of modern marketing and advertising.

While this was not a focus of our study, it may have important implications. Individuals can be taught to identify these tactics in the legitimate marketplace, not just in conversations with con artists. Fraud fighter volunteers we have trained say that once they learn about the influence tactics, they see them everywhere in the marketplace.

Increasing one's understanding of influence tactics is not a guarantee for avoiding fraud, but it does improve one's ability to spot their effects and defend against them.

Conclusion

The analysis of the undercover tapes of con artists pitching victims provides a unique window into the world of fraud that targets older persons. Just as the legitimate business world is moving from mass marketing to mass customization, the fraud industry has also learned to find out all they can about their customer and then match that customer profile with the right influence tactics and scam for the maximum effect. The use of multiple tactics in a single pitch can put the victim in a type of haze that alters their ability to reason and make decisions. This makes it all the more important that consumers begin to have at least a basic understanding of these tactics in order to defend against them.

Chapter 4: Fraud Victim Survey 1: Profiling Victims

4.1: Methods of Survey

This chapter will outline the research methods used to survey a random sample of the general population and two populations of victims and report and discuss the results. There were three main parts to the research methods for the survey: 1) develop the hypotheses; 2) develop the design and questions that would address those hypotheses; and 3) administer the survey.

Research Hypotheses

The hypotheses were developed based on the extensive literature review contained in Chapters 1 and 2 and empirical observation from years of working in the fraud prevention domain. In addition, we attended several focus groups conducted by Diamond and Associates. These focus groups were run as part of a grant to WISE Senior Services funded by the National Association of Securities Dealers (NASD). This grant partially funded the survey research presented here. We developed five major hypotheses regarding victims and the general population. We will describe each hypothesis and the survey questions used to test the hypothesis below.

Hypothesis 1b: Victims of fraud are less financially literate than the general population.

Throughout the United States, millions of dollars are spent each year on financial literacy. The assumption underlying this activity is that financial knowledge leads to better decision-making and ultimately to greater financial success. Because victims, by definition, had failed to avoid losing money to fraud, we predicted that victims of fraud would score lower on financial literacy tests than the general population. All survey participants were asked the following series of eight financial literacy questions. These questions were taken from the Washington State University study on predatory lending (Moore, 2004).

- True or false: The APR is the most important thing to look at when comparing credit card offers (Question 59).
- Over a 40-year period, which do you think gave the highest returns: stocks, bonds, bank savings account, or IRA (Question 60)?
- True or false: With compound interest, you earn interest on your interest as well as your principle (Question 61).

- When an investor diversifies his or her investments, does the risk of losing money increase, decrease or stay about the same (Question 62)?
- True or false: Mutual funds pay a guaranteed rate of return (Question 63).
- True or false: A no-load mutual fund involves no sales charges or other fees (Question 64).
- What happens to bond prices when interest rates go up? Do bond prices fall, remain about the same or go up when the interest rates go up (Question 65)?
- Which do you consider to be the most important factor in selecting a loan: the overall interest rate or the monthly loan payment (Question 66)?

Hypothesis 2b: Fraud victims have more negative life event experiences than the general population.

This hypothesis is based on prior research conducted by AARP that found that victims of lottery and investment fraud had experienced greater numbers of negative life events such as injury, death of a spouse, or divorce compared to a randomly-selected segment of the general population (AARP, 2003a). There is also literature that correlates negative life events with depression and depression with lower cognitive functioning (Kraaij, Arensman, Spinhoven 2002; Klein & Boals 2001). We predicted that the general population would report fewer instances of negative life events than either lottery or investment victims. Below are the questions we asked participants. These questions were taken from Holahan and Holahan (1987). The series of questions began with: "For each event, please tell me how much difficulty that event caused you in the last three years. Please use a number between 1 and 7, with 1 meaning "no difficulty at all" and 7 meaning "a lot of difficulty in your life." Use any number from 1 to 7 and if it does not apply to you, please tell me that too."

- Income decreased (Question 6).
- Foreclosure on mortgage or loan (Question 7).
- Recent loss of employment for you or your spouse (Question 8).
- Negative change in financial status (Question 9).
- Concerns about owing money (Question 10).
- Concerns about money for emergencies (Question 11).

- Problems with the upkeep of your home (Question 12).
- Concerned about money for basic necessities (Question 13).
- A recent change in your living arrangements (Question 14).
- Recently moved or changed residences (Question 15).
- Recent retirement of you or your spouse (Question 16).
- Change in social activities for the worse (Question 17).
- Change in your daily routine (Question 18).
- Problems with transportation or traffic (Question 19).
- Problems with troublesome neighbors or co-workers (Question 20).
- Concerned about being lonely (Question 21).
- Legal problems (Question 22).
- Minor violations of the law (Question 23).
- Death of a spouse or partner (Question 24).
- Death of a close friend or family member (Question 25).
- Had a serious injury or illness yourself (Question 26).
- Developed a condition that limits your physical activity (Question 27).
- Had a serious injury or illness in the family (Question 28).
- Divorce or marital separation in the family (Question 29).
- Difficulties in relationship with a spouse or loved one (Question 30).
- Problems with children or grandchildren (Question 31).

The issue of analyzing negative life events has been debated vigorously in the literature. One argument is that self-assessment by the individual experiencing the event is the most accurate measure of its effect on the person (Holahan & Holahan, 1987). Another approach has been to survey a broad segment of the population and ask them to rate the negative life event on a scale of 1 to 100 in terms of their perception of its effect on them in the future. This approach led to the creation of the widely-cited "Social

Readjustment Rating Scale" (Holmes & Rahe, 1967). This scale established a numerical value for dozens of life events and over time, the scale has been revised and updated (Hobson, et al. 1998).

Because there is debate in the literature on which approach is most accurate, we have chosen to analyze responses to our survey questions using both self-assessment by participants and application of the Social Readjustment Rating Scale values as revised by Hobson et al.

In the results section, we will analyze how participants dealt with negative life events by reporting 1) the total number of incidents of life stress each experienced and 2) the participants' self-reports on the degree of difficulty that each event caused. Then a secondary analysis will be to employ numerical values established by Hobson et al. for the relevant negative life events described in the survey to determine if significant differences exist between groups.

Hypothesis 3b: Fraud victims have different demographic characteristics than the general population.

Previous research by AARP and others found that investment fraud victims differ demographically from the general population on a range of descriptors. We sought to test these findings in the present survey. The following standard demographic questions were asked. These questions were taken from the FTC Consumer Fraud Survey (Anderson, 2004).

- Record sex (Question D1).
- Would you describe yourself as: extremely religious, very religious, somewhat religious, not religious, somewhat non-religious, very non-religious, extremely non-religious or you can't choose (Question D2)?
- What is your current age (Question D3)?
- Are you currently married, living as married, divorced, separated, widowed or have you never been married (Question D4)?
- Including yourself, what is the total number of people who live in this household (Question D5)?

- What is the highest level of education you have completed: less than high school, high school or equivalent, some college or technical training beyond high school, college graduate from a 4-year program, or post-graduate or graduate degree (Question D6)?
- Are you of Hispanic or Latino background, such as Mexican, Puerto Rican, Cuban or some other Latin American background (Question D7)?
- What is your race? Are you white, black, Asian or some other race (Question D8)?
- What was your annual household income before taxes last year, in 2005 (Question D9)?

Hypothesis 4b: Fraud victims have different psychological characteristics than the general population.

Both investment and lottery fraud victims have been found in previous research to have different psychological characteristics compared to the general population (AARP, 2003a). This survey asked psychological profiling questions to test previous findings and explore new ground in this area. The following questions were taken from surveys conducted by the National Opinion Research Center (NORC, 2000). We wanted to ask questions to assess the overall outlook of each group in terms of how pessimistic or optimistic they were; to gauge any differences that might exist between groups on their view of deferring gratification; to assess any differences in relative deprivation, the notion that a person feels he or she has been deprived throughout life relative to others; to examine if the participants foresee rapid changes in their financial situation on the horizon (which was found to be a predictor of fraud in the 2004 FTC study); and finally to test whether or not victims were more self-reliant than the general population when it comes to decision making. The survey asked:

- *Optimism (Question 1).* "In spite of what people say, the lot of the average person is getting worse, not better. Do you: strongly disagree, disagree, neither disagree nor agree, agree, or strongly agree?"
- *Deferred Gratification/Impulsivity (Question 2).* "Nowadays, a person has to live pretty much for today and let tomorrow take care of itself. Do you: strongly disagree, disagree, neither disagree nor agree, agree, or strongly agree?"

- *Relative Deprivation (Question 3).* "Looking over your life as a whole, would you say that in general you have gotten: much less than you deserve, less than you deserve, what you deserve, more than you deserve, much more than you deserve, or you can't choose?"

- *Future Income (Question 34).* "Suppose your life remained on the same course it is on now. Thinking ahead to three years from now, how do you think your income will compare to your income today? Do you think it will be much lower, slightly lower, about the same, slightly higher, or much higher?"

- *Future Income (Question 55).* "Thinking ahead to your retirement years, how would you rate the retirement income you expect to receive from Social Security, job pension, and all other types of accounts you have set aside for retirement?" (Asked only of non-retired participants.)

- *Self-reliance in decision making (Questions 51 and 36).* "Before you made that investment decision, did you rely on your own experience and knowledge?" We also asked, "When making financial decisions, it is best to usually rely on my own judgment, because often professionals can't be trusted. Do you strongly disagree, disagree, neither agree nor disagree, agree, or strongly agree ?"

Hypothesis 5b: Fraud victims have different behavioral characteristics than the general population.

In addressing the issue of behavioral characteristics, we wanted to know if victims were more open to sales pitches, whether they were more likely to have a retirement plan, whether they consulted professionals like lawyers and stockbrokers, and whether they relied on their own judgment to make decisions. The survey asked:

- *Openness to Sales Pitches (Question 49).* "People use many sources of information when they make financial decisions. Please think of the last time you made a major investment decision and the sources you used. Before you made that investment decision, did you read materials you received in the mail or over the phone from sales agents that you may not have previously known?"

- *Openness to Sale Pitches (Question 50).* "Before you made that investment decision, did you go to a free investment seminar?"

- *Likelihood of having a retirement plan- working participants (Question 56).* "Do you agree or disagree with this statement: I have developed a retirement plan that will provide financial resources that go beyond just relying on social security."

- *Likelihood of having a retirement plan- retired participants (Question 58).* "Do you agree or disagree with this statement: Before I had retired, I had developed a retirement plan that will provide financial resources that go beyond just relying on social security."

- *Consulting with professional (Questions 43-46)s.* "Please think of the last time you made a major investment decision and the sources you used. Before you made that investment decision did you: Consult with a financial planer or an accountant; a lawyer; an insurance agent; a stock broker?"

In addition to these questions, we asked about participant's experiences with being victimized by fraud. In the literature review, we noted that one of the big challenges in fraud research is overcoming self-reporting error among victims. In the present survey, an attempt was made to ask the same question several different ways to test which approach resulted in the highest accuracy rate. Each participant answered one of three different questions related to general fraud, one of three questions related to lottery fraud and one of three questions related to investment fraud.

- *Self-Reporting of Victim Status.*
  - *General Questions (Questions 70b, 69c, 71a)*
    - "Now, thinking about your experiences as a consumer over the last three years, was there ever a time you felt you were the subject of consumer fraud ?"
    - "Thinking now about any experiences you might have had within the last three years with telephone callers from organizations you are not personally familiar with, have you felt you were the victim of a major scam or swindle ?"
    - "Within the last three years, has anyone ever called you over the telephone and tried to swindle you or cheat you out of money or property by deliberately lying to you or giving you false money information or phony promises about a product, service, or lottery or getting you to pay for something that you never received or swindled you in another way?"

- *Lottery Victimization Questions (Questions 67c, 67b, 67a)*
    - "Within the past three years, have you sent cash or a check or given your credit card number to any callers from organizations you are not personally familiar with in order to enter a lottery or similar contest ?"
    - "In the last three years, has anyone told you over the telephone that you had won a lottery or could purchase tickets for a winning lottery?"
    - "Within the last three years, has anyone ever sold or tried to sell you over the telephone what they claimed was a lottery ticket, which turned out to be fake?"
- *Investment Victimization Questions (Questions 69a, 68c, 69b)*
    - "Within the last three years, has anyone ever lied to you over the telephone to get you involved in an investment deal that turned out to be phony or a scam?"
    - "Within the past three years, have you sent cash or a check or given your credit card number to any callers from organizations you are not personally familiar with in order to make an investment?"
    - "In the last three years, have you made an investment in response to a telemarketing call from a company with whom you have not previously done business?"

Survey Design and Instrument

Once the five major hypotheses were developed and the questions were designed to test each, the next step was to identify participants. The survey was administered by EMH Opinion Sampling of Los Angeles. The random sample of the general population was purchased by EMH from Survey Sampling International, one of the largest list sample firms in the United States. This list contained a random sample of individuals 45 years old and older living in the United States. The reason for selecting individuals over 45 was that we knew from previous experience that most of the victims of lottery and investment fraud are older consumers.

The investment and lottery fraud victim lists were provided by the National Telemarketing Victim Call Center (NTVCC) in Los Angeles. This organization recruits and trains volunteer "fraud fighters" to contact victims of fraud and educate them about how to avoid further trouble. The victim names they call are provided by a coalition of law enforcement agencies including the FBI, the Department of Corporations, the United States Postal Inspection Service, the Attorney General's office and others. The victim

names provided for this study came from several different law enforcement agencies and each name had been verified by law enforcement as having been an actual victim of either investment or lottery fraud. Approximately 1,500 investment and lottery victim names and phone numbers were provided.

Limitations of Survey Population

It is important to note that while the general population names were randomly-selected, the victims' names were not. And while we have no reason to think that the lists acquired of lottery and investment fraud victims are skewed in some way that made them unrepresentative of these two scam groups, we have no way of knowing if they are statistically representative of all lottery and investment victims. Therefore, there is a limitation on the extent to which one can generalize the findings in this survey to other victim populations.

Administration of Survey Instrument

A total of 3,045 individuals from the general population were contacted and 497 (16.30%) completed the survey. A total of 262 lottery victims were contacted and 94 of them (35.50%) completed the survey. And 171 investment fraud victims were contacted and 71 of them (41.28%) completed the survey. The reason for the wide variation in the respondent pools is that the vendor surveyed more members of the general population than was requested. When asked why this occurred, we were told that the general population participants were easier to reach than the victims. This is an interesting dynamic in that they were easier to reach, but more general population participants (83.51%) refused to complete the survey than victim population participants (62.21%.) The survey calls were made between February 22, 2006 and February 28, 2006.

In order to balance the sample pools, we excluded participants from the general population of participants who answered "yes" to any one of the ten questions related to being a fraud victim (Questions 68a, 70a, 72a, 68b, 69b, 70b, 67c, 68c, 69c, and 70c). The purpose of excluding these participants was to eliminate as many victims from the general population as possible. A total of 49 individuals were excluded from the starting population of 499. The remaining 450 participants were then assigned a random number, the numbers were sorted in ascending order and the first 160 participants were chosen.

In order to have equal numbers of participants in the victim groups, we cut the lottery victim pool to 80. This was done by assigning all lottery victims in the original pool a random number. The numbers were sorted in ascending order and the first 80

participants were chosen. With regard to the investment victim population, any individual who self-identified as an investment fraud victim (answered yes to 70a, 69b, or 68c) from among the general population pool of participants was added to the investment fraud list. This resulted in 80 investment fraud victim participants.

The next section outlines the results and analysis of the survey, organized by the five major hypotheses. Section 4.3 will provide a detailed discussion of those findings.

4.2: Survey Results

This section will report the results of the survey of general population, investment victims, and lottery victims. A complete annotated survey can be found in Appendix 5. Selected findings are listed below based upon the five hypotheses described in the previous chapter.

Hypothesis 1b: Victims of fraud are less financially literate than the general population.

We asked eight standard financial literacy questions of all 320 participants. Participants' answers were coded as correct or incorrect; if a participant stated that they did not know the answer, it was coded as incorrect. The results to each question were analyzed using a chi-square analysis to determine if the same proportion of participants in each group got the question correct or incorrect. See Table 8 for a summary of findings.

APR (Question 59)

More lottery victims (60.00%) correctly answered that the APR is the most important thing to look at when comparing credit card offers compared to the general population (47.50%), $\chi^2(1, N=240)=3.34$, $p<.10$. No other significant differences were found.

Highest Yield Investments (Question 60)

More participants in the general population (34.38%) correctly answered that stocks gave the highest returns over a 40-year period, compared to lottery victims (11.25%), $\chi^2(1, N=240)=14.59$, $p<.001$. More investment victims (60.00%) answered this question correctly compared to both the general population participants $\chi^2(1, N=240)=14.292$, $p<.001$, and to the lottery victims, $\chi^2(1, N=160)=41.45$, $p<.001$.

Compound interest (Question 61)

More investment victims (73.75%) correctly answered that with compound interest, you earn interest on your interest as well as your principle, compared to the

general population (60.63%), $\chi^2(1, N=240)=4.04$, $p<.05$, and to lottery victims (50.00%), $\chi^2(1, N=160)=9.56$, $p<.005$. No other significant differences were found.

Diversification (Question 62)

More general population participants (31.25%) correctly answered that when an investor diversifies his or her investments, the risk of losing money decreases compared to the lottery victims (12.50%), $\chi^2(1, N=240)=10.00$, $p<.005$. More investment victims answered this question correctly (30.00%) compared to the lottery victims, $\chi^2(1, N=160)=7.32$, $p<.01$. No other significant differences were found.

Mutual fund rates of return (Question 63)

More investment victims (72.50%) correctly answered that mutual funds do not pay a guaranteed rate of return compared to lottery victims (23.75%), $\chi^2(1, N=160)=38.08$, $p<.001$, and to the general population (43.13%), $\chi^2(1, N=240)=18.47$, $p<.001$. More general population participants answered this question correctly compared to lottery victims, $\chi^2(1, N=240)=8.62$, $p<.005$.

No-load mutual funds (Question 64)

No significant differences were found between the three groups when answering whether or not no-load mutual funds involve sales charges or other fees. The correct answer is false. Lottery victims and investment victims scored exactly the same on this question, with 35% of each group answering correctly. A total of 24.38% of the general population participants answered the question correctly.

Bond prices and interest rates (Question 65)

More investment victims (51.25%) correctly answered that bond prices fall when interest rates go up compared to the general population (24.38%), $\chi^2(1, N=240)=17.34$, $p<.001$, and to lottery victims (7.50%), $\chi^2(1, N=160)=36.90$, $p<.001$. More general population participants answered this question correctly than lottery victims, $\chi^2(1, N=240)=9.97$, $p<.005$.

Factors in selecting a loan (Question 66)

More general population (72.50%) participants correctly answered that the overall rate is the most important factor in selecting a loan compared to lottery victims (50.00%), $\chi^2(1, N=240)=11.86$, $p<.001$. More investment victims answered this question correctly (77.50%) compared to lottery victims $\chi^2(1, N=160)=13.09$, $p<.001$. No other significant differences were found.

Financial Literacy Combined Scores (Questions 59-66)

Scores for all three groups were aggregated across the financial literacy questions and an analysis of variance found significant differences between the mean number of correct answers, $F(2,317)=23.653$, $p=.000$. Tukey-Kramer post-hoc analysis found investment victims ($M=4.50$, $SD=1.90$) answered significantly more questions correctly than lottery victims ($M=2.50$, $SD=1.53$) and the general population ($M=3.38$, $SD=1.96$).

Table 8: Percentage of participants answering financial literacy questions correctly.

Question (correct answer)	Gen. Pop.	Lottery	Investment
59. The APR is the most important thing to look at when comparing credit card offers. (True)	47.50%	60.00%	50.00%
60. Over a 40-year period which gave the highest returns? (Stocks)	34.38% LI	11.25% GI	60.00% GL
61. With compound interest you earn interest on your interest as well as principle. (True)	60.63% i	50.00% I	73.75% gL
62. When an investor diversifies investments, does the risk of losing money increase, decrease, or stay about the same? (Decrease)	31.25% L	12.50% GI	30.00% L
63. Mutual funds pay a guaranteed rate of return. (False)	43.13% LI	23.75% GI	72.50% GL
64. A no load mutual fund involves no sales charges or other fees. (False)	24.38%	35.00%	35.00%
65. What happens to bond prices when interest rates go up? (Fall)	24.38% LI	7.50% GI	51.25% GL
66. Which is the most important factor in selecting a loan? (Overall interest rate)	72.50% L	50.00% GI	77.50% L
Average percent correct for all 8 questions	42.27% LI	31.25% GI	56.25% GL

General Pop=G, Lottery=L, Investment= I; UPPERCASE: p<.01; lowercase: p<.05

Summary: Hypothesis 1b Results

Investment fraud victims scored almost 15% *higher* than the general population. This difference was found to be significant. With regard to lottery victims, our hypothesis was confirmed. Lottery victims scored significantly lower than the general population on the financial literacy questions.

Hypothesis 2b: Fraud victims have more negative life event experiences than the general population.

To test this hypothesis, we first asked a series of questions about different negative life experiences. As was mentioned in section 4.1, the results of the negative life experience questions were analyzed based upon 1) the total number of incidents experienced and participants self-assessment of the degree of difficulty they had dealing with those incidents and 2) an analysis of the incident data utilizing the Social Readjustment Rating Scale as revised by Hobson et al.

With regard to the number of negative life event incidents and participant's self-assessment of them, chi-square and analysis of variance tests were performed. The chi-square analysis compared the proportion of individuals reporting experiencing a stressful event (answered 2 through 7) and those who did not experience the event (answered 0: does not apply or 1: no difficulty) in each group. This was done to determine if more individuals in one group experienced a given life event than in the other groups. Second, using analysis of variance, we compared the mean level of difficulty each group had with the stressors. Only participants who answered 2 through 7 were compared and a higher mean indicated more difficulty. This analysis was used to determine if one group had a more difficult time coping with the stressful event. Below is a description of the results for each question.

Income Decreased (Question 6)

More lottery victims reported experiencing a decrease in income (48.72%) than the general population (31.17%), $\chi^2(1, N=232)=6.84$, $p<.01$, and than investment victims (35.00%), $\chi^2(1, N=158) =3.06$, $p<.10$. When both victim groups were combined, they reported experiencing more stress (41.77%) than the general population, $\chi^2(1, N=312)=3.78$, $p<.10$. No other significant differences were found.

Analysis of variance showed that the three groups differed in the level of difficulty dealing with this stressor, $F(2,116)=3.23$, $p=.043$. Tukey-Kramer post-hoc

analysis showed that lottery victims (M=5.47, SD= 1.54) had significantly more difficulty than investment victims (M=4.36, SD= 1.54) with decreased income.

Foreclosure of mortgage or loan (Question 7)

More lottery victims reported a foreclosure of their mortgage or loan (14.29%) than the general population (0.63%), $\chi^2(1, N=236)=20.05$, $p<.001$, and than investment victims (5.06%), $\chi^2(1, N=156)=3.82$, $p<.10$. More investment victims reported a foreclosure on their mortgage or loan than the general population, $\chi^2(1, N=238)=5.05$, $p<.025$. When both victim groups are combined (9.62%), they experienced this stressor more than the general population, $\chi^2(1, N=315)=13.19$, $p<.01$.

Analysis of variance showed that there was no significant difference between the groups' ability to cope with stress due to foreclosure on a mortgage or loan, $F(2,13)=1.24$, $p=.321$.

Recent Loss of Employment for You or Your Spouse (Question 8)

More lottery victims reported recent loss of employment (17.95%) than the general population (9.38%), $\chi^2(1, N=297)=3.60$, $p<.10$. When both victim groups are combined (16.46%), they experienced more recent loss of employment than the general population, $\chi^2(1, N=318)=3.55$, $p<.10$. No other significant differences were found.

Analysis of variance found no significant differences between the three groups in their levels of difficulty dealing with recent loss of employment, $F(2,38)=0.528$, $p=.594$.

Negative Change in Financial Status (Question 9)

More lottery victims experienced negative changes in financial status (52.56%) than the general population (24.53%), $\chi^2(1, N=237)=18.39$, $p<.001$ and than investment victims (32.50%), $\chi^2(1, N=158)=11.38$, $p<.001$. No other significant differences were found.

Analysis of variance found significant differences between the three groups' levels of difficulty dealing with negative changes in income, $F(2,103)=6.817$, $p=.002$. Tukey-Kramer post-hoc analysis found that lottery victims experienced more difficulty (M=5.59, SD=1.67) than investment victims (M=4.04, SD=1.61). The general population (M=5.18, SD=1.76) experienced more difficulty than investment victims.

Concerns about Owing Money (Question 10)

More lottery victims experienced concerns about owing money (61.54%) than the general population (33.75%), $\chi^2(1, N=237)=16.53$, $p<.001$, and investment victims (33.33%), $\chi^2(1, N=156)=12.44$, $p<.001$. When the two victim pools are combined

(47.44%), they experienced more difficulty than the general population, $\chi^2(1, N=316)=6.14$, p<.01.

Analysis of variance found that the three groups experienced no significant differences in the levels of difficulty dealing with concerns about owing money, $F(2, 125)=0.915$, $p=.403$.

Concerns about Money for Emergencies (Question 11)

More lottery victims experienced concerns about money for emergencies (60.76%) than the general public (41.77%), $\chi^2(1, N=237)=7.61$, $p<.01$, or investment victims (40.0%), $\chi^2(1, N=159)=6.85$, $p<.01$. No other significant differences were found.

Analysis of variance found a significant difference between the three groups in terms of levels of difficulty dealing with concerns about money for emergencies, $F(2,143)=4.32$, $p=.015$. Tukey-Kramer post-hoc analysis found that lottery victims experienced more difficulty ($M=5.29$, $SD=1.87$) than investment victims ($M=4.06$, $SD=1.95$).

Problems with the Upkeep of Your Home (Question 12)

More lottery victims experienced problems with the upkeep of their home (40.51%) than the general population (29.56%), $\chi^2(1, N=238)=2.85$, $p<.10$. No other significant differences were found.

Analysis of variance found no significant differences between the three groups in levels of difficulty dealing with problems with the upkeep of their home, $F(2, 104)=0.915$, $p=.404$.

Concerned about Money for Basic Necessities (Question 13)

More lottery victims experienced concern about money for basic necessities (51.28%) than the general population (32.50%), $\chi^2(1, N=238)=7.80$, $p<.01$, and investment victims (23.75%), $\chi^2(1, N=158)=12.79$, $p<.001$. No other significant differences were found.

Analysis of variance found significant differences between the three groups' levels of difficulty dealing with concern about money for basic necessities, $F(2, 108)=6.300$, $p=.003$. Tukey-Kramer post-hoc analysis found that lottery victims had more difficulty dealing with concerns about money for basic necessities ($M=5.35$, $SD=1.75$) than the general population ($M=4.23$, $SD=1.86$) and investment victims ($M=3.89$, $SD=1.45$).

A Recent Change in your Living Arrangements (Question 14)

No significant differences were found between the percentage of the general population (19.50%), lottery victims (23.38%) and investment victims (13.92%) experiencing a change in their living arrangements.

Analysis of variance found no significant differences in terms of the level of difficulty in dealing with the recent change in living arrangements, $F(2, 57)=1.127$, $p=.331$.

Recently Moved or Changed Residences (Question 15)

The general population experienced more recent moves or change of address (10.13%) than investment victims (3.80%), $\chi^2(1, N=237)=3.30$, $p<.05$. No other significant differences were found.

Analysis of variance found no significant differences among the three groups in levels of difficulty dealing with recent moves or changes of address, $F(2, 25)=0.641$, $p=.535$.

Recent Retirement of You or Your Spouse (Question 16)

No significant differences were found between the percentage of the general population (10.69%), lottery victims (9.09%) and investment victims (5.06%) experiencing recent retirement.

Analysis of variance found no significant differences between the three groups on levels of difficulty dealing with recent retirement, $F(2, 25)=2.505$, $p=.102$.

Change in social activities for the worse (Question 17)

No significant differences were found between the percentages of the general population (26.58%), lottery victims (35.90%) and investment victims (32.91%) experiencing a negative change in social activities.

Analysis of variance found significant differences on levels of difficulty dealing with change in social activities for the worse, $F(2, 93)=3.92$, $p=.023$. Tukey-Kramer post-hoc analysis found that lottery victims ($M=5.46$, $SD=1.82$) had significantly more difficulty than investment victims ($M=4.12$, $SD=1.92$).

Change in daily routine (Question 18)

More lottery victims experienced change in daily routine (41.03%) than investment victims (27.85%), $\chi^2(1, N=157)=3.02$, $p<.10$. No other significant differences were found.

Analysis of variance found a significant difference between the three groups on levels of difficulty dealing with changes in daily routine, $F(2, 102)=2.859$, $p=.062$.

Tukey-Kramer post-hoc analysis found that lottery victims (M=5.03, SD=1.60) had significantly more difficulty than the general population (M=4.14, SD=1.83). No other significant differences were found.

Problems with transportation or traffic (Question 19)

More lottery victims experienced problems with transportation or traffic (41.03%) than the general population (25.16%), $\chi^2(1, N=237)=6.23$, $p<.025$. When both victim groups are combined (37.97%), they experienced more problems with transportation or traffic than the general population, $\chi^2(1, N=317)=6.03$, $p<.025$. No other significant differences were found.

Analysis of variance found significant differences between groups relating to problems with transportation or traffic, $F(2.97)=5.32$, $p=.006$. Tukey-Kramer post hoc analysis found that lottery victims experienced higher levels of difficulty dealing with problems with transportation or traffic (M=5.09, SD=1.78) than the general population (M=3.82, SD=1.72) and investment victims (M=4.00, SD=1.65).

Problems with troublesome neighbors or co-workers (Question 20)

Both victim groups combined experienced more problems with troublesome neighbors (23.57%) than the general population (15.72%), $\chi^2(1, N=316)=3.082$, $p<.10$. No other significant differences were found.

Analysis of variance found no significant difference between the three groups on levels of difficulty dealing with troublesome neighbors or co-workers, $F(2, 59)=0.921$, $p=.404$.

Concerned about being lonely (Question 21)

More lottery victims experienced concern about being lonely (37.18%) than the general population (18.24%), $\chi^2(1, N=237)=10.16$, $p<.01$. Also, more investment victims experienced concerns about being lonely (27.85%) than the general population, $\chi^2(1, N=238)=2.89$, $p<.10$. Both victim groups combined experienced concerns about being lonely more than the general population (32.48%), $\chi^2(1, N=316)=8.48$, $p<.01$. No other significant differences were found.

Analysis of variance found no significant differences between the three groups in levels of difficulty dealing with concerns about being lonely, $F(2, 77)=1.867$, $p=.162$.

Legal problems (Question 22)

More lottery victims experienced legal problems (24.36%) than the general population (9.43%), $\chi^2(1, N=237)=9.49$, $p<.01$, and investment victims (7.72%), $\chi^2(1, N=238)=3.39$, $p<.10$. When the two victim groups are combined (21.02%), they experienced

more legal problems than the general population, $\chi^2(1, N=316)=8.23$, $p<.01$. No other significant differences were found.

Analysis of variance found no significant differences between the three groups on level of difficulty dealing with legal problems, $F(2, 45)=1.052$, $p=.358$.

Minor violations of the law (Question 23)

No significant differences were found between the general population (3.77%), lottery victims (7.69%) and investment victim (5.06%) relating to minor violations of the law.

Analysis of variance found significant differences between the three groups in levels of difficulty relating to minor violations of the law, $F(2, 13)=3.400$, $p=.065$. Tukey-Kramer post-hoc analysis that lottery victims ($M=4.17$, $SD=1.83$) had significantly more difficulty than investment victims ($M=2.00$, $SD=0.00$).

Death of a spouse or partner (Question 24)

More lottery victims experienced the death of a spouse (27.85%) than the general population (7.59%) $\chi^2(1, N=237)=17.581$, $p<.001$, and investment victims (11.25%), $\chi^2(1, N=159)=6.98$, $p<.01$. Both victim groups combined (19.50%) experienced this stressor more than the general population, $\chi^2(1, N=317)=9.58$, $p<.01$. No other significant differences were found.

Analysis of variance found that there were no significant differences between the three groups in levels of difficulty dealing with death of a spouse or partner, $F(2, 41)=1.493$, $p=.236$.

Death of a close friend or family member (Question 25)

No significant differences were found on this stressor between the general population (52.82%), lottery victims (49.37%) and investment victims (46.84%).

Analysis of variance found a significant difference among the three groups in levels of difficulty dealing with death of a close friend or family member, $F(2, 157)=3.847$, $p=.023$. Tukey-Kramer post-hoc analysis found lottery victims experienced more difficulty ($M=5.87$, $SD=1.49$) than investment victims ($M=4.84$, $SD=1.57$). No other significant differences were found.

Had a serious injury or illness yourself (Question 26)

More lottery victims experienced serious injury or illness (57.50%) than the general population (35.22%), $\chi^2(1, N=239)=10.80$, $p<.01$. More investment victims experienced this stressor (46.35%) than the general population, $\chi^2(1, N=239)=2.724$, $p<.10$. When both victim groups are combined (51.88%), they experienced more of this

stressor than the general population, $\chi^2(1, N=319)=9.00$, $p<.01$. No other significant differences were found.

Analysis of variance found no significant differences among all three groups in levels of difficulty dealing with serious injury or illness, $F(2, 13)=0.207$, $p=.813$.

Developed a condition that limits your physical activity (Question 27)

More lottery victims experienced a condition that limited their physical activity (55.70%) than the general population (41.51%), $\chi^2(1, N=238)=4.27$, $p<.05$. More investment victims experienced this stressor (57.69%) than the general population, $\chi^2(1, N=237)=5.50$, $p<.05$. When both victim groups are combined (56.69%), they experienced more of this stressor than the general population, $\chi^2(1, N=316)=7.28$, $p<.01$. No other significant differences were found.

Analysis of variance found a significant difference between the three groups in levels of difficulty dealing with conditions that limited their physical activity, $F(2, 152)=2.971$, $p=.054$. Tukey-Kramer post-hoc analysis found lottery victims ($M=5.52$, $SD=1.73$) had a significantly more difficult time than investment victims ($M=4.69$, $SD=1.64$).

Had a serious injury or illness in the family (Question 28)

More investment victims experienced a serious injury or illness in the family (43.75%) than the general population (30.63%), $\chi^2(1, N=240)=4.04$, $p<.05$. When both victim groups are combined (42.41%), they experienced more of this stressor than the general population, $\chi^2(1, N=318)=4.76$, $p<.05$. No other significant differences were found.

Analysis of variance found no significant differences between the three groups in levels of difficulty in dealing with serious injuries or illnesses in the family, $F(2, 113)=0.640$, $p=.529$.

Divorce or marital separation in the family (Question 29)

No significant differences were found among the general population (8.18%), lottery victims (6.49%) or investment victims (8.86%) relating to divorce or marital separation in the family.

Analysis of variance found no significant differences between the three groups in levels of difficulty dealing with this stressor, $F(2, 22)=0.467$, $p=.633$.

Difficulties in relationship with a spouse or loved one (Question 30)

No significant differences were found between the general population (18.24%), lottery victims (12.99%) or investment victims (17.72%) regarding difficulties in relationship with a spouse or loved one.

Analysis of variance found a significant difference among the three groups in levels of difficulty dealing with this stressor, $F(2, 50)=4.954$, $p=.011$. Tukey-Kramer post-hoc analysis found lottery victims ($M=5.50$, $SD=1.43$) had more difficulty dealing with this stressor than investment victims ($M=3.14$, $SD=1.56$).

Table 9. Participants experiencing each life stressor & significance results

Life Stress	Gen. Pop	Lottery	Investment
Income decreased	31.17% L	47.50% G	35.00%
Foreclosure of mortgage	0.63% L	7.97% Gi	5.06% L
Negative change in finances	24.53% L	52.56% GI	32.50% L
Concerns about owing money	33.75% L	61.54% GI	33.33% L
Concern/money for emergency	41.77% L	60.75% GI	40.00% L
Problems/upkeep of home	29.56% L	40.51% g	35.44%
Concern/money for basic necessities	32.50% L	51.28% gI	23.75% L
Problems with transportation	25.16% L	41.03% G	35.00%
Concern about being lonely	18.24% Li	37.18% G	27.85% G
Legal problems	9.43% L	24.35% Gi	7.72% L
Death of a spouse	7.59% L	27.855 GI	11.25% L
Serious injury or illness	35.22% Li	57.50% G	46.25% G
Condition/limits physical ability	41.51% Li	55.70% g	57.69% G
Serious injury or illness in the family	30.63% I	41.03%	43.75% G
Recently moved or change address	10.76% I	10.13%	3.80% G
Change in daily routine	32.48%	41.03% i	27.85% L

General Pop=G, Lottery=L, Investment= I; UPPERCASE: p<.01; lowercase: p<.10

Problems with children or grandchildren (Question 31)

No significant differences were found between the general population (22.01%), lottery victims (23.38%) or investment victims (27.85%) regarding problems with children or grandchildren.

Analysis of variance found a significant difference between the three groups in levels of difficulty dealing with problems with children or grandchildren, $F(2, 72)=3.204$, $p=.046$. Tukey-Kramer post-hoc analysis found significant the general population ($M=4.46$, $SD=1.77$) had more difficulty dealing with children or grandchildren than investment victims ($M=3.50$, $SD=1.60$).

All stress questions combined (Questions 6-31)

Lottery victims experienced more negative life events overall (33.79%) than the general population (22.86%), $\chi^2(1, N=6,163)=83.55$, $p<.001$ and investment victims (25.86%), $\chi^2(1, N=4091)=30.76$, $p<.001$. Investment victims experienced more negative life events overall than the general population $\chi^2(1, N=6,194)=6.80$, $p<.01$.

Summary: Hypothesis 2b Results

Overall, our results support hypothesis 2. When all 26 events are combined, both lottery and investment victims experience more negative life events than the general population. When each event is examined individually, lottery victims experienced 13 of the 26 negative life events significantly more than the general population; investment victims experienced 4 of the 26 negative life events significantly more than the general population. Table 9 summarizes all of the comparisons where a significant difference was found. Additionally, the lottery victims had a significantly more difficult time coping with four of the negative life events than the general population. Table 10 summarizes the comparisons where a significant difference was found.

Table 10. Significant differences in degree of difficulty with life stressors: Mean difficulty, difference, & p-values.

Life Stress	Gen. Pop	Lottery	Mean Diff.	p-value
Income decreased	4.36	5.47	q=1.11	p=.003
Concern about money for basic necessities	4.23	5.35	q=1.12	p=.009
Change in daily routine	4.14	5.03	q=0.89	p=.063
Problems with transportation or traffic	3.82	5.09	q=1.27	p=.007

In summary, while lottery and investment victims clearly experienced a higher number of negative life events than the general population, there were fewer differences found in the self-reported degree of difficulty each group had in dealing with that stress. With the exception of the four life stress events reported in Table 10, no other differences were found in terms of self-reported degree of difficulty dealing with the stress.

Social Readjustment Rating Scale Analysis

The absence of differences in self-reported difficulty led us to employ a secondary analysis using the Social Readjustment Rating Scale (SRRS) and its predetermined values for specific negative life events. Because the 26 negative life events in the present survey were directed towards an older population, only 12 of them were found on the Social Readjustment Rating Scale. Below is a list of the SRRS events that overlapped with our survey questions and the numerical value for each.

- Question 7. Foreclosure on mortgage or loan (71)
- Question 8. Recent loss of employment for you or spouse (64)
- Question 9. Negative change in financial status (62)
- Question 14. A recent change in your living arrangements (35)
- Question 15. Recently moved or changed residences (35)
- Question 24. Death of a spouse or partner (87)
- Question 25. Death of a close friend or family member (79)
- Question 26. Had a serious injury or illness yourself (78)
- Question 28. Had a serious injury or illness in the family (72)
- Question 29. Divorce or marital separation in the family (71)
- Question 30. Difficulties in relationship with a spouse or loved one (66)
- Question 31. Problems with children or grandchildren (49)

The analysis was done by identifying any participant who answered 2 through 7 on our rating scale and then assigning an SRRS value for each incident based on event type. These values were then summed across all participants for the 12 life stress events identified and a total, mean and standard deviation was calculated for each group.

Analysis of variance found a significant difference between the three groups using the Social Readjustment Rating Scale values for 12 different negative life events, $F(2,317)=16.104$, $p=.000$. Tukey-Kramer post-hoc analysis found that the general population ($M=126.175$, $SD=116.89$) scored significantly lower than lottery victims ($M=223.91$, $SD= 143.56$) and investment victims ($M=183.69$, $SD=138.51$).

Hypothesis 3b: Fraud victims have different demographic characteristics than the general population.

Gender (Question D1)

More investment victims were male (67.50%) than the general population (49.38%), $\chi^2(1, N=240)=7.09$, $p<.01$, and than lottery victims (42.50%), $\chi^2(1, N=160)=10.10$, $p<.01$.

Religiosity (Question D2)

More lottery victims reported being extremely, very or somewhat religious (100%) than the general population (92.59%), $\chi^2(1, N=210)=5.83$, $p<.025$, or than investment victims (91.89%), $\chi^2(1, N=149)=6.34$, $p<.025$. No other significant differences were found.

Age (Question D3)

Participants ages were classified into 4 groups: 1=45-54 years old, 2= 55-64 years old, 3= 65-74 years old and 4= 75 years or older. A higher mean indicates that the participants are older. Analysis of variance found significant differences between the three groups in terms of age, $F(2, 312)=5.860$, $p=.003$. Tukey-Kramer post-hoc analysis found that lottery victims ($M=3.13$, $SD=1.02$) were significantly older than the general population ($M=2.66$, $SD=0.97$) and investment victims ($M=2.72$, $SD=1.10$). No other significant differences were found.

Marital Status (Question D4)

More investment victims were married or living together (68.35%) than the general population (48.43%), $\chi^2(1, N=238)=8.47$, $p<.01$, or than lottery victims (33.77%), $\chi^2(1, N=156)=18.67$, $p<.001$. More general population participants were married or living together than lottery victims, $\chi^2(1, N=236)=4.53$, $p<.05$.

Size of Household (Question D5)

More lottery victims lived alone (50.00%) than the general population (37.34%), $\chi^2(1, N=236)=3.45$, $p<.10$ or than investment victims, (28.75%), $\chi^2(1, N=156)=7.48$, $p<.01$.

Educational Attainment (Question D6)

Educational attainment was classified in five groups: 1= less than high school, 2= high school or equivalent, 3= some college or technical training beyond high school, 4= graduate of a 4-year college, 5= post-graduate or professional degree. A higher mean indicates more education. Analysis of variance found significant differences between the three groups in terms of educational attainment, $F(2, 310)=7.034$, $p=.001$. Tukey-Kramer post-hoc analysis found investment victims ($M=3.57$, $SD=1.14$) had significantly more educational training than the general population ($M=3.12$, $SD=1.21$) and than lottery victims ($M=2.87$, $SD=1.19$). No other significant differences were found.

Ethnic Origin (Question D7)

No significant differences were found in ethnic origin of the participants. The majority of participants in each group responded that they were not of Hispanic or Latino background, (general population= 94.94%; lottery victims= 92.21%; investment victims= 95.00%).

Race (QuestionD8)

More general population participants were white (89.10%) compared to lottery victims (79.22%), $\chi^2(1, N=233)=4.14$, $p<.05$. More investment victims were white (90.00%) compared to lottery victims $\chi^2(1, N=157)=3.52$, $p<.10$. No other significant differences were found.

Income (QuestionD9)

Income was analyzed by looking at all those who said they made under $30,000 per year compared to all those who said they made over $30,000 per year. More general population participants made over $30,000 per year (64.35%) than lottery victims (31.15%), $\chi^2(1, N=176)=17.63$, $p<.001$. More investment victims made over $30,000 per year (75.81%) than lottery victims, $\chi^2(1,N=123)=24.66$, $p<.001$. More general population participants made more than $30,000 per year than the two victim groups in combination (53.66%), $\chi^2(1, N=238)=2.80$, $p<.10$.

Summary: Hypothesis 3

Our results supported the hypothesis that victims are demographically different from the general population. The results also demonstrate that lottery victims and investment victims differ from one another. Differences were found in gender, religiosity, age, marital status, size of household, race, and income.

Hypothesis 4b: Fraud victims have different psychological characteristics than the general population.

Optimism (Question 1)

The first question we asked to test this hypothesis sought to measure participants' relative level of optimism. We asked, "In spite of what people say, the lot of the average person is getting worse, not better." The answer choices were on a range from 1: "strongly disagree" to 5: "strongly agree." A lower mean indicates more optimism. Analysis of variance found significant differences between the three groups in terms of how they responded to this question, $F(2,295)=2.391$, $p=.093$. Tukey-Kramer post-hoc analysis found lottery victims ($M=3.66$, $SD=1.01$) were significantly more optimistic than investment victims ($M=3.23$, $SD=1.28$). No other significant differences were found.

Delayed Gratification/Impulsivity (Question 2)

We sought to measure relative levels of delayed gratification or impulsivity. We asked, "Nowadays, a person has to live pretty much for today and let tomorrow take care of itself." The answer choices were on a range from 1: "strongly disagree" to 5: "strongly agree." A higher mean indicates more impulsivity. Analysis of variance found significant differences between the three groups relative to delayed gratification, $F(2,306)=8.940$, $p=.000$. Tukey-Kramer post-hoc analysis found that lottery victims agreed with this statement ($M=3.13$, $SD=1.26$) significantly more than the general population ($M=2.43$, $SD=1.25$) and investment victims ($M=2.44$, $SD=1.29$).

Relative Deprivation (Question 3)

This question sought to measure participant's relative level of contentment or feeling of deprivation with their life. We asked, "Looking over your life as a whole, would you say in general you have gotten: much less than you deserved, less than you deserved, what you deserved, more than you deserved or much more than you deserved?" These answer choices were coded 1 through 5, with "much less than you deserved" coded as 1 and "much more than you deserved" coded as 5. A lower mean indicates relative deprivation. Analysis of variance found significant differences between the three groups on this question, $F(2,293)=8.042$, $p=.000$. Tukey-Kramer post-hoc analysis found more investment victims felt they had gotten what they deserved ($M=3.34$, $SD=0.81$) than lottery victims ($M=2.81$, $SD=1.00$). More general population participants ($M=3.27$, $SD=0.91$) felt they had gotten what they deserved than lottery victims.

Future Income (Question 34)

We sought to gauge participants' attitudes towards their future income. We asked, "Suppose your life remained on the same course it is now. Thinking ahead to three years from now, how do you think your income will compare to your income today? Do you think it will be: much lower, slightly lower, about the same, slightly higher or much higher?" We analyzed this data by combining all answers that suggested the participant thought there would be some change, higher or lower, and compared it to those who responded that they thought there would be no change. We did this to compare the finding to the 2004 FTC consumer fraud survey that found consumers anticipating a change in income were more likely to be fraud victims. Chi-squared analysis of this data found no statistically-significant differences between any of the groups.

Trust in Professionals (Question 36)

On the subject of how much trust participants have in professionals such as stockbrokers, we asked, "When making financial decisions, it is best to usually rely on my own judgment because often professionals can't be trusted." The answer choices were on a range from 1: "strongly disagree" to 5: "strongly agree." A lower mean indicates more trust in professionals. Analysis of variance found a significant difference between groups, $F(2, 305)=3.791$, $p=.024$. Tukey-Kramer post-hoc analysis found that lottery victims ($M=3.40$, $SD=1.10$) distrusted professionals more than the general population ($M=2.95$, $SD= 1.21$). No other significant differences were found.

Rely on Your Own Experience (Question 51)

We asked a similar question later in the survey: "Before you made that investment decision, did you rely on your own experience and knowledge, (Question 51)?" Lottery victims relied on their own experience and knowledge (90.0%) more than the general population (76.97%), $\chi^2(1, N=222)=5.30$, $p<.025$. When both victim groups are combined, they rely on their own experience and knowledge (87.07%) more than the general population $\chi^2(1, N=299)=5.15$, $p<.025$.

Summary: Hypothesis 4b

Our hypothesis that fraud victims have different psychological profiles was supported. Differences were found in participants' level of optimism, impulsivity, relative deprivation and trust in professionals. No differences were found in participants' anticipation of change in their future income.

Hypothesis 5b: Fraud victims have different behavioral characteristics than the general population.

Openness to Sales Pitches (Questions 49 & 50)

In order to assess whether victims were more open to sales pitches, we asked, "People use many sources of information when they make financial decisions. Please think of the last time you made a major investment decision and the sources you used. Before you made that investment decision, did you read materials you received in the mail or over the phone from sales agents that you may not have previously known?" More investment victims read materials from sales agents previously unknown (38.75%) than the general population (23.75%), $\chi^2(1, N=229)=6.14$, $p<.025$. When both victim groups were combined, more of them read materials from sales agents previously unknown (37.67%) than the general population $\chi^2(1, N=299)=5.74$, $p<.025$.

Another measure of openness to sales presentations was participants' willingness to attend a free investment seminar. We asked the same stem as above, followed by "Before you made that investment decision, did you go to a free investment seminar?" More investment victims (23.75%) went to free investment seminars than the general population (11.88%), $\chi^2(1,N=229)=5.81$, $p<.025$. When both victim groups are combined, they were more likely to go to a free investment seminar (22.30%) than the general population participants $\chi^2(1, N= 301)=5.14$, $p<.025$.

A third general measure of openness was the difference in response rate to our survey itself. Only 16.32% of the general population agreed to complete the survey whereas 37.56% of the victims contacted agreed to complete it.

Likelihood of Having a Retirement Plan (Questions 56 & 58)

This question was addressed because of a trend we identified in the focus groups that victims tended to be less likely to have a retirement plan than the general population. For participants still working, we asked, "I have developed a retirement plan that will provide financial resources that go beyond just relying on Social Security." The answer choices were on a range from 1: "strongly disagree" to 5: "strongly agree." Analysis of variance found no significant differences between the three groups on the existence of a retirement plan $F(2, 102)=1.570$, $p=.213$.

For current retirees, the question was, "Before I retired, I had developed a retirement plan that I thought would provide financial resources that go beyond just relying on Social Security." On this question, analysis of variance found a significant difference between the three groups on the existence of a retirement plan among current

retirees $F(2, 194)=3.185$, $p=.044$. Tukey-Kramer post-hoc analysis found more investment victims had a retirement plan ($M=3.69$, $SD=1.31$) than lottery victims ($M=3.06$, $SD=1.14$). No difference was found between investment victims and the general population among current retirees on the question of having a retirement plan.

Consulting with Professionals (Questions 43-46)

To assess the extent to which the groups differed in terms of consulting with professionals, we asked if they consulted with financial planners or an accountant, a lawyer, an insurance agent or a stockbroker. With regard to consulting with a financial planner or an accountant, no differences were found among the groups. Regarding consulting lawyers, more lottery victims (27.40%) consulted with lawyers than the general population (12.99%), $\chi^2(1, N=227)=7.08$, $p<.01$. When both victim groups are combined (23.49%), they consult with lawyers more than the general population, $\chi^2(1, N=303)=5.62$, $p<.025$. In terms of consulting with an insurance agent, more lottery victims consulted with them (30.56%) than the general population (14.29%), $\chi^2(1, N=226)=8.28$, $p<.01$, or than investment victims (14.47%), $\chi^2(1, N=148)=5.52$, $p<.025$. When both victim groups are combined, they consulted with insurance agents (22.30%) more than the general population, $\chi^2(1, N=302)=3.25$, $p<.10$. With regard to consulting stockbrokers, more general population participants (21.43%) consulted with them than lottery victims (9.59%), $\chi^2(1, N=227)=4.78$, $p<.05$. More investment victims (28.57%) consulted with them than lottery victims, $\chi^2(1, N=150)=8.69$, $p<.01$.

Self-Reporting Victim Status

One of the big challenges in fraud research is overcoming self-report error among victims. An AARP study in 2003 found a 50% self-report error rate among lottery victims and a 77% self-report error rate among investment fraud victims on general fraud questions (AARP, 2003a). In this survey, we attempted to address this self-reporting error by asking about victimization in a variety of different ways. All of the participants in the lottery and investment victim groups were known victims of some type of fraud. Therefore, with perfect reporting, we would expect 100% of the lottery victims to report having experienced a lottery fraud and 100% of the investment victims to report having experienced an investment fraud.

General Questions. The first set of questions asked participants about their experiences with fraud generally. The questions were rotated so that one third of the total participants answered one of the three general questions. The questions are reported from highest to lowest self-report accuracy.

1. "Now, thinking about your experiences as a consumer over the last three years, was there ever a time you felt you were the subject of a consumer fraud?" In response to this question, 55.56% of lottery victims and 20.00% of investment victims reported that they had been the subject of a consumer fraud.
2. "Thinking now about any experience you might have had within the last three years with telephone callers from organizations you are not personally familiar with, have you felt you were the victim of a major scam or swindle?" In response to this question, 36.00% of lottery victims and 19.23% of investment victims said they had been the victim of a major scam or swindle.
3. "Within the last three years, has anyone ever called you over the telephone and tried to swindle you or cheat you out of money or property by deliberately lying to you or giving you false money information or phony promises about a product, service or lottery or getting you to pay for something that you never received or swindled you in another way?" In response to this question, 67.86% of the lottery victims said they had been called and a swindle attempt had been made, while 32.14% of investment victims reported the attempt. However, when a follow-up question was asked, "Did you go along with that offer?" only 14.3% of the total lottery victims said they went along with it and only 10.7% of investment victims said they went along with it.

Lottery Victimization Questions. Next we asked the participants about whether they had been victims of a lottery scam in three different ways. The results are reported in order from highest to lowest in terms of self-report accuracy.

1. "Within the past three years, have you sent cash or a check or given your credit card number to any callers from organizations you are not personally familiar with in order to enter a lottery or similar contest?" In response to this question, 16.00% of the lottery victims said they had sent money in order to enter the lottery.
2. "In the last three years, has anyone told you over the telephone that you had won a lottery or could purchase tickets for a winning lottery?" In response to this question, 74.07% of the lottery victims said they had been approached with the lottery scam. But when a follow up questions was asked, "Did you go on to purchase or attempt to purchase that lottery ticket?" only 14.80% of respondents admitted they had done so.

3. "Within the last three years, has anyone ever sold or tried to sell you over the telephone what they claimed was a lottery ticket, which turned out to be fake?" On this question, 50.00% of lottery victims admitted they had been approached, but then when the follow up question was asked, "Did you go on to purchase or attempt to purchase that lottery ticket?" only 14.30% admitted they had done so.

Investment Victimization Questions. Once again, we asked participants questions about their experience as investment fraud victims in three different ways. Questions are reported out from highest to lowest in terms of self-report accuracy.

1. "Within the last three years, has anyone ever lied to you over the telephone to get you involved in an investment deal that turned out to be phony or a scam?" In response to this question, 53.57% of participants admitted they had been lied to over the phone about an investment. However, when the follow up question was asked, "Did you go on to invest or attempt to invest in that deal?" only 28.60% of the total participants asked responded that they had done so.
2. "Within the past three years, have you sent cash or a check or given your credit card number to any callers from organizations you are not personally familiar with in order to make an investment?" In response to this question, 23.08% of investment victims admitted they had sent money to a caller from an organization they were previously unfamiliar with.
3. "In the last three years, have you made an investment in response to a telemarketing call from a company with whom you have not previously done business?" In response to this question, 23.08% of investment victims said they had made an investment in response to a call from a company they had not done business with before.

Summary: Self-Reporting Victim Status. The self-report accuracy rates for the three different approaches result in similar percentages of individuals reporting general victimization, lottery fraud victimization and investment fraud victimization. Reports of general fraud ranged from 10.70% to 20.00% for investment victims and 14.30% to 55.56% for lottery victims. The self-report rates for the three different approaches to asking about lottery fraud were 16.00%, 14.80%, and 14.30%. And while the self-report rates are slightly higher for investment victims, 28.60%, 23.08%, and 23.08%, they are still very low.

Summary: Hypothesis 5

Our hypothesis that fraud victims have different behavioral characteristics was supported. Differences were found in participants' openness to sales pitches, likelihood of having a retirement plan, likelihood of consulting with professionals, and self-reporting behaviors.

4.3: Discussion of Survey Results

This section will provide an overall discussion of the survey results reported in section 4.2. We will discuss how these findings compare to previous research, their implications for current prevention work and for future research.

Hypothesis 1b: Victims of fraud are less financially literate than the general population.

The survey tested this hypothesis by asking a standard battery of financial literacy questions as we have outlined in the previous chapter. In this section, we will provide an expanded discussion of the data results.

Investment victims scored higher on financial literacy than the general population.

As we have reported, the data does not support the hypothesis for investment victims: they scored higher overall on financial literacy questions than the general population. There are a number of possible explanations for this. One might be what Stanford researchers Jeffrey Pfeffer and Robert Sutton refer to as the "knowing-doing gap" (Pfeffer & Sutton, 2005). This is the idea that individuals may have content knowledge that would help them make better decisions but they somehow are not able to employ that knowledge.

Another possible explanation is that investment victims are more active in the investment markets than the general population and therefore know more about the nuts and bolts of investing but may know very little about the sophisticated persuasion tactics employed by con artists. As we have shown in this dissertation, investment fraud con artists use a broad array of tactics to defraud investors and yet very few financial literacy educational programs teach how to defend against these tactics (Vitt et al., 2000). If only the basics of investing are taught and nothing is offered to defend against the powerful persuasion tactics used to sell investments, the individual investor is left vulnerable. It would be like teaching a new poker player the difference between a full house and three of a kind and teaching nothing about the concept of bluffing. One is insufficient without the other.

One final explanation for why investment victims both score higher on financial literacy tests and are taken, may be that their increased knowledge of investing itself may make them vulnerable. Social psychologists have written about a social influence tactic called the "expert snare" (Pratkanis & Shadel, 2005). This is a technique where the con artist actually plays on the knowledge of the victim, complementing him on his vast knowledge of the marketplace so as to mute potential challenging questions the victim might otherwise ask. The expert snare works because the victims like being thought of as knowledgeable investors and so in order to preserve that impression with the con artist, they refuse to risk asking a stupid question that might reveal their ignorance.

With regard to lottery victims, the data supports the hypothesis. Lottery victims scored lower than the general population on the financial literacy portions of the survey, with the exception of questions relating to credit which we will discuss in the next section.

Financial literacy scores improve when the questions relate to areas in which the individual is actively participating.

When the present study's financial literacy scores are divided into two parts, credit knowledge and investment knowledge, some interesting trends emerge. Questions 59, 61 and 66 all relate to the extension of credit whereas questions 60, 62, 63, 64 and 65 relate to investing. While lottery victims scored lower across all eight financial literacy questions, answering 31.25% correct, they did significantly better on the three questions relating to credit, answering over 50.00% correct. This may be explained by the fact that lottery victims use credit extensively (see Appendix 1, questions 37 and 39) and consequently they are more familiar with and knowledgeable about its rules. Conversely, since lottery victims tend to have less money than the general population and investment victims, they have less interest in and knowledge of investing and therefore score lower on investment-related questions.

With regard to investment victims, they may have scored higher than the general population for the same reason: they are more active in the investment markets and consequently are more interested in knowing about investing.

A similar trend was found in analyzing results from the WSU study. That survey asked a total of 12 financial literacy questions, 6 of which had to do with lending of credit. Overall, the general population outscored victims in the WSU study. But when analyzing scores on the six questions relating to credit, the victims of predatory lending

did as well or better on almost every question (Moore, 2005). Table 11 shows a comparison of these studies.

This analysis has several implications for educators. First, it may be that financial literacy programming should be "just in time" to individuals as they become interested in a particular aspect of the financial markets. A high school student who has no intention of investing in the stock market in the near future may not be interested enough in investment knowledge to be able to really learn and retain such content. Likewise, a lower-income individual who, like our lottery victim population, does not have enough income or assets to become an investor may not benefit as much from investor education.

Table 11: Percentage of individuals answering financial literacy questions correctly: WSU versus Pak/Shadel Financial Literacy Findings – Investment vs. Credit Questions

Question	WSU Gen. Pop.	WSU Victims	Pak/Shadel Gen. Pop	Pak/Shadel Invest. Victims	Pak/Shadel Lottery Victims
Highest Return	64.90%	58.70%	34.38%	60.00%	11.25%
Diversify	74.40%	66.70%	31.25%	30.00%	12.50%
Mutual Funds	73.90%	61.50%	43.13%	72.50%	23.75%
No Load	43.90%	42.60%	24.38%	35.00%	35.00%
Bond Prices	43.00%	33.10%	24.38%	51.25%	7.50%
APR	82.20%	82.30%	47.50%	50.00%	60.00%
Compound Interest	76.40%	67.10%	60.63%	73.75%	50.00%
Late payments	95.80%	97.30%	--------	--------	-------
15 vs. 30 yr mortgage	92.30%	95.70%	--------	---------	-------
APR Disclosure	94.60%	94.00%	---------	--------	--------
Loan fees	84.40%	90.40%	----------	-------	---------

Financial literacy is low across all groups.

Even though some scored higher than others, the reality is that all three group's financial literacy scores would receive essentially failing grades if they were being graded in a classroom. The group that did the best, investment fraud victims, answered only 56% of the questions correctly. And these results follow a trend found in the literature regarding general levels of financial literacy in the U.S. As we reported in the literature review, numerous studies have asked the same or similar questions posed in this survey, with similar results. The Securities Investor Protection Corporation found that 83% of all respondents failed the basic investment literacy test (Opinion Research Corporation, 2005). In the WSU study of predatory lending victims, the non-victim population answered only 60% of investment questions correctly (Moore, 2005).

There are several possible explanations why participants in survey after survey do poorly on financial literacy tests. One is that up until the last decade, many individuals felt little incentive to understand investing because they had a pension plan that essentially did the investing for them. In addition, many individuals had confidence in the Social Security system that, like private pensions, managed their money for them. This widespread belief that someone else would manage one's money may have contributed to an overall lack of interest or need to better understand money and investing.

Another factor might be that Americans live in a supercharged consumer culture where there is far more encouragement to spend money than to save and invest. The power of the cultural norm to spend can be an overwhelming force in people's lives. This may explain in part why the United States actually has a negative savings rate: in the aggregate, individuals are literally spending more than they earn each year. This trend may also work against the relative importance of learning about investing because if you are not saving money to invest, what is the point of learning how to invest?

Whatever the reasons for low financial literacy rates, it is going to be increasingly important in the future for individuals to improve their knowledge of investing since more and more corporations are moving away from so-called "defined benefit" pensions and towards "defined contribution" plans that essentially are corporate-sponsored savings accounts managed by the individual.

Conclusion

The overall hypothesis regarding how victims of fraud compare to the general population on financial literacy had mixed results. Lottery victims scored lower than the general population, but investment victims scored higher. These results begin a consistent trend we will mention throughout this discussion: there are distinct profile attributes of

investment and lottery victims. For most of the characteristics we analyzed, the ways in which victims of these two crimes differ from the general population are widely divergent.

Hypotheses 2b and 3b: Fraud victim's life situation, experiences and demographic characteristics differ from the general population.

For purposes of this discussion, we are combining hypotheses two and three since both address life situation variables of the participants. The overall findings in this survey support both hypotheses.

Life Experiences

With regard to negative life events, the survey found that both lottery victims and investment victims experienced higher incidents of negative life events than the general population. As we reported in section 4.2, lottery victims reported having experienced more negative life events compared to investment victims and the general population and these differences proved to be statistically significant. In addition, because all participants in the survey were over 45 years of age, the differences are not due to the age of the victims.

Lottery victims also were found to have many more differences with the general population when it came to analyzing individual incidences of particular life stress events. Thirteen out of the twenty-six life stress measures tested showed that lottery victims were significantly more likely to have experienced the negative life event. This suggests lottery victims are particularly beset by negative life events in the years immediately preceding their being victimized (see Table 4, Section 4.2).

Additionally, while our preliminary analysis of self-reported difficulty in dealing with these life stressors showed few differences between groups, the secondary analysis using the Social Readjustment Rating Scale found significant difference across all three groups. There could be a number of reasons for the differences in results between these analyses. One possibility is that investment victims have been found in the present survey and past surveys (AARP, 2003a) to be more optimistic. Thus, the respondent's self-reported degree of difficulty dealing with negative life events might be underestimated because they tend to see the bright side of events as they occur.

There is an extensive literature that suggests, among other things, that experiencing negative life events can lead to depression which can exacerbate coping mechanisms (Klein & Boals, 2001). This could mean that individuals who experience

more negative life events have less cognitive capacity available that could otherwise be used to defend against the barrage of social influence tactics sent by con artists.

Ultimately, fraud prevention educators would like to be able to identify risk factors that can predict victimization. This would provide an early warning system that could help identify and protect vulnerable populations. The finding relating to the presence of negative life events should be considered in any such effort to predict vulnerability.

Living Situation

Another finding from the survey related to the living situations of victims versus the general population. The survey results found that lottery victims' and investment fraud victims' living situations were significantly different from the general population: in opposite directions. Lottery victims were more likely to be widowed than the general population and investment victims were more likely to be married or living together than the general population. Lottery victims were more likely to live alone than the general population or investment victims. Another difference in living situations between the groups was that lottery victims were more likely to be retired than the general population or investment victims.

These differences in living situations provide another piece of the puzzle as we seek to develop an overall profile of the typical investment and lottery victim. The fact that more lottery victims are widowed and live by themselves may leave them vulnerable to a friendly con artist calling and endearing himself or herself to the victim. Further exacerbating this risk was the finding in the present study that more lottery victims said they were concerned about loneliness than the general population. This comparison provides another clue for how living alone or being widowed may lead to vulnerability to fraud. The fact that the investment victims are more likely to be married is an interesting variable that cannot be easily explained. It is nevertheless important to know and once again points out that when profiling fraud victims, it is important to do so by victim types. Had we combined these two data sets and compared victims to the general population, we would likely have not found any significant differences.

Demographic Characteristics

Generally speaking, when it comes to demographic characteristics of the three groups, the same trend holds: Investment and lottery victims differ from the general population in divergent directions.

With regard to gender, investment victims were more likely to be male than the general population and lottery victims were more likely to be female compared to the general population.

With regard to religiosity, lottery victims are more likely to be religious than the general population or investment victims. This particular finding is consistent with prior research (AARP, 2003a) and with empirical findings from interviews with con artists. One such con artist, Stephen Michaels, told us he routinely would advertise his bogus coin products on Christian radio. When asked why he did so, he responded, "Because Christians believe in something that doesn't exist and that is exactly what I am selling," (Pratkanis & Shadel, 2005).

With regard to age, we found lottery victims were much older than the general population. A larger portion of these victims were over the age of 75 than the general population.

With regard to educational attainment, we found that more investment victims had higher educational levels than the general population and than lottery victims. Lottery victims had lower education than the general population. These findings affirm precisely data from the AARP/DOJ study that found similar patterns among victims and the general population (AARP, 2003a).

With regard to income, the present study found more lottery victims earned under $30,000 per year than the general population. This confirms previous findings in the AARP/DOJ study that also found more lottery victims earning under $30,000 per year compared to the general population (AARP, 2003a). Table 12 summarizes the comparison between groups on these demographic and living situation variables across the two major studies for lottery victims.

The similarities in the findings for these two studies for lottery victims are profound and powerful. The fact that the present study findings so clearly and strongly support the findings in the AARP/DOJ (AARP, 2003a) study provides evidence of arguably the clearest picture we have had to date of what these victims are most likely to look like. From the standpoint of profiling victims and seeking to prevent victimization, this data will be enormously valuable in developing prevention strategies going forward. One such application relates to a new program launched by AARP in 2006 as part of an $8.2 million grant from a wire-transfer company. Regional fraud fighter call centers are being created to contact victims and potential victims and provide peer counseling to them so they will avoid victimization. In terms of identifying vulnerable populations, we intend to recommend to AARP that they identify individuals in the U.S. who meet the

profile described in Table 12 and have volunteer "fraud fighters" from the call centers call them and warn them about lottery and other types of fraud.

Table 12: AARP/DOJ and Pak/Shadel Profile of Lottery Victim

Demographic/ Situational	AARP/DOJ Gen. Pop.	AARP/DOJ Lottery Victim	Pak/Shadel General Pop.	Pak/Shadel Lottery Victim
Age- %75 plus	14.00%	57.00%	26.25%	47.50%
% Female	54.00%	62.00%	50.63%	57.50
% Retired	32.00%	62.00%	53.13%	62.50%
% Widowed	14.00%	45.00%	27.50%	41.25%
% Living Alone	19.00%	42.00%	36.88%	48.75%
Condition/limits physical ability	28.00%	42.00%	41.50%	55.70%
Develop serious Illness	24.00%	33.00%	30.63%	41.30%
Lost loved one/ Spouse	34.00%	39.00%	7.59%	27.85%
Income under 30k	28.00%	51.00%	35.65%	68.85%

According to AARP, there are approximately 975,000 individuals in the United States who: are female, over 75 years old, widowed, live alone, and earn less than $30,000 per year. We recommend that of the three million individuals who will be contacted over the next five years by the grant, that as many of these individuals be on that list as possible.

Hypothesis 4b: Fraud victims have different psychological characteristics than the general population.

The issue of psychological differences among the three groups was explored by asking participants about: a) optimism: positive outlook about the future; b) delayed gratification: willingness to delay gratification versus to give in to impulses; c) relative deprivation: feeling like they have not gotten what they deserved in life; d) change in income: perceptions about anticipated change in income, and e) trust in professionals: their level of cynicism regarding professionals and others.

Optimism

The issue of whether a person has an optimistic or pessimistic outlook can be an important psychological factor in profiling victims. The 2003 AARP/DOJ study asked questions about levels of optimism with mixed results. They asked, "I'd like you to compare the way things are today to the way they were five years ago. Generally, would you say things are going better, worse or about the same as they were going five years ago?" In answering this question, investment victims were slightly more optimistic than lottery victims but the difference was not statistically significant.

In the present survey, we asked, "In spite of what people say, the lot of the average person is getting worse, not better." More lottery victims agreed with this statement than investment victims; this suggests that investment victims are more optimistic than lottery victims. Although more general population participants agreed with this statement than investment fraud victims, we did not find a statistically-significant difference between them.

Delayed Gratification/Impulsivity

One prediction we had going into the survey was that lottery victims would be less inclined to delay gratification than investment victims, a result found in the 2003 AARP/DOJ (AARP, 2003a) survey which asked them to choose one: "If you plan ahead, you can get things to work out your way," or "Planning is a waste of time because most things are a matter of luck anyhow." Almost three times as many lottery victims chose "planning is a waste of time…" than the investment victims.

In the present survey, we asked, "Nowadays, a person has to live pretty much for today and let tomorrow take care of itself." More lottery victims agreed with this than investment victims. This pattern of lottery victims feeling like they should "live for today" and "most things are a matter of luck" may contribute to their susceptibility to fraud pitches that claim they have won the lottery.

Relative Deprivation

This question sought to measure participant's relative level of contentment or feeling of deprivation with their life. The theory behind this question is that individuals who felt so deprived would be more inclined to take the risk of investing in a lottery scam or a risky investment than someone who felt they had gotten what they deserved.

To assess this, we asked, "Looking back on your life as a whole, would you say in general you have gotten….much less than you deserved, less than you deserved, what you deserved, more than you deserved or much more than you deserved?" In fact, fewer

lottery victims felt they had gotten what they deserved than the general population or than the investment victims.

Future Income

We sought to gauge participants' attitudes towards their future income in order to test the finding in the 2004 FTC study that individuals who thought their income was about to change negatively or positively were more likely to become victims of fraud (Anderson, 2004). We asked, "Suppose your life remained on the same course it is now. Thinking ahead to three years from now, how do you think your income will compare to your income today? Do you think it will be…much lower, slightly lower, about the same, slightly higher or much higher." When we analyzed the data, we found no significant differences between the groups. This could mean that the FTC finding was an isolated instance since we could find no other research that corroborates that finding.

Trust in Professionals

On the subject of how much trust participants have in professionals such as stockbrokers, we asked, "When making financial decisions, it is best to usually rely on my own judgment because often professionals can't be trusted." We found that more lottery victims distrusted others than the general population. This supports the finding in the 2003 AARP/DOJ study that found lottery victims to be less trusting than the general population (AARP, 2003a). It is unclear whether lottery victims are more distrustful because they have been fraud victims or for some other reasons.

Hypothesis 5b – Fraud victims have different behavioral characteristics than the general population.

In addressing the issue of behavioral characteristics, we wanted to know if victims were more open to sales pitches, whether they were more likely to have a retirement plan, whether they consulted with professionals like lawyers and stockbrokers, whether they relied on their own judgment to make decisions and how accurately they self-reported their own victim status.

Openness to Sales Pitches

As reported in section 4.2, we asked a series of questions to assess how open the three groups were to various sales presentations. We found that investment victims were more open to sales pitches from previously-unknown sources, were more open to attend free-lunch seminars and were more willing to answer the survey instrument itself. Lottery victims did not show a similar openness.

These are important findings because they provide a clue to why investment victims in particular may have become victims. To the extent one is open to any kind of sales pitch, whether a free seminar, a telephone call or a direct-mail solicitation, it leaves one open to that much smaller subset of pitches that are fraudulent. In the work done by the AARP fraud fighter call centers, volunteers have found that when they call lists of investment fraud victims, the victims are more than willing to talk to the volunteers about anything they may want to talk about.

Given the pattern among con artists of profiling victims by engaging them in conversation about their personal lives as a way of "casing the joint" to find the victim's vulnerabilities, this psychological tendency towards openness leaves them even more at risk of being taken.

Likelihood of having a Retirement Plan

Another prediction we made going into the survey was that fewer victims would have a retirement plan than the general population. We thought this would be especially true for investment victims because the existence of a plan with previously-established investment goals and investment vehicles would make these individuals less likely to fall for fraud schemes using unconventional vehicles. In response to the question, "I have developed a retirement plan that will provide financial resources that go beyond just relying on Social Security," we found no difference among those who were still working.

In response to the question for current retirees, "Before I retired, I had developed a retirement plan that I thought would provide financial resources that go beyond just relying on Social Security," we found more investment victims had a plan than lottery victims, but no other differences were found. This finding could be simply due to the fact that investment victims and lottery victims are widely divergent in terms of wealth. As we mentioned previously, lottery victims may be less likely to have a retirement plan for the same reasons they are less financially literate in investing knowledge – neither is relevant to individuals with little or no money to invest.

Rely on your own Experience and Knowledge

We asked the question, "Before you made that investment decision, did you rely on your own experience and knowledge?" When both victim groups are combined, we found they relied on their own experience and knowledge more than the general population. This is an important finding in that self-reliance was a characteristic found in previous surveys, particularly among investment victims (AARP, 2003a). In terms of understanding how to reach victims, it is important to know that many of the victims may

be resistant to offers for assistance. This may seem like a contradictory finding to the previous section which found victims, especially investment victims, more open to sales pitches. In reality, the two may not be in conflict. In focus groups, investment victims have said that they use information learned from sales materials and free seminars to make their own decisions.

Self-Reporting Victim Status

As we reported in section 4.2, the question of self-reporting of fraud victimization has been fraught with problems. Whether because of embarrassment, a lack of awareness of being taken or just a feeling that they simply made a bad investment, an enormously-large number of known victims have refused to admit they were victims in crime surveys. The present survey is no exception.

Despite seeking to ask about victimization in a myriad of ways, this survey found extremely low rates of self-reporting accuracy. Table 13 summarizes the findings and compares them to the AARP/DOJ study (AARP, 2003a). There is no question that these findings raise questions about the accuracy of any self-report crime survey, especially having to do with fraud. As we reported in the literature review, self-report error rates vary widely depending on the type of crime. But some of the lowest accuracy rates can be found with fraud since embarrassment is such a huge factor. Notice in Table 13 that the self-report accuracy rates found in the AARP/DOJ (AARP, 2003a) study were very similar to those found in the present study. Much more work needs to be done in order to develop questions that more accurately reflect the experiences of the victims.

In conducting hundreds of interviews with investment victims at the AARP fraud fighter call centers, we have noticed that one reason investment victims may not accurately self-report their status as victims is because they believe there may be reasons other than being defrauded for why they lost their money. Some common reasons given are “there was just a downturn in the market” or “I haven’t gotten any money back yet but you have to be patient with investing” or “investing is a risky business and you win some/you lose some.”

One recommendation is to ask investors a question that may encourage some of these alternative explanations as well as allow the victim to admit that fraud was at least one factor in losing their money. The question could be asked as follows:

Table 13: Self-Report Accuracy Rates for General, Lottery and Investment Fraud

Fraud Question Type	Lottery Victims	Investment Victims	AARP/DOJ Lot. Victims	AARP/DOJ Inv. Victims
General 1	55.60%	20.00%	50.0%	27.00%
General 2	36.00%	19.23%	--------	--------
General 3	14.30%	10.70%	--------	--------
Lottery 1	16.00%	-------	17.00%	-------
Lottery 2	14.80%	-------	-------	-------
Lottery 3	14.30%	-------	-------	-------
Invest. 1	--------	28.60%	--------	--------
Invest. 2	--------	23.08%	--------	21.00%
Invest 3	--------	23.08%	--------	-------

"Now thinking about your experiences as an investor over the years, have you ever made an investment where you lost some or all of the money you invested? Yes or no. If yes, which of the following statements best describes why you feel this may have happened. Check all that apply."

a. I just made a bad investment.
b. The market took a downward turn.
c. I was misled and/or defrauded by the broker or company I invested in.
d. Other_____

We feel that this question might allow the person to check multiple answers, including "I was misled" if that was the case and perhaps overcome some of the resistance that obviously exists to tell the truth about what happened.

Conclusion

All five of the major hypotheses being tested by the present survey addressed the issue of differences that might exist between victims and the general population on a range of characteristics:

- Financial literacy
- Negative Life Events
- Living Situation
- Demographic Characteristics
- Psychological characteristics such as optimism, delayed gratification, trust levels, relative deprivation, and perceptions about changes in income;
- Behavioral characteristics such as openness to sales pitches, likelihood of having a retirement plan, reliance on own experience, and willingness to admit victimization.

The common observation throughout all the analyses is this: lottery victims and investment victims differ significantly from the general population and often in divergent directions. The present survey replicates a number of profiling findings from previous research, particularly with regard to lottery victims, and breaks new ground in a number of other areas. Such findings contribute to the still-early literature on fraud victimization by further refining the profiles of both lottery victims and investment victims so that law enforcement authorities and case-workers can more effectively customize prevention messages and strategies. By more clearly understanding the demographics, behaviors, skill sets and psychological make up of these discrete victim populations, we will be better able to serve and protect them from the growing number of criminal con artists out there in the marketplace.

While the profile of lottery victims has emerged very clearly from this research, there are a number of areas within the investment fraud profile that need further replication and exploration. Chapter 16 will review a replication study we completed in February, 2007 that sought to provide answers to questions that remain:

1. Can the financial literacy findings between victims and non-victims of investment fraud be replicated?
2. Can the demographic differences between victims and non-victims of investment fraud be replicated?

3. While victims of investment fraud do better on financial literacy questions than non-victims, how do they compare when it comes to persuasion literacy (the ability to spot sales pitches)?
4. Can the psychological and behavioral differences between victims and non-victims be replicated and can the self-report accuracy rate for fraud victimization be improved by changing how the question is asked?
5. How is persuasion used in the context of free lunch seminars, a common tactic employed in the investment sales industry?

Chapter 5: Fraud Survey 2: Profile Replication Study

Based on the results of the previous survey, we conducted a follow-up survey to further examine some of the findings relating to profiling and to test additional hypotheses. The second survey focused exclusively on Washington state residents because it was also being conducted as part of a statewide investor education campaign co-sponsored by AARP Washington and the Washington State Department of Financial Institutions (DFI). The survey was conducted from February 8 to February 19, 2007 by Woelfel Research, Inc., a survey firm hired by AARP Washington. The same methodology was used for this survey as had been used in our previous survey: all questions were asked of a non-victim population and a second population of known investment fraud victims. Law enforcement agencies provided us with a list of individuals who had lost money to two different investment fraud scams that collectively took $200 million from investors during a five year period from 1999 to 2004.

A random-digit-dial (RDD) procedure was used to identify and reach the non-victim population of respondents. Individuals who were under 40, had never invested in the past, or admitted to being misled or defrauded when making an investment were screened out from the non-victim population. Overall, 258 non-victim individuals and 125 victims of investment fraud completed the survey. A complete annotated survey can be found in Appendix 6 of this dissertation.

We examined the following hypotheses in this survey:

- *Hypothesis 1c: Victims of investment fraud are more financially literate than non-victims.* Based on the previous findings, we sought to replicate the finding that investment fraud victims scored higher on the financial literacy questions than the general population. We asked a series of six standard financial literacy questions. Questions were coded as correct or incorrect, as in the previous survey.
- *Hypothesis 2c: Victims of investment fraud have different demographic characteristics than non-victims.* Based on the previous findings, we predicted that investment fraud victims would be more likely to be male, married, have a college degree or more and earn $35,000 per year or more. We also gathered other standard demographic data on the respondents.
- *Hypothesis 3c: Victims of investment fraud will score lower on 'persuasion literacy' questions than non-victims.* We developed this hypothesis as a possible way to explain the fact that victims score higher on financial literacy questions, but still fall

for investment scams. This is based on the idea that while they may understand the basics of investments, if they do not understand the basics of persuasion, they may be more easily persuaded or scammed.

- *Hypothesis 4c: Victims of investment fraud have different life experiences, and different psychological and behavioral characteristics than non-victims.* We examined a variety of the life experience, psychological and behavioral questions from the previous study in an attempt to replicate and expand on the findings. These questions included questions about negative life events, openness to sales pitches, use and trust in brokers, self-reporting of victim status, and perceptions about making money.
- *Hypothesis 5c: Persuasion tactics are used in free lunch seminars.* We asked a series of questions to begin to examine this question. As mentioned in the previous discussion, we suspect that individuals running free lunch seminars use persuasion tactics during these seminars. We asked respondents, who had attended a free lunch seminar, if they experienced a series of persuasion tactics during the seminar. We expected that they would report seeing some or all of these tactics.

For purposes of discussing these findings and comparing them to our first survey findings, unless otherwise noted we will refer to the first survey as "Survey 1" and to the Washington state survey as "Survey 2".

Results

Hypothesis 1c: Victims of investment fraud are more financially literate than non-victims.

We asked participants six standard financial literacy questions. These questions were similar or identical to questions in the previous survey. The questions included:

6. Thinking about bonds, stocks, IRAs or a bank savings account, which do you think would yield the highest return in a 40-year period?

7. When an investor diversifies their investments, do you think the risk of losing money increases, decreases or stays about the same?

8a. True or false: With compound interest you earn interest on your interest as well as your principle.

8b. True or false: Mutual funds pay a guaranteed rate of return.

9. After I read the following statements, please tell me which one you think best describes a no-load mutual fund: It carries no fees; it has no sales charges; it is not high risk; it has no time limits regarding buying and selling.

10. In your opinion, when interest rates go up, do bond prices typically fall, remain the same, or go up when interest rates go up?

Table 14. Comparison of financial literacy scores between non-victims and victims across both surveys.

Financial Literacy Question	**Survey 1 Non-victims % Correct**	**Survey 1 Victims % Correct**	**Survey 2 Non-Victims % Correct**	**Survey 2 Victims % Correct**
Over a 40 year period, which investment gave the highest returns?	34.38%	60.00%	48.45%	56.00%
When you diversify, what happens to risk?	31.25%	30.00%	46.12%	53.60%
With compound interest, you earn interest on your interest.	60.63%	73.75%	81.78%	83.20%
Mutual funds provide a guaranteed rate of return.	43.13%	72.50%	70.54%	78.40%
No-load mutual funds have no sales charges.*	24.38%	35.00%	17.83%	22.40%
When bond prices go up, interest rates go down.	24.38%	51.25%	40.70%	44.00%
The most important factor in selecting a loan is overall interest rate.	72.50%	77.50%	n/a	n/a
The APR is the most important thing to look at when comparing credit cards.	47.50%	50.00%	n/a	n/a
Combined financial literacy scores	**42.27%**	**56.25%**	**50.83%**	**56.33%**

*This question was asked as a true/false question in Survey 1 and a 4-choice forced response question in Survey 2.

While investment fraud victims scored higher on each question individually than the non-victims, those individual score differences were not found to be significant based on a chi-squared analysis (see Appendix 6 for detailed results of each question.) However, when scores for each group were aggregated across financial literacy questions, significant differences were found between the mean number of correct answers, $t(381)=1.949$, $p=.052$. Victims of investment fraud ($M=3.38$, $SD=1.48$) answered significantly more questions correctly than the non-victims ($M=3.05$, $SD=1.53$).

This finding replicates the finding in the previous survey. Again, we find that investment fraud victims outscore the non-victims when asked a series of basic financial literacy questions. Table 14 compares the financial literacy scores between respondents in Survey 1 and Survey 2.

Hypothesis 2c: Victims of investment fraud have different demographic characteristics than non-victims.

We asked participants about standard demographic variables to replicate the findings from the previous study. More investment fraud victims were male (64.00%) than the non-victims (42.41%), $\chi^2(1, N=353)=15.374$, $p=.000$. Additionally, more investment fraud victims were married or living as married (80.99%) than the non-victims (71.48%), χ^2 (1, $N=377$)= 3.913, $p=.048$. These findings replicate Survey 1.

Unlike Survey 1, we did not find that investment fraud victims were more likely to have a higher educational attainment or to earn more than $35,000 per year in Survey 2. When comparing the findings from both surveys, it is interesting to note that the non-victims in Survey 2 scored higher on both educational attainment and income than the non-victims in Survey 1. This could be due to the fact that Survey 1 used a national sample and Survey 2 used a Washington state only sample. Similarly, when comparing Survey 2 to the data based on the 2005 American Community Survey from the U.S. Census Bureau, considerably more respondents in Survey 2 reported earning $35,000 per year or more and having a college degree or more than the general population. Table 15 compares these two demographic variables across Survey 1, Survey 2 and U.S. Census data.

In both surveys, the general population scored higher than the census data; however, the Washington state general population in Survey 2 scored considerably higher. This may explain why we did not find the same differences in the Washington state sample between victims and non-victims. The population of Washington state is

more highly educated (the percentage of high school graduates is in the top 10 across the country and the percentage of college graduates is in the top 15, out of the 50 states and the District of Columbia). Washington state also has a higher level of income (earnings in the state are in the top 15 across the 50 states and the District of Columbia) as well. These general high levels in Washington state may be causing a ceiling-effect, with both non-victims and victims in Survey 2 scoring high on these two variables.

Table 15: Comparison of income and educational attainment across both surveys and United States Census data

Demographic Variable	Survey 1: General Pop	Survey 1: Inv. Victims	Survey 2: General Pop	Survey 2: Inv. Victims	U.S. Census Data[i]
Earn $35,000 per year or more[a]	64.35%[b]	75.81%[b]	78.86%	82.76%	61.71%
Have a college degree or more	35.63%	52.50%	46.90%	43.20%	26.11%

[a] These numbers are based on the participants who provided their income; Survey 1: n=115 for general population, n=62 for investment victims; Survey 2: n=194 for general population, n=87 for victims.

[b] In Survey 1, these participants reported making more than $30,000 per year, as opposed to $35,000 per year.

In Survey 2, we found that investment fraud victims were more likely to be working (64.52%) than the non-victims (53.52%), $\chi^2(1, N=380)=4.127$, $p=.042$. They were also more likely to be younger (M=54.97 years old, $SD=13.19$) than the non-victims (M=58.62 years old, $SD=12.53$), $t(362)= -2.563$, $p=.011$. These two variables are correlated with one another, $r(362)=.549$, $p=.000$; younger people are more likely to be working than older individuals. Although the victims were significantly younger than the non-victims in this survey, on average they are 55 years old. While the age was restricted for members of the non-victim population (anyone under 40 was screened out of the survey), the age of victims was not restricted. The victims were surveyed purely based on their status as investment fraud victims. According to the American Community Survey 2005 PUMS (Public Use Microdata Sample), the average age of the Washington state population is 38.34 (n=61,520). When anyone 18 years of age and younger is

excluded from this sample, the average adult age increases to 48.27 (n=45,827). When compared to this average adult age, both the victims and non-victims in Survey 2, are significantly older than the adult population of Washington (Victims: $t(118)= 5.546$, $p=.000$; Non-Victims: $t(244)= 12.938$, $p=.000$). So while the victims are significantly younger than the non-victims, they tend to be older than the adult population.

Hypothesis 3c: Victims of investment fraud will score lower on 'persuasion literacy' questions than non-victims.

One possible explanation for the fact that victims outscore non-victims on financial literacy questions, but still fall prey to investment scams, is that they may not understand or recognize the basic persuasion tactics used by con artists, and therefore can be more easily persuaded or scammed. In order to test this, we developed a series of statements to examine how victims and non-victims differed in terms of their interest in some common persuasion tactics used by fraudulent investment salespeople. We mixed these persuasion tactic statements (referred to as 'red flags') with a series of innocuous statements that investment salespeople, both legitimate and fraudulent, may use (referred to as 'green flags').

Both the red and green flag questions were asked together, in a random order for each respondent. The whole series of statements began with the following introduction, *"Now I'd like to read some statements that are often made by brokers or financial advisors when they are describing a potential investment opportunity. After hearing each, tell me on a scale from 1 to 7, where 1 means that statement would NOT make you interested to hear more and 7 means it WOULD make you extremely interested to hear more, how interested you would be."*

The red flag statements were as follows:

35a. This investment made hundreds of people extremely wealthy.

35b. There is no way to lose on this investment, it is fully secured.

35d. We only have three units left on this one; if you don't make a decision today, you won't be able to get in on this investment opportunity.

35e. The lowest return you could possibly get on this investment is 50% annually, but most investors are making upwards of 110% a year.

The green flag statements were:

35c. I am a registered broker with the NASD.

35f. This investment product is registered with the SEC and your state security agency.

35g. This stock has outperformed the Dow Jones Industrial Average each year for the last five years.

35h. This investment is for a company with excellent management and in a high growth industry.

Table 16. Comparison of non-victims to victims in response to persuasion statements.

Persuasion Statement	RDD (Non-Victims) % Not Interested	Victims % Not Interested
35a. "This investment made hundreds of people extremely wealthy." (Red Flag)	73.26%	58.40%
35b. "There is no way to lose on this investment – it is fully secured." (Red Flag)	70.16%	60.80%
35d. "We only have 3 units left on this one; if you don't make a decision today, you won't be able to get in on this investment opportunity." (Red Flag)	89.53%	86.40%
35e. "The lowest return you could possibly get on this investment is 50% annually, but most investors are making upwards of 110% a year." (Red Flag)	66.28%	52.00%
35c. "I am a registered broker with the NASD." (Green Flag).	50.39%	42.40%
35f. "This investment is registered with the SEC and your state securities agency." (Green Flag)	41.09%	33.60%
35g. "This stock has outperformed the Dow Jones Industrial Average each year for the last 5 years." (Green Flag).	35.27%	25.60%
35h. "This investment is for a company with excellent management and in a high growth industry." (Green Flag).	36.05%	26.40%

We analyzed whether or not respondents were interested in the statements by comparing those respondents who answered "1" or "not interested to hear more" to those who answered "2-7", because all of these responses indicated some level of interest, even if it is small. Our prediction was that more non-victims would answer "1" than victims and this would indicate that victims were less able to identify red flag statements used by con artists which in turn would make them more vulnerable to fraud. This turned out to be the case for three of the four red flag statements (see Table 16).

The one question where the two groups had similar responses was 35d, which referred to product and time scarcity. Very few respondents in both groups (9.40% combined) expressed any interest in this statement. It appears that this pressure tactic is one that an overwhelming majority of both groups recognize as a red flag.

Additionally, we calculated how many of the four red flag statements each participant correctly identified (expressed no interest in the statement). We found that victims identified fewer of the four red flag tactics (M=2.66, SD=1.31) than non-victims (M=3.05, SD=1.24), $t(366)=2.781$, p=.006. This suggests that victims may be less "persuasion literate" than non-victims. And the greater interest they express in the red flag statements, the greater their risk of falling prey to a con man's pitch.

With regard to the more benign green flag statements, the victims were significantly more likely to express interest in two of the four green flag statements. As with the red flag questions, we calculated how many of the four green flag statements each participant said they were not interested in (answered "1"). We found that victims had fewer green flag statements where they answered "1" (M=1.29, SD=1.54) than non-victims (M=1.68, SD=1.63), $t(353)=2.121$, p=.035. While these green flag sales lines can be innocuous, the fact that victims show more interest in them suggests that victims may be more open to listening to pitches or lines from salespeople, which may also put them at a higher risk-level.

A similar analysis shows that when combining answers to the red flag and green flag questions, victims answer "1" (not interested) (M=3.92, SD=2.42) less than non-victims (M=4.73, SD=2.53), $t(349)=2.831$, p=.005. Another way to say this is that overall, victims are more interested in both red flag and green flag questions than non-victims.

Hypothesis 4c: Victims of investment fraud have different life experiences, and different psychological and behavioral characteristics than non-victims.

Negative life events

In Survey 2, we asked a sub-set of the negative life events questions asked in Survey 1. We asked about a total of nine negative life events, eight of which appeared in Survey 1. In Survey 2, we did not find that investment victims reported experiencing these negative life events more than non-victims. Overall, we found that both groups reported experiencing these events considerably less than the general population and the investment victims in Survey 1, for almost all of the overlapping questions. This may be related to the manner in which we asked the question. In Survey 1 we allowed respondents to say how much an event affected them, on a scale of 1 to 7. However in Survey 2, we only asked respondents if an event occurred or not. Allowing respondents to answer on a larger scale may make them more likely to say that an event impacted them, even if only slightly, compared to when they are asked to make a binary, yes-no response.

Openness to sales pitches

As mentioned above, with the red flag and green flag questions, victims were significantly more likely to be interested in possible statements made by brokers. We also found that victims were significantly more likely to have attended a free lunch seminar (M=1.29, SD=0.728) than non-victims (M=1.11, SD=0.399), $t(381)= -3.114$, p=.002. *(Note, these means are not the mean number of seminars attended; they are the mean on a scale where 0=0 seminars, 1= 1 seminar, 2= 2-3 seminars, 3= 4-5 seminars, and 4= more than 5 seminars).* Attending a free lunch seminar puts the individual in the hands of a sales person, so that the individual is a captive audience for the pitch for a few hours or even all day. This is why we feel one's willingness to attend such an event is a measure of openness to sales in general.

Another measure of openness is the respondents' willingness to complete the survey. We calculated the response rate of victims and non-victims for this survey. We defined the response rate as the total number of respondents who completed the survey divided by the total number of individuals reached on the phone. This formula excludes calls that were made that were wrong numbers, disconnected numbers, language barriers, answering machines, cell phones, etc. The total number of individuals reached is the total number of people who completed the whole survey, the people who started the survey and then quit partway through, and the people who were reached but refused to

take the survey at all. The response rate for the non-victims was 9.56%, whereas the response rate for the non-victims was 17.99%. The victims were almost twice as likely to respond to the survey than the non-victims. This may be viewed as another measure of their openness to outside sources.

Trust in professionals

Questions 4 and 5 asked respondents about checking the background of financial professionals to see if they are registered (Q4) or to see if they have broken any laws or regulations related to their profession (Q5). No significant difference was found between the two groups' responses on these questions. However, it is worth noting that a small percentage of both groups report actually making these background checks. When the check is to see if the individual is registered, 32.14% of non-victims and 36.47% of victims check the background of their financial professional. When the check is to see if the individual has broken any laws or regulations, 17.86% of non-victims and 18.82% of victims check the background of their financial professional.

When asked why they do not do this background check, trust in the professional is the most common answer (Q4a: non-victims: 39.78%, victims: 48.15%; Q5a: non-victims: 43.24%, victims: 52.94%). Both groups appear to have a large amount of trust in their financial professionals, to the point that they do not do a simple background check to make sure the professional is registered and has not broken any laws.

Self-reporting of victim status

In the current study, we rephrased our question about victimization as discussed in the recommendations from the last study. In this survey we first asked respondents if they had ever made an investment that resulted in a loss of money. If they said yes, we then asked them if the loss was a result of a series of different factors: the market took a downward turn; you were new to investing and didn't know enough about the opportunity; you were misled or defrauded; or it was just a bad investment. Participants were allowed to indicate more than one cause for the loss of money. We found that asking the question this way led to considerably more victims admitting that they had been misled or defrauded. Of those who said they lost money due to an investment, 69.03% of the victims reported that it was due to being misled or defrauded. This represents 62.40% of the entire victim population. (Those who did not report losing money to an investment (n=12; 11 said no, 1 person was not sure) were never asked the follow-up question about the cause of this loss.) While there are still a large percentage

Table 17: Self-Report Accuracy and Error Rates for Known Victims of Investment Fraud Across Three Major Non-Victim/Victim Studies.

Victim Status Question	% of known victims admitting victimization	% of known victims not admitting victimization
Have you ever made an investment that lost money? If yes, why do you think that happened? (Accept multiple answers) *You were deliberately misled or defrauded (Pak.Shadel Survey 2)	62.40%	37.60%
Within the past 3 years have you sent cash or a check or given your credit card number to any callers from organizations you are not personally familiar with in order to make an investment? (Pak.Shadel Survey 1; Investment question 2)	23.08%	76.92%
Within the last 3 years, has anyone ever lied to you over the telephone to get you involved in an investment deal that turned out to be phony or a scam? Did you go on to invest or attempt to invest in that deal? (Pak.Shadel Survey 1; Investment question 1)	28.60%	71.40%
Thinking now about any experience you might have had within the last three years with telephone callers from organizations you are not personally familiar with, have you felt you were the victim of a major scam or swindle? (Pak.Shadel Survey 1; General question 2)	19.23%	80.77%
Thinking now about any experience you might have had within the last three years with telephone callers from organizations you are not personally familiar with, have you felt you were the victim of a major scam or swindle? (AARP (2003a) General question 1).	27.00%	73.00%

of respondents who are not admitting to being defrauded, this is a dramatic improvement from the self-report rates in the earlier studies (See Table 17).

It is also interesting to note that significantly more victims (90.40%) admitted to losing money than non-victims (43.80%), χ^2 (1, *N*=382)= 77.652, *p*=.000. Of those who claimed to lose money, non-victims were significantly more likely to blame the loss on the market (84.96%) than victims (30.09%), χ^2 (1, *N*=225)= 71.345, *p*=.000. On the other hand, victims were significantly more likely to blame the loss on themselves; either that they were new to investing (victims: 48.67%; non-victims 32.74%), χ^2 (1, *N*=221)= 6.901, *p*=.009 or that it was a bad investment (victims: 71.68%; non-victims: 53.98%), χ^2 (1, *N*=221)= 8.395, *p*=.004. Overall, a large percentage of victims admitted to losing money in an investment, and this loss was most often blamed on themselves or on being defrauded.

Reporting victimization to authorities

We asked victims who had been defrauded where they reported the problem; and we asked non-victims and victims who did not admit to being defrauded where they would report a problem if it occurred. One interesting finding is that when asked the hypothetical question, "Where would you report the problem", significantly more victims (only asked of those who did not admit to being defrauded) said they would report the problem somewhere (97.87%) compared to the number of victims (who admitted to being defrauded) who actually reported the problem somewhere (61.54%), χ^2 (1, *N*=125)= 20.760, *p*=.000. Victims claim that they will report a problem if it happens to them; but when they are talking about a specific event that actually did happen to them they were far less likely to report it to anyone. Non-victims were also confident that they would report a problem. However, because none of them had experienced fraud by definition, we could not compare hypothetical behavior to actual behavior.

Perceptions about money

Finally, we found differences in victims' and non-victims' perception of how much money is needed to save for retirement and in their perceptions of how people make money. First, we found that victims think they need significantly more money in retirement (*M*=7.96, *SD*=2.25) than non-victims (*M*=7.15, *SD*=2.24), *t*(277)= -2.834, *p*=.005. (Note a higher mean indicates a higher amount of money needed.) Second we found that victims are more likely to think that there is an insider or easy way to make money, but only a few know how to do so. When asked the following question, *"How strongly do you agree or disagree with the following statement: To make money there is*

an easy way and a hard way. Only a select few know the easy way and most people do it the hard way." Victims were significantly more likely to agree (M=3.66, SD=1.32) than non-victims (M=3.28, SD=1.44), $t(371)$= -2.427, p=.016. (Note a higher mean indicates more agreement.) Both of these responses could put investment victims at a higher risk. First, they think they need more money in retirement; this could make them feel more desperate to earn money and make them more susceptible to "get rich quick" plans. Second, they believe there is some easy way to make money that most people do not know about. One way that con artists convince individuals to fall for a scam is by telling them that this is a rare or secret opportunity to make money that most people don't know about. This belief in an easy way to make money may also make victims more susceptible to lines like these from con artists.

Belief in a safety-net

We asked participants which of a list of agencies insures consumers against losses in the stock market. The correct answer is that no one does (none of the above). However, only 28.00% of the victims answered this correctly compared to 40.31% of the non-victims. Non-victims were significantly more likely to get it correct than victims, χ^2 (1, N=383)= 5.519, p=.019.

Hypothesis 5c: Persuasion tactics are used in free lunch seminars.

In the first part of this dissertation, we analyzed hundreds of undercover tapes from law enforcement agencies of con artists pitching undercover investigators. In recent months, law enforcement has been focused on so called "free lunch seminars" used by unscrupulous or fraudulent investment sales persons to lure in investors and take advantage of them. We wanted to examine non-victims' and victims' experiences with these free lunch seminars and specifically whether persuasion tactics like those in the undercover tapes were being employed. As a first step, we asked a series of questions of participants who had attended a free lunch seminar. We described a series of the common persuasion tactics, and asked participants to state if they experienced these tactics at the last seminar they attended. While the overall sample for these questions was small (43 total; 20 non-victims, 23 victims), the answers show that the persuasion tactics are used in the free lunch seminars and give an idea about which tactics are most common in these seminars. Table 18 describes what we found.

Table 18. Prevalence of persuasion tactics in free lunch seminars.

Persuasion Tactic	% experiencing tactic
Authority 27b.The sales person spoke with considerable authority.	97.67%
Friendship 27a. The sales person was very friendly to me	93.02%
Source Credibility 27c. They claimed that the product had been endorsed by reputable companies and individuals	72.09%
Comparison 27e. The sales person made claims about how great the product was compared to other investments.	58.14%
Time Scarcity 27d. The sales person stated that there was a limited amount of time to make a decision.	32.56%
Social Proof 27g. The sales person drew attention to the fat that other investors in the room had decided to invest.	32.56%
Reciprocity 27f. I felt some pressure to invest because I had received a free lunch/and or gift.	13.95%
High Pressure Sales 27h. The sales person was very aggressive and applied a lot of pressure.	4.65%

As one can see, the top five tactics found in free lunch seminars were authority, friendship, source credibility, comparison and scarcity. This list compares nicely with the most prevalent tactics found in our analysis of the undercover tapes where source credibility, scarcity and comparison were also found among the top five tactics used. There are limitations to these findings however because 1) the sample size is quite small and 2) there may be inaccuracies among participants in terms of their ability to recall the kinds of statements made in a seminar they attended up to three years before.

Conclusion

Survey 2 successfully replicated a number of findings from Survey 1 and from the AARP/DOJ study of non-victims and victims of investment fraud. The most significant replication was of the demographic, psychological and behavioral profile of investment fraud victims. The study replicated previous findings that investment fraud

victims were more likely to be male, married, more financially literate, more open to sales presentations including free lunch seminars, and likely to trust their broker. The study also found that victims were more likely to be working than non-victims, although this is correlated with age. Victims were more likely to be younger than non-victims; however when compared to the Washington state general population (from U.S. American Community Reports), the victims were more likely to be older than the adult population in Washington state. The study did not replicate previous findings that showed victims were of higher educational attainment, earned more money and had more negative life experiences than non-victims. These elements of the investment victim profile will need additional research and exploration in order to reach firm consensus of whether or not to include them in the profile of investment victims.

In addition to replicating previous findings relating to the profile of investment fraud victims, this study also broke new ground in a number of important areas. One area was in terms of seeking to measure "persuasion literacy". Persuasion literacy is the participant's ability to identify persuasion tactics used by both legitimate and illegitimate sales people. We wanted to explore this because one explanation we had for why victims outscore non-victims on financial literacy yet continue to be victimized was that they may not know how to defend against sales tactics. This study provides at least preliminary support for this hypothesis.

Another area where this survey makes an important contribution is with regard to fraud victim self-report rates. In Survey 1 of this dissertation, we asked known victims of investment fraud if they had been victimized utilizing three different approaches. The highest self-report accuracy rate from those efforts was 29%. The only other previous study that asked known investment fraud victims if they had been defrauded was the AARP Off the Hook study in 2003. The highest self-report accuracy rate for investment fraud victims in that study was 27% (AARP, 2003a). In Survey 2 however, we devised a question sequence that yielded a self-report accuracy rate of 62%, which is 35% higher than the AARP study and more than double the highest rate found in Survey 1.

Finally, this study identified an issue that needs to be addressed by those seeking to reduce investment fraud victimization. The study found that nearly two-thirds of all participants never checked the background of their broker before hiring them. Law enforcement officials have consistently reported that the majority of fraud cases they prosecute involved an unregistered broker or product. Therefore, prevention campaigns that encourage investors to check the backgrounds and registration status of brokers before hiring them may be an effective way to reduce investment fraud.

Chapter 6: Conclusions and Future Research Directions

The core findings of this dissertation can be summarized in three statements:

1. *The con artist's weapon is social influence.* Con artists use a large number and variety of sophisticated influence tactics to persuade victims to send them money. Based on extensive analysis of undercover tapes, the most common tactics used across all scams are Phantom Fixation, Scarcity and Social Proof. These findings have been confirmed by former career con artists who tell us that greed (Phantom Fixation), urgency (Time Scarcity) and fear-of-loss (Product Scarcity) are the top tactics they used when they were in the business.

2. *Investment fraud victims differ from the general population.* Investment fraud victims can be profiled in terms of how they differ demographically, psychologically and behaviorally from the general population. The present studies have supported and built on previous research by showing that fraud victims are more likely than the general population to:

   - Be more financially literate;
   - Be male;
   - Be married;
   - Be open to sales pitches from unknown salespeople;
   - Rely on their own experience and knowledge;
   - Be optimistic;
   - Under-report their own victim status;
   - Be less persuasion literate.

   There are some profile characteristics that were found in Survey 1 that were not replicated in Survey 2 such as investment victims earn more than $30,000, have negative life experiences and have higher educational attainment. More research is needed to either validate or eliminate these characteristics.

3. *Lottery victims differ from the general population.* Lottery fraud victims can also be profiled in terms of how they differ from the general population, but these differences are widely divergent from the profile of the investment fraud victim. The present study replicates previous research findings showing that lottery fraud victims are more likely than the general population to:

   - Be less financially literate;
   - Be female, widowed and living alone;
   - Earn less than $30,000 per year;
   - Be distrustful of professionals;
   - Have experienced negative life events and had difficulty dealing with them;
   - Live for today;
   - Under-report their own victim status

These three major findings have significant implications for future research and fraud prevention efforts. What follows are a series of recommendations for future research projects that we believe will build on the work done in this study.

Future Research

Despite the overwhelming presence of clearly-identifiable influence tactics in fraud schemes as evidenced by our analysis of hundreds of undercover audiotapes, very few fraud prevention or financial literacy programs in the United States teach the science of social influence and how to resist it (Vitt et al., 2000; Pratkanis & Shadel, 2005). Our recommendation is that a major research initiative be launched that seeks to study the possible role persuasion education might have in deterring fraud. The following research questions should be considered as part of such an agenda.

Research Question 1: Does persuasion training lower responsiveness to fraud pitches?

Focus Groups

The first way to test the value of persuasion would be to run focus groups. Two groups could be set up initially. Group A would receive an hour-long PowerPoint lecture on persuasion tactics used in the marketplace. Group B would receive a lecture on a topic unrelated to fraud. Then both groups would be exposed to audiotapes of various

investment fraud pitches, some containing exaggerated claims and fraud and others that did not include such claims. While they listen to the tapes, each participant would be given a dial machine that would allow them to rate what they were hearing on a scale of "1" to "100". A score of "100" would mean they were very interested and a score of "1" would mean they were not at all interested. This would enable researchers to collect data point ratings among focus group participants literally for every word or phrase they hear on the tape.

Data collected for those who received persuasion training would be compared to data collected from those who did not. The hypothesis going in would be that those whose awareness of persuasion tactics was elevated from the training would rate obvious pitch lines from the fraud tapes lower than those who did not receive such training.

Peer Counseling Call Centers

This effort would utilize fraud prevention call centers in Los Angeles and Seattle to test various persuasion training messages. In the most basic experiment, individual investors whose names appear on lead sheets seized by law enforcement would be placed into two groups. Those in Group A would receive a peer counseling message that contains persuasion training. Those in Group B would receive a verification phone message only (no peer counseling). Within one week, participants in both groups would be contacted by professional telemarketers and asked to agree to read a prospectus of a fictitious company. The telemarketers would use all of the most common persuasion methods to induce the participants to agree to order the materials. The objective would be to determine if those who received persuasion training responded less frequently than those who did not receive persuasion training.

Different scripts would be developed and tested that focus on various persuasion tactics in order to determine which content had optimal effects at reducing responsiveness to fraud pitches.

Community Workshops

The prevention effects of persuasion training could also be tested in community group settings. The methodology would be to invite a group of older investors to a free-lunch seminar to learn about protecting themselves against fraud. Individuals would be invited to attend the seminar via direct mail. Those who attend the event would be in the experimental group and a subset of those who were invited but did not attend would be in the control group. Those who attend the seminar would be exposed to persuasion training at the seminar and obviously those who did not attend would not be so exposed. Within a week of attending the event, both groups would be contacted and asked if they would be

willing to read about an obviously-bogus investment from a fictitious company. The caller would use typical persuasion tactics to induce the participant to say "yes" to receiving the information (i.e. guarantee 300% return on investment, low risk, everyone's doing it, etc.). The objective would be to see if those who received the persuasion training responded more or less frequently to the pitch.

Research Question 2: Do different types of investment fraud victims have different demographic and psychological profiles?

One of the big discoveries in the present study was that specific victim types have discrete demographic and psychological profiles. For instance, we found that lottery victims and investment fraud victims had mirror-opposite demographic profiles. However, if those two victim populations had been commingled and compared as one group of victims to the general population, all the profiling differences would have disappeared. This led to the question of whether different types of investment fraud victims have different profiles.

Working with local securities regulators, several hundred victims of annuity scams, oil and gas fraud (selling non-existent interests in non-existing oil and gas wells), Initial Public Offering (IPO) scams and gold coin or movie deal scams could be identified. Once these discrete victim pools had been identified, a survey instrument could be developed drawing heavily on questions in the present study, the 2003 AARP/DOJ study and other research to better understand the differences among victim types. By understanding as specifically as possible the demographic, psychological and behavioral profiles of particular types of investment victims, law enforcement and others would be in a much better position to customize prevention strategies to those profiles.

Research Question 3: Can social influence theory be used to persuade investors to change their behavior in ways that inoculate them from fraud?

In numerous interviews with regulators and with career investment fraud con artists, we have found that a key dynamic in investor fraud is the victim's willingness to answer questions from the con artist. The present study found fraud victims were more open to listening to sales pitches from unknown callers than the general public. This finding replicates a similar finding in the 2003 AARP/DOJ study.

Our interview with confidential informant and former con artist "Billy" reinforced the danger of allowing the con to control the conversation by answering his questions. Billy's advice?

> The (red) flag is this…When you get a call from somebody, the prospect should be interviewing who is calling. See somebody is going to be in control. Somebody buys, somebody sells. So the message here is turn it around. Ask the questions. The questions the prospect should be asking are: Are you registered or not registered? Who do you clear through? What's your net cap? Tell me about your background. They run.

Eight years ago, we interviewed another career investment fraud con artist who we will refer to as Stephen Michaels. He told us a very similar story. The con artist's first objective is to control the conversation. The second objective is to get information from the prospect about their personal situation so you can customize the pitch. Both of these objectives can be accomplished by asking questions. If the prospect refuses to answer the questions, the con artist knows he can't control them and can't get the personal information he needs, so he hangs up. If the prospect were to actually start asking the questions, as Billy suggests, they would hang up even faster.

"Ask" Before You "Answer"

One prevention message that should be tested is to turn the victim from the person who *answers* questions to the person who *asks* questions. The intent of this is to help the investor separate legitimate NASD-registered brokers from fly-by-night con artists. The challenge is to produce messages and a campaign that will persuade a critical mass of investors to ask questions before they deal with unknown telemarketers.

Message Testing

Before investing in any such messages, it will be important to test the use of social influence theory in creating television ads that encourage investors to ask questions before they answer them. Several different 30 and 60 second television spots could be developed that employ the idea of social consensus or group conformity to encourage preventative behaviors.

Group conformity is the idea that individuals feel enormous pressure to do what their "in-group" does or risk being ostracized from that group. The pioneering work of Solomon Asch in the 1950's demonstrated this phenomenon in dramatic fashion with his famous line experiments. More recently, Robert Cialdini has pioneered the use of group conformity in television spots relating to littering. Cialdini and his colleagues at Arizona State University filmed a TV spot that showed a group of women playing cards. One of

the women throws her aluminum can into a regular garbage can and the other three women chastise her for not recycling. An experimental group of participants was shown this TV spot and a control group of participants was shown another TV spot unrelated to recycling. Then the two groups were followed for six weeks to see which group recycled more frequently. The group that saw the recycling ad using group conformity recycled more than the control group (Cialdini, 2003).

These experiments could be replicated using the idea of asking questions as the desired in-group behavior. One TV spot could have a group of four women in an "investment club" meeting at one of the women's homes. The phone rings and the homeowner begins to answer personal questions from the caller. One of the other women in the group interrupts her and hangs up the phone, followed by all three women chastising her for answering questions from an unknown caller without first asking key questions.

The test of the efficacy of these ads would be to "sting" both groups of participants with a phony investment fraud sales call a week later to determine which group asked more questions than they answered. It would be important to develop several additional scenarios to test. If measurable behavioral change is shown, then collateral materials could be developed that support this theme of asking questions as a lead up to launching a campaign.

Research Question 4: What can be done to better identify potential lottery victims who may be at risk of becoming so-called "chronic victims"?

As we mentioned in Chapter 4, the present study findings profiling lottery victims supports previous findings in the AARP/DOJ study (AARP, 2003a). We estimate there are approximately 975,000 individuals in the United States alone who meet the lottery victim profile described in this research: over 75, widowed, living alone, earning less than $30,000 a year and experienced multiple negative life experience. Within this group of individuals who meet the profile, there is a smaller subset that will actually fall for lottery or some other kind of fraud. One research idea is to conduct a sting that would directly solicit a sample of this profiled population to see if they will respond to a lottery fraud offer more than a control group.

Such a sting was conducted in 1995 by the U.S. Postal Inspection Service. They identified a pool of 200,000 individuals and mailed post-cards to them saying they had won one of five fabulous prizes. To find out what they won, the participant had to call a toll-free number. When they called the toll-free number, they heard a recording from the

postal authorities that said they had just responded to a scam offer and they should be careful in the future. The most remarkable thing about this effort was that 40,000 people called the number (U.S. Postal Service, 1995).

Unfortunately, the postal authorities conducted the sting as a prevention strategy, not as a research project. No data was collected from those who responded. In this case, the whole point would be to identify those who responded and further refine the profile of those who fall for such offers.

In addition to refining the profile of those who might respond to lottery offers, there is an even smaller subset of the profiled lottery people who will fall for it not just once but over and over again. These are the so-called "chronic" lottery victims. AARP Fraud fighter call centers in Los Angeles and Seattle have been up and running for six months and already have identified individuals who appear to be chronic lottery victims. They openly describe to volunteers how they keep getting notices that they have won and they have sent multiple checks to claim their winnings.

The research opportunity here is to identify several of these individuals and also individuals who might have fallen for the lottery scam once and then stopped when they realized it was a fraud, and do an extensive battery of cognitive tests to determine how the two groups differ. One hypothesis is that some amount of cognitive impairment or dementia may be found in chronic victims who continue to send money repeatedly. It will be important to know precisely what conditions they may have in order to be able to design strategies to protect them from the onslaught of criminals converging on them.

Conclusion

The ability of law enforcement officials, social workers and friends and family of potential victims to reduce the amount of consumer fraud occurring in the 21st Century will depend mightily on our collective will to expand the knowledge base with research projects like the ones described in this chapter. Fortunately, more and more officials are starting to learn that scientists in the field of social psychology have much to offer that can apply directly to issues confronting our society. We think investing heavily in social science research is critical to solving one of society's most troubling public problems.

APPENDIX 1:
Tukey-Kramer Comparisons of Total Number of tactics used by Scam Type

Comparison (Scam Type & Mean # Total Tactics Used)		Mean Diff.	p-value
Coins (*M*=14.05) vs.	Recovery Room (*M*=3.80)	*q*= 10.25	*p*= .000
Coins (*M*=14.05) vs.	Credit Card (*M*=5.60)	*q*= 8.45	*p*=.000
Coins (*M*=14.05) vs.	Sweepstakes (*M*=9.25)	*q*= 4.80	*p*=.035
Coins (*M*=14.05) vs.	Lottery (*M*=6.30)	*q*= 7.75	*p*=.000
Coins (*M*=14.05) vs.	Travel (*M*=7.77)	*q*= 6.28	*p*=.007
Coins (*M*=14.05) vs.	Investment (*M*=13.10)	*q*= 0.95	*p*=.997
Investment (*M*=13.10) vs.	Rec. Room (*M*=3.80)	*q*= 9.30	*p*=.000
Investment (*M*=13.10) vs.	Credit Card (*M*=5.60)	*q*= 7.50	*p*=.000
Investment (*M*=13.10) vs.	Sweepstakes (*M*=9.25)	*q*= 3.85	*p*=.173
Investment (*M*=13.10) vs.	Lottery (*M*=6.30)	*q*= 6.80	*p*=.000
Investment (*M*=13.10) vs.	Travel (*M*=7.77)	*q*= 5.33	*p*=.040
Recovery Room (*M*=3.80) vs.	Credit Card (*M*=5.60)	*q*= -1.80	*p*=.938
Recovery Room (*M*=3.80) vs.	Sweepstakes (*M*=9.25)	*q*= -5.45	*p*=.009
Recovery Room (*M*=3.80) vs.	Lottery (*M*=6.30)	*q*= -2.50	*p*=.683
Recovery Room (*M*=3.80) vs.	Travel (*M*=7.77)	*q*= 3.97	*p*=.267
Credit Card (*M*=5.60) vs.	Sweepstakes (*M*=9.25)	*q*= -3.65	*p*=.316
Credit Card (*M*=5.60) vs.	Lottery (*M*=6.30)	*q*= -0.70	*p*=.999
Credit Card (*M*=5.60) vs.	Travel (*M*=7.77)	*q*= -2.17	*p*=.910
Sweepstakes (*M*=9.25) vs.	Lottery (*M*=6.30)	*q*= 2.95	*p*=.489
Sweepstakes (*M*=9.25) vs.	Travel (*M*=7.77)	*q*= 1.48	*p*=.981
Lottery (*M*=6.30) vs.	Travel (*M*=7.77)	*q*= -1.47	*p*=.981

APPENDIX 2: Chi-Square analyses of distribution of tactics used by Scam Type

Comparison (Scam Type)		χ^2	*df*	*p*-value
Investment vs.	Coins	138.93	12	$p<.005$
Investment vs.	Recovery Room	66.34	11	$p<.005$
Investment vs.	Credit Card	214.34	11	$p<.005$
Investment vs.	Sweepstakes	119.96	12	$p<.005$
Investment vs.	Lottery	54.67	10	$p<.005$
Investment vs.	Travel	95.95	11	$p<.005$
Coins vs.	Recovery Room	40.13	12	$p<.005$
Coins vs.	Credit Card	194.91	12	$p<.005$
Coins vs.	Sweepstakes	76.24	12	$p<.005$
Coins vs.	Lottery	38.56	12	$p<.005$
Coins vs.	Travel	31.41	12	$p<.005$
Recovery Room vs.	Credit Card	72.65	12	$p<.005$
Recovery Room vs.	Sweepstakes	5.51	12	*p>.10*
Recovery Room vs.	Lottery	24.55	11	$p<.025$
Recovery Room vs.	Travel	21.76	11	$p<.05$
Credit Card vs.	Sweepstakes	117.29	11	$p<.005$
Credit Card vs.	Lottery	112.99	11	$p<.005$
Credit Card vs.	Travel	105.13	11	$p<.005$
Sweepstakes vs.	Lottery	26.04	12	$p<.025$
Sweepstakes vs.	Travel	21.62	12	$p<.05$
Lottery vs.	Travel	11.50	10	*p>.10*

APPENDIX 3:
Tukey-Kramer Comparisons of Number of Unique tactics used by Scam Type

Comparison (Scam Type & # of Unique Tactics Used)		Mean Diff.	p-value
Coins (*M*=5.45) vs.	Recov. Room (*M*=2.75)	*q*= 2.70	*p*= .000
Coins (*M*=5.45) vs.	Credit Card (*M*=3.07)	*q*= 2.38	*p*= .001
Coins (*M*=5.45) vs.	Sweepstakes (*M*=4.55)	*q*= 0.90	*p*= .641
Coins (*M*=5.45) vs.	Lottery (*M*=3.40)	*q*= 2.05	*p*= .003
Coins (*M*=5.45) vs.	Travel (*M*=4.38)	*q*= 1.07	*p*= .584
Coins (*M*=5.45) vs.	Investment (*M*=13.10)	*q*= 0.35	*p*= .995
Investment (*M*=13.10) vs.	Recovery. Room (*M*=2.75)	*q*= 2.35	*p*= .000
Investment (*M*=13.10) vs.	Credit Card (*M*=3.07)	*q*= 2.03	*p*= .009
Investment (*M*=13.10) vs.	Sweepstakes (*M*=4.55)	*q*= 0.55	*p*= .950
Investment (*M*=13.10) vs.	Lottery (*M*=3.40)	*q*= 1.70	*p*= .028
Investment (*M*=13.10) vs.	Travel (*M*=4.38)	*q*= 0.72	*p*= .904
Recovery Room (*M*=2.75) vs.	Credit Card (*M*=3.07)	*q*= -0.32	*p*= .998
Recovery Room (*M*=2.75) vs.	Sweepstakes (*M*=4.55)	*q*= -1.80	*p*= .015
Recovery Room (*M*=2.75) vs.	Lottery (*M*=3.40)	*q*= -0.65	*p*= .894
Recovery Room (*M*=2.75) vs.	Travel (*M*=4.38)	*q*= -1.63	*p*= .103
Credit Card (*M*=3.07) vs.	Sweepstakes (*M*=4.55)	*q*= -1.48	*p*= .146
Credit Card (*M*=3.07) vs.	Lottery (*M*=3.40)	*q*=-0.33	*p*= .998
Credit Card (*M*=3.07) vs.	Travel (*M*=4.38)	*q*= -1.32	*p*= .394
Sweepstakes (*M*=4.55) vs.	Lottery (*M*=3.40)	*q*= 1.15	*p*= .338
Sweepstakes (*M*=4.55) vs.	Travel (*M*=4.38)	*q*= 0.17	*p*= .999
Lottery (*M*=3.40) vs.	Travel (*M*=4.38)	*q*= 0.98	*p*= .672

APPENDIX 4:
Tukey-Kramer Comparisons of Number of individual tactics by scam type

Comparison (Scam Type & Mean # of individual tactics)		Mean Diff.	p-value
Commitment & Consistency			
Coins (*M*=1.60) vs.	Recovery Room (*M*=0.10)	*q*= 1.50	*p*=.000
Coins (*M*=1.60) vs.	Credit Card (*M*=0.33)	*q*= 1.47	*p*=.001
Coins (*M*=1.60) vs.	Sweepstakes (*M*=0.25)	*q*= 1.35	*p*=.001
Coins (*M*=1.60) vs.	Lottery (*M*=0.45)	*q*= 1.15	*p*=.010
Comparison			
Investment (*M*=1.55) vs.	Recovery Room (*M*=0.40)	*q*= 1.15	*p*=.006
Investment (*M*=1.55) vs.	Credit Card (*M*=0.07)	*q*= 1.48	*p*=.000
Investment (*M*=1.55) vs.	Sweepstakes (*M*=0.50)	*q*= 1.05	*p*=.017
Investment (*M*=1.55) vs.	Lottery (*M*=0.25)	*q*= 1.30	*p*=.001
Investment (*M*=1.55) vs.	Travel (*M*=0.46)	*q*= 1.09	*p*=.038
Coins (*M*=2.25) vs.	Recovery Room (*M*=0.40)	*q*= -1.85	*p*=.000
Coins (*M*=2.25) vs.	Credit Card (*M*=0.07)	*q*= 2.18	*p*=.000
Coins (*M*=2.25) vs.	Sweepstakes (*M*=0.50)	*q*= 1.75	*p*=.000
Coins (*M*=2.25) vs.	Lottery (*M*=0.25)	*q*= 2.00	*p*=.000
Coins (*M*=2.25) vs.	Travel (*M*=0.46)	*q*= 1.79	*p*=.000
Fear & Intimidation			
Credit Card (*M*=2.53) vs.	Coin (*M*=0.10)	*q*= 2.43	*p*=.000
Credit Card (*M*=2.53) vs.	Sweepstakes (*M*=.05)	*q*= 2.83	*p*=.000
Credit Card (*M*=2.53) vs.	Travel (*M*=.08)	*q*= 2.46	*p*=.000
Friendship			
Coins (*M*=2.40) vs.	Investment (*M*=0.65)	*q*=1.75	*p*=.000
Coins (*M*=2.40) vs.	Recovery Room (*M*=0.40)	*q*= 2.00	*p*=.000
Coins (*M*=2.40) vs.	Credit Card (*M*=0.13)	*q*= 2.27	*p*=.000
Coins (*M*=2.40) vs.	Sweepstakes (*M*=0.55)	*q*= 1.85	*p*=.000
Coins (*M*=2.40) vs.	Lottery (*M*=0.65)	*q*= 1.75	*p*=.000
Coins (*M*=2.40) vs.	Travel (*M*=0.38)	*q*= 2.02	*p*=.000

Landscaping			
Sweepstakes (*M*=1.05) vs.	Investment (*M*=0.10)	*q*= 0.95	*p*=.000
Sweepstakes (*M*=1.05) vs.	Coins (*M*=0.25)	*q*= 0.80	*p*=.005
Sweepstakes (*M*=1.05) vs.	Lottery (*M*=0.10)	*q*= 0.95	*p*=.000
Sweepstakes (*M*=1.05) vs.	Travel (*M*=0.15)	*q*= 0.90	*p*=.005
Phantom Fixation			
Investment (*M*=2.50) vs.	Credit Card (*M*=.07)	*q*= 2.43	*p*=.001
Coins (*M*=2.20) vs.	Credit Card (*M*=.07)	*q*= 2.13	*p*=.005
Sweepstakes (*M*=3.00) vs.	Recovery Room (*M*=1.10)	*q*= 1.90	*p*=.009
Sweepstakes (*M*=3.00) vs.	Credit Card (*M*=.07)	*q*= 2.93	*p*=.000
Lottery (*M*=1.95) vs.	Credit Card (*M*=.07)	*q*= 1.88	*p*=.023
Travel (*M*=2.54) vs.	Credit Card (*M*=.07)	*q*= 2.47	*p*=.003
Profiling			
Investment (*M*=1.25) vs.	Coins (*M*=0.20)	*q*= 1.05	*p*=.004
Investment (*M*=1.25) vs.	Recovery Room (*M*=0.05)	*q*= 1.20	*p*=.000
Investment (*M*=1.25) vs.	Credit Card (*M*=0.13)	*q*= 1.12	*p*=.005
Investment (*M*=1.25) vs.	Sweepstakes (*M*=0.30)	*q*= 0.95	*p*=.014
Scarcity			
Investment (*M*=1.75) vs.	Credit Card (*M*=0.07)	*q*= 1.68	*p*=.015
Coins (*M*=2.35) vs.	Recovery Room (*M*=0.55)	*q*= 1.80	*p*=.002
Coins (*M*=2.35) vs.	Credit Card (*M*=0.07)	*q*= 2.28	*p*=.000
Coins (*M*=2.35) vs.	Lottery (*M*=1.05)	*q*= 1.30	*p*=.080
Sweepstakes (*M*=1.50) vs.	Credit Card (*M*=0.07)	*q*= 1.43	*p*=.068
Travel (*M*=1.77) vs.	Credit Card (*M*=0.07)	*q*= 1.70	*p*=.038
Social Proof			
Investment (*M*=1.85) vs.	Coins (*M*=0.50)	*q*= 1.35	*p*=.000
Investment (*M*=1.85) vs.	Credit Card (*M*=0.40)	*q*= 1.45	*p*=.000
Investment (*M*=1.85) vs.	Sweepstakes (*M*=0.15)	*q*= 1.70	*p*=.000
Investment (*M*=1.85) vs.	Lottery (*M*=0.30)	*q*= 1.55	*p*=.000

Source Credibility			
Investment (*M*=3.40) vs.	Coins (*M*=0.70)	*q*= 2.70	*p*=.000
Investment (*M*=3.40) vs.	Recovery Room (*M*=0.30)	*q*= 3.10	*p*=.000
Investment (*M*=3.40) vs.	Credit Card (*M*=0.40)	*q*= 3.00	*p*=.000
Investment (*M*=3.40) vs.	Sweepstakes (*M*=0.45)	*q*= 2.95	*p*=.000
Investment (*M*=3.40) vs.	Lottery (*M*=0.70)	*q*= 2.70	*p*=.000
Investment (*M*=3.40) vs.	Travel (*M*=0.31)	*q*= 3.09	*p*=.000

APPENDIX 5:
Survey 1: Annotated survey

Q1: In spite of what people say, the lot of the average person is getting worse, not better. Do you…

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1. Strongly disagree	5.63%	9	2.50%	2	8.75%	7
2. Disagree	22.50%	36	15.00%	12	23.75%	19
3. Neither agree nor disagree	6.88%	11	10.00%	8	10.00%	8
4. Agree	39.38%	63	53.75%	43	32.50%	26
5. Strongly Agree	18.75%	30	15.00%	12	15.00%	12
6. No answer	6.88%	11	3.75%	3	10.00%	8
Mean (no answer excluded)	3.46		3.66		3.23	
Standard Dev. (no answer excluded)	1.23		1.01		1.28	

ANOVA: F (2, 295)= 2.391, p=.093
Tukey-Kramer Post Hoc Analysis: Lottery vs. Investment: q=0.43, p=.074

Q2. Nowadays, a person has to live pretty much for today and let tomorrow take care of itself. Do you…

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1. Strongly disagree	24.38%	39	11.25%	9	22.50%	18
2. Disagree	39.38%	63	27.50%	22	42.50%	34
3. Neither agree nor disagree	5.00%	8	10.00%	8	1.25%	1
4. Agree	21.88%	35	40.00%	32	20.00%	16
5. Strongly Agree	5.63%	9	11.25%	9	7.50%	6
6. No answer	3.75%	6	0.00%	0	6.25%	5
Mean (no answer excluded)	2.43		3.13		2.44	
Standard Dev. (no answer excluded)	1.25		1.26		1.29	

ANOVA: F (2, 306)=8.940, p=.000
Tukey-Kramer Post Hoc Analysis: Gen. Pop vs. Lottery: q=0.70, p=.000
Tukey-Kramer Post Hoc Analysis: Lottery vs. Investment: q=0.69, p=.002

Q3. Looking over your life as a whole, would you say that in general you have gotten…

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1. Much less than you deserve	2.50%	4	11.25%	9	2.50%	2
2. Less than you deserve	12.50%	20	20.00%	16	5.00%	4
3. What you deserve	42.50%	68	38.75%	31	52.50%	42
4. More than you deserve	25.00%	40	20.00%	16	27.50%	22
5. Much more than you deserve	8.75%	14	2.50%	2	7.50%	6
8. Can't choose	5.63%	9	5.00%	4	3.75%	3
9. No answer	3.13%	5	2.50%	2	1.25%	1
Mean (can't choose & no answer excluded)	3.27		2.81		3.34	
Standard Dev. (can't choose & no answer excluded)	0.91		1.00		0.81	

ANOVA: F(2,293)=8.042, p=.000
Tukey-Kramer Post Hoc Analysis: Gen. Pop vs. Lottery: q=0.46, p=.001
Tukey-Kramer Post Hoc Analysis: Lottery vs. Investment: q=0.53, p=.001

Q4. Suppose someone just gave you $20 (and you didn't need to spend it on anything in particular), what would you do with it?

	RDD n= 160		Lottery n= 80		Investment n= 80	
1. Spend all of it	25.00%	40	23.75%	19	25.00%	20
2. Spend most (75%) of it	4.38%	7	5.00%	4	1.25%	1
3. Spend half and save half	13.75%	22	16.25%	13	15.00%	12
4. Save most (75%) of it	10.00%	16	6.25%	5	13.75%	11
5. Save all of it	42.50%	68	40.00%	32	37.50%	30
6. No answer	4.38%	7	8.75%	7	7.50%	6
Mean (no answer excluded)	3.42		3.37		3.41	
Standard Dev (no answer excluded)	1.68		1.68		1.65	

ANOVA: F(2,297)=.027, p= .974

Q5. Suppose someone just gave you $2000 (and you didn't need to spend it on anything in particular), what would you do with it?

	RDD n= 160		Lottery n= 80		Investment n= 80	
1. Spend all of it	8.75%	14	8.75%	7	8.75%	7
2. Spend most (75%) of it	2.50%	4	5.00%	4	3.75%	3
3. Spend half and save half	20.00%	32	22.50%	18	20.00%	16
4. Save most (75%) of it	25.00%	40	10.00%	8	16.25%	13
5. Save all of it	40.00%	64	47.50%	38	48.75%	39
6. No answer	3.75%	60	6.25%	5	2.50%	2
Mean (no answer excluded)	3.88		3.88		3.95	
Standard Dev (no answer excluded)	1.24		1.35		1.30	

ANOVA: $F(2,304)=.079$, $p=.924$

Q6-31: Now we want to look at some of the things that may or may not have happened to you in the last three years. I am going to read a list of life events. For each event, please tell me how much difficulty that event caused you in the last three years. Please use a number between 1 and 7, with 1 meaning "no difficulty at all" and 7 meaning "a lot of difficulty in your life." Use any number from 1 to 7 and if it does not apply to you, please tell me that too. Again, we want you to consider only the last three years of your life in answering these questions.

Q6. Income decreased

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1- No difficulty	33.13%	53	33.75%	27	42.50%	34
2	5.63%	9	2.50%	2	2.50%	2
3	5.63%	9	3.75%	3	10.00%	8
4	3.13%	5	6.25%	5	8.75%	7
5	2.50%	4	7.50%	6	5.00%	4
6	3.13%	5	11.25%	9	3.75%	3
7- A lot of difficulty	13.13%	21	16.25%	13	5.00%	4
9- No answer	0.63%	1	2.50%	2	0.00%	0
0- Does not apply	33.13%	53	16.25%	13	22.50%	18
Mean (only 2-7)	4.94		5.47		4.36	
Standard Dev (only 2-7)	2.01		1.54		1.54	

$F(2,116)=3.229$, $p=.043$

Tukey-Kramer Post Hoc Analysis: Lottery vs. Investment: $q=1.12$, $p=.033$

Q6. Income decreased χ^2 Analysis

	Gen. Pop.	Lottery	Investment
No	106 (68.36%)	40 (51.28%)	52 (65.00%)
Yes	48 (31.17%)	38 (48.72%)	28 (35.00%)

χ^2 Analysis: Gen. Pop. vs. Lottery: $\chi^2(1, N=232) = 6.8354$, $p<.01$

χ^2 Analysis: Investment vs. Lottery: $\chi^2(1, N=158)$ 3.0554, $p<.10$

χ^2 Analysis: Gen. Pop. vs. All Victims: $\chi^2(1, N=312)$ 3.781, $p<.10$

Q7. Foreclosure on mortgage or loan

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1- No difficulty	42.50%	68	46.25%	37	47.50%	38
2	0.00%	0	1.25%	1	2.50%	2
3	0.00%	0	0.00%	0	0.00%	0
4	0.00%	0	2.50%	2	0.00%	0
5	0.00%	0	0.00%	0	0.00%	0
6	0.00%	0	2.50%	2	1.25%	1
7- A lot of difficulty	0.63%	1	7.50%	6	1.25%	1
9- No answer	0.63%	1	3.75%	3	1.25%	1
0- Does not apply	56.25%	90	36.25%	29	46.25%	37
Mean (only 2-7)	7.00		5.82		4.25	
Standard Dev. (only 2-7)	-- (n=1)		1.72		2.63	

ANOVA: $F(2,13)=1.240$, $p=.321$

Q7. Foreclosure on mortgage or loan χ^2 Analysis

	Gen. Pop.	Lottery	Investment
No	158 (99.37%)	66 (85.71%)	75 (94.94%)
Yes	1 (0.63%)	11 (14.29%)	4 (5.06%)

χ^2 Analysis: Gen. Pop. vs. Lottery: $\chi^2(1, N=236)=20.05$, $p<.001$.
χ^2 Analysis: Investment vs. Lottery: $\chi^2(1, N=156)=3.82$, $p<.10$.
χ^2 Analysis: Gen. Pop. vs. All Victims: $\chi^2(1, N=315)=13.19$, $p<.01$.

Q8. Recent loss of employment for you or spouse

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1- No difficulty	35.63%	57	32.50%	26	38.75%	31
2	0.00%	0	2.50%	2	1.25%	1
3	0.00%	0	0.00%	0	0.00%	0
4	0.63%	1	2.50%	2	1.25%	1
5	3.13%	5	3.75%	3	2.50%	2
6	1.25%	2	0.00%	0	5.00%	4
7- A lot of difficulty	4.38%	7	8.75%	7	5.00%	4
9- No answer	0.00%	0	2.50%	2	0.00%	0
0- Does not apply	55.00%	88	47.50%	38	46.25%	37
Mean (only 2-7)	6.00		5.43		5.67	
Standard Dev. (only 2-7)	1.07		1.87		1.50	

ANOVA: $F(2,38)=0.528$, $p=.594$

Q8. Recent loss of employment for you or your spouse χ^2 Analysis

	Gen. Pop.	Lottery	Investment
No	158 (99.37%)	66 (85.71%)	75 (94.94%)
Yes	1 (0.63%)	11 (14.29%)	4 (5.06%)

χ^2 Analysis: Gen. Pop. vs. Lottery: $\chi^2(1, N=238)=3.60$, $p<.10$.
χ^2 Analysis: Gen. Pop. vs. All Victims: $\chi^2(1, N=318)=3.55$, $p<.10$.

Q9. Negative change in financial status

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1- No difficulty	38.75%	62	31.25%	25	45.00%	36
2	2.50%	4	3.75%	3	7.50%	6
3	3.13%	5	3.75%	3	5.00%	4
4	2.50%	4	6.25%	5	7.50%	6
5	3.75%	6	6.25%	5	7.50%	6
6	4.38%	7	7.50%	6	1.25%	1
7- A lot of difficulty	8.13%	13	23.75%	19	3.75%	3
9- No answer	0.63%	1	2.50%	2	0.00%	0
0- Does not apply	36.25%	58	15.00%	12	22.50%	18
Mean (only 2-7)	5.18		5.59		4.04	
Standard Dev. (only 2-7)	1.76		1.67		1.61	

ANOVA: F(2,103)=6.817, p=.002
Tukey-Kramer Post Hoc Analysis: Gen. Pop. vs. Investment: q=1.14, p=.024
Tukey-Kramer Post Hoc Analysis: Lottery vs. Investment: q=1.55, p=.001

Q9. Negative change in financial status χ^2 Analysis

	Gen. Pop.	Lottery	Investment
No	120 (75.47%)	37 (47.44%)	54 (67.50%)
Yes	39 (24.53%)	41 (52.56%)	26 (32.50%)

χ^2 Analysis: Gen. Pop. vs. Lottery: $\chi^2(1, N=237) = 18.39, p < .001$.
χ^2 Analysis: Investment vs. Lottery: $\chi^2(1, N=158) = 6.51, p < .025$.
χ^2 Analysis: Gen. Pop. vs. All Victims: $\chi^2(1, N=317) = 11.38, p < .001$.

Q10. Concerns about owing money

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1- No difficulty	34.38%	55	21.25%	17	43.75%	35
2	3.75%	6	8.75%	7	6.25%	5
3	5.63%	9	7.50%	6	7.50%	6
4	6.25%	10	6.25%	5	3.75%	3
5	5.63%	9	8.75%	7	1.25%	1
6	4.38%	7	5.00%	4	6.25%	5
7- A lot of difficulty	8.13%	13	23.75%	19	7.50%	6
9- No answer	0.00%	0	2.50%	2	2.50%	2
0- Does not apply	31.88%	51	16.25%	13	21.25%	17
Mean (only 2-7)	4.76		5.08		4.50	
Standard Dev. (only 2-7)	1.71		1.91		1.94	

ANOVA: F(2,125)=0.915, p=.403

Q10. Concerns about owing money χ^2 Analysis

	Gen. Pop.	Lottery	Investment
No	106 (66.25%)	30 (38.46%)	52 (66.67%)
Yes	54 (33.75%)	48 (61.54%)	26 (33.33%)

χ^2 Analysis: Gen. Pop. vs. Lottery: $\chi^2(1, N=238) = 16.53, p < .001$.
χ^2 Analysis: Investment vs. Lottery: $\chi^2(1, N=156) = 12.44, p < .001$.
χ^2 Analysis: Gen. Pop. vs. All Victims: $\chi^2(1, N=316) = 6.14, p < .01$.

Q11. Concerns about money for emergencies

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1- No difficulty	31.88%	51	25.00%	20	45.00%	36
2	6.25%	10	5.00%	4	13.75%	11
3	8.13%	13	11.25%	9	5.00%	4
4	5.63%	9	5.00%	4	3.75%	3
5	7.50%	12	6.25%	5	8.75%	7
6	2.50%	4	5.00%	4	0.00%	0
7- A lot of difficulty	11.25%	18	27.50%	22	8.75%	7
9- No answer	1.25%	2	1.25%	1	0.00%	0
0- Does not apply	25.63%	41	13.75%	11	15.00%	12
Mean (only 2-7)	4.62		5.29		4.06	
Standard Dev. (only 2-7)	1.83		1.87		1.95	

ANOVA: F(2,143)=4.319, p=.015

Tukey-Kramer Post Hoc: Lottery vs. Investment: q=1.23, p=.011

Q11. χ^2 Analysis

	Gen. Pop.	Lottery	Investment
No	92 (58.23%)	31 (39.24%)	48 (60.00%)
Yes	66 (41.77%)	48 (60.76%)	32 (40.00%)

χ^2 Analysis: Gen. Pop. vs. Lottery: $\chi^2(1, N=237)=7.61, p<.01$.

χ^2 Analysis: Investment vs. Lottery: $\chi^2(1, N=159)=6.85, p<.01$.

Q12. Problems with the upkeep of your home

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1- No difficulty	42.50%	68	41.25%	33	50.00%	40
2	6.88%	11	5.00%	4	7.50%	6
3	6.88%	11	3.75%	3	7.50%	6
4	4.38%	7	11.25%	9	6.25%	5
5	3.75%	6	8.75%	7	7.50%	6
6	0.63%	1	3.75%	3	1.25%	1
7- A lot of difficulty	6.88%	11	7.50%	6	5.00%	4
9- No answer	0.63%	1	1.25%	1	1.25%	1
0- Does not apply	27.50%	44	17.50%	14	13.75%	11
Mean (only 2-7)	4.17		4.63		4.07	
Standard Dev. (only 2-7)	1.88		1.60		1.68	

ANOVA: F(2,104)= 0.915, p=.404

Q12. Problems with the upkeep of your home χ^2 Analysis

	Gen. Pop.	Lottery	Investment
No	112 (70.44%)	47 (59.49%)	51 (64.56%)
Yes	47 (29.56%)	32 (40.51%)	28 (35.44%)

χ^2 Analysis: Gen. Pop. vs. Lottery: $\chi^2(1, N=238)=2.85, p<.10$.

Q13. Concerned about money for basic necessities

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1- No difficulty	45.00%	72	35.00%	28	61.25%	49
2	8.13%	13	6.25%	5	3.75%	3
3	6.88%	11	2.50%	2	6.25%	5
4	1.88%	3	5.00%	4	7.50%	6
5	6.88%	11	8.75%	7	3.75%	3
6	2.50%	4	8.75%	7	0.00%	0
7- A lot of difficulty	6.25%	10	18.75%	15	2.50%	2
9- No answer	0.00%	0	2.50%	2	0.00%	0
0- Does not apply	22.50%	36	12.50%	10	15.00%	12
Mean (only 2-7)	4.23		5.35		3.89	
Standard Dev. (only 2-7)	1.86		1.75		1.45	

ANOVA: F(2,108)=6.300, p=.003
Tukey-Kramer Post Hoc Analysis: Gen. Pop. vs. Lottery: q=1.12, p=.009
Tukey-Kramer Post Hoc Analysis: Lottery vs. Investment: q=1.46, p=.010

Q13. Concerned about money for basic necessities χ^2 Analysis

	Gen. Pop.	Lottery	Investment
No	108 (67.50%)	38 (48.72%)	61 (76.25%)
Yes	52 (32.50%)	40 (51.28%)	19 (23.75%)

χ^2 Analysis: Gen. Pop. vs. Lottery: $\chi^2(1, N=238) = 7.80, p < .01$.
χ^2 Analysis: Investment vs. Lottery: $\chi^2(1, N=158) = 12.79, p < .001$.

Q14. A recent change in your living arrangements

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1- No difficulty	38.75%	62	46.25%	37	53.75%	43
2	3.13%	5	2.50%	2	0.00%	0
3	3.13%	5	0.00%	0	5.00%	4
4	2.50%	4	2.50%	2	1.25%	1
5	1.88%	3	2.50%	2	0.00%	0
6	2.50%	4	5.00%	4	1.25%	1
7- A lot of difficulty	6.25%	10	10.00%	8	6.25%	5
9- No answer	0.63%	1	3.75%	3	1.25%	1
0- Does not apply	41.25%	66	27.50%	22	31.25%	25
Mean (only 2-7)	4.84		5.67		5.18	
Standard Dev. (only 2-7)	1.93		1.68		1.94	

ANOVA: F(2, 57)= 1.127, p=.331

Q14. A recent change in your living arrangements χ^2 Analysis

	Gen. Pop.	Lottery	Investment
No	128 (80.50%)	59 (76.62%)	68 (86.08%)
Yes	31 (19.50%)	18 (23.38%)	11 (13.92%)

No significant differences found between any groups.

Q15. Recently moved or changed residences

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1- No difficulty	38.75%	62	47.50%	38	51.25%	41
2	1.25%	2	0.00%	0	0.00%	0
3	1.25%	2	0.00%	0	0.00%	0
4	0.00%	0	1.25%	1	0.00%	0
5	2.50%	4	1.25%	1	0.00%	0
6	0.00%	0	2.50%	2	2.50%	2
7- A lot of difficulty	5.63%	9	5.00%	4	1.25%	1
9- No answer	1.25%	2	1.25%	1	1.25%	1
0- Does not apply	49.38%	79	41.25%	33	43.75%	35
Mean (only 2-7)	5.47		6.13		6.33	
Standard Dev. (only 2-7)	1.91		1.13		0.58	

ANOVA: F(2,25)= 0.641, p=.535

Q15. Recently moved or changed residences χ^2 Analysis

	Gen. Pop.	Lottery	Investment
No	141 (89.24%)	71 (89.87%)	76 (96.20%)
Yes	17 (10.76%)	8 (10.13%)	3 (3.80%)

χ^2 Analysis: Gen. Pop. vs. Investment: $\chi^2 (1, N=237) = 3.30, p<.05$.

Q16. Recent retirement of you or your spouse

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1- No difficulty	32.50%	52	43.75%	35	45.00%	36
2	2.50%	4	0.00%	0	0.00%	0
3	1.25%	2	0.00%	0	2.50%	2
4	3.13%	5	1.25%	1	0.00%	0
5	0.63%	1	2.50%	2	1.25%	1
6	1.25%	2	1.25%	1	1.25%	1
7- A lot of difficulty	1.88%	3	3.75%	3	0.00%	0
9- No answer	0.63%	1	3.75%	3	1.25%	1
0- Does not apply	56.25%	90	43.75%	35	48.75%	39
Mean (only 2-7)	4.24		5.86		4.25	
Standard Dev. (only 2-7)	1.82		1.22		1.50	

ANOVA: F(2,25)=2.505, p=.102

Q16. Recent retirement of you or your spouse χ^2 Analysis

	Gen. Pop.	Lottery	Investment
No	142 (89.31%)	70 (90.91%)	75 (94.94%)
Yes	17 (10.69%)	7 (9.09%)	4 (5.06%)

No significant differences found between any groups.

Q17. Change in social activities for the worse

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1- No difficulty	37.50%	60	43.75%	35	42.50%	34
2	4.38%	7	3.75%	3	7.50%	6
3	2.50%	4	1.25%	1	10.00%	8
4	3.13%	5	7.50%	6	2.50%	2
5	8.75%	14	2.50%	2	3.75%	3
6	2.50%	4	2.50%	2	1.25%	1
7- A lot of difficulty	5.00%	8	17.50%	14	7.50%	6
9- No answer	1.25%	2	2.50%	2	1.25%	1
0- Does not apply	35.00%	56	18.75%	15	23.75%	19
Mean (only 2-7)	4.67		5.46		4.12	
Standard Dev. (only 2-7)	1.68		1.82		1.93	

ANOVA: F(2,93)=3.922, p=.023

Tukey-Kramer Post Hoc Analysis: Lottery vs. Investment: q=1.35, p=.018

Q17. Change in social activities for the worse χ^2 Analysis

	Gen. Pop.	Lottery	Investment
No	116 (73.42%)	50 (64.10%)	53 (67.09%)
Yes	42 (26.58%)	28 (35.90%)	26 (32.91%)

No significant differences found between any groups.

Q18. Change in your daily routine

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1- No difficulty	36.25%	58	41.25%	33	50.00%	40
2	9.38%	15	2.50%	2	5.00%	4
3	4.38%	7	3.75%	3	7.50%	6
4	3.13%	5	10.00%	8	2.50%	2
5	8.13%	13	10.00%	8	6.25%	5
6	1.25%	2	1.25%	1	2.50%	2
7- A lot of difficulty	5.63%	9	12.50%	10	3.75%	3
9- No answer	1.88%	3	2.50%	2	1.25%	1
0- Does not apply	30.00%	48	16.25%	13	21.25%	17
Mean (only 2-7)	4.14		5.03		4.18	
Standard Dev. (only 2-7)	1.83		1.60		1.71	

ANOVA: F(2, 102)=2.859, p=.062

Tukey-Kramer Post Hoc Analysis: General Pop. vs. Lottery: q=0.89, p=.063

Q18. Change in your daily routine χ^2 Analysis

	Gen. Pop.	Lottery	Investment
No	106 (67.52%)	46 (58.97%)	57 (72.15%)
Yes	51 (32.48%)	32 (41.03%)	22 (27.85%)

χ^2 Analysis: Investment vs. Lottery: $\chi^2(1, N=157)=3.02$, $p<.10$.

Q19. Problems with transportation or traffic

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1- No difficulty	46.88%	75	43.75%	35	43.75%	35
2	8.13%	13	5.00%	4	8.75%	7
3	4.38%	7	3.75%	3	6.25%	5
4	3.75%	6	5.00%	4	7.50%	6
5	3.75%	6	8.75%	7	3.75%	3
6	2.50%	4	3.75%	3	6.25%	5
7- A lot of difficulty	2.50%	4	13.75%	11	2.50%	2
9- No answer	0.63%	1	2.50%	2	0.00%	0
0- Does not apply	27.50%	44	13.75%	11	21.25%	17
Mean (only 2-7)	3.83		5.09		4.00	
Standard Dev. (only 2-7)	1.72		1.78		1.66	

ANOVA: F(2,97)=5.324, p=.006
Tukey-Kramer Post Hoc Analysis: Gen Pop. vs. Lottery: q=1.27, p=.007
Tukey-Kramer Post Hoc Analysis: Lottery vs. Investment: q=1.09, p=.042

Q19. Problems with transportation or traffic χ^2 Analysis

	Gen. Pop.	Lottery	Investment
No	119 (74.84%)	46 (58.97%)	52 (65.00%)
Yes	40 (25.16%)	32 (41.03%)	28 (35.00%)

χ^2 Analysis: Gen. Pop. vs. Lottery: $\chi^2(1, N=237) = 6.23, p < .025$.
χ^2 Analysis: Gen. Pop. vs. All Victims: $\chi^2(1, N=317) = 6.03, p < .025$.

Q20. Problem with troublesome neighbors or co-workers

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1- No difficulty	48.13%	77	51.25%	41	51.25%	41
2	2.50%	4	8.75%	7	3.75%	3
3	3.75%	6	7.50%	6	7.50%	6
4	2.50%	4	1.25%	1	2.50%	2
5	3.13%	5	2.50%	2	3.75%	3
6	2.50%	4	0.00%	0	2.50%	2
7- A lot of difficulty	1.25%	2	3.75%	3	2.50%	2
9- No answer	0.63%	1	2.50%	2	1.25%	1
0- Does not apply	35.63%	57	22.50%	18	25.00%	20
Mean (only 2-7)	4.20		3.53		4.06	
Standard Dev. (only 2-7)	1.58		1.81		1.66	

ANOVA: F(2,59)=0.921, p=.404

Q20. Problems with troublesome neighbors or co-workers χ^2 Analysis

	Gen. Pop.	Lottery	Investment
No	134 (84.28%)	59 (75.64%)	61 (77.22%)
Yes	25 (15.72%)	19 (24.36%)	18 (22.78%)

χ^2 Analysis: Gen. Pop. vs. All Victims: $\chi^2(1, N=316) = 3.08, p < .10$.

Q21. Concerned about being lonely

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1- No difficulty	50.63%	81	41.25%	33	47.50%	38
2	3.75%	6	2.50%	2	3.75%	3
3	1.88%	3	5.00%	4	7.50%	6
4	3.75%	6	8.75%	7	5.00%	4
5	4.38%	7	5.00%	4	6.25%	5
6	1.25%	2	2.50%	2	1.25%	1
7- A lot of difficulty	3.13%	5	12.50%	10	3.75%	3
9- No answer	0.63%	1	2.50%	2	1.25%	1
0- Does not apply	30.63%	49	20.00%	16	23.75%	19
Mean (only 2-7)	4.38		4.03		4.18	
Standard Dev. (only 2-7)	1.72		1.72		1.59	

ANOVA: F(2,77)=1.867, p=.162

Q21. Concerned about being lonely χ^2 Analysis

	Gen. Pop.	Lottery	Investment
No	130 (81.76%)	49 (62.82%)	57 (72.15%)
Yes	29 (18.24%)	29 (37.18%)	22 (27.85%

χ^2 Analysis: Gen. Pop. vs. Lottery: $\chi^2(1, N=237) = 10.16, p<.01$.
χ^2 Analysis: Gen. Pop. vs. Investment: $\chi^2(1, N=238) = 2.89, p<.10$.
χ^2 Analysis: Gen. Pop. vs. All Victims: $\chi^2(1, N=316) = 8.48, p<.01$.

Q22. Legal problems

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1- No difficulty	49.38%	79	46.25%	37	53.75%	43
2	1.88%	3	3.75%	3	3.75%	3
3	3.75%	6	3.75%	3	1.25%	1
4	0.63%	1	0.00%	0	3.75%	3
5	1.25%	2	7.50%	6	2.50%	2
6	0.00%	0	2.50%	2	1.25%	1
7- A lot of difficulty	1.88%	3	6.25%	5	5.00%	4
9- No answer	0.63%	1	2.50%	2	1.25%	1
0- Does not apply	40.63%	65	27.50%	22	27.50%	22
Mean (only 2-7)	3.93		4.84		4.64	
Standard Dev. (only 2-7)	1.83		1.83		1.95	

ANOVA: F(2,45)=1.052, p=.358

Q22. Legal Problems χ^2 Analysis

	Gen. Pop.	Lottery	Investment
No	144 (90.57%)	59 (75.64%)	65 (82.28%)
Yes	15 (9.43%)	19 (24.36%)	14 (17.72%)

χ^2 Analysis: Gen. Pop. vs. Lottery: $\chi^2(1, N=237) = 9.49, p<.01$.
χ^2 Analysis: Gen. Pop. vs. Investment: $\chi^2(1, N=238) = 3.39, p<.10$.
χ^2 Analysis: Gen. Pop. vs. All Victims: $\chi^2(1, N=316) = 8.23, p<.01$.

Q23. Minor violations of the law

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1- No difficulty	48.75%	78	58.75%	47	53.75%	43
2	1.25%	2	1.25%	1	5.00%	4
3	0.63%	1	2.50%	2	0.00%	0
4	1.88%	3	0.00%	0	0.00%	0
5	0.00%	0	2.50%	2	0.00%	0
6	0.00%	0	0.00%	0	0.00%	0
7- A lot of difficulty	0.00%	0	1.25%	1	0.00%	0
9- No answer	0.63%	1	2.50%	2	1.25%	1
0- Does not apply	46.88%	75	31.25%	25	40.00%	32
Mean (only 2-7)	3.17		4.17		2.00	
Standard Dev. (only 2-7)	0.98		1.83		0.00	

ANOVA: F(2,13)=3.40, p=.065

Tukey-Kramer Post Hoc Analysis: Lottery vs. Investment: q=2.17, p=.054

Q23. Minor violations of the law χ^2 Analysis

	Gen. Pop.	Lottery	Investment
No	153 (96.23%)	72 (92.31%)	75 (94.94%)
Yes	6 (3.77%)	6 (7.69%)	4 (5.06%)

No significant differences found between any groups.

Q24. Death of a spouse or partner

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1- No difficulty	36.25%	58	32.50%	26	42.50%	34
2	0.63%	1	1.25%	1	3.75%	3
3	0.63%	1	3.75%	3	0.00%	0
4	0.63%	1	0.00%	0	1.25%	1
5	0.63%	1	1.25%	1	1.25%	1
6	0.00%	0	3.75%	3	0.00%	0
7- A lot of difficulty	5.63%	8	17.50%	14	5.00%	4
9- No answer	0.63%	1	1.25%	1	0.00%	0
0- Does not apply	55.00%	88	38.75%	31	46.25%	37
Mean (only 2-7)	5.92		6.00		4.78	
Standard Dev. (only 2-7)	1.80		1.66		2.33	

ANOVA: F(2,41)=1.493, p=.236

Q24. Death of a spouse or partner χ^2 Analysis

	Gen. Pop.	Lottery	Investment
No	146 (92.41%)	57 (72.15%)	71 (88.75%)
Yes	12 (7.59%)	22 (27.85%)	9 (11.25%)

χ^2 Analysis: Gen. Pop. vs. Lottery: $\chi^2(1, N=237) = 17.58$, $p<.001$.

χ^2 Analysis: Investment vs. Lottery: $\chi^2(1, N=159) = 6.98$, $p<.01$.

χ^2 Analysis: Gen. Pop. vs. All Victims: $\chi^2(1, N=317) = 9.58$, $p<.01$.

Q25. Death of a close friend or family member

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1- No difficulty	24.38%	39	27.50%	22	28.75%	23
2	5.00%	8	1.25%	1	6.25%	5
3	6.88%	11	3.75%	3	2.50%	2
4	6.25%	10	3.75%	3	7.50%	6
5	8.13%	13	10.00%	8	13.75%	11
6	6.25%	10	2.50%	2	8.75%	7
7- A lot of difficulty	20.00%	32	27.50%	22	7.50%	6
9- No answer	0.63%	1	1.25%	1	1.25%	1
0- Does not apply	22.50%	36	22.50%	18	23.75%	19
Mean (only 2-7)	5.21		5.87		4.84	
Standard Dev. (only 2-7)	1.77		1.49		1.57	

ANOVA: F(2,157)=3.847, p=.023

Tukey-Kramer Post Hoc Analysis: Lottery vs. Investment: q=1.03, p=.018

Q25. Death of a close friend or family member χ^2 Analysis

	Gen. Pop.	Lottery	Investment
No	75 (47.17%)	40 (50.63%)	42 (53.16%)
Yes	84 (54.83%)	39 (49.37%)	37 (46.84%)

No significant differences found between any groups.

Q26. Had a serious injury or illness yourself

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1- No difficulty	33.75%	54	23.75%	19	30.00%	24
2	1.25%	2	5.00%	4	2.50%	2
3	4.38%	7	8.75%	7	5.00%	4
4	5.00%	8	3.75%	3	5.00%	4
5	7.50%	12	8.75%	7	12.50%	10
6	5.63%	9	3.75%	3	12.50%	10
7- A lot of difficulty	11.25%	18	27.50%	22	8.75%	7
9- No answer	0.63%	1	0.00%	0	0.00%	0
0- Does not apply	30.63%	49	18.75%	15	23.75%	19
Mean (only 2-7)	5.30		5.39		5.16	
Standard Dev. (only 2-7)	1.54		1.83		1.44	

ANOVA: F(2,13)=0.207, p=.813

Q26. Had a serious injury or illness yourself χ^2 Analysis

	Gen. Pop.	Lottery	Investment
No	103 (64.78%)	34 (42.50%)	43 (57.75%)
Yes	56 (35.22%)	46 (57.50%)	37 (46.35%)

χ^2 Analysis: Gen. Pop. vs. Lottery: $\chi^2(1, N=239)=10.80, p<.01$.

χ^2 Analysis: Gen. Pop. vs. Investment: $\chi^2(1, N=239)=2.72, p<.10$.

χ^2 Analysis: Gen. Pop. vs. All Victims: $\chi^2(1, N=319)=9.00, p<.01$.

Q27. Developed a condition that limits your physical activity

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1- No difficulty	26.25%	42	25.00%	20	23.75%	19
2	3.13%	5	5.00%	4	6.25%	5
3	9.38%	15	2.50%	2	8.75%	7
4	5.63%	9	10.00%	8	11.25%	9
5	6.25%	10	5.00%	4	10.00%	8
6	5.00%	8	6.25%	5	10.00%	8
7- A lot of difficulty	11.88%	19	26.25%	21	10.00%	8
9- No answer	0.63%	1	1.25%	1	2.50%	2
0- Does not apply	31.88%	51	18.75%	15	17.50%	14
Mean (only 2-7)	4.88		5.52		4.69	
Standard Dev. (only 2-7)	1.74		1.73		1.64	

ANOVA: F(2,152)=2.971, p=.054

Tukey-Kramer Post Hoc Analysis: Lottery vs. Investment: q=0.83, p=.056

Q27. Developed a condition that limits your physical activity χ^2 Analysis

	Gen. Pop.	Lottery	Investment
No	93 (58.49%)	35 (44.30%)	33 (42.31%)
Yes	66 (41.51%)	44 (55.70%)	45 (57.69%)

χ^2 Analysis: Gen. Pop. vs. Lottery: $\chi^2(1, N=238) = 4.27, p<.05$.

χ^2 Analysis: Gen. Pop vs. Investment: $\chi^2(1, N=237) = 5.50, p<.05$.

χ^2 Analysis: Gen. Pop. vs. All Victims: $\chi^2(1, N=316) = 7.28, p<.01$.

Q28. Had a serious injury or illness in the family

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1- No difficulty	31.88%	51	37.50%	30	27.50%	22
2	1.25%	2	5.00%	4	3.75%	3
3	5.00%	8	1.25%	1	6.25%	5
4	3.13%	5	5.00%	4	2.50%	2
5	8.13%	13	5.00%	4	6.25%	5
6	4.38%	7	1.25%	1	11.25%	9
7- A lot of difficulty	8.75%	14	22.50%	18	13.75%	11
9- No answer	0.00%	0	2.50%	2	0.00%	0
0- Does not apply	37.50%	60	20.00%	16	28.75%	23
Mean (only 2-7)	5.16		5.59		5.29	
Standard Dev. (only 2-7)	1.56		1.85		1.71	

ANOVA: F(2,113)=0.640, p=.529

Q28. Had a serious injury or illness in the family χ^2 Analysis

	Gen. Pop.	Lottery	Investment
No	111 (69.38%)	46 (58.97%)	45 (56.25%)
Yes	49 (30.63%)	32 (41.03%)	35 (43.75%)

χ^2 Analysis: Gen. Pop vs. Investment: $\chi^2(1, N=240) = 4.04, p<.05$.

χ^2 Analysis: Gen. Pop. vs. All Victims: $\chi^2(1, N=318) = 4.76, p<.05$.

Q29. Divorce or marital separation in the family

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1- No difficulty	36.88%	59	50.00%	40	47.50%	38
2	3.13%	5	1.25%	1	2.50%	2
3	0.63%	1	0.00%	0	0.00%	0
4	0.63%	1	0.00%	0	1.25%	1
5	0.63%	1	1.25%	1	1.25%	1
6	0.63%	1	1.25%	1	2.50%	2
7- A lot of difficulty	2.50%	4	2.50%	2	1.25%	1
9- No answer	0.63%	1	3.75%	3	1.25%	1
0- Does not apply	54.38%	87	40.00%	32	42.50%	34
Mean (only 2-7)	4.31		5.40		4.57	
Standard Dev. (only 2-7)	2.25		2.07		1.99	

ANOVA: $F(2,22)=0.467$, $p=.633$

Q29. Divorce or marital separation in the family χ^2 Analysis

	Gen. Pop.	Lottery	Investment
No	146 (91.82%)	72 (93.51%)	72 (91.14%)
Yes	13 (8.18%)	5 (6.49%)	7 (8.86%)

No significant differences found between any groups.

Q30. Difficulties in relationship with a spouse or loved one

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1- No difficulty	37.50%	60	51.25%	41	45.00%	36
2	6.25%	10	0.00%	0	8.75%	7
3	0.63%	1	1.25%	1	3.75%	3
4	2.50%	4	2.50%	2	1.25%	1
5	2.50%	4	1.25%	1	2.50%	2
6	1.88%	3	3.75%	3	0.00%	0
7- A lot of difficulty	4.38%	7	3.75%	3	1.25%	1
9- No answer	0.63%	1	3.75%	3	1.25%	1
0- Does not apply	43.75%	70	32.50%	26	36.25%	29
Mean (only 2-7)	4.34		5.50		3.14	
Standard Dev. (only 2-7)	2.04		1.43		1.56	

ANOVA: $F(2,50)=4.95$, $p=.011$

Tukey-Kramer Post Hoc Analysis: Lottery vs. Investment: $q=2.36$, $p=.008$

Q30. Difficulties in relationship with a spouse or a loved one χ^2 Analysis

	Gen. Pop.	Lottery	Investment
No	130 (81.76%)	67 (87.01%)	65 (82.28%)
Yes	29 (18.24%)	10 (12.99%)	14 (17.72%)

No significant differences found between any groups.

Q31. Problems with children or grandchildren

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1- No difficulty	42.50%	68	47.50%	38	43.75%	35
2	4.38%	7	10.00%	8	11.25%	9
3	2.50%	4	1.25%	1	3.75%	3
4	4.38%	7	6.25%	5	5.00%	4
5	4.38%	7	2.50%	2	3.75%	3
6	1.88%	3	1.25%	1	2.50%	2
7- A lot of difficulty	4.38%	7	1.25%	1	1.25%	1
9- No answer	0.63%	1	3.75%	3	1.25%	1
0- Does not apply	35.00%	56	26.25%	21	27.50%	22
Mean (only 2-7)	4.46		3.44		3.50	
Standard Dev. (only 2-7)	1.77		1.58		1.60	

ANOVA: F(2,72)=3.204, p=.046
Tukey-Kramer Post Hoc Analysis: Gen. Pop. vs. Investment: q=0.96, p=.098

Q31. χ^2 Analysis

	Gen. Pop.	Lottery	Investment
No	124 (77.99%)	59 (76.62%)	57 (72.15%)
Yes	35 (22.01%)	18 (23.38%)	57 (27.85%)

No significant differences found between any groups.

Q32.1-Q32.5 How concerned are you about having enough money to pay for…?

Q32.1 Health care expenses including prescription drugs

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1. Concerned	31.88%	51	30.00%	24	31.25%	25
2. Somewhat concerned	16.88%	27	15.00%	12	17.50%	14
3. Not too concerned	13.75%	22	30.00%	24	18.75%	15
4. Not at all concerned	37.50%	60	22.50%	18	32.50%	26
5. No Answer	0.00%	0	2.50%	2	0.00%	0
Mean (no answer excluded)	2.57		2.46		2.53	
Standard Dev. (no answer excluded)	1.28		1.16		1.24	

ANOVA: F(2,315)=0.197, p=.822

Q32.2 An emergency expense

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1. Concerned	27.50%	44	32.50%	26	15.00%	12
2. Somewhat concerned	25.63%	41	25.00%	20	25.00%	20
3. Not too concerned	15.63%	25	23.75%	19	21.25%	17
4. Not at all concerned	30.00%	48	18.75%	15	36.25%	29
5. No Answer	1.25%	2	0.00%	0	2.50%	2
Mean (no answer excluded)	2.49		2.29		2.81	
Standard Dev. (no answer excluded)	1.19		1.12		1.11	

ANOVA: F(2,313)=4.117, p=.017
Tukey-Kramer Post Hoc Analysis: Lottery vs. Investment: q=0.52, p=.013

Q32.3 Someone to take care of you as you age

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1. Concerned	24.38%	39	27.50%	22	26.25%	21
2. Somewhat concerned	21.25%	34	16.25%	13	22.50%	18
3. Not too concerned	17.50%	28	31.25%	25	15.00%	12
4. Not at all concerned	36.25%	58	22.50%	18	36.25%	29
5. No Answer	0.63%	1	1.25%	2	0.00%	0
Mean (no answer excluded)	2.66		2.50		2.61	
Standard Dev. (no answer excluded)	1.21		1.14		1.23	

ANOVA: F(2,314)=0.472, p=.624

Q32.4 Monthly costs such as electricity, utilities, heating and cooling, telephone, grocery bills and food

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1. Concerned	26.88%	43	32.50%	26	22.50%	18
2. Somewhat concerned	18.13%	29	16.25%	13	23.75%	19
3. Not too concerned	18.75%	30	27.50%	22	20.00%	16
4. Not at all concerned	36.25%	58	22.50%	18	33.75%	27
5. No Answer	0.00%	0	1.25%	1	0.00%	0
Mean (no answer excluded)	2.64		2.41		2.65	
Standard Dev. (no answer excluded)	1.23		1.17		1.17	

ANOVA: F(2,316)=1.200, p=.303

Q32.5 Major repairs such as replacing the roof or car repairs

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1. Concerned	18.13%	29	28.75%	23	13.75%	11
2. Somewhat concerned	20.63%	33	8.75%	7	28.75%	23
3. Not too concerned	19.38%	31	23.75%	19	21.25%	17
4. Not at all concerned	38.75%	62	32.50%	26	35.00%	28
5. No Answer	3.13%	5	6.25%	5	1.25%	1
Mean (no answer excluded)	2.81		2.64		2.78	
Standard Dev. (no answer excluded)	1.16		1.25		1.08	

ANOVA: F(2,306)=0.878, p=.561

Q33. During the last 3 years has your financial situation been getting better, worse, or has it stayed the same?

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1. Better	25.63%	41	20.00%	16	20.00%	16
2. Worse	21.25%	34	33.75%	27	23.75%	19
3. About the same	53.13%	85	43.75%	35	55.00%	44
4. No answer	0.00%	0	2.50%	2	1.25%	1

No analysis done at this point.

Q34. Suppose your life remained on the same course it is now. Thinking ahead to three years from now, how do you think your income will compare to your income today? Do you think it will be…?

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1. Much lower	7.50%	12	5.00%	4	2.50%	2
2. Slightly lower	10.63%	17	18.75%	15	16.25%	13
3. About the same	44.38%	71	47.50%	38	42.50%	34
4. Slightly higher	31.88%	51	17.50%	14	22.50%	18
5. Much higher	1.88%	3	3.75%	3	13.75%	11
6. Don't know/refused	3.75%	6	7.50%	6	2.50%	2

Q34. χ^2 Analysis

	Gen. Pop.	Lottery	Investment
Change in income	83 (53.90%)	36 (48.65%)	44 (56.41%)
Income will remain the same	71 (46.10%)	38 (51.35%)	34 (43.59%)

No significant differences found between any groups.

Q35. How confident are you about your ability to understand the financial information you need to make decision about matters like loans, credit cards, and investments?

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1. Completely confident	28.13%	45	15.00%	12	31.25%	25
2. Very confident	26.25%	42	35.00%	28	33.75%	27
3. Somewhat confident	28.13%	45	30.00%	24	30.00%	24
4. Not very confident	13.75%	22	12.50%	10	2.50%	2
5. Completely unconfident	1.25%	2	1.25%	1	1.25%	1
6. No answer	2.50%	4	6.25%	5	1.25%	1
Mean (no answer excluded)	2.32		2.47		2.08	
Standard Dev. (no answer excluded)	1.08		0.96		0.92	

ANOVA: F(2,307)=2.981, p=.052

Tukey-Kramer Post Hoc Analysis: Lottery vs. Investment: q=0.39, p=.044

Q36. When making financial decisions it is best to usually rely on my own judgment because often professionals can't be trusted

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1. Strongly disagree	10.00%	16	3.75%	3	8.75%	7
2. Disagree	32.50%	52	18.75%	15	31.25%	25
3. Neither agree nor disagree	13.75%	22	25.00%	20	20.00%	16
4. Agree	30.00%	48	32.50%	26	23.75%	19
5. Strongly agree	8.75%	14	16.25%	13	15.00%	12
6. No answer	5.00%	8	3.75%	3	1.25%	1
Mean (no answer excluded)	2.95		3.40		3.05	
Standard Dev. (no answer excluded)	1.21		1.10		1.24	

ANOVA: F(2,305)=3.791, p=.024

Tukey-Kramer Post Hoc Analysis: Gen. Pop. vs. Lottery: q=0.46, p=.017

Q37. Which of the following statements best describes your use of credit cards?

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1. Typically pay the minimum each month and revolve the debt	3.75%	6	15.00%	12	1.25%	1
2. Typically pay more than the minimum each month but not the balance	24.38%	39	22.50%	18	22.50%	18
3. Usually pay off my credit card bill each month	50.63%	81	27.50%	22	68.75%	55
4. Do not have a credit card	20.63%	33	30.00%	24	6.25%	5
5. No answer	0.63%	1	5.00%	4	1.25%	1
Mean (only 1-3)	2.60		2.19		2.73	
Standard Dev. (only 1-3)	0.58		0.79		0.48	

ANOVA: F(2,249)=12.721, p=.000
Tukey-Kramer Post Hoc Analysis: Gen. Pop vs. Lottery: q=0.40, p=.000
Tukey-Kramer Post Hoc Analysis: Lottery vs. Investment: q=0.54, p=.000

Q38. Which of the following statements comes closest to describing how you save money?

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1. Don't save—usually spend more than income	6.25%	10	11.25%	9	5.00%	4
2. Don't save—usually spend as much as income	13.13%	21	15.00%	12	7.50%	6
3. Save whatever is left over at the end of the month- no regular plan	25.63%	41	28.75%	23	33.75%	27
4. Spend regular income, save other income	6.88%	11	5.00%	4	7.50%	6
5. Save regularly by putting money aside each month	46.25%	74	28.75%	23	40.0%	32
6. No answer	1.88%	3	11.25%	9	6.25%	5
Mean (no answer excluded)	3.75		3.28		3.75	
Standard Dev. (no answer excluded)	1.34		1.41		1.24	

ANOVA: F(2,300)=3.36, p=.036
Tukey-Kramer Post Hoc Analysis: Lottery vs. Gen Pop: q=0.47, p=.036
Tukey-Kramer Post Hoc Analysis: Lottery vs. Investment: q=0.47, p=.088

Q39. Please think for a minute about your personal debt on which you currently make interest payments. I am talking about debts you partially pay off each month for things like mortgages, credit cards, personal loans, or car loans. Would you say the amount of debt you currently have is…

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1. More than you can handle financially	5.00%	8	20.00%	16	3.75%	3
2. About as much as you can handle financially	33.75%	54	42.50%	34	36.25%	29
3. You could handle more debt than you currently have	27.50%	44	8.75%	7	31.25%	25
4. You do not have any personal debt	33.75%	54	23.75%	19	27.50%	22
5. Don't know/refused	0.00%	0	5.00%	4	1.25%	1
Mean (don't know excluded)	2.90		2.38		2.84	
Standard Dev. (don't know excluded)	0.93		1.08		0.88	

ANOVA: F(2,312)=7.859, p=.000
Tukey-Kramer Post Hoc Analysis: Lottery vs. Gen. Pop: q=0.52 p=.000
Tukey-Kramer Post Hoc Analysis: Lottery vs. Investment: q=0.45, p=.009

Q40. During the last year, how often have you purchased a lottery ticket of any kind from the state lottery where you live?

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1. Daily	1.25%	2	2.50%	2	1.25%	1
2. On a weekly basis	15.00%	24	8.75%	7	15.00%	12
3. On a monthly basis	11.88%	19	10.00%	8	10.00%	8
4. Only a few times during the year	16.25%	26	23.75%	19	21.25%	17
5. Only once during the year	8.75%	14	7.50%	6	10.00%	8
6. Never	46.25%	74	46.25%	37	41.25%	33
7. No answer	0.63%	1	1.25%	1	1.25%	1

No analysis done at this time.

Q41-51 People use many sources of information when they make financial decisions. Please think of the last time you made a major investment decision and the sources you used. Before you made that investment decision did you:

Q41. Talk to family members

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1. Yes	53.13%	85	58.75%	47	50.00%	40
2. No	43.13%	69	32.50%	26	46.25%	37
3. No Answer	3.75%	6	8.75%	7	3.75%	3

Q41. Talk to family members χ^2 Analysis

	Gen. Pop. n= 160	Lottery n= 80	Investment n= 80
1. Yes	85 (55.19%)	47 (64.38%)	40 (51.95%)
2. No	69 (44.81%)	26 (35.62%)	37 (48.05%)

No significant differences found between any groups.

Q42. Talk to co-workers or friends?

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1. Yes	30.63%	49	36.25%	29	23.75%	19
2. No	65.63%	105	55.00%	44	72.50%	59
3. No Answer	3.75%	6	8.75%	7	3.75%	3

Q42. Talk to co-workers or friends χ^2 Analysis

	Gen. Pop. n= 160	Lottery n= 80	Investment n= 80
1. Yes	49 (31.82%)	29 (39.73%)	19 (24.36%)
2. No	105 (68.18%)	44 (60.27%)	59 (75.64%)

χ^2 Analysis: Investment vs. Lottery: $\chi^2(1, N=151)=4.11, p<.05$.

Q43. Consult a financial planner or an accountant

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1. Yes	36.88%	59	28.75%	23	41.25%	33
2. No	59.38%	95	61.25%	49	55.00%	44
3. No Answer	3.75%	6	10.00%	8	3.75%	3

Q43. Consult a financial planner or an accountant χ^2 Analysis

	Gen. Pop. n= 160	Lottery n= 80	Investment n= 80
1. Yes	59 (38.31%)	23 (31.94%)	33 (42.86%)
2. No	95 (61.69%)	49 (68.06%)	44 (57.14%)

No significant differences found between any groups.

Q44. Consult a lawyer

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1. Yes	12.50%	20	25.00%	20	18.75%	15
2. No	83.75%	134	66.25%	53	76.25%	61
3. No Answer	3.75%	6	8.75%	7	5.00%	4

Q44. Consult a lawyer χ^2 Analysis

	Gen. Pop. n= 160	Lottery n= 80	Investment n= 80
1. Yes	20 (12.99%)	20 (27.40%)	15 (19.74%)
2. No	134 (87.01%)	53 (72.60%)	61 (80.26%)

χ^2 Analysis: Gen. Pop. vs. Lottery: $\chi^2(1, N=227)=7.08, p<.01$.
χ^2 Analysis: Gen. Pop. vs. All Victims: $\chi^2(1, N=303)=5.62, p<.025$.

Q45. Consult an insurance agent

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1. Yes	13.75%	22	27.50%	22	13.75%	11
2. No	82.50%	132	62.50%	50	81.25%	65
3. No Answer	3.75%	6	10.00%	8	5.00%	4

Q45. Consult an insurance agent χ^2 Analysis

	Gen. Pop. n= 160	Lottery n= 80	Investment n= 80
1. Yes	22 (14.29%)	22 (30.56%)	11 (14.47%)
2. No	132 (85.71%)	50 (69.44%)	65 (85.53%)

χ^2 Analysis: Gen. Pop. vs. Lottery: $\chi^2(1, N=226)=8.28, p<.01$.
χ^2 Analysis: Lottery. vs. Investment: $\chi^2(1, N=148)=5.52, p<.025$.
χ^2 Analysis: Gen. Pop. vs. All Victims: $\chi^2(1, N=302)=3.25, p<.10$.

Q46. Consult a stock broker

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1. Yes	20.63%	33	8.75%	7	27.50%	22
2. No	75.63%	121	82.50%	66	68.75%	55
3. No Answer	3.75%	6	8.75%	7	3.75%	3

Q46. Consult a stock broker χ^2 Analysis

	Gen. Pop. n= 160	Lottery n= 80	Investment n= 80
1. Yes	33 (21.43%)	7 (9.59%)	22 (28.57%)
2. No	121 (78.57%)	66 (90.41%)	55 (71.43%)

χ^2 Analysis: Gen. Pop. vs. Lottery: $\chi^2(1, N=227) = 4.78, p<.05$.
χ^2 Analysis: Lottery vs. Investment: $\chi^2(1, N=150) = 8.69, p<.01$.

Q47. Read advertisements

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1. Yes	41.25%	66	38.75%	31	37.50%	30
2. No	53.75%	86	52.50%	42	57.50%	46
3. No Answer	5.00%	8	8.75%	7	5.00%	4

Q47. Read advertisements χ^2 Analysis

	Gen. Pop. n= 160	Lottery n= 80	Investment n= 80
1. Yes	66 (43.42%)	31 (42.47%)	30 (39.47%)
2. No	86 (56.58%)	42 (57.53%)	46 (60.53%)

No significant differences found between any groups.

Q48. Read investment books, magazines, or on-line newspaper articles

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1. Yes	40.63%	65	38.75%	31	57.50%	46
2. No	55.00%	88	51.25%	41	38.75%	31
3. No Answer	4.38%	7	10.00%	8	3.75%	3

Q48. Read investment books, magazines, on-line newspaper articles χ^2 Analysis

	Gen. Pop. n= 160	Lottery n= 80	Investment n= 80
1. Yes	65 (42.48%)	31 (43.06%)	46 (59.74%)
2. No	88 (57.52%)	41 (56.94%)	31 (40.26%)

χ^2 Analysis: Lottery vs. Investment: $\chi^2(1, N=149) = 4.15, p<.05$.
χ^2 Analysis: Gen. Pop. vs. Investment: $\chi^2(1, N=230) = 6.11, p<.025$.

Q49. Read materials you receive in the mail or over the phone from sales agents that you may not have previously known

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1. Yes	23.75%	38	30.00%	24	38.75%	31
2. No	71.88%	115	57.50%	46	56.25%	45
3. No Answer	4.38%	7	12.50%	10	5.00%	4

Q49. Read materials you receive in the mail or over the phone from sales agents that you may not have previously known χ^2 Analysis

	Gen. Pop. n= 160	Lottery n= 80	Investment n= 80
1. Yes	38 (24.84%)	24 (34.29%)	69 (40.79%)
2. No	115 (75.16%)	46 (65.71%)	45 (59.21%)

χ^2 Analysis: Gen. Pop. vs. Investment: $\chi^2(1, N=229) = 6.14, p<.025$.
χ^2 Analysis: Gen. Pop. vs. All Victims: $\chi^2(1, N=299) = 5.74, p<.025$.

Q50. Go to a free investment seminar

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1. Yes	11.88%	19	17.50%	14	23.75%	19
2. No	83.75%	134	72.50%	58	71.25%	57
3. No Answer	4.38%	7	10.00%	8	5.00%	4

Q50. Go to a free investment seminar χ^2 Analysis

	Gen. Pop. n= 160	Lottery n= 80	Investment n= 80
1. Yes	19 (12.42%)	14 (19.44%)	19 (25.00%)
2. No	134 (87.58%)	58 (80.56%)	57 (75.00%)

χ^2 Analysis: Gen. Pop. vs. Investment: $\chi^2(1, N=229) = 5.81, p < .025$.
χ^2 Analysis: Gen. Pop. vs. All Victims: $\chi^2(1, N=301) = 5.14, p < .025$.

Q51. Rely on your own experience and knowledge

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1. Yes	73.13%	117	78.75%	63	81.25%	65
2. No	21.88%	35	8.75%	7	15.00%	12
3. No Answer	5.00%	8	12.50%	10	3.75%	3

Q51. Rely on your own experience and knowledge χ^2 Analysis

	Gen. Pop. n= 160	Lottery n= 80	Investment n= 80
1. Yes	117 (76.97%)	63 (90.00%)	65 (84.42%)
2. No	35 (23.03%)	7 (10.00%)	12 (15.58%)

χ^2 Analysis: Gen. Pop. vs. Lottery: $\chi^2(1, N=222) = 5.30, p < .025$.
χ^2 Analysis: Gen. Pop. vs. All Victims: $\chi^2(1, N=299) = 5.15, p < .025$.

Q52. When making major financial decisions about where to invest money, some people shop around for what they feel are the best terms while others don't see the need to do this. Which of the following best describes you?

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1. Almost no shopping	27.50%	44	31.25%	25	32.50%	26
2. A moderate amount of shopping	45.00%	72	33.75%	27	38.75%	31
3. A great deal of shopping	13.75%	22	16.25%	13	22.50%	18
4. No answer	13.75%	22	18.75%	15	6.25%	5

No analysis done at this time.

Q53. How often do you check the background qualification such as education, licenses, or certifications of the person before you take their financial advice?

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1. Done always	15.00%	24	17.50%	14	20.00%	16
2. Often	10.63%	17	10.00%	8	8.75%	7
3. Sometimes	15.00%	24	22.50%	18	21.25%	17
4. Rarely	20.63%	33	3.75%	3	17.50%	14
5. Never	30.63%	49	25.00%	20	23.75%	19
6. No answer	8.13%	13	21.25%	17	8.75%	7

No analysis done at this time.

Q54. Which of the following best describes your current employment status?

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1. Employed full time	26.88%	43	15.00%	12	22.50%	18
2. Employed part time	5.00%	8	2.50%	2	3.75%	3
3. Retired and not working	53.13%	85	62.50%	50	48.75%	39
4. Retired, but not working part time	9.38%	15	12.50%	10	15.00%	12
5. A homemaker	2.50%	4	0.00%	0	0.00%	0
6. Unemployed and looking for work	1.88%	3	2.50%	2	2.50%	2
7. Something else	0.00%	0	0.00%	0	0.00%	0
8. Don't know/refused	0.00%	0	0.00%	0	0.00%	0
9. Self-employed	0.00%	0	0.00%	0	6.25%	5
0. Disabled	1.25%	2	5.00%	4	1.25%	1

Q54. Which of the following best describes your current employment status χ^2 Analysis

	Gen. Pop. n= 160	Lottery n= 80	Investment n= 80
1. Employed	51 (33.77%)	14 (18.92%)	21 (29.17%)
2. Retired	100 (66.23%)	60 (81.08%)	51 (70.83%)

χ^2 Analysis: Gen. Pop. vs. Lottery: $\chi^2(1, N=225) = 5.34$, $p < .025$.
χ^2 Analysis: Gen. Pop. vs. All Victims: $\chi^2(1, N=297) = 3.47$, $p < .10$.

Q55. (If not retired) Thinking ahead to your retirement years how would you rate the retirement income you expect to receive from Social security, job pension, and all other types of accounts you have set aside for retirement?

	Gen. Pop. n= 60		Lottery n=20		Investment n= 29	
1. Much too low to maintain my standard of living	16.67%	10	20.00%	4	13.79%	4
2. A little too low to maintain my standard of living	25.00%	15	35.00%	7	17.24%	5
3. Enough to maintain my standard of living	40.00%	24	20.00%	4	41.38%	12
4. Slightly more than I need to maintain my standard of living	11.67%	7	5.00%	1	20.69%	6
5. Much more than I need to maintain my standard of living	1.67%	1	10.00%	2	6.90%	2
6. No answer	5.00%	3	10.00%	2	0.00%	0

Q55. How would you rate the retirement income you expect to receive χ^2 Analysis

	Gen. Pop. n= 160	Lottery n= 80	Investment n= 80
1. Much too low/ a little too low	25 (75.76%)	11 (78.57%)	9 (52.94%)
2. Slightly more/ much more	8 (24.24%)	3 (21.43%)	8 (47.06%)

No significant differences found

Q6. I have developed a retirement plan that will provide financial resources that go beyond just relying on social security

	Gen. Pop. n= 60		Lottery n= 20		Investment n= 29	
1. Strongly disagree	5.00%	3	0.00%	0	3.45%	1
2. Disagree	21.67%	13	35.00%	7	10.34%	3
3. Neither agree nor disagree	5.00%	3	10.00%	2	3.45%	1
4. Agree	40.00%	24	20.00%	4	55.17%	16
5. Strongly agree	26.67%	16	20.00%	4	27.59%	8
6. No answer	1.67%	1	15.00%	3	0.00%	0
Mean (no answer excluded)	3.63		3.29		3.93	
Standard Dev. (no answer excluded)	1.24		1.26		1.03	

ANOVA: $F(2,102)=1.570$, $p=.213$

Q57. Now that you are retired, how would you rate the retirement income you receive from Social Security, job pension, and all other types of retirement accounts?

	Gen. Pop. n= 100		Lottery n= 60		Investment n= 51	
1. Much too low to maintain my standard of living	15.00%	15	20.00%	12	15.69%	8
2. A little too low to maintain my standard of living	24.00%	24	35.00%	21	27.45%	14
3. Enough to maintain my standard of living	38.00%	38	35.00%	21	31.37%	16
4. Slightly more than I need to maintain my standard of living	11.00%	11	5.00%	3	9.80%	5
5. Much more than I need to maintain my standard of living	8.00%	8	0.00%	0	7.84%	4
6. No answer	4.00%	4	5.00%	3	7.84%	4

Q57. How would you rate the retirement income you expect to receive χ^2 Analysis

	Gen. Pop. n= 160	Lottery n= 80	Investment n= 80
1. Much too low/ a little too low	39 (67.24%)	33 (91.67%)	22 (70.97%)
2. Slightly more/ much more	19 (32.76%)	3 (8.33%)	9 (29.03%)

χ^2 Analysis: Gen. Pop. vs. Lottery: $\chi^2(1, N=94)=7.39$, $p<.01$.
χ^2 Analysis: Lottery vs. Investment: $\chi^2(1, N=67)=4.85$, $p<.05$.
χ^2 Analysis: Gen. Pop. vs. All Victims: $\chi^2(1, N=125)=3.68$, $p<.10$.

Q58. Before I retired, I had developed a retirement plan that I thought would provide financial resources that go beyond just relying on social security

	Gen. Pop. n= 100		Lottery n= 60		Investment n= 51	
1. Strongly disagree	5.00%	5	6.67%	4	7.84%	4
2. Disagree	32.00%	32	26.67%	16	17.65%	9
3. Neither agree nor disagree	9.00%	9	15.00%	9	0.00%	0
4. Agree	26.00%	26	31.67%	19	41.18%	21
5. Strongly agree	24.00%	24	6.67%	4	29.41%	15
6. No answer	4.00%	4	13.33%	8	3.92%	2
Mean (no answer excluded)	3.33		3.06		3.69	
Standard Dev. (no answer excluded)	1.31		1.14		1.31	

F(2,194)=3.185, p=.044

Tukey-Kramer Post Hoc Analysis: Lottery vs. Investment: q=0.64, p=.032

Q59. True or false: the APR is the most important thing to look at when comparing credit card offers

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1. True	47.50%	76	60.00%	48	50.00%	40
2. False	29.38%	47	11.25%	9	33.75%	27
3. No answer	23.13%	37	28.75%	23	16.25%	13

Q59. True or false: the APR is the most important thing to look at when comparing credit card offers χ^2 Analysis

CORRECT: True; INCORRECT: False/No Answer

	RDD	Lottery	Investment
Correct	76 (47.50%)	48 (60.00%)	40 (50.00%)
Incorrect	84 (52.50%)	32 (40.00%)	40 (50.00%)

RDD vs. Lottery: $\chi^2(1,N=240)=3.337$, $p<.10$

Q60. Over a 40-year period, which do you think gave the highest returns?

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1. Bonds	8.75%	14	12.50%	10	6.25%	5
2. Stocks	34.38%	55	11.25%	9	60.00%	48
3. Bank Savings Account	6.88%	11	16.25%	13	3.75%	3
4. IRA	18.75%	30	15.00%	12	10.00%	8
5. No answer	31.25%	50	45.00%	36	20.00%	16

Q60. Over a 40-year period, which do you think gave the highest returns? χ^2 Analysis

CORRECT: Stocks; INCORRECT: Bonds, Bank Savings Account, IRA, No Answer

	RDD	Lottery	Investment
Correct	55 (34.38%)	9 (11.25%)	48 (60.00%)
Incorrect	125 (65.63%)	71 (88.75%)	32 (40.00%)

RDD vs. Lottery: $\chi^2(1,N=240)= 14.585$, $p<.001$

RDD vs. Investment: $\chi^2(1, N=240)=14.292$, $p<.001$

Investment vs. Lottery: $\chi^2(1, N=160)=41.4512$, $p<.001$

Q61. True or false: With Compound interest you earn interest on your interest as well as your principle

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1. True	60.63%	97	50.00%	40	73.75%	59
2. False	11.25%	18	15.00%	12	10.00%	8
3. No answer	28.13%	45	35.00%	28	16.25%	13

Q61. True or false: With Compound interest you earn interest on your interest as well as your principle χ^2 Analysis

CORRECT: True; INCORRECT: False/No Answer

	RDD	Lottery	Investment
Correct	97 (60.63%)	40 (50.00%)	59 (73.75%)
Incorrect	63 (39.38%)	40 (50.00%)	21 (26.25%)

RDD vs. Investment: $\chi^2(1,N=240)=4.038$, $p<.05$

Investment vs. Lottery: $\chi^2(1,N=160)= 9.564$, $p<.005$

Q62. When an investor diversifies his or her investments, does the risk of losing money increase, decrease or stay about the same?

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1. Increase	15.63%	25	20.00%	16	21.25%	17
2. Decrease	31.25%	50	12.50%	10	30.00%	24
3. Stay the same	27.50%	44	35.00%	28	30.00%	24
4. No answer	25.63%	41	32.50%	26	18.75%	15

Q62. When an investor diversifies his or her investments, does the risk of losing money increase, decrease or stay about the same? χ^2 Analysis

CORRECT: Decrease; INCORRECT: increase, stay about the same, no answer

	RDD	Lottery	Investment
Correct	50 (31.25%)	10 (12.50%)	24 (30.00%)
Incorrect	110 (68.75%)	70 (87.50%)	56 (70.00%)

RDD vs. Lottery: $\chi^2(1, N=240)= 10.00$, $p<.005$

Investment vs. Lottery: $\chi^2(1, N=160)=7.32$, $p<.01$

Q63. True or false: Mutual funds pay a guaranteed rate of return

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1. True	24.38%	39	38.75%	31	8.75%	7
2. False	43.13%	69	23.75%	19	72.50%	58
3. No answer	32.50%	52	37.50%	30	18.75%	15

Q63. True or false: Mutual funds pay a guaranteed rate of return χ^2 Analysis

CORRECT: False; INCORRECT: True, No answer

	RDD	Lottery	Investment
Correct	69 (43.13%)	19 (23.75%)	58 (72.50%)
Incorrect	91 (56.88%)	61 (76.25%)	22 (27.50%)

RDD vs. Lottery: $\chi^2(1,N=240)=8.621$, $p<.005$

RDD vs. Investment: $\chi^2(1,N=240)=18.471$, $p<.001$

Investment vs. Lottery: $\chi^2(1, N=160)=38.078$, $p<.001$

Q64. True or false: A no load mutual fund involves no sales charges or other fees

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1. True	26.88%	43	18.75%	15	31.25%	25
2. False	24.38%	39	35.00%	28	35.00%	28
3. No answer	48.75%	78	46.25%	37	33.75%	27

Q64. True or false: A no load mutual fund involves no sales charges or other fees χ^2 Analysis

CORRECT: False; INCORRECT: True, No Answer

	RDD	Lottery	Investment
Correct	39 (24.38%)	28 (35.00%)	28 (35.00%)
Incorrect	121 (75.63%)	52 (65.00%)	52 (65.00%)

No significant differences found.

Q65. What happens to bond prices when interest rates go up? Do bond prices fall, remain the same or go up when the interest rates go up?

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1. Fall	24.38%	39	7.50%	6	51.25%	41
2. Remain the same	14.38%	23	12.50%	10	5.00%	4
3. Go up	21.25%	34	32.50%	26	16.25%	13
4. No answer	40.00%	64	47.50%	38	27.50%	22

Q65. What happens to bond prices when interest rates go up? Do bond prices fall, remain the same or go up when the interest rates go up? χ^2 Analysis

CORRECT: Fall; INCORRECT: Remain the same, go up, no answer

	RDD	Lottery	Investment
Correct	39 (24.38%)	6 (7.50%)	41 (51.25%)
Incorrect	121 (75.63%)	84 (92.50%)	39 (48.75%)

RDD vs. Lottery: $\chi^2(1,N=240)=9.969$, $p<.005$

RDD vs. Investment: $\chi^2(1,N=240)=17.344$, $p<.001$

Investment vs. Lottery: $\chi^2(1,N=160)=36.905$, $p<.001$

Q66. Which do you consider to be the most important factor in selecting a loan?

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
The overall interest rate	72.50%	116	50.00%	40	77.50%	62
The monthly loan payment	12.50%	20	25.00%	20	11.25%	9
No answer	15.00%	24	25.00%	20	11.25%	9

Q66. Which do you consider to be the most important factor in selecting a loan? χ^2 Analysis

CORRECT: Overall interest rate; INCORRECT: Monthly payment or no answer

	RDD	Lottery	Investment
Correct	116 (72.50%)	40 (50.00%)	62 (77.50%)
Incorrect	44 (27.50%)	40 (50.00%)	18 (22.50%)

RDD vs. Lottery: $\chi^2(1, N=240)=11.86$, $p<.001$

Investment vs. Lottery: $\chi^2(1,N=160)=13.089$, $p<.001$

Q59-66 Financial Literacy Combined Scores

	Gen. Pop. n= 160	Lottery n= 80	Investment n= 80
Mean Correct Responses Q59-Q66 (Max=8)	3.38	2.50	4.50
Percent Correct Responses Q59-Q66	42.27%	31.25%	56.25%
Standard Dev.	1.96	1.53	1.90

ANOVA: F(2,317)=23.653, p=.000

Tukey-Kramer Post Hoc Analysis: Gen. Pop. vs. Lottery, q=0.88. p=.001

Tukey-Kramer Post Hoc Analysis: Gen. Pop. vs. Investment, q=1.12, p=.000

Tukey-Kramer Post Hoc Analysis: Investment vs. Lottery: q=2.00, p=.000

Q67a. Within the last 3 years, has anyone ever sold or tried to sell you over the telephone what they claimed was a lottery ticket, which turned out to be fake?

	Gen. Pop. n= 63		Lottery n= 28		Investment n=28	
1. Yes	1.59%	1	50.00%	14	25.00%	7
2. No	96.83%	61	46.43%	13	71.43%	20
3. No answer	1.59%	1	3.57%	1	3.57%	1

Q68a. Did you go on to purchase or attempt to purchase that lottery ticket?

	Gen. Pop. n= 1		Lottery n= 14		Investment n= 7	
1. Yes	0.00%	0	28.57%	4	14.29%	1
2. No	100.00%	1	71.43%	10	85.71%	6
3. No answer	0.00%	0	0.00%	0	0.00%	0

Q69a. Within the last 3 years, has anyone ever lied to you over the telephone to get you involved in an investment deal that turned out to be phony or a scam?

	Gen. Pop. n= 63		Lottery n= 28		Investment n= 28	
1. Yes	6.35%	4	50.00%	14	53.57%	15
2. No	90.48%	57	46.43%	13	42.86%	12
3. No answer	3.17%	2	3.57%	1	3.57%	1

Q70a. Did you go on to invest or attempt to invest in that deal?

	Gen. Pop. n= 4		Lottery n= 14		Investment n= 15	
1. Yes	0.00%	0	50.00%	7	53.22%	8
2. No	100.00%	4	50.00%	7	46.67%	7
3. No answer	0.00%	0	0.00%	0	0.00%	0

Q71a. Within the last 3 years, has anyone ever called you over the telephone and tried to swindle you or cheat you out of money or property by deliberately lying to you or giving you false money information or phony promises about a product, service or lottery or getting you to pay for something that you never received or swindled you in another way?

	Gen. Pop. n=63		Lottery n= 28		Investment n= 28	
1. Yes	1.59%	1	67.86%	19	32.14%	9
2. No	93.65%	59	28.57%	8	64.29%	18
3. No answer	4.76%	3	3.57%	1	3.57%	1

Q72a. Did you go along with that offer?

	Gen. Pop. n= 1		Lottery n= 19		Investment n= 9	
1. Yes	0.00%	0	21.05%	4	33.33%	3
2. No	100.00%	1	78.95%	15	66.67%	6
3. No answer	0.00%	0	0.00%	0	0.00%	0

Q67b. In the last 3 years, has anyone told you over the telephone that you had won a lottery or could purchase tickets for a winning lottery?

	Gen. Pop. n= 45		Lottery n= 27		Investment n= 26	
1. Yes	13.33%	6	74.07%	20	15.38%	4
2. No	84.44%	38	25.93%	7	84.62%	22
3. No answer	2.22%	1	0.00%	0	0.00%	0

Q68b. Did you go on to purchase or attempt to purchase that lottery ticket?

	Gen. Pop. n= 6		Lottery n= 20		Investment n= 4	
1. Yes	0.00%	0	20.00%	4	25.00%	1
2. No	100.00%	6	80.00%	16	75.00%	3
3. No answer	0.00%	0	0.00%	0	0.00%	0

Q69b. In the last 3 years, have you made an investment in response to a telemarketing call from a company with whom you have not previously done business?

	Gen. Pop. n= 45		Lottery n= 27		Investment n= 26	
1. Yes	0.00%	0	18.52%	5	23.08%	6
2. No	100.00%	45	81.48%	22	73.08%	19
3. No answer	0.00%	0	0.00%	0	3.85%	1

Q70b. Now, thinking about your experiences as a consumer over the last 3 years, was there ever a time you felt you were the subject of a consumer fraud?

	Gen. Pop. n= 45		Lottery n= 27		Investment n= 25	
1. Yes	0.00%	0	55.56%	15	20.00%	5
2. No	100.00%	45	40.74%	11	80.00%	20
3. No answer	0.00%	0	3.70%	1	0.00%	0

Q67c. Within the past 3 years have you sent cash or a check or given your credit card number to any callers from organizations you are not personally familiar with in order to enter a lottery or similar contest?

	Gen. Pop. n= 52		Lottery n= 25		Investment n= 26	
1. Yes	0.00%	0	16.00%	4	7.69%	2
2. No	98.08%	51	80.00%	20	92.31%	24
3. No answer	1.92%	1	4.00%	1	0.00%	0

Q68c. Within the past 3 years have you sent cash or a check or given your credit card number to any callers from organizations you are not personally familiar with in order to make an investment?

	Gen. Pop. n= 52		Lottery n= 25		Investment n= 26	
1. Yes	0.00%	0	4.00%	1	23.08%	6
2. No	98.08%	51	92.00%	23	76.92%	20
3. No answer	1.92%	1	4.00%	1	0.00%	0

Q69c. Thinking now about any experience you might have had within the last three years with telephone callers from organizations you are not personally familiar with, have you felt you were the victim of a major scam or swindle?

	Gen. Pop. n= 52		Lottery n= 25		Investment n= 26	
1. Yes	0.00%	0	36.00%	9	19.23%	5
2. No	98.08%	51	56.00%	14	80.77%	21
3. No answer	1.92%	1	8.00%	2	0.00%	0

Q70c. Would you say this scam or swindle cost you more than $1000?

	Gen. Pop. n= 0		Lottery n= 9		Investment n= 5	
1. Yes	0.00%	0	33.33%	3	60.00%	3
2. No	0.00%	0	66.67%	6	20.00%	1
3. No answer	0.00%	0	0.00%	0	20.00%	1

D1. Record sex

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1. Male	49.38%	79	42.50%	34	67.50%	54
2. Female	50.63%	81	57.50%	46	32.50%	26

RDD vs. Investment: $\chi^2(1, N=240)=7.09, p<.01$

Investment vs. Lottery: $\chi^2(1,N=160)=10.10, p<.001$

D2. Would you describe yourself as…

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1. Extremely Religious	6.25%	10	11.25%	9	6.25%	5
2. Very religious	28.13%	45	43.75%	35	32.50%	26
3. Somewhat religious	43.75%	70	38.75%	31	46.25%	37
4. Not religious	9.38%	15	2.50%	2	6.25%	5
5. Somewhat not-religious	2.50%	4	0.00%	0	5.00%	4
6. Very non-religious	1.25%	2	0.00%	0	1.25%	1
7. Extremely non-religious	2.50%	4	0.00%	0	1.25%	1
8. Can't choose	3.13%	5	2.50%	2	0.00%	0
9. No answer	3.13%	5	1.25%	1	1.25%	1

D2. Would you describe yourself as… χ^2 Analysis

	Gen. Pop.	Lottery	Investment
Religious	125 (92.59%)	75 (100%)	68 (91.89%)
Non-religous	10 (7.41%)	0 (0.00%)	6 (7.41%)

χ^2 Analysis: Gen. Pop. vs. Lottery: $\chi^2(1, N=210) = 5.83$, $p<.025$.
χ^2 Analysis: Investment vs. Lottery: $\chi^2(1, N=149) = 6.34$, $p<.025$.

D3. What is your current age?

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1. 45-54	8.75%	14	10.00%	8	18.75%	15
2. 55-64	42.50%	68	15.00%	12	20.00%	16
3. 65-74	21.25%	34	26.25%	21	28.75%	23
4. 75 or older	26.25%	42	47.50%	38	30.00%	24
5. No answer	1.25%	2	1.25%	1	2.50%	2
Mean (no answer excluded)	2.66		3.13		2.72	
Standard Dev. (no answer excluded)	0.97		1.02		1.10	

ANOVA: F(2, 312)=5.860, p=.003
Tukey-Kramer Post Hoc Analysis: Gen. Pop vs. Lottery: q=0.47, p=.002
Tukey-Kramer Post Hoc Analysis: Lottery vs. Investment: q=0.41, p=.032

D4. Are you currently married, living as married, divorced, separated, widowed, or have you never been married?

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1. Married	45.00%	72	30.00%	24	65.00%	52
2. Living as married	3.13%	5	2.50%	2	2.50%	2
3. Divorced	17.50%	28	17.50%	14	6.25%	5
4. Separated	1.25%	2	1.25%	1	0.00%	0
5. Widowed	27.50%	44	41.25%	33	20.00%	16
6. Never married	5.00%	8	3.75%	3	6.25%	5
7. Refused	0.63%	1	3.75%	3	0.00%	0

D4. Are you currently married, living as married, divorced, separated, widowed or have you never been married? χ^2 Analysis

	Gen. Pop.	Lottery	Investment
Married/ Living as Married	77 (48.43%)	26 (33.77%)	54 (68.35%)
Divorced/ Separated/Widowed/ Never Married	82 (51.57%)	51 (66.23%)	25 (31.65%)

χ^2 Analysis: Gen. Pop. vs. Lottery: χ^2 (1, *N=236)* =4.53, $p<.05$.
χ^2 Analysis: Gen. Pop. vs. Investment: χ^2 (1, *N=238)* =8.47, $p<.01$.
χ^2 Analysis: Investment vs. Lottery: χ^2 (1, *N=156)* =18.67, $p<.001$.

D5. Including yourself, what is the total number of people who live in this household?

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1. One	36.88%	59	48.75%	39	28.75%	23
2. Two	45.63%	73	38.75%	31	47.50%	38
3. Three	6.88%	11	3.75%	3	10.00%	8
4. Four	4.38%	7	6.25%	5	6.25%	5
5. Five or more	5.00%	8	0.00%	0	7.50%	6
6. Refused	1.25%	2	2.50%	2	0.00%	0

D5. Including yourself, what is the total number of people who live in this household? χ^2 Analysis

	Gen. Pop.	Lottery	Investment
Living Alone (One)	59 (37.34%)	39 (50.00%)	82 (28.75%)
Living w/One or More (Two-Five or more)	99 (62.66%)	39 (50.00%)	57 (71.25%)

χ^2 Analysis: Gen. Pop. vs. Lottery: χ^2 (1, *N=236)* =3.45, $p<.10$.
χ^2 Analysis: Investment vs. Lottery: χ^2 (1, *N=156)* =7.48, $p<.01$.

D6. What is the highest level of education that you have completed?

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1. Less than high school	6.88%	11	8.75%	7	2.50%	2
2. High school or equivalent	27.50%	44	37.50%	30	17.50%	14
3. Some college or technical training beyond high school	26.88%	43	22.50%	18	26.25%	21
4. College graduate (4 year)	18.13%	29	17.50%	14	26.25%	21
5. Post-graduate or professional degree	17.50%	28	12.50%	10	26.25%	21
6. Refused	3.13%	5	1.25%	1	1.25%	1
Mean (refused excluded)	3.12		2.87		3.57	
Standard Dev. (refused excluded)	1.21		1.19		1.14	

ANOVA: F(2,310)=7.034, p=001
Tukey-Kramer Post Hoc Analysis: Gen. Pop. vs. Investment: q=0.45, p=.018
Tukey-Kramer Post Hoc Analysis: Lottery vs. Investment: q=0.70, p=.001

D7. Are you of Hispanic or Latino background, such as Mexican, Puerto Rican, Cuban or some other Latin American background?

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1. Yes	5.00%	8	7.50%	6	5.00%	4
2. No	93.75%	150	88.75%	71	95.00%	76
3. Don't know/Refused	1.25%	2	3.75%	3	0.00%	0

D7. Are you Hispanic or Latino background? χ^2 Analysis

	Gen. Pop.	Lottery	Investment
Yes (Hispanic)	8 (5.06%)	6 (7.79%)	4 (5.00%)
No (Not-Hispanic)	150 (94.94%)	71 (92.21%)	76 (95.00%)

No significant differences found.

D8. What is your race? Are you white, black, Asian or some other race?

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1. White	86.88%	139	76.25%	61	90.00%	72
2. Black/African American	8.13%	13	11.25%	9	5.00%	4
3. Asian or Pacific Islander	0.00%	0	5.00%	4	2.50%	2
4. Mixed- Race	0.63%	1	0.00%	0	1.25%	1
5. Other	1.88%	3	3.75%	3	1.25%	1
6. Don't know/Refused	2.50%	4	3.75%	3	0.00%	0

D8. What is your race? χ^2 Analysis

	Gen. Pop.	Lottery	Investment
White	139 (89.10%)	61 (79.22%)	72 (90.00%)
Non-white	17 (10.90%)	16 (20.78%)	8 (10.00%)

χ^2 Analysis: Gen. Pop. vs. Lottery: $\chi^2(1, N=233) = 4.14, p<.05$.
χ^2 Analysis: Investment vs. Lottery: $\chi^2(1, N=157) = 3.52, p<.10$.

D9. What is your annual household income before taxes last year, in 2005?

	Gen. Pop. n= 160		Lottery n= 80		Investment n= 80	
1. Less than $10K	3.75%	6	7.50%	6	2.50%	2
2. 10K- just under 20K	10.00%	16	28.75%	23	5.00%	4
3. 20K- just under 30K	11.88%	19	16.25%	13	11.25%	9
4. 30K- just under 40K	12.50%	20	8.75%	7	13.75%	11
5. 40K- just under 50K	6.88%	11	6.25%	5	3.75%	3
6. 50K- just under 75K	12.50%	20	6.25%	5	13.75%	11
7. 75K or more	14.38%	23	2.50%	2	27.50%	22
8. Don't know/refused	28.13%	45	23.75%	19	22.50%	18

D9. What is your annual household income before taxes last year? χ^2 Analysis

	Gen. Pop.	Lottery	Investment
Under $30,000	41 (35.65%)	42 (68.85%)	15 (24.19%)
Over $30,000	74 (64.35%)	19 (31.15%)	47 (75.81%)

χ^2 Analysis: Gen. Pop. vs. Lottery: $\chi^2(1, N=176) = 17.63, p<.001$.
χ^2 Analysis: Investment vs. Lottery: $\chi^2(1, N=123) = 24.66, p<.001$.
χ^2 Analysis: Gen. Pop. vs. All Victims: $\chi^2(1, N=238) = 2.80, p<.10$.

APPENDIX 6:
Survey 2: Annotated Survey

Unless otherwise noted- RDD n=258; Victim n=125

QS2a. Do you invest in a retirement plan like a 401K or IRA?

	RDD		Victims		Combined	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
Yes	197	76.36%	91	72.80%	288	75.20%
No	60	23.26%	34	27.20%	94	24.54%
Not Sure	1	0.39%	0	0.00%	1	0.26%

χ^2 Analysis: Not significant

Q1. In the last 12 months have you bought or sold…
Participants who answered YES to these questions indicated in table.

	RDD		Victims		Combined	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
Stocks	86	33.33%	53	42.40%	139	36.29%
Bonds	41	15.89%	14	11.20%	55	14.36%
Mutual Funds	81	31.40%	42	33.60%	123	32.11%
Annuities	29	11.24%	8	6.40%	37	9.66%
Hedge Funds	2	0.78%	0	0.00%	2	0.52%
Shares in an Investment Partnership	18	6.98%	14	11.20%	32	8.36%
Options or Futures	10	3.88%	9	7.20%	19	4.96%
Insurance for investment purposes	9	3.49%	3	2.40%	12	3.13%

χ^2 Analysis: Victims vs. RDD- Stocks: χ^2 (1, N=383)= 3.014, p=.083
All other χ^2 Analyses were not significant. *(Note, did not run for Hedge Funds, because of insufficient N).*

Q2. In general, how knowledgeable would you say you are about investing?

	RDD		Victims		Combined	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
Extremely knowledgeable	5	1.94%	3	2.40%	8	2.09%
Very knowledgeable	22	8.53%	17	13.60%	39	10.18%
Somewhat knowledgeable	144	55.81%	66	52.80%	210	54.83%
Not that knowledgeable	55	21.32%	28	22.40%	83	21.67%
Not at all knowledgeable	32	12.40%	10	8.00%	42	10.97%
Not sure	0	0.00%	1	0.80%	1	0.26%

t-test: $t(360)=1.426$, p=.155

Q3. Do you invest directly yourself, through a retirement plan, or through someone such as a stock broker, financial planner or investment advisor?

	RDD		Victims		Combined	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
Directly/Self	86	33.33%	63	50.40%	149	38.90%
Retirement Plan	114	44.19%	59	47.20%	173	45.17%
Broker/Planner	140	54.26%	85	68.00%	225	58.75%
Not sure	11	4.26%	1	0.80%	12	3.13%
Refused	40	15.50%	9	7.20%	49	12.79%

How many different methods (self, retirement plan, broker/planner) of investing does each respondent use?

	RDD		Victims		Combined	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
0 (Not sure or Refused above)	51	19.77%	10	8.00%	61	15.93%
1 method	114	44.19%	54	43.20%	168	43.86%
2 methods	53	20.54%	30	24.00%	83	21.67%
3 methods	40	15.50%	31	24.80%	71	18.54%
MEAN	1.32		1.66		1.43	

t-test: $t(381)=3.246$, $p=.001$

Q4. Have you ever checked the background of a stock broker, financial planner, investment advisor, or other financial services provider to see if they are registered with a national or local securities regulator before you hired them?

	RDD (n=140)		Victims (n=85)		Combined (n=225)	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
Yes	45	32.14%	31	36.47%	76	33.78%
No	93	66.43%	54	63.53%	147	65.33%
Not Sure	2	1.43%	0	0.00%	2	0.89%

χ^2 Analysis: Not significant

Q4a. If No, why not?

	RDD (n=93)		Victims (n=54)		Combined (n=147)	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
I don't know where to get that information	4	4.30%	4	7.41%	8	5.44%
I trust him/her	37	39.78%	26	48.15%	63	42.86%
Not sure	6	6.45%	2	3.70%	8	5.44%
Never thought about it	7	7.53%	4	7.41%	11	7.48%
They were recommended	9	9.68%	4	7.41%	13	8.84%
They were a big/reputable company	12	12.90%	10	18.52%	22	14.97%
No time	1	1.08%	2	3.70%	3	2.04%
Didn't feel need to	7	7.53%	1	1.85%	8	5.44%
Through my employer	4	4.30%	1	1.85%	5	3.40%
Broker/planner told me there were no problems	4	4.30%	0	0.00%	4	2.72%
I do not work with broker	1	1.08%	0	0.00%	1	0.68%
Other	1	1.08%	0	0.00%	1	0.68%

Q5. Have you ever checked to see if they have broken any laws or rules related to their profession before you hired them?

	RDD (n=140)		Victims (n=85)		Combined (n=225)	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
Yes	25	17.86%	16	18.82%	41	18.22%
No	111	79.29%	68	80.00%	179	79.56%
Not Sure	3	2.14%	1	1.18%	4	1.78%
Refused	1	0.71%	0	0.00%	1	0.44%

χ^2 Analysis: Not significant

Q5a. If No, why not?

	RDD (n=111)		Victims (n=68)		Combined (n=179)	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
I don't know where to get that information	0	0.00%	4	5.88%	4	2.23%
I trust him/her	48	43.24%	36	52.94%	84	46.93%
Not sure	8	7.21%	2	2.94%	10	5.59%
Never thought about it	18	16.22%	9	13.24%	27	15.84%
They were recommended	10	9.01%	4	5.88%	14	7.82%
They were a big/reputable company	12	10.81%	8	7.35%	20	11.17%
No time	1	0.90%	1	1.47%	2	1.12%
Didn't feel need to	5	4.50%	3	4.41%	8	4.47%
Through my employer	3	2.70%	1	1.47%	4	2.23%
Broker/planner told me there were no problems	1	0.90%	0	0.00%	1	0.56%
I do not work with broker	1	0.90%	0	0.00%	1	0.56%
Other	2	1.80%	0	0.00%	2	1.12%
Didn't hire them	2	1.80%	0	0.00%	2	1.12%

Q6. Thinking about bonds, stocks, IRAs or a bank savings account, which do you think would yield the highest return in a 40-year period.

	RDD		Victims		Combined	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
Bonds	31	12.01%	20	16.00%	51	13.32%
Stocks	125	48.45%	70	56.00%	195	50.91%
Bank Savings Acccount	6	2.33%	2	1.60%	8	2.09%
IRA	53	20.54%	17	13.60%	70	18.28%
Not sure	39	15.12%	16	12.80%	55	14.36%
Refused	4	1.55%	0	0.00%	4	1.04%
Overall correct (Stocks)	125	48.45%	70	56.00%	195	50.91%
Overall incorrect (any other answer)	133	51.50%	55	44.00%	188	49.09%

χ^2 Analysis: χ^2 (1, N=383)= 1.921, p=.166

Not significant; trend that victims score better than non-victims

Q7. When an investor diversifies their investments, do you think the risk of losing money increase, decreases or stays about the same?

	RDD		Victims		Combined	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
Increase	38	14.73%	20	16.00%	58	15.14%
Decrease	119	46.12%	67	53.60%	186	48.56%
Stay the same	72	27.91%	27	21.60%	99	25.85%
Not sure	26	10.08%	11	8.80%	37	9.66%
Refused	3	1.16%	0	0.00%	3	0.78%
Overall correct (decrease)	119	46.12%	67	53.60%	186	48.56%
Overall incorrect (any other answer)	139	53.88%	58	46.40%	197	51.44%

χ^2 Analysis: χ^2 (1, *N*=383)= 1.884, *p*=.170

Not significant; trend that victims score better than non-victims

Q8a. True or false: With compound interest you earn interest on your interest as well as your principle.

	RDD		Victims		Combined	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
True	211	81.78%	104	83.20%	315	82.25%
False	30	11.63%	13	10.40%	43	11.23%
Not sure	17	6.59%	8	6.40%	25	6.53%
Total correct (true)	211	81.78%	104	83.20%	315	82.25%
Total incorrect (any other answer	47	18.22%	21	16.80%	68	17.75%

χ^2 Analysis: χ^2 (1, *N*=383)= 0.116, *p*=.734

Q8b. True or false: Mutual funds pay a guaranteed rate of return.

	RDD		Victims		Combined	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
True	48	18.60%	17	13.60%	65	16.97%
False	182	70.54%	98	78.40%	280	73.11%
Not sure	28	10.58%	10	8.00%	38	9.92%
Total correct (false)	182	70.54%	98	78.40%	280	73.11%
Total incorrect (any other answer	76	29.46%	27	21.60%	103	26.89%

χ^2 Analysis: χ^2 (1, *N*=383)= 2.644, *p*=.104

Not significant; trend that victims score better than non-victims

Q9. After I read the following four short statements, tell me which ONE you think best describes a no-load mutual fund:

	RDD		Victims		Combined	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
It carries no fees	94	36.43%	44	35.20%	138	36.03%
It carries no sales charges	46	17.83%	28	22.40%	74	19.32%
It is not high risk	15	5.81%	4	3.20%	19	4.96%
It has no time limits regarding buying or selling	29	11.24%	18	14.40%	47	12.27%
Not sure	73	28.29%	31	24.80%	104	27.15%
Refused	1	0.39%	0	0.00%	1	0.26%
Total correct (carries no sales charges)	46	17.83%	28	22.40%	74	19.32%
Total incorrect (all other answers)	212	82.17%	97	77.60%	309	80.68%

χ^2 Analysis: χ^2 (1, N=383)= 1.128, p=.288

Not significant; trend that victims score better than non-victims

Q10. In your opinion, when interest rates go up, do bond prices typically fall, remain the same, or go up when interest rates go up?

	RDD		Victims		Combined	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
Fall	105	40.70%	55	44.00%	160	41.78%
Remain the same	27	10.47%	13	10.40%	40	10.44%
Go up	83	32.17%	36	28.80%	119	31.07%
Not Sure	42	16.28%	21	16.80%	63	16.45%
Refused	1	3.88%	0	0.00%	1	0.26%
Total correct (fall)	105	40.70%	55	44.00%	160	41.78%
Total incorrect (all other answers)	153	59.30%	70	56.00%	223	58.22%

χ^2 Analysis: χ^2 (1, N=383)= 0.378, p=.539

Q6-Q10 Financial Literacy Combined Scores

	RDD	Victims	Combined
Mean correct (max =6)	3.05	3.38	3.16
Percent correct	50.83%	56.33%	52.67%
Standard Dev.	1.53	1.48	1.52

t-test: t(381)=1.949, p=.052

Q11. Have you ever made an investment that resulted in a loss of your money, savings, or the entire investment?

	RDD		Victims		Combined	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
Yes	113	43.80%	113	90.40%	226	59.01%
No	145	56.20%	11	8.80%	156	40.73%
Not Sure	0	0.00%	1	0.80%	1	0.26%

χ^2 Analysis: Victims vs. RDD: χ^2 (1, N=382)= 77.652, p=.000

Note, excluded not sure column from analysis, because the cell values are below 5. Including not sure answers in the analysis leads to a similar test result (p=.000).

Q12. Why do you think this happened to you; was it because…

Participants who answered YES to these questions indicated in table.

	RDD (n=113)		Victims (n=113)		Combined (n=226)	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
The market took a downward turn	96	84.96%	34	30.09%	130	57.52%
You were new to investing and didn't know enough about the opportunity	37	32.74%	55	48.67%	92	40.71%
You were deliberately misled or defrauded	0*	0.00%	78	69.03%	78	34.51%
It was just a bad investment	61	53.98%	81	71.68%	142	62.83%

**Any individuals in the RDD population who said they were defrauded were screened out of the survey at the beginning. This resulted in 4 individuals being screened out. No further data was collected on these individuals.*

***All analyses below excluded individuals who said 'not sure' because this resulted in cells with less than 5; when 'not sure' is included, the significance remains the same.*

χ^2 Analysis: Market took downward turn: χ^2 (1, N=225)= 71.345, p=.000

χ^2 Analysis: New to investing: χ^2 (1, N=221)= 6.901, p=.009

χ^2 Analysis: Market took downward turn: χ^2 (1, N=221)= 8.395, p=.004

Q13. When did this happen to you? *(Only asked to participants who answered that they were misled or defrauded.)*

	Victims (n=78)	
	Raw #	Percentage
Less than 1 year ago	1	1.28%
1 to 3 years ago	7	8.97%
Between 3 and 5 years ago	41	52.56%
More than 5 years ago	29	37.18%

Q14. To whom did you report the incident? *(Only asked to participants who answered that they were misled or defrauded.)*

	Victims (n=78)	
	Raw #	Percentage
State regulatory agency	2	2.56%
Securities and Exchange Commission	3	3.85%
Police	2	2.56%
Attorney General	10	12.82%
Federal Trade Commission	2	2.56%
Other	5	6.41%
No one/did not report it	30	35.46%
Not sure	3	3.85%
Refused	3	3.85%
Attorney/Lawyer	4	5.13%
It was reported to me	17	21.79%
Class action lawsuit	3	3.85%
Federal Bureau of Investigation	2	2.56%
Better Business Bureau	1	1.28%

Q15. If you felt you had been the victim of investment fraud, where would you report the problem?

	RDD (n=258)		Victims (n=47)	
	Raw #	Percentage	Raw #	Percentage
National Association of Securities Dealers	12	4.65%	1	2.13%
State regulatory agency	8	3.10%	4	8.51%
Securities and Exchange Commission	70	27.13%	16	34.04%
Police	38	14.73%	4	8.51%
FBI	7	2.71%	0	0.00%
Attorney General	52	20.16%	11	23.40%
Federal Trade Commission	12	4.65%	3	6.38%
Better Business Bureau	24	9.30%	0	0.00%
Department of Financial Institutions	3	1.16%	2	4.26%
Friend/family member	4	1.55%	1	2.13%
Other	16	6.20%	10	21.28%
No one, would not report it	3	1.16%	1	2.13%
Not sure	64	24.81%	7	14.89%
Refused	3	1.16%	0	0.00%
Attorney/lawyer	13	5.04%	2	4.26%
Bank	4	1.55%	0	0.00%
Broker	8	3.10%	2	4.26%
FCC	4	1.55%	0	0.00%
Investment firm	9	3.49%	0	0.00%
Local government official	4	1.55%	0	0.00%
State government/commissioner	4	1.55%	3	6.38%
Head of company	6	2.33%	0	0.00%
Credit card company	2	0.78%	0	0.00%
Look it up online	2	0.78%	0	0.00%
Congressman/Senator	1	0.39%	0	0.00%

Comparing victim responses to questions 14 & 15. How many victims did/did not report the fraud they experienced compared to how many say they would/would not report fraud if it happened to them?

	Victims- said they experienced fraud (n=78)		Victims- said they did not experience fraud (n=47)	
	Raw #	Percentage	Raw #	Percentage
Did/Would report	48	61.54%	46	97.87%
Did NOT/Would NOT report	30	38.46%	1	2.13%

χ^2 Analysis: χ^2 (1, N=125)= 20.760, p=.000

Q16. Now I'd like to read a list of a few agencies. After I'm done, please tell me which of these agencies you think insures consumers against losses in the stock market:

	RDD		Victims		Combined	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
The Federal Deposit Insurance Corporation	40	15.50%	14	11.20%	56	14.62%
The National Association of Securities Dealers	6	2.33%	2	1.60%	8	2.09%
The Securities and Exchange Commission	27	10.47%	30	24.00%	57	15.40%
The Securities Investor Protection Corporation	23	8.91%	18	14.40%	41	10.70%
The Department of Financial Institutions	4	1.55%	0	0.00%	4	1.04%
All of the above	30	11.63%	21	16.80%	51	13.32%
None of the above	104	40.31%	35	28.00%	140	36.55%
Not sure	36	13.95%	12	9.60%	48	12.53%
Refused	2	0.78%	2	1.60%	4	1.04%
Total correct (None of the above)	104	40.31%	35	28.00%	140	36.55%
Total incorrect (All other answers)	154	59.69%	90	72.00%	243	63.45%

χ^2 Analysis: χ^2 (1, N=383)= 5.519, p=.019

Non-victims score significantly higher than victims.

Note: one non-victim answered FDIC first, and then stated none of the above. This individual was considered making an incorrect answer overall. Her second 'none of the above' answer was discarded.

Q17. Thinking about your retirement years, about how much money do you think you need to save to live comfortably during that time?

	RDD		Victims	
	Raw #	Percentage	Raw #	Percentage
None	2	0.78%	1	0.80%
Less than 25k	4	1.55%	1	0.80%
25k-less than 50k	7	2.71%	4	3.20%
50k to less than 100k	9	3.49%	0	0.00%
100k to less than 250k	17	6.59%	6	4.80%
250k to less than 500k	27	10.47%	11	8.80%
500k to less than 750k	35	13.57%	19	15.20%
750k to less than 1M	21	8.14%	9	7.20%
1M to less than 1.5M	35	13.57%	18	14.40%
1.5M to less than 2M	15	5.81%	14	11.20%
More than 2M	10	3.88%	14	11.20%
Not sure	15	5.81%	4	3.20%
Refused	61	23.64%	24	19.20%
Mean	7.15		7.96	
St. Dev.	2.24		2.59	

t-test: $t(277)=-2.834$, $p=.005$

Q18. Of the following possible options, which do you think would be the TOP most practical way for you personally to accumulate several hundred thousand dollars?

	RDD		Victims		Combined	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
Save something each month for many years	155	60.08%	72	57.60%	227	59.27%
Win the lottery	17	6.59%	7	5.60%	24	6.27%
Inherit money	8	3.10%	7	5.60%	15	3.92%
Find investments that promise extremely high returns	72	27.91%	35	28.00%	107	27.94%
Not sure	5	1.94%	2	1.60%	7	1.83%
Refused	1	0.39%	2	1.60%	3	0.78%

χ^2 Analysis: χ^2 (3, N=373)= 1.560, p=.668

Q19. How strongly do you agree or disagree with the following statement: to make money, there is an easy way and a hard way. Only a select few know the easy way and most people do it the hard way.

	RDD		Victims		Combined	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
Strongly disagree	40	15.50%	13	10.40%	53	13.84%
Somewhat disagree	55	21.32%	17	13.60%	72	18.80%
Neither agree nor disagree	6	2.33%	6	4.80%	12	3.13%
Somewhat agree	92	35.66%	50	40.00%	142	37.08%
Strongly agree	57	22.09%	37	29.60%	94	24.54%
Not sure	8	3.10%	2	1.60%	10	2.61%
Mean	3.28		3.66			
St. Dev	1.44		1.32			

t-test: $t(371)= -2.427$, $p=.016$

Q20. Some say that people get ahead by their own hard work, and others say that lucky breaks or help from other people are more important in getting head. Which do you think is more important- hard work, help from others, or lucky breaks?

	RDD		Victims		Combined	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
Hard work	192	74.42%	90	72.00%	282	73.63%
Lucky breaks	8	3.10%	5	4.00%	13	3.39%
Help from others	20	7.75%	15	12.00%	35	9.14%
All of the above	35	13.57%	15	12.00%	50	13.05%
Not sure	2	0.78%	0	0.00%	2	0.52%
Refused	1	0.39%	0	0.00%	1	0.26%

χ^2 Analysis: $\chi^2 (3, N=380)= 2.069$, $p=.558$

Q21. As I read the following possible value ranges of investments, please stop me when I read the range where the total value of your investments fall- please do NOT include the value of your home.

	RDD		Victims		Combined	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
Less than $25,000	23	8.91%	14	11.20%	37	9.66%
More than $25,000, but less than $50,000	29	11.24%	12	9.60%	41	10.70%
More than $50,000, but less than $100,000	37	14.34%	14	11.20%	51	13.32%
More than $100,000, but less than $200,000	40	15.50%	13	10.40%	53	13.84%
More than $200,000 but less than $500,000	46	17.83%	24	19.20%	68	17.75%
More than $500,000 but less than $1 million	19	7.36%	15	12.00%	34	8.88%
More than $1 million	19	7.36%	8	6.40%	27	7.05%
Not sure	7	2.71%	5	4.00%	12	3.13%
Refused	38	14.73%	20	16.00%	48	12.53%
Mean	3.89		3.98			
St. Dev	1.75		1.86			

t-test: $t(311)= -0.406$, $p=.685$

Q22. In general, when someone calls you and tries to sell you something or get you to enter a sweepstakes, or make an investment, what do you usually do? Do you usually…

	RDD		Victims		Combined	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
Hang up right away	142	55.04%	65	52.00%	207	54.05%
End the call at a convenient pause	61	23.64%	40	32.00%	101	26.37%
Listen to hear more before deciding how to respond	7	2.71%	5	4.00%	12	3.13%
Keep the caller on the phone for as long as they have something to say	4	1.55%	2	1.60%	6	1.57%
Ask for information to be sent to your home	27	10.47%	12	9.60%	39	10.18%
Ask questions	4	1.55%	1	0.80%	5	1.31%
Not sure	9	3.49%	0	0.00%	9	2.35%
Refused	4	1.55%	0	0.00%	4	1.04%

Q23. Thinking about calls from investment sales people, about how many calls per week do you get?

	RDD		Victims		Combined	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
Don't get any/no calls	166	64.34%	71	56.80%	237	61.88%
Between 1 to 5 calls per week	66	25.58%	44	35.20%	110	28.72%
Between 6-10 calls	4	1.55%	5	4.00%	9	2.35%
More than 10 calls	7	2.71%	2	1.60%	9	2.35%
Not sure	15	5.81%	2	1.60%	17	4.44%
Refused	0	0.00%	1	0.80%	1	0.26%

χ^2 Analysis: Not significant

Q24. In the past 3 years, about how many invitations have you received to free informational seminars on retirement planning, estate planning, or investing which included a free meal or gift?

	RDD		Victims		Combined	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
None	45	17.44%	25	20.00%	70	18.28%
1	9	3.49%	5	4.00%	14	3.66%
2 to 3	53	20.54%	18	14.40%	71	18.54%
4 to 5	24	9.30%	9	7.20%	33	8.62%
More than 5	113	43.80%	64	51.20%	177	46.21%
Not sure	13	5.04%	4	3.20%	17	4.44%
Refused	1	0.39%	0	0.00%	1	0.26%
Mean	3.62		3.68			
St. Dev.	1.53		1.62			

t-test: $t(363) = -0.339$, $p = .735$

Q25. How many (investment seminars) have you attended in the past three years?

	RDD		Victims		Combined	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
None	238	92.25%	102	81.60%	340	88.77%
1	12	4.65%	15	12.00%	27	7.05%
2 to 3	8	3.10%	5	4.00%	13	3.39%
4 to 5	0	0.00%	1	0.80%	1	0.26%
More than 5	0	0.00%	2	1.60%	2	0.52%
Mean	1.11		1.29			
St. Dev.	0.39		0.73			

t-test: $t(381) = -3.114$, $p = .002$

No χ^2 Analysis done on the following questions (26-34) due to small number of participants in each cell.

Q26. Thinking about the most recent free seminar on retirement planning, what was your MAIN or TOP reason for attending?

	RDD (n=20)		Victims (n=23)		Combined (n=43)	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
To learn about retirement planning	8	40.00%	3	13.04%	11	25.58%
To learn about estate planning or living trusts	0	0.00%	1	4.35%	1	2.33%
To learn about investing in general	1	5.00%	5	21.74%	6	13.95%
To learn about a specific product/service being offered	1	5.00%	3	13.04%	4	9.30%
To enjoy a free meal or gift- I didn't plan to invest	3	15.00%	3	13.04%	6	13.95%
For something to do/entertainment	1	5.00%	1	4.35%	2	4.65%
Curious/Just to see what they have to say	2	10.00%	3	13.04%	5	11.63%
Other	4	20.00%	4	17.39%	8	18.60%

Q27. Sales tactics at seminars

a. The sales person was very friendly to me

	RDD (n=20)		Victims (n=23)		Combined (n=43)	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
Agree	18	90.00%	22	95.65%	40	93.02%
Disagree	0	0.00%	1	4.35%	1	2.33%
Refused	1	5.00%	0	0.00%	1	2.33%
Not Sure	1	5.00%	0	0.00%	1	2.33%

b. The sales person spoke with considerable authority

	RDD (n=20)		Victims (n=23)		Combined (n=43)	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
Agree	19	95.00%	23	100.00%	42	97.67%
Disagree	1	5.00%	0	0.00%	1	2.33%

c. They claimed that the product had been endorsed by reputable companies or individuals.

	RDD (n=20)		Victims (n=23)		Combined (n=43)	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
Agree	16	80.00%	15	65.22%	31	72.09%
Disagree	4	20.00%	3	13.04%	7	16.28%
Not Sure	0	0.00%	5	21.74%	5	11.63%

d. The sales person stated that there was a limited amount of time to make a decision.

	RDD (n=20)		Victims (n=23)		Combined (n=43)	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
Agree	7	35.00%	7	30.43%	14	32.56%
Disagree	13	65.00%	15	65.22%	28	65.12%
Not Sure	0	0.00%	1	4.35%	1	2.33%

e. The sales person made claims about how great the product was compared to other investments.

	RDD (n=20)		Victims (n=23)		Combined (n=43)	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
Agree	11	55.00%	14	60.87%	25	58.14%
Disagree	9	45.00%	6	26.09%	15	34.88%
Not Sure	0	0.00%	3	13.04%	3	6.98%

f. I felt some pressure to invest because I had received a free lunch/and or gift.

	RDD (n=20)		Victims (n=23)		Combined (n=43)	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
Agree	3	15.00%	3	13.04%	6	13.95%
Disagree	17	85.00%	20	86.96%	37	86.05%

g. The sales person drew attention to the fact that other investors in the room had decided to invest.

	RDD (n=20)		Victims (n=23)		Combined (n=43)	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
Agree	10	50.00%	4	17.39%	14	32.56%
Disagree	10	50.00%	19	82.61%	29	67.44%

h. The sales person was very aggressive and applied a lot of pressure.

	RDD (n=20)		Victims (n=23)		Combined (n=43)	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
Agree	0	0.00%	2	8.70%	2	4.65%
Disagree	20	100.00%	21	91.30%	41	95.35%

Q28. Thinking about the most recent seminar you attended, were specific stocks, bonds, mutual funds, or other investments recommended by the presenter or instructor?

	RDD (n=20)		Victims (n=23)		Combined (n=43)	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
Yes	2	10.00%	11	47.83%	13	30.23%
No	18	90.00%	12	52.17%	30	69.77%

Q29. At the time of this recommendation (specific product from presenter) did you decide to invest in these securities?

	RDD (n=2)		Victims (n=11)		Combined (n=13)	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
Yes	0	0.00%	3	27.27%	3	23.08%
No	2	100.00%	8	72.72%	10	76.92%

Q30. Did you lose money, break even, or make a profit on those securities? Or is it still too soon to tell?

	RDD (n=0)		Victims (n=3)	
	Raw #	Percentage	Raw #	Percentage
Made a profit	--	--	2	66.67%
Too soon to tell	--	--	1	33.33%

Q31. Thinking about the three months after the informational seminar you attended, were you contacted by the sponsoring company about investing or buying a product?

	RDD (n=20)		Victims (n=23)		Combined (n=43)	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
Yes	9	45.00%	9	39.13%	18	41.86%
No	11	55.00%	14	60.87%	25	58.14%

Q32. About how many times during those three months after the free seminar did this company attempt to contact you?

	RDD (n=9)		Victims (n=9)		Combined (n=18)	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
At least once	3	33.33%	5	55.56%	8	44.44%
About 2 or 3 times	5	55.56%	4	45.44%	9	50.00%
More than 5 times	1	11.11%	0	0.00%	1	5.56%

Q33. In your opinion, would you describe the company sponsor who contacted you as extremely aggressive, very aggressive, somewhat aggressive, not that aggressive, or not at all aggressive?

	RDD (n=9)		Victims (n=9)		Combined (n=18)	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
Extremely aggressive	0	0.00%	1	11.11%	1	5.56%
Very aggressive	0	0.00%	0	0.00%	0	0.00%
Somewhat aggressive	2	22.22%	5	55.56%	7	38.88%
Not that aggressive	5	55.56%	0	0.00%	5	27.78%
Not at all aggressive	2	22.22%	3	33.33%	5	27.78%

Q34. As a result of the sponsoring company contacting you after the seminar, did you invest in the securities opportunities they recommended?

	RDD (n=9)		Victims (n=9)		Combined (n=18)	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
Yes	2	22.22%	2	22.22%	4	22.22%
No	7	77.78%	7	77.78%	14	77.78%

Q35. Now I'd like to read some statements that are often made by brokers or financial advisors when they are describing a potential investment opportunity. After hearing each, tell me on a scale from 1 to 7 where 1 means that statement would NOT make you interested to hear more and 7 means it WOULD make you extremely interested to hear more.

a. This investment made hundreds of people extremely wealthy

	RDD		Victims		Combined	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
1- Not interested to hear more	189	73.26%	73	58.40%	262	68.41%
2	19	7.36%	19	15.20%	38	9.92%
3	12	4.65%	7	5.60%	19	4.96%
4	14	5.43%	8	6.40%	22	5.74%
5	10	3.88%	6	4.80%	16	4.18%
6	2	0.78%	1	0.80%	3	0.78%
7- Extremely interested to hear more	8	3.10%	7	5.60%	15	3.92%
Don't know	4	1.55%	4	3.20%	8	2.09%
Answered 1 *(correct)*	189	74.41%	73	60.33%	262	69.87%
Answered 2-7 *(incorrect)*	65	25.59%	48	39.67%	113	30.13%

Percentages for correct/incorrect answers excluding those who stated 'don't know'. Total n for RDD=254; n for Victims=121, Combined n=375

χ^2 Analysis 1 vs. 2-7: χ^2 (1, N=375)= 7.716, p=.005

b. There is no way to lose on this investment- it is fully secured

	RDD		Victims		Combined	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
1- Not interested to hear more	181	70.16%	76	60.80%	257	67.10%
2	16	6.20%	8	6.40%	24	6.27%
3	11	4.26%	11	8.80%	22	5.74%
4	19	7.36%	11	8.80%	30	7.83%
5	15	5.81%	6	4.80%	21	5.48%
6	3	1.16%	3	2.40%	6	1.57%
7- Extremely interested to hear more	8	3.10%	6	4.80%	14	3.66%
Don't know	5	1.94%	4	3.20%	9	2.35%
Answered 1 *(correct)*	181	71.54%	76	62.81%	257	68.72%
Answered 2-7 *(incorrect)*	72	28.46%	45	37.19%	117	31.28%

Percentages for correct/incorrect answers excluding those who stated 'don't know'. Total n for RDD=253; n for Victims=121, Combined n=374

χ^2 Analysis 1 vs. 2-7: χ^2 (1, N=374)= 2.903, p=.088

c. I am a registered broker with the NASD

	RDD		Victims		Combined	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
1- Not interested to hear more	130	50.39%	53	42.40%	183	47.78%
2	35	13.57%	18	14.40%	53	13.84%
3	31	12.02%	15	12.00%	46	12.01%
4	19	7.36%	11	8.80%	30	7.83%
5	25	9.69%	13	10.40%	38	9.92%
6	4	1.55%	3	2.40%	7	1.83%
7- Extremely interested to hear more	8	3.10%	3	2.40%	11	2.87%
Don't know	6	2.33%	9	7.20%	15	3.92%
Answered 1 *(correct)*	130	51.59%	53	45.69%	183	49.73%
Answered 2-7 *(incorrect)*	122	48.41%	63	54.31%	185	50.27%

Percentages for correct/incorrect answers excluding those who stated 'don't know'. Total n for RDD=252; n for Victims=116, Combined n=368

χ^2 Analysis 1 vs. 2-7: χ^2 (1, N=368)= 1.105, p=.293

d. We only have 3 units left on this one; if you don't make a decision today, you won't be able to get in on this investment opportunity.

	RDD		Victims		Combined	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
1- Not interested to hear more	231	89.53%	108	86.40%	339	88.51%
2	11	4.26%	7	5.60%	18	4.70%
3	7	2.71%	2	1.60%	9	2.35%
4	2	0.78%	3	2.40%	5	1.31%
5	1	0.39%	0	0.00%	1	0.26%
6	0	0.00%	0	0.00%	0	0.00%
7- Extremely interested to hear more	2	0.78%	1	0.80%	3	0.78%
Don't know	4	1.55%	4	3.20%	8	2.09%
Answered 1 *(correct)*	231	90.94%	108	89.26%	339	90.40%
Answered 2-7 *(incorrect)*	23	9.06%	13	10.74%	36	9.60%

Percentages for correct/incorrect answers excluding those who stated 'don't know'. Total n for RDD=254; n for Victims=121, Combined n=375

χ^2 Analysis 1 vs. 2-7: χ^2 (1, N=375)= 0.269, p=.604

e. The lowest return you could possibly get on this investment is 50% annually, but most investors are making upwards of 110% a year.

	RDD		Victims		Combined	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
1- Not interested to hear more	171	66.28%	65	52.00%	236	61.62%
2	18	6.98%	15	12.00%	33	8.62%
3	15	5.81%	9	7.20%	24	6.27%
4	13	5.04%	7	5.60%	20	5.22%
5	13	5.04%	9	7.20%	22	5.74%
6	11	4.26%	7	5.60%	18	4.70%
7- Extremely interested to hear more	11	4.26%	8	6.40%	19	4.96%
Don't know	6	2.33%	5	4.00%	11	2.87%
Answered 1 *(correct)*	171	67.86%	65	54.17%	236	63.44%
Answered 2-7 *(incorrect)*	81	32.14%	55	45.83%	136	36.56%

Percentages for correct/incorrect answers excluding those who stated 'don't know'. Total n for RDD=252; n for Victims=120, Combined n=372

χ^2 Analysis 1 vs. 2-7: χ^2 (1, N=372)= 6.569, p=.010

f. This investment product is registered with the SEC and your state security agency

	RDD		Victims		Combined	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
1- Not interested to hear more	106	41.09%	42	33.60%	148	38.64%
2	27	10.47%	15	12.00%	42	10.97%
3	38	14.73%	14	11.20%	52	13.58%
4	25	9.69%	11	8.80%	36	9.40%
5	31	12.02%	23	18.40%	54	14.10%
6	10	3.88%	6	4.80%	16	4.18%
7- Extremely interested to hear more	12	4.65%	6	4.80%	18	4.70%
Don't know	9	3.49%	8	6.40%	17	4.44%
Answered 1 *(correct)*	106	42.57%	42	35.90%	148	40.44%
Answered 2-7 *(incorrect)*	143	57.43%	75	64.10%	218	59.56%

Percentages for correct/incorrect answers excluding those who stated 'don't know'. Total n for RDD=249; n for Victims=117, Combined n=366

χ^2 Analysis 1 vs. 2-7: χ^2 (1, N=366)=1.472 , p=.225

g. This stock has outperformed the Dow Jones Industrial Average each year for the last 5 years

	RDD		Victims		Combined	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
1- Not interested to hear more	91	35.27%	32	25.60%	123	32.11%
2	26	10.08%	6	4.80%	32	8.36%
3	33	12.79%	16	12.80%	49	12.79%
4	26	10.08%	15	12.00%	41	10.70%
5	44	17.05%	25	20.00%	69	18.02%
6	19	7.36%	16	12.80%	35	9.14%
7- Extremely interested to hear more	14	5.43%	11	8.80%	25	6.53%
Don't know	5	1.94%	4	3.20%	9	2.35%
Answered 1 *(correct)*	91	35.97%	32	26.45%	123	32.89%
Answered 2-7 *(incorrect)*	162	64.03%	89	73.55%	251	67.11%

Percentages for correct/incorrect answers excluding those who stated 'don't know'. Total n for RDD=253; n for Victims=121, Combined n=374

χ^2 Analysis1 vs. 2-7: χ^2 (1, N=374)= 3.363, p=.067

h. This investment is for a company with excellent management and in a high growth industry

	RDD		Victims		Combined	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
1- Not interested to hear more	93	36.05%	33	26.40%	126	32.90%
2	26	10.08%	10	8.00%	36	9.40%
3	44	17.05%	27	21.60%	71	18.54%
4	27	10.47%	13	10.40%	40	10.44%
5	37	14.34%	22	17.60%	59	15.40%
6	17	6.59%	9	7.20%	26	6.79%
7- Extremely interested to hear more	8	3.10%	6	4.80%	14	3.66%
Don't know	6	2.33%	5	4.00%	11	2.87%
Answered 1 *(correct)*	93	36.90%	33	27.50%	126	33.87%
Answered 2-7 *(incorrect)*	159	63.10%	87	72.50%	246	66.13%

Percentages for correct/incorrect answers excluding those who stated 'don't know'. Total n for RDD=252; n for Victims=120, Combined n=372

χ^2 Analysis 1 vs. 2-7: χ^2 (1, N=372)= 3.210, p=.073

35a, 35b, 35d, 35e: "Red Flag" Combined Scores

	RDD (n=248)	Victims (n=120)
Mean correct (max =4)	3.05	2.66
Percent correct	76.25%	66.50%
Standard Dev.	1.24	1.31

t-test: t(366)=2.781, p=.006

35c, 35f, 35g, 35h: "Green Flag" Combined Scores

	RDD (n=243)	Victims (n=112)
Mean correct (max =4)	1.68	1.29
Percent correct	42.00%	32.35%
Standard Dev.	1.63	1.54

t-test: $t(353)=2.121$, $p=.035$

35a-35h: "All Flags" Combined Scores

	RDD (n=240)	Victims (n=111)
Mean correct (max =8)	4.73	3.92
Percent correct	59.13%	49.00%
Standard Dev.	2.53	2.42

t-test: $t(349)=2.831$, $p=.005$

36. Tell me if this event has happened to you in the past three years.

Participants who answered YES to these questions indicated in table.

χ^2 Analysis: comparing proportion of RDD who said yes/no to proportion of Victims who said yes/no to each question.

	RDD		Victims		Combined	
	Raw #	Percen-tage	Raw #	Percen-tage	Raw #	Percen-tage
Had a serious illness or injury yourself	49	18.99%	21	16.80%	70	18.28%
χ^2 Analysis: χ^2 (1, N=382)= 0.289, p=.591						
Developed a condition that limits your physical ability	49	18.99%	23	18.40%	72	18.80%
χ^2 Analysis: χ^2 (1, N=379)= 0.024, p=.877						
Had a serious injury or illness in the family	96	37.21%	46	36.80%	142	37.08%
χ^2 Analysis: χ^2 (1, N=381)= 0.018, p=.894						
Experienced a negative change in financial status	42	16.28%	26	20.80%	68	17.75%
χ^2 Analysis: χ^2 (1, N=377)= 1.188, p=.276						
Had problems with keeping up with household chores	69	26.74%	20	16.00%	89	23.24%
χ^2 Analysis: χ^2 (1, N=380)= 5.457, p=.019						
Experienced problems with transportation or traffic	71	27.52%	31	24.80%	102	39.53%
χ^2 Analysis: χ^2 (1, N=383)= 0.319, p=.572						
Experienced recent loss of employment	30	11.63%	8	6.40%	38	14.73%
χ^2 Analysis: χ^2 (1, N=379)= 2.611, p=.106						
Had problems with troublesome neighbors	26	10.08%	19	15.20%	45	11.75%
χ^2 Analysis: χ^2 (1, N=382)= 2.091, p=.148						
Found yourself getting bored more often	56	21.71%	21	16.80%	77	20.10%
χ^2 Analysis: χ^2 (1, N=382)= 1.300, p=.254						
Mean # of stressful events experienced	1.89		1.72			
St. Dev.	1.67		1.54			

t-test: $t(380)=0.984$, $p=.326$

Demographics

D1. What is your gender?

	RDD (n=257)		Victims		Combined	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
Male	109	42.41%	80	64.00%	190	49.61%
Female	148	57.59%	45	36.00%	193	50.39%

χ^2 Analysis: χ^2 (1, *N*=382)= 15.374, *p*=.000

D2. What is your age as of your last birthday?

	RDD (n=245)		Victims (n=119)		Combined (n=364)	
	Mean	Standard Dev.	Mean	Standard Dev.	Mean	Standard Dev.
Mean	58.62	12.53	54.97	13.19	57.43	12.84

t-test: *t*(362)= -2.563, *p*=.011

D3. What is your current marital status?

	RDD		Victims		Combined	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
Married	173	67.05%	96	76.80%	269	70.23%
Living with partner/significant other	10	3.88%	2	1.60%	12	3.13%
Widowed	27	10.47%	6	4.80%	33	8.62%
Divorced	26	10.08%	13	10.40%	39	10.18%
Separated	1	0.39%	1	0.80%	2	0.52%
Never Married	19	7.36%	3	2.40%	22	5.74%
Refused	2	0.78%	4	3.20%	6	1.57%

χ^2 Analysis: χ^2 (5, *N*=377)= 9.596, *p*=.088

Looking at those who are married/living as married compared to those who are not married.

	RDD		Victims	
	Raw #	Percentage	Raw #	Percentage
Married/Living with partner or significant other	183	71.48%	98	80.99%
Unmarried (widowed, separated, divorced, never married)	73	28.52%	23	19.01%

χ^2 Analysis: χ^2 (1, *N*=377)= 3.913, *p*=.048

D4. Are you or your spouse a member of AARP, formerly known as the American Association of Retired Persons?

	RDD		Victims		Combined	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
Yes	116	44.96%	39	31.20%	155	40.47%
No	138	53.49%	83	66.40%	221	57.70%
Not Sure	1	0.39%	1	0.80%	2	0.52%
Refused	3	1.16%	2	1.60%	5	1.31%

D5. What is the highest level of education that you have completed?

	RDD		Victims		Combined	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
Less than high school	3	1.16%	2	1.60%	5	1.31%
High school graduate or equivalent	48	18.60%	24	19.20%	42	10.97%
Some college or technical training beyond high school	84	32.56%	43	34.40%	127	33.16%
College graduate (4 years)	63	24.42%	39	31.20%	102	26.63%
Post graduate or professional degree	58	22.48%	15	12.00%	73	19.06%
Refused	2	0.78%	2	1.60%	4	1.04%
Mean	3.49		3.33			
St. Dev.	1.07		0.98			

t-test: $t(377)=1.352$, $p=.177$

D6. Do you currently have children or any other family members living with you in your household?

	RDD		Victims		Combined	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
Yes	80	31.01%	55	44.00%	135	35.25%
No	176	68.22%	68	54.40%	244	63.71%
Refused	2	0.78%	2	1.60%	4	1.04%

D7. Do you have anyone living with you in your household that is not a relative?

	RDD		Victims		Combined	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
Yes	18	6.98%	7	5.60%	25	9.69%
No	238	92.25%	116	92.80%	354	90.42%
Refused	2	0.78%	2	1.60%	4	1.04%

D8. Which of the following best describes your current employment status?

	RDD		Victims		Combined	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
Employed or self-employed full-time	110	42.64%	68	54.40%	178	46.48%
Employed or self-employed part-time	27	10.47%	12	9.60%	39	10.18%
Retired and not working	91	35.27%	38	30.40%	129	33.68%
Unemployed and looking for work	8	3.10%	2	1.60%	10	2.61%
Homemaker	13	5.04%	3	2.40%	16	4.18%
Student	0	0.00%	1	0.80%	1	0.26%
Disabled	7	2.71%	0	0.00%	7	1.83%
Refused	2	0.78%	1	0.80%	3	0.78%

Looking at those who are working compared to those who are not currently working.

	RDD		Victims	
	Raw #	Percentage	Raw #	Percentage
Working full or part-time	137	53.52%	80	64.52%
Not working/retired/homemaker/student/ disabled	119	46.48%	44	35.48%

χ^2 Analysis: χ^2 (1, N=380)= 4.127, p=.042

D9. What was your annual household income before taxes in 2006?

	RDD		Victims		Combined	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
Less than $15k	5	1.94%	6	4.80%	11	2.87%
$15k to less than $25k	14	5.43%	4	3.20%	18	4.70%
$25k to less than $35k	22	8.53%	5	4.00%	27	7.05%
$35k to less than $50k	30	11.63%	13	10.40%	43	11.23%
$50k to less than $75k	41	15.89%	21	16.80%	62	16.19%
$75k or more	82	31.78%	38	30.40%	120	31.33%
Don't know	9	3.49%	6	4.80%	15	3.92%
Refused	55	21.32%	32	25.60%	87	22.72%
Mean	4.72		4.76			
St. Dev.	1.42		1.52			

t-test: t(279)= -0.179, p=.844

D10. Are you of Spanish, Latino, or Hispanic descent?

	RDD		Victims		Combined	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
Yes	3	1.16%	3	2.4%	6	1.57%
No	253	98.06%	121	96.80%	374	97.65%
Refused	2	0.78%	1	0.80%	3	0.78%

D11. What is your race?

	RDD		Victims		Combined	
	Raw #	Percentage	Raw #	Percentage	Raw #	Percentage
White/Caucasian	234	90.70%	114	91.20%	348	90.86%
Black/African American	3	1.16%	3	2.40%	6	1.57%
Native American	2	0.78%	3	2.40%	5	1.31%
Asian American	4	1.56%	1	0.80%	5	1.31%
Refused	15	5.81%	4	3.20%	19	4.96%

REFERENCES

AARP (1994) A report on the 1993 survey of older consumer behavior. Washington DC.

AARP (1996a) Telemarketing fraud and older Americans: An AARP survey. Washington DC.

AARP (1996b) Telemarketing fraud and older Americans: A report of focus group discussions. Washington DC.

AARP (1996c) Findings from a baseline omnibus survey on telemarketing solicitations. Washington DC.

AARP (1999) Consumer behavior, experiences and attitudes: a comparison by age groups. Princeton Survey Research, New Jersey.

AARP (2000) A focus group report of families and friends of telemarketing fraud victims. Seattle, Washington.

AARP (2003a) Off the hook: Reducing participation in telemarketing fraud. U.S. Department of Justice, Office of Justice Programs and the AARP Foundation. Washington DC.

AARP (2003b) Consumer experience survey: Insights on consumer credit, behavior, fraud and financial planning. Washington DC.

AARP (2004) Consumer fraud surveys of Washington, Montana and Hawaii residents. Seattle, WA: AARP Washington.

Abignale, F. (1980) *Catch me if you can.* New York: Grosset & Dunlap.

Anderson, C. A. (1983) Imagination and expectation: The effects of imagining behavioral scripts on personal influences. *Journal of Personality and Social Psychology*, *45*, 293-305.

Anderson, K. (2004) *Consumer fraud in the United States: An FTC survey.* Federal Trade Commission, Washington DC.

Aronson, E. (1995) *The social animal*. New York: W.H. Freeman and Company.

Asch, S. (1951) Effects of group pressure upon the modification and distortion of judgment. In M.H. Guetzkow (Ed.) *Groups, Leadership and Men*, Pittsburgh: Carnegie, (pp.117-190).

Baker, W., & Faulkner, R. (2003) Diffusion of fraud: Intermediate economic crime and investor dynamics. *Criminology*, *41*(4) 1173-1206.

Bass, R., & Hoffler, L. (1992) Telephone-based fraud: A survey of the American public. Louis Harris and Associates.

Baum, K. (2004) Identity Theft, 2004, *Bureau of Justice Statistics Bulletin,* U.S. Department of Justice, Office of Justice Programs.

Bickman, L. (1974) The social power of a uniform. *Journal of Applied Social Psychology, 4* (1), 47-61.

Billy (2006) Interview with a con artist. Unpublished transcript.

Birnbaum, M. (1976) Combining information from sources that vary in credibility. *Memory and Cognition, 4* (3), 330-336.

Birnbaum, M., & Stegner, S. (1979) Source credibility in social judgment: Bias, expertise, and the judge's point of view. *Journal of Personality and Social Psychology, 37* (1), 48-74.

Blake R.R., Rosenbaum M., Duryea R. A. (1955) Gift-giving as a function of group standards. *Human Relations*, *8*, 61-73.

Borgida, E., & Nisbett, R.E. (1977) The differential impact of abstract vs. concrete information on decisions. *Journal of Applied Social Psychology*, *7*, 258-277.

Bucks, B.K., Kennickell, A.C., Moore, K.B. (2006) Recent changes in U.S. family finances: Evidence from the 2001 and 2004 consumer finance survey. Federal Reserve Bulletin.

Burger, J. M. (1986) Increasing compliance by improving the deal: The that's-not-all technique. *Journal of Personality and Social Psychology*, *51*(2), 277-283.

Burger J.M., Messian, N., Patel, S., del Prado, A., Anderson, C. (2004) What a coincidence! The effects of incidental similarity on compliance. *Personality Social Psychology Bulletin*, *30* (1), 35-43.

Burger, J.M., Soroka, S., Gonzago, K., Muphy, E., Somervell, E. (2001) The effect of fleeting attraction on compliance to requests. *Personality and Social Psychology Bulletin, 27* (12), 1578-1586.

Cialdini, R.B. (2001) *Influence: The science of persuasion.* Bantam Books, New York, NY.

Cialdini, R.B. (2003) Crafting normative messages to protect the environment. *Current Directions in Psychological Science*, *12* (4).

Cialdini, R.B., Cacioppo, J., Bassett, R. Miller, J. (1978) The low-ball procedure for producing compliance: Commitment then cost. *Journal of Personality and Social Psychology, 36*, 463-476.

Clotfleter, C.T., & Cook, P.J. (1989) *Selling hope: State lotteries in America.* Cambridge: Harvard Press.

Clotfelder, C., Cook. P., Edell., J., Moore, M. (1999) State lotteries at the turn of the century: Report to the National Gambling Impact Study Commission.

Collins, A.M., & Loftus, E.F. (1975) A spreading-activation theory of semantic processing. *Psychological Review, 82*, 407-428.

Consumer Federation of America (2006) How Americans view personal wealth vs. how financial planners view that wealth. Joint Press Release with The Financial Planner's Association (January 9, 2006), Washington DC.

Cox, C. (2006) S.E.C. Chairman's testimony at the 1st investor "Senior Summit." U.S. Securities & Exchange Commission, Washington D.C.

Dolinski, D., Nawrat, M., Rudak, I. (2001) Dialogue involvement as a social influence technique. *Personality and Social Psychology Bulletin*, *27* (11), 1395-1406.

Elden, M., & Chrisholm, R.F. (1993) Emerging varieties of action research: Introduction to the special issue. *Human Relations*, *46* (2).

FBI Agent, (2005) An Interview with an FBI agent. Private conversation with a bureau agent who specialized in telemarketing fraud prosecutions.

Finberg, J. (2003) Financial abuse of the elderly in California. *Loyola of Los Angeles Law Review*, 36:667.

Freedman, J.L., & Fraser, S.C. (1966) Compliance without pressure: The foot-in-the-door technique. *Journal of Personality and Social Psychology*, *4*, 196-202.

Friedman, M. (1998) Coping with consumer fraud: The need for a paradigm shift. *Journal of Consumer Affairs*, *32*, 1.

FTC, (2006) *Consumer sentinel top complaint categories: 2003-2005*. Federal Trade Commission, Washington DC.

Gonzalez, M.H., Aronson, E., and Costanzo, M. (1988) Using social cognition and persuasion to promote energy conservation: A quasi-experiment. *Journal of Applied Social Psychology, 18* (2), 1049-1066.

Gouldner, A.W. (1960) The norm of reciprocity: A preliminary statement. *American Sociological Review, 25*(2), 161-178.

Gregory, W.L., Cialdini, R.B., Carpenter, K.M. (1982) Self-relevant scenarios as mediators of likelihood estimates and compliance: Does imagining make it so? *Journal of Personality and Social Psychology, 43*, 89-99.

Hobson, C.J., Kamen, J., Szostek, J., Nethercut, C.M., Tiedmann, J.W., Wojnarowicz, S. (1998) Stressful life events: A revision and update of the social readjustment rating scale. *International Journal of Stress Management*, *5* (1).

Holahan, C.K., & Holahan, C.J. (1987) Life stress, hassles, and self-efficacy in aging: A replication and extension. *Journal of Applied Social Psychology*, *17* (16).

Holmes, T.H., & Rahe, R.H. (1967) The social readjustment rating scale. *Journal of Psychosomatic Research, 2*, 213-218.

Holtfreter, K. Slyke, S., Blomberg, T. (2005) Socio-legal change in consumer fraud: from victim-offender interactions to global networks. *Crime, Law and Social Change. 44,* (3), 251-275.

Horvitz, T., & Pratkanis, A. (2002) A laboratory demonstration of the fraudulent telemarketers' 1-in-5 prize tactic. *Journal of Applied Social Psychology, 32* (2), 310-317.

Investor Protection Trust (1996) A survey of investor knowledge and habits. Princeton Survey Research, Princeton, New Jersey.

Kahneman, D. (1992) Reference points, anchors, norms and mixed feelings. *Organizational Behavior and Human Decision Processes, 51*, 296-312.

Kahneman, D., Knetsch, L., Thaler, R. (1991). The endowment effect, loss aversion, and status quo bias. *Journal of Economic Perspectives, 5* (1), 193-206.

Kane, J. (2005) *The national white collar crime survey*. National White Collar Crime Center, Fairmont, West Virginia.

Kerley, K., & Copes, H. (2002) Personal fraud victims and their official responses to victimization. *Journal of Police and Criminal Psychology*, *17* (1).

Kim, J. (2001) Financial knowledge and subjective and objective financial well-being. *Consumer Interests Annual, 47*.

Klein, K. & Boals, A. (2001) The relationship of life event stress and working memory capacity. *Applied Cognitive Psychology, 15*, 565-579.

Knetsch, J.L. (1989) The endowment effect and evidence of nonreversible indifference curves. *American Economic Review, 79* (5), 1277-1284.

Kraaij, V., Arensman, E., Spinhoven, P. (2002) Negative life events and depression in elderly persons: A Meta-analysis. *Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, *57*, 87-94.

Kunz, P.R., & Woolcott, M. (1976) Season's greetings: From my status to yours. *Social Science Research, 5*, 269-278.

Landman, J., & Petty, R. (2000) "It could have been you": How states exploit counterfactual thought to market lotteries. *Psychology & Marketing*, *17* (4), 299-321.

Langenderfer, J., & Shimp, T.A. (2001) Consumer vulnerability to scams, swindles, and fraud: A new theory of visceral influences on persuasion. *Psychology & Marketing, 18* (7), 763-783.

Lewin, K. (1997) *Resolving conflicts and field theory in social science*. American Psychological Association, Washington D.C.

Lynn, M. (1992) The psychology of unavailability: Explaining scarcity and cost effects on value. *Basic and Applied Social Psychology, 13* (1), 3-7.

Mason, K., & Benson, M.L. (1996) The effect of social support on fraud victim's reporting behavior. *Justice Quarterly, 13*, 511-524.

McNaughton, S. (1995) Interview with Stan McNaughton. A private conversation between PEMCO Insurance Company's CEO and Doug Shadel, April 22, 1995.

Milgram, S. (1963) Behavioral studies of obedience. *Journal of Abnormal & Social Psychology, 67*, 371-378.

Milgram, S. (1965) Some conditions of obedience and disobedience to authority. *Human Relations*, *18*, 57-76.

Milgram, S. (1974). *Obedience to authority.* New York: Harper & Row.

Moore, D. (2003) Survey of financial literacy in Washington State: Knowledge, behavior, attitudes, and experiences. Department of Financial Institutions and Washington State University.

Muscat, G., James. M., Graycar, A. (2002) Older people and consumer fraud: Australian crime victim's survey. *Australian Institute of Criminology, No. 220.*

National Fraud Information Center (NFIC) (2005) Annual report of top ten scams in America. Washington DC.

National Opinion Research Center (NORC (2004) Annual survey. University of Chicago.

Norrgard, L., & Norrgard, A. (1998) *Consumer fraud: A reference guide.* Santa Barbara, CA: ABC Clio Publishers.

O'Brien, R. (2000) Crime facts: Victim and offender data. In Joseph Sheley (ed.), *Criminology*, (pp. 59-84). Belmont, CA: Wadsworth.

Opinion Research Corporation (2005) Investor survival skills survey: An investigation of investor knowledge and behavior. Securities Investor Protection Corporation.

Pak, K., & Shadel, D. (2006) The demographics of fraud victimization in industrialized countries. Unpublished Manuscript, Seattle, Washington.

Park, D. (2005) Consumer fraud and the aging mind. Scientific testimony presented to the U.S. Senate Special Committee on Aging, July 27, 2005.

Pennington, N., & Hastie, R. (1992) Explaining the evidence: Tests of the story model for juror decision making, *Journal of Personality and Social Psychology, 62* (2), 189-206.

Pfeffer, J., & Sutton, R.I. (2000) *The knowing-doing gap: How companies turn knowledge into action.* Boston: Harvard University Press.

Pratkanis, A.R. (2007) Social influence analysis: An index of tactics. In A. Pratkanis (ed.) *The science of social influence: advances and future progress.* New York: Psychology Press.

Pratkanis A.R., & Gliner, M.D. (2005) And when shall a little child lead them? Evidence for an altercasting theory of source credibility. *Current Psychology, 23* (4), 279-304.

Pratkanis, A., & Shadel. D. (2005) *Weapons of fraud: A source book for fraud fighters*. Seattle: AARP Washington.

Rebovich, D., & Layne, J. (2000). *The national public survey on white collar crime.* Morgantown, WV: National White Collar Crime Center.

Rotter, J.B. (1954) *Social learning and clinical psychology*. Englewood Cliffs, NJ: Prentice Hall.

Schicor, D., Sechrest, D., Dooey, J. (2001) Victims of investment fraud. In Henry N. Pontell and David Schicor (eds.) *Contemporary issues in crime and criminal justice: Essays in honor of Gilbert Geis*, Englewood Cliffs, New Jersey: Prentice Hall.

Shadel, D. (2006) Lottery television ads: What they aren't telling us. Unpublished Manuscript, Seattle, WA.

Shadel, D., & T. John. (1994) *Schemes & scams: A practical guide to outwitting today's con artist*. Los Angeles, CA: Newcastle Publishing Company.

Shadel, D., & Ward, A. (1995) *Outsmart crime: 200 creative strategies for baffling today's criminal mind*. Los Angeles, CA: Newcastle Publishing Company.

Shover, N., Coffey, G.S., Sanders, C.R. (2004) Dialing for dollars: Opportunities, justifications and telemarketing fraud. *Qualitative Sociology*, *27* (1).

Soberon-Ferrer, H., & Lee, J. (1997) Consumer vulnerability to fraud: Influencing factors. *Journal of Consumer Affairs 31* (1), 70.

Staw, B.M. (1976) Knee-deep in the big-muddy: A study of escalating commitment to a chosen course of action. *Organizational Behavior and Human Decision Processes, 16*, 27-44.

Staw, B.M., & Fox, F.V. (1977) Escalation: The determinants of commitment to a chosen course of action. *Human Relations, 30* (5), 431-450.

Stephenson, R. (1998) *The boiler room and other telephone sales scams.* Champagne: University of Illinois Press.

Strack, F., & Mussweiler, T. (1997) Explaining the enigmatic anchoring effect: Mechanisms of selective accessibility. *Journal of Personality and Social Psychology, 73* (3), 437-446.

Struck, P. (2006) A survey of regulators. Comments from the SEC's "Senior Summit." North American Securities Administrator's Association.

Timmer, D.A., & Norman, W.H. (1984) The ideology of victim precipitation. *Criminal Justice Review*, *9* (2) 63-68.

Titus, R., & Gover, A. R. (2001) Personal fraud: The victims and the scams. Crime Prevention Studies, *41*, 54-77.

Titus, R., Heinzelmann, F., Boyle, J.M. (1995) Victimization of persons by fraud. *Crime & Delinquency*, *41* (1).

Titus, R.A. (1999) The victimology of fraud. Paper presented at the Restoration for Victims of Crime Conference, Australian Institute of Criminology, Melbourne, Australia, September, 1999.

Tversky, A., & Kahneman, D. (1974) Judgment under uncertainty: Heuristics and biases. *Science*, *185* (4157), 1124-1131.

Tversky, A., & Kahneman, D. (1981) The framing of decisions and the psychology of choice. *Science*, *211* (4481), 453-458.

Uniform Crime Reports. 1991-1999. Washington DC: Federal Bureau of Investigation.

United Nations (2000) International crime victims survey. *United Nations Interregional Crime and Justice Research Institute* (UNICRI)

U.S. Department of Justice (2005) National crime victimization study (NCVS).

U.S. Postal Inspection Service (1995) One-in-five post card prevention project. Washington D.C.

Van Wyk, J., & Benson, M.L. (1997) Fraud victimization: Risky business or just bad luck? *American Journal of Criminal Justice, 21* (2), 163-179.

Van Wyk, J., & Mason, K. (2001) Investigating vulnerability and reporting behavior for consumer fraud victimization. *Journal of Contemporary Criminal Justice, 17*, 328-345.

Vitt, L., Anderson, C., Kent, J., Lyler, D., Siegenthaler, J., Ward, J. (2000) *Personal finance and the rush to competence: Financial literacy education in the United States*. Fannie Mae Foundation.

von Hentig, Hans (1948) *The criminal and his victim*. New Haven, CT: Yale University Press.

Wilson, T.D., Houston, C.E., Etling, K.M., Brekke, N. (1996) A new look at anchoring effects: Basic anchoring and its antecedents. *Journal of Experimental Psychology: General, 125* (4), 387-402.

Wolfgang, M.E. (1958) *Patterns in criminal homicide*. Philadelphia: University of Pennsylvania Press.

Worchel S., Lee, J., Adeole, A. (1975) Effects of supply and demand on ratings of object value. *Journal of Personality and Social Psychology, 32* (5), 906-914.

Yaniv, I. (1997) Weighting and trimming: Heuristics for aggregating judgments under uncertainty. *Organizational Behavior and Human Decision Processes*, *69* (3), 237-249.