

Understanding and Combating Investment Fraud

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Abstract

Investment fraud is a significant problem in America. Estimates vary, but a conservative one is that about 10 percent of the investors will be victimized by investment fraud at some point in their lives. Further, many baby boomers are entering retirement with significant assets, and enforcement actions by financial regulators indicate that investors can be vulnerable to fraud at key ‘wealth events’ in their lives, such as when they face a decision about what to do with money arising from the sale of a house, an inheritance, or an IRA rollover. Protecting these assets—for baby boomers and younger generations who face key wealth events—will be important to ensure the financial well-being and retirement security of millions of Americans. This chapter reviews the dynamics of investment fraud victimization, explains how fraudsters use social influence tactics to defraud their victims, and describes current investor protection efforts.

Keywords: Investment fraud, financial fraud, social influence, demographics and fraud, psychographics and fraud, investment fraud solicitations, fraud victimization rates, investor protection

“Yes, as through this world I've wandered
I've seen lots of funny men;
Some will rob you with a six-gun,
And some with a fountain pen.”

Woody Guthrie

Despite the destructive toll investment fraud can have on its victims, researchers have only recently begun to understand the mechanics of fraud and the characteristics of investment fraud victims. This chapter reviews investment and financial fraud victimization rates, examines the demographic and psychographic patterns associated with investment fraud victimization, explores the role of targeting in victimization, and explains how fraudsters rely on social influence tactics to defraud their victims. We conclude with a discussion of what is being done by consumer protection organizations and policy makers to protect investors from investment fraud.¹

The Prevalence and Impact of Fraud Victimization

Investment fraud is a subset of financial fraud, and it occurs when someone “knowingly misleads an investor using false information for the purpose of monetary gain” (Beals et al. 2015). Investment fraud includes scams like penny stock fraud, pre-IPO scams, oil and gas scams, Ponzi schemes and high-yield investment program fraud, to name a few. Financial fraud more generally includes other types of economic frauds, like lottery and sweepstake scams as well as scams involving worthless or non-existent products and services such as bogus weight loss products or fake memorabilia.

Obtaining an accurate estimate of fraud prevalence—whether it is investment fraud or financial fraud—has been hindered by a number of factors. Estimates vary, sometimes widely,

due to inconsistent definitions of fraud, differences in the types of fraud examined and the populations studied, underreporting of fraud, and the method used to measure fraud, such as law enforcement records or surveys (Deevy & Beals, 2013). As such, fraud prevalence estimates need to be considered in this context.

Although there are few estimates of investment fraud prevalence rates, one is that about 7 percent of older investors will be victimized by investment fraud at some point in their lives (Shadel et al. 2007). A calculation by the authors based on data from a 2012 survey puts the estimate at 10 percent of Americans age 40 and older (FINRA Investor Education Foundation 2013). More common are prevalence estimates of financial fraud. Financial fraud prevalence rates as low as four percent and as high as 14 percent have been reported (AARP 2003; Anderson 2007), and recent work by the Federal Trade Commission (FTC) puts the estimated prevalence rate at 11 percent (Anderson 2013). These estimates are likely on the low side because frauds tend to be under-reported. Victims are often reluctant to report frauds because they believe reporting won't make a difference, aren't sure where to report the crime or are too embarrassed (FINRA Investor Education Foundation 2013). From an international perspective, a study by the United Nations Interregional Crime and Justice Research Institute found that consumer fraud rates averaged 11 percent across over 20 countries throughout the world (Van Dijk et al. 2007).

Regardless of the varying prevalence rates, these and other studies conclude that financial fraud is a significant and costly problem. For example, the Stanford Center on Longevity's Financial Fraud Research Center (FFRC) estimated that approximately \$50 billion is lost annually to consumer financial fraud in the United States (Deevy et al. 2012). And the United

Kingdom's Financial Conduct Authority estimates that £1.2 billion is lost to investment frauds, with an average loss of £20,000 per investor (Graham 2014).

The true costs of financial fraud can extend far beyond the amount of money lost. The \$50 billion dollar figure noted above does not take into account indirect costs like legal fees, late fees and lost wages—and importantly, it does not consider the non-financial costs of fraud, like stress, anxiety, and depression. A study that examined the broader impact of financial fraud among Americans age 40 and over found that nearly two thirds of self-reported financial fraud victims experienced at least one non-financial cost of fraud to a serious degree—including anger, stress, and psychological and emotional issues (FINRA Investor Education Foundation 2015). Beyond psychological and emotional costs, nearly half of fraud victims in this study reported incurring indirect costs associated with the fraud, such as late fees, legal fees, and bounced checks—for example, 29 percent of respondents reported more than \$1,000 in indirect costs, and 9 percent declared bankruptcy as a result of the fraud. A sobering insight from this study is that nearly half of victims blame themselves for the incident—an indication of the far-reaching effects of financial fraud on the lives of its victims. And these non-traditional costs of fraud are not unique to an American sample—a study in the United Kingdom found high levels of anger, stress, and emotional issues among fraud victims (Button et al. 2014).

Beyond prevalence rates, another way to think about victimization is to consider how many investors have assets at risk. Nearly 7 in 10 households in America own investments either through taxable accounts or retirement accounts like 401(k)s and various types of IRAs (Mottola 2015), therefore a broad swath of the population has assets that are potentially vulnerable to investment fraud. And even people without investment accounts could fall prey to investment fraud if, for example, a fraudster convinces them to pull equity out of their house to use in a

fraudulent scheme. Further, many baby boomers are entering retirement with significant assets (Lusardi & Mitchell 2006), and enforcement actions by financial regulators indicate that investors can be vulnerable to fraud at key “wealth events” in their lives, such as when they face a decision about what to do with money arising from the sale of a house, an inheritance, or an IRA rollover (FINRA 2015). Protecting these assets—for boomers and younger generations who face key wealth events—will be important to ensure the financial well-being and retirement security of millions of Americans.

The Demographics and Psychographics of Victimization

As noted above, our understanding of fraud victimization prevalence rates is hampered by a number of methodological and practical issues, and these limitations apply to our understanding of how demographic and psychographic variables are related to fraud victimization. However, a growing body of research has provided important insights, including the notion that no single, stereotypical fraud victim profile exists—that is, targets and victims of financial fraud vary by scam type. Early research found that investment fraud victims tended to be college-educated, financially literate men who are optimistic (The Consumer Fraud Research Group 2006). Subsequent research has supported this profile (AARP 2011; Graham 2014). Contrast this profile to that of lottery fraud victims, who are more typically single, older female consumers and those who have lower levels of education and income (The Consumer Fraud Research Group 2006; AARP 2011).

Age and fraud.

Age is probably the most frequently researched demographic variable associated with fraud. There is a common belief that older people are more likely to be victims of financial fraud—but

our stereotypes about victims are not entirely accurate or supported by research. A fair amount of research examining the relationship between age and fraud victimization has been conducted, and some of these studies have found that age and fraud victimization are positively related. For example, one study found that people 50 and over make up 35 percent of the population but 57 percent of telemarketing fraud victims (AARP 1996). Another found that Americans 65 and older are more likely to lose money to financial fraud than those in their forties (FINRA Investor Education Foundation 2013), and researchers have also found that decreasing cognition associated with aging is predictive of future financial fraud incidence (Gamble et al. 2014).

However, other studies have found the opposite—that is, as age increases fraud victimization decreases. The first widely cited study on fraud found that older consumers were three times less likely to be victims of personal fraud than younger consumers (Titus et al. 1995). Two Federal Trade Commission studies also found that younger adults are more likely to be victims of fraud (Anderson 2004; Anderson 2007). And another study found that the risk of fraud victimization decreases after age 50 (DeLiema 2015). In addition, a recent paper took a broad look at this issue and examined the findings from 14 different studies; the researchers concluded that there is not compelling evidence to suggest that a relationship exists between age and consumer fraud victimization (Ross et al. 2014).

Why the confusion? There are good reasons why the relationship between age and fraud is not completely understood. Perhaps most important, as noted above, fraud profiles vary with the type of fraud. Therefore, research that looks at the profiles of victims by grouping all fraud types together may attenuate the relationship between age and fraud. And different conclusions may be reached depending upon the type of fraud examined. In addition, some research suggests that older people are less likely to acknowledge fraud (AARP 2011), which would obviously

impact associations between age and fraud. Results can also vary based on differences in the populations studied.

Despite the empirical uncertainty about the relationship between age and fraud, there is a common belief that older people are more likely to be victims of consumer fraud (Ross et al. 2014). Anecdotally, researchers have pointed to the likelihood of seniors having more assets than younger adults, consequently making them better fraud targets. In addition, researchers have started to establish a link between cognitive changes associated with aging and susceptibility to at least some forms of fraud. For example, several researchers have found that older people are more trusting of strangers' faces, and neurological evidence supports this association (Castle et al. 2012). This higher level of trust could reduce the ability to recognize red flags, and lead to greater engagement with fraudsters. Social isolation can play a role, as well. Increased isolation among the elderly may result in an older adult being more open to engaging with strangers to fulfill unmet social needs (Ganzini et al. 1990; Lee & Soberon-Ferrer 1997; Federal Bureau of Investigation 2014).

Other demographic variables.

Beyond age, research suggests that a number of demographic variables are related to fraud victimization, although these findings are also mixed. Gender, income, education, and marital status have all been associated with fraud to varying degrees. Victims of investment fraud have been found to have higher incomes and higher education levels relative to victims of other financial fraud crimes (AARP 2011). And they are also more likely to be married (Consumer Fraud Research Group 2006; AARP 2011).

Psychographic variables.

A number of psychographic variables have been associated with fraud victimization—among them, risk tolerance, debt load, impulsiveness, and financial literacy. Specifically, higher levels of risk tolerance and engagement in risky behaviors are associated with a higher probability of fraud victimization (Van Wyk & Benson 1997; Schoepfer & Piquero 2009), as is higher levels of debt (Anderson 2004; Kerley & Copes 2002). Researchers from Stanford and Yale used multilevel data (i.e., fMRI, survey and demographic) to compare investment fraud victims and non-victims and found that victims reported higher impulsiveness and demonstrated less cognitive flexibility; they also showed less ventrolateral prefrontal cortical activity, which is consistent with reduced impulse control (Knutson & Samanez-Larkin 2014). Somewhat counterintuitively, higher levels of financial literacy have been associated with an increased probability of investment fraud victimization (Consumer Fraud Research Group 2006; AARP 2007) and consumer fraud (AARP 2008).

What could account for this counterintuitive relationship between financial literacy and fraud? One explanation could be overconfidence. Overconfidence is a well-established bias in which a person tends to be more confident than correct; in other words, overconfident individuals overestimate the accuracy of their beliefs (Myers 1993). The idea that overconfidence can affect financial decisions is not new. In a seminal study of stock trading behavior, researchers found that overconfidence was associated with higher levels of trading and lower portfolio returns (Barber & Odean 2001). Similarly, other researchers found that overconfidence is a significant determinant of risky financial behavior—overconfident individuals made larger contributions in an investment game and were willing to take greater investment risk (McCannon et al. 2015).

Several researchers specifically examined whether overconfidence was related to fraud susceptibility, and they found that “overconfidence is a significant risk factor for becoming a victim of financial fraud” (Gamble et al. 2014). However, these researchers did not establish whether overconfidence mediates the relationship between financial literacy and financial fraud. That is, it is possible that as financial literacy increases, feelings of overconfidence increase with it. And this overconfidence could yield feelings of invulnerability that, paradoxically, make respondents with high levels of financial literacy more susceptible to fraud. From this perspective, there is not a direct link between financial literacy and fraud susceptibility—rather, overconfidence may mediate the relationship.

The inability to identify the red flags of fraud (also known as interest in persuasion statements) provides another psychographic factor thought to be related to investment fraud victimization (AARP 2011). The inability to identify the red flags of fraud is usually measured by showing marketing statements typically used by fraudsters and that are inconsistent with ethical investment advertisements. For example, ‘The lowest return you could possibly get on this investment is 50 percent annually, but most investors are making upward of 110 percent per year’ is a red flag statement, as is ‘There is no way to lose money on this investment’. If the survey respondent rates these statements and others like them as ‘appealing’ they are considered less able to identify the red flags of fraud. The lack of understanding of reasonable investment returns (FINRA Investor Education Foundation 2013), and the desire for higher-than-average investment yields, leaves many Americans vulnerable, in particular, to fraudulent investment pitches.

The Role of Targeting in Investment Fraud Victimization

Understanding fraud victimization is complicated by two contributing kinds of vulnerability—the likelihood of being targeted and the likelihood of falling victim once targeted (Deevy et al. 2012). A demographic group may have low levels of fraud victimization because they are not frequently targeted; conversely, a group may have high levels of fraud victimization because they are frequently targeted. In other words, examining the relationship between age—or any demographic variable—and fraud victimization without controlling for how often a person is solicited for fraud could result in biased estimates of the relationship between key demographic variables and fraud victimization.

Table 1.1 presents the results of a series of logistic regression models predicting investment fraud. After controlling for demographic and psychographic variables, these results provide some insight into the role that targeting plays in investment fraud victimization. The first regression (Model 1) contains only demographic variables. Age is strongly associated with investment fraud victimization. As indicated by the Odds Ratio (OR), for every 10-year increase in age, the odds of being an investment fraud victim increases by a multiplicative factor of 1.31. Household income is also strongly and positively related to investment fraud victimization, as indicated by the highly significant OR of 1.58. Males are almost two times more likely to be victims of investment fraud than females (OR=1.72) and college-educated respondents are more likely than their less educated counterparts (OR=1.42). Non-Asian minority status (i.e., black and Hispanic), marital status, presence of dependents in the house, and being a widow/widower were not related to investment fraud victimization.²

Insert Table 1.1 Here

Model 2 adds the following psychographic variables into the equation: financial literacy, perception of debt, risk tolerance, and a measure of the inability of respondents to identify

common red flags of fraud. These four variables are all significantly and positively related to investment fraud victimization. Including these psychographic variables eliminates the relationship between household income and fraud victimization and gender and fraud victimization—but age still remains strongly related to victimization.

The third model controls for investment fraud targeting by adding a variable that is a count of investment fraud solicitations, and this variable is highly related to fraud victimization. For each additional investment fraud solicitation that a respondent receives the odds of their victimization increases by a factor of 1.84. In addition, the inclusion of this targeting variable eliminates the significance of all other demographic variables, including age. However, risk tolerance, financial literacy, and the inability of the respondent to identify the red flags of fraud remain statistically significant.³

Clearly the targeting variable is the strongest predictor of investment fraud victimization, but it begs the questions: How common are investment fraud solicitations, and who tends to get targeted? Figure 1.1 shows a histogram of the number of different types of investment fraud contacts that respondents reported. It is evident that most respondents were contacted to participate in at least one type of fraudulent investment, and many were contacted to participate in more than one.

Insert Figure 1.1 Here

Table 1.2 shows the results of a Negative Binomial Regression that predicts the number of times a respondent is solicited to participate in one of nine different likely fraudulent investments using demographic information that can be easily obtained by a fraudster. The results of the regression, which are presented in Table 1.2, show that as age increases the number of fraudulent solicitations a respondent receives also increases. Similarly, the percent change in

the prevalence rate of being contacted for investment fraud is 1.36 times higher for males than females. Household income is also strongly and positively related to investment fraud solicitations, as is being college educated. We conclude that older, affluent, college-educated males are most likely to be targeted for investment fraud—which is consistent with the AARP (2011) study that found investment fraud victims tended to be more educated, more affluent, older, and more likely to be male relative to the general population.

Insert Table 1.2 Here

Social Influence and Investment Fraud

While certain demographic groups are more likely to be targeted and become victims of investment fraud, anyone with access to capital could potentially be at risk. The ubiquity of fraud solicitations coupled with the inability of many people to recognize the red flags of fraud place a large number of Americans at risk of losing money to scams (FINRA Investor Education Foundation 2013). And given that financial literacy appears to be positively correlated with fraud victimization, it is important to think beyond traditional financial education to address investment fraud victimization. Financial decisions have been linked to emotions (Lerner et al. 2004); therefore persuasion techniques that influence emotions can also impact decision making—an idea supported by a recent study that examined this issue (Kircanski et al. 2016) . Combating investment fraud thus requires an understanding of how fraudsters operate, and importantly, the techniques they use to separate victims from their money.

Simply stated, social influence refers to the science of how people change the thoughts, feelings and, most importantly, the behavior of other people through a variety of methods (Pratkanis, 2007). The science of social influence offers an avenue toward better understanding

and preventing investment fraud. While many techniques are subsumed under the heading social influence, this paper will focus on a limited number of influence tactics that are commonly used in investment fraud—these include phantom riches, source credibility, social consensus, reciprocity, and scarcity (Consumer Fraud Research Group 2006). It should be noted that these influence techniques are not only used to defraud people. To the contrary, these tactics are used every day in the marketing of a range of products and services. When fraudsters use these tactics for ill-intent, however, they cross an ethical line that can lead to long-lasting and potentially devastating consequences for their victims.

Planting the seed of ‘phantom riches’ is a common technique used by fraudsters and involves dangling the prospect of wealth by enticing a potential victim with something they want but cannot have (Pratkanis & Farquhar 1992). Examples of phantom riches used by fraudsters are statements like ‘The lowest return you could possibly get on this investment is 50 percent annually, but most investors are making upwards of 110 percent a year’. Survey research suggests that people are attracted to these statements—despite that these are not responsible forms of investment advertising and returns of 50 to 100 percent per year are highly improbable. For example, 42 percent of respondents in a survey of U.S. adults age 40 and over found this statement appealing (FINRA Investor Education Foundation 2013).

Source credibility is a technique used by fraudsters that capitalizes on the finding that people are more likely to believe people in positions of authority, and to trust organizations that they perceive as legitimate. An analysis of audio-tapes from undercover investment fraud investigations revealed that establishing credibility is one of the most widely used social influence tactics (Consumer Fraud Research Group 2006). A classic example of the power of source credibility, although not an example of fraud, is Stanley Milgram’s study on obedience.

As is commonly known, this study shows the ease with which a researcher donning a lab coat and clip board (to help establish credibility and authority) can compel subjects in the study to ostensibly shock confederates in another room despite confederates pleading for the subject to stop the shocks (of course, no shocks were actually being administered). In fact, many subjects ‘administered’ shocks to the confederates even when they believed the confederate was unconscious (Milgram 1965, 1974). While Milgram argues that several factors contribute to the subjects’ willingness to shock the confederates, he does argue that authority must be established and perceived as legitimate.

Source credibility is used to build trust, and once trust is established between the fraudster and the potential victim, it is much easier for the fraudster to perpetrate the fraud. An example of source credibility that an investment fraudster might use is a statement like the following: ‘We are a highly regarded and profitable investment management company specializing in the foreign exchange markets, futures, options, commodities, stocks, bonds, real estate, business startup, and many other investments’. The appeal of this statement was also tested among U.S. adults age 40 and over, and 29 percent of the respondents found the statement appealing. Further, source credibility is often established by using professional credentials, whether real or artificial.

Fraudsters also use the tactic of social consensus (sometimes referred to as social proof) whereby the more it appears that everyone else is engaging in a particular behavior or holds a particular belief, the more likely it is that an individual will join and agree with the group (Pratkanis 2007). Social consensus is tied to social pressure and conformity. If everyone is doing something, not only must it be a good idea but it can be difficult to go against group consensus. Solomon Asch famously demonstrated the power of the group to engender conformity in his

classic line experiment. In this experiment, he used several confederates to provide obviously wrong answers about the length of a line on a card. The subject of the experiment, who answered the question about the length of the line last or second-to-last, often provided an obviously wrong answer as well—just to conform with the group (Asch 1956). Social consensus is exploited by fraudsters to commit affinity fraud. This happens when a fraudster takes advantage of the trust inherent in groups of like-minded individuals, like those who attend the same place of worship or social club. The fraudster, who is or pretends to be a member of the group upon which he or she is preying, points out to potential victims that other members of their group have already purchased a particular investment—implying that if their friends and colleagues are involved, it must be a good investment. Social consensus can even be effective with strangers. For example, a typical pitch from a fraudster is something like ‘This investment made hundreds of people extremely wealthy’. With this statement, the fraudster is relying on the potential victim thinking that hundreds of people can’t be wrong. And survey research has found that this statement is, in fact, appealing to 30 percent of the respondents who rated it (FINRA Investor Education Foundation 2013).

The norm of reciprocity (Gouldner 1960) is another technique that fraudsters rely on to convince potential victims to part with their money. The norm of reciprocity is based on the notion that we should return help to those who help us, and Gouldner believed this norm to be powerful and universal. The power of reciprocity has been demonstrated in a number of different settings, including charities (Cialdini 2001) and organizational/industrial settings (Rhoads & Eisenberger 2002). Given the effectiveness of reciprocity, it is not surprising that fraudsters use the technique. An example would be a fraudster giving you a ‘break on his commission’. Similarly, free meal seminars are another common tactic that relies on the norm of reciprocity. A

meal is provided, but then the fraudster expects that the attendee will invest in their scheme in return for the meal. Not all free meal seminars are frauds, but a report by the Securities Exchange Commission, the North American Securities Administrators Association, and the Financial Industry Regulatory Authority found that in half the cases they examined the sales materials contained claims that were exaggerated, misleading, or otherwise unwarranted. And 13 percent of the seminars appeared to involve fraud, ranging from unfounded projections of returns to sales of fictitious products (Securities and Exchange Commission et al. 2007). While not a lot of empirical work has been done on the efficacy of free meal seminars, their ubiquity lends credence to their effectiveness—64 percent of adults indicated that they were contacted to attend a free lunch sales pitch (FINRA Investor Education Foundation 2013).

The tactic of scarcity is applied when a salesperson creates a false sense of urgency by claiming there's a limited supply or limited time to act, or by claiming the opportunity is exclusive. This results in the product or service being perceived as more valuable. Worchel, Lee and Adewole (1975) demonstrated the influence of scarcity on perceived value in a simple experiment in which they asked subjects to rate the attractiveness of cookies. The experimenters manipulated the supply of the cookies by showing some subjects a jar with 10 cookies in it and other subjects a jar with two cookies in it. The cookies were rated as more attractive when they were presented in the jar with two cookies. West (1975) found a similar increase in the attractiveness of cafeteria food following a decrease in the availability of the food.

Examples of how a fraudster might use scarcity include the following statements: 'This is an opportunity to get in on the ground floor of a company that is about to roll out a revolutionary new technology' or 'this offer is only good for today'. As is evident in these examples, scarcity can come in different forms—including: 'Product Scarcity', when a product is limited; 'Time

Scarcity’, when there is only a limited amount of time to make a decision; ‘Fear-of-Loss Scarcity’, which relies on the notion that the prize may be taken away or claimed by someone else; and ‘Winner Scarcity’, when an item is only offered to a selected group of individuals (Shadel & Pak 2007).

The power of scarcity may be explained by Reactance Theory (Brehm & Brehm 1981). Reactance occurs when an individual is motivated to react against the impending loss of a behavior, item, or freedom. In terms of investment fraud, if a fraudster proposes that you could lose access to an investment by not ‘acting today,’ you might react against this by wanting the investment more than you did before. Loss aversion may be related to scarcity, as well. Loss aversion comes from Prospect Theory and posits that losing something is psychologically more painful than gaining something of similar value (Kahneman & Tversky 1979). In terms of its use by fraudsters, losing the opportunity to earn a big return on an investment may be painful enough to motivate a fraud target to go ahead with the investment, despite reservations he or she may have.

By its very nature, investing typically involves taking on some degree of risk—ranging from the risk of returns failing to keep pace with inflation to the risk of incurring losses on your investment or even losing your entire investment. Whether applied individually or collectively, these and similar tactics can greatly, and often subconsciously, impact the psychological and emotional state of the intended fraud target, which can affect perceptions of risk and lead to compromised decision making. For example, according to the risk-as-feelings hypothesis, emotional reactions to risky situations often drive behavior (Loewenstein et al. 2001), and newly emerging research found that inducing either a positive or negative emotional state in older adults increased their intention to purchase items marketed with misleading advertisements

(Kircanski et al., 2016). In short, social persuasion tactics may be effective because they can change a person's emotional state and, consequently, affect their willingness to take on risk and their ability to make sound decisions.

Combating Investment Fraud

Early campaigns to prevent investment fraud focused on warning investors about some perils associated with investing. In recent years, the approach has become more sophisticated and incorporates the knowledge and understanding of social influence tactics. For example, some campaigns have shifted from warning investors about specific scams to educating investors about their vulnerability and the various social influence tactics that fraudsters use. Further, these more recent campaigns also help investors identify the red flags of investment fraud and teach them to ask the right questions and verify the answers. This shift aligns with best practices identified in an Organization for Economic Cooperation and Development (OECD) review of anti-scam consumer behavior change campaigns. In the study, OECD noted that successful campaigns: identify a clear target market; try to change behavior by specifying specific strategies and steps; use an authoritative tone; identify and communicate consumer benefits; tell stories; and engage partners (Organization for Economic Cooperation and Development 2005). OECD notes that while information campaigns and targeted warnings have some utility, their effectiveness is limited by the reactive, specific, short-termed nature of the prevention approach. They suggest that a more strategic, long-term, skills-based approach to tackling scams is required.

Behavior change is rarely a discrete, single event (Zimmerman et al. 2000). An individual moves gradually from being uninterested or ambivalent (the precontemplation stage), to considering a change (contemplation stage), to deciding and preparing to make a change. This

can lead to the desired action stage, but oftentimes some type of maintenance and relapse prevention program is required to sustain the change (Zimmerman et al. 2000). Most individuals find themselves recycling through the various stages before the behavior change becomes ingrained. During the precontemplation stage, in particular, many individuals may not see that advice on how to avoid investment fraud applies to them—that is, they demonstrate illusions of invulnerability. And while certain demographic groups are more likely to be victims of investment fraud, nearly everyone is at risk. If a person has money, he or she will likely come across someone who will try to coax him or her to ‘get in on the ground floor of a great investment’ or ‘strike while the iron is hot’. In fact, one study found that over 8 in 10 US adults age 40 and older were contacted in some fashion to participate in a likely fraudulent activity (FINRA Investor Education Foundation 2013).

To combat investment fraud, organizations including AARP, the US Securities Exchange Commission (SEC), the US Commodity Futures Trading Commission (CFTC), and the FINRA Investor Education Foundation are engaged in efforts to increase investor awareness of possibly fraudulent activities. For example, these organizations and others like them have used investor alerts, fraud hotlines, outbound call centers, and marketing campaigns to improve investor awareness—however, given the large number of investors, investor overconfidence, illusions of invulnerability, and the limited resources organizations have to educate investors, improving investor awareness of fraud continues to be a challenge.

Identifying the red flags of fraud is, not surprisingly, tightly linked with understanding the social influence tactics that fraudsters use. So, efforts to build the skills of investors to identify the questionable use of persuasion and influence have been undertaken. Influence techniques identified through social influence research in the context of financial fraud—

including phantom riches, source credibility, social consensus, reciprocity, and scarcity (Consumer Fraud Research Group 2006)—are powerful in building emotion and convincing people to act without evaluating the risks of these actions. Teaching an investor to recognize these tactics is intended to heighten his or her awareness of the emotional impact of the techniques, and consequently, to limit the impact of the techniques on financial decision making. In other words, in learning to recognize when decision making is clouded by emotion, investors may be better equipped to make less emotional, more cognitive decisions.

Another component of educational initiatives aimed at preventing investment fraud involves encouraging people to engage in behaviors that reduce their exposure to investment fraud—that is, reduce the possibility that they will be targeted for fraud. Some behaviors associated with fraud risk include openness to information and buying investments recommended by a friend, relative, coworker, or neighbor (FINRA Investor Education Foundation 2007). Fraud prevention efforts also encourage investors to closely examine the background of the people who are trying to sell them investments and the legitimacy of the investments themselves. A legitimate securities salesperson must be properly licensed, and his or her firm must be registered with FINRA, the SEC or a state securities regulator—depending on the type of business the firm conducts. FINRA’s BrokerCheck provides information for investors checking the background of broker-dealers, and the SEC’s Investment Advisor Public Disclosure (IAPD) database provides information on the background of investment advisors. The CFTC offers SmartCheck to help investors check backgrounds, as well. And each state has resources for helping investors research the background of investment professionals. The North American Securities Administrators Association (NASAA) is a good place to start to learn about state-level investment fraud prevention efforts.

Regulators also recommend that investors check to be sure the investment that he or she is being sold is properly registered with the SEC. Although not all investments are required to be registered, most investments are—and if they are registered they can be found in the SEC’s EDGAR Database. Investors should be cautioned that there is an additional level of risk to investing in investments that are not registered with the SEC.

Evidence on the effectiveness of fraud prevention education initiatives described above is limited. The FINRA Investor Education Foundation and AARP did conduct two rounds of field-tests in an attempt to examine the effectiveness of a 90-minute investor protection program. *Outsmarting Investment Fraud* (OIF), a program developed by the FINRA Investor Education Foundation and AARP to help investors resist fraud, was tested in a quasi-experimental fashion. Individuals who attended the OIF workshop were contacted three days later by a telemarketer who had experience with high-pressure sales, and the telemarketer asked if he could send the individual information about an oil and gas investment (oil and gas investments are often rife with fraud). To serve as a control group, the telemarketer also randomly contacted individuals who were registered to attend the OIF program the following week but had not yet been exposed to the program. Thirty-six percent of the control group agreed to send the telemarketer their contact information compared to 18 percent of the group that took the training—a significant improvement in resistance to high-pressure investment sales (Shadel et al. 2010).

Outbound call centers have also been used to proactively contact people who might be at risk for lottery fraud and offer counseling to help the potential victim avoid victimization. A 2003 evaluation of this type of call center conducted by AARP and the US Department of Justice found that the call centers were effective at reducing responsiveness to fraudulent pitches, and a follow-up field study conducted by Stanford University found similar results (AARP 2003;

Scheibe et al. 2014). However, neither of these studies focused specifically on investment fraud, so it is unclear if this approach would generalize to helping protect investors from investment fraud.

Conclusion

A number of studies suggest that investment fraud is a significant problem in America, a problem that could become worse as the baby boomers retire and significant assets move out of their employer-provided retirement plans. While several demographic characteristics are associated with fraud victims (e.g., age, gender, and income), it is not clear if certain demographic groups are more susceptible to investment fraud, more targeted by fraudsters, or both. Further, psychographic variables like risk tolerance, financial literacy and the inability to identify the red flags of fraud are also associated with investment fraud victimization.

The science of social influence, which refers to how people change the thoughts, feelings and behavior of others through a variety of methods, has been used to help explain how fraudsters con their victims. Phantom riches, source credibility, social consensus, reciprocity, and scarcity are among the social influence tactics that are commonly used by fraudsters, and their effectiveness at influencing behavior is supported by survey-based financial fraud research and experimental social psychological research. Educational initiatives aimed at getting people to understand the social influence tactics fraudsters use has been effective in increasing the ability of individuals to resist fraud pitches, but the evidence is limited and clearly more work needs to be done to understand how robust these interventions are across fraud types. In addition, policy makers and stakeholders may need to build a more robust network of organizations to assist fraud victims—in part due to the high level of revictimization (Consumer Financial Protection

Bureau 2016). For example, organizations like the National Center for Victims of Crime are beginning to offer training to staff of adult protective services agencies, senior support groups, and other community-based consumer protection organizations to build their capacity to assist fraud victims, but more support organizations are needed given the scope of the problem.

Research aimed at understanding the causes and consequences of fraud is in its early stages. Great work has been conducted by pioneering researchers, but clearly more work needs to be done. One project that offers promise is a collaboration among the US Department of Justice's Bureau of Justice Statistics, the Stanford Center on Longevity and the FINRA Investor Education Foundation. These organizations, working in coordination with other organizations and researchers, have created a taxonomy of fraud that can be used to categorize the many different types of financial frauds—including investment fraud (Beals et al. 2015). In addition, the team has built a survey that can be used to operationalize the taxonomy. The goal of the project is to include the survey as a supplement in the Department of Justice's National Crime Victimization Survey—which would provide researchers, policy makers and stakeholders with accurate baseline prevalence estimates of the various types of financial fraud and, potentially, an improved understanding of financial fraud. In addition, inclusion of fraud victimization questions in an upcoming wave of the Health and Retirement Study will provide researchers with a rich longitudinal data source to better understand the prevalence and predictors of financial fraud. The increased attention that these projects and others like them bring to the problem of investment fraud—and to financial fraud, more generally—offers promise that in the coming years researchers and policy makers will have a better understanding of investment fraud and importantly, effective interventions for protecting investors.

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Table 1.1 Predicting investment fraud victimization

	Model 1 (Demographic Variables Only)		Model 2 (Demographics and Psychographics)		Model 3 (Demographics, Psychographics and Solicitations)	
Variable	Coefficient	OR	Coefficient	OR	Coefficient	OR
Age (10-yr)	0.27** (.09)	1.31	0.36** (.10)	1.4	0.15 (.11)	1.16
Income >= \$50,000	0.46* (.19)	1.58	0.17 (.20)	1.2	0.05 (.21)	1.05
Male	0.54** (.17)	1.72	0.24 (.18)	1.3	0.02 (.20)	1.02
Non-Asian Minority	-0.11 (.22)	0.89	-0.04 (.22)	1	-0.23 (.24)	0.8
Married	-0.05 (.20)	0.95	0.02 (.21)	1	0.19 (.23)	1.21
Presence of Dependents in Household	0.29 (.20)	1.34	0.23 (.21)	1.3	0.17 (.22)	1.18
College Educated	0.35* (.18)	1.42	0.21 (.18)	1.2	0.00 (.20)	1
Widow	0.35 (.34)	1.42	0.57 (.35)	1.8	0.57 (.38)	1.77
Measured Financial Literacy			0.34** (.08)	1.4	0.17* (.09)	1.19
Inability to Identify Red Flags of Fraud			0.08* (.04)	1.1	0.07* (.04)	1.08

Too Much Debt		0.08* (.04)	1.1	0.06 (.04)	1.06
Risk Tolerance		0.18** (.04)	1.2	0.14** (.04)	1.15
Investment Scam Contacts				0.62** (.06)	1.85
Intercept	-4.36 (.56)	-7.42 (.78)		-6.58 (.83)	
Observations	1,573	1,573		1,573	
R-Square	0.03	0.07		0.14	
Max-rescaled R-Square	0.06	0.13		0.28	
Likelihood Ratio	44.4114, p<.0001	106.2426, p<.0001		236.9412, p<.0001	

Source: Authors' calculations based on data from the FINRA Investor Education Foundation's Fraud Susceptibility Study (2013) and the 2012 National Financial Capability Study. Both the regression output and data set are available upon request.

Notes: A logistic regression was conducted; standard errors are in parentheses. ** p<0.01, * p<0.05. The likelihood ratio is the difference between the log-likelihood for the constant-only and full model. Due to missing data, 148 observations were dropped from the analysis. For reference, 10 percent of survey respondents in this analysis were classified as investment fraud victims.

Table 1.2 Demographic factors related to investment fraud targeting

Variable	IRR	Statistical Significance
Age (10-yr)	1.22 (.03)	**
Income >= \$50,000	1.26 (.07)	**
Male	1.36 (.07)	**
Non-Asian Minority	1.07 (.07)	
Married	.92 (.06)	
Presence of Dependents in Household	1.03 (.63)	
College Educated	1.33 (.07)	**
Widow	1.08 0.10	
Observations	1,721	
Wald Chi-Square	230.77	**
Pseudo R-Square	0.04	

Source: Authors' calculations based on data from the FINRA Investor Education Foundation's Fraud Susceptibility Study (2013) and the 2012 National Financial Capability Study. The regression output and data set are available upon request.

Notes: A Negative Binomial Regression Model was used to model the count data; robust standard errors are in parentheses. (Poisson Regression was not used due to overdispersion of the dependent variable, but both models yielded similar results.). ** $p < 0.01$, * $p < 0.05$.

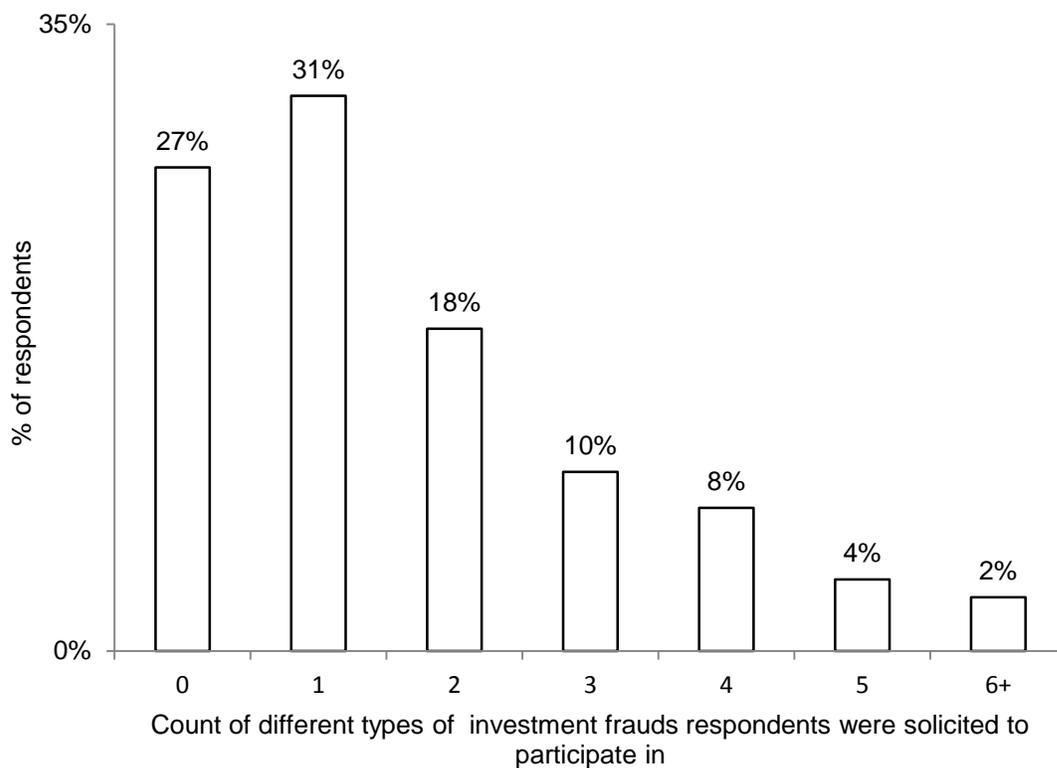


Figure 1.1. Percent of survey respondents by the count of different types of likely fraudulent investment scams that they were solicited to participate in (nine different investment frauds were examined).

Source: Authors' calculations based on data from the FINRA Investor Education Foundation's Fraud Susceptibility Study (2013) and the 2012 National Financial Capability Study. Data are available upon request.

Endnotes

¹ This chapter focuses on investment fraud, but much of the extant research examines the more general financial fraud. Complicating the issue further, researchers also use the terms consumer fraud, personal fraud, telemarketing fraud, or just fraud—sometimes without providing explicit definitions of these terms. The research studies cited in this chapter cover all areas of fraud, but an attempt is made to focus on investment fraud. Further, when describing the results of a study, we typically used the same terminology that the authors used.

² Survey respondents were asked if they were contacted to participate in or lost money in the following types of investment frauds: Cold Call Scam, Free Lunch Seminar, Oil & Gas Scam, Promissory Note Scam, Pump & Dump, Pre-IPO Scam, High-Yield Investment Program Scam, Multi-level Marketing, and Digital Currency Purchase. For more information on the methodology used to collect this data, see *Financial Fraud and Fraud Susceptibility in the United States*.

³ While the results of this regression are promising, there are two limitations that need to be considered. The survey methodology assumes that in order to be victimized by investment fraud the respondent had to be targeted or solicited to participate in a potentially fraudulent investment. As a result, respondents who said they were not contacted for fraud were not asked if they were ever victimized by fraud. However, it is possible that a victim actually sought out interaction with the person who ultimately defrauded them. Second, the survey questions asked if the respondents had ever been victimized by different types of investment fraud, so older respondents could be targeted and victimized by investment fraud more often than younger respondents simply because they have a greater span of time to be targeted and victimized.

However, research on memory decay in survey respondents suggests that respondents cannot think back too far when recalling events, which could lessen the impact of this limitation.