

Federal Trade Commission
Supporting Statement for a Paperwork Reduction Act
Submission to OMB
Fraud Susceptibility Internet Panel Study
(OMB Control No. 3084-NEW)

The Federal Trade Commission (“FTC” or “Commission”) seeks to conduct a second exploratory study on consumer susceptibility to fraudulent and deceptive marketing. This research would be conducted to further the FTC’s mission of protecting consumers from unfair and deceptive practices.

A. JUSTIFICATION

(1) & (2) Necessity for and Use of the Information Collection

As part of its consumer protection mission, the FTC has brought hundreds of cases against consumer fraud and has committed significant resources to educating consumers to avoid such frauds. To ensure that its anti-fraud efforts are as effective as possible, the Commission seeks to better understand what makes some consumers more susceptible to becoming fraud victims. As with the Commission’s earlier studies of consumer fraud, a goal of the proposed exploratory study will be to increase FTC knowledge of consumer characteristics that are correlated with an increased risk of becoming a fraud victim.

In the currently proposed exploratory study, the Commission proposes to collect information from a convenience sample consisting of 5,000 members of an online Internet panel. All information will be collected on a voluntary basis. The Commission will not receive any personally identifying information. Subject to OMB approval for the project, the FTC has contracted with a commercial research firm that operates such an online Internet panel to identify participants and administer the survey instrument to them.

The Commission has conducted three statistical studies measuring the extent of consumer fraud among the U.S. adult population. The most recent survey was conducted between late November 2011 and early February 2012,¹ and a report describing the findings was released as *Consumer Fraud in the United States, 2011: The Third FTC Survey* in April of this year.² Because a key goal of the fraud surveys was to estimate the prevalence of fraud among U.S. consumers, the surveys were conducted by telephone and participants were identified using a random digit dialing technique.

¹ OMB Control Number 3084-0125 (exp. Sept. 30, 2014).

² That report can be found at <http://www.ftc.gov/os/2013/04/130419fraudsurvey.pdf>. The first survey was conducted in mid-2003. The findings of that survey are reported in Keith B. Anderson, *Consumer Fraud in the United States: An FTC Survey*, published in August 2004. Interviews for the second survey were conducted in November and December of 2005, and the results are found in Keith B. Anderson, *Consumer Fraud in the United States: The Second FTC Survey*, which was published in October 2007. (These reports can be found at <http://www.ftc.gov/reports/consumerfraud/040805confraudrpt.pdf> and <http://www.ftc.gov/opa/2007/10/fraud.pdf> respectively.)

While a key purpose of the fraud surveys was to measure the prevalence of various frauds among U.S. consumers, questions were also included to see if something could be learned about the characteristics of those who were more likely to have been victims of the frauds covered by the survey. Among other things, the results of the most recent survey showed that those who were more willing to take risks and those who had experienced a serious negative life event – such as a divorce, the death of a family member or close friend, a serious injury or illness in the family, or the loss of a job – were more likely to have been victimized. Those who felt that they had more debt than they could handle and those with limited numeric skills were also more likely to have been victimized, as were African Americans and Hispanics. On the other hand, those who were more patient were less likely to have been victims. Older consumers – those at least 55 years of age – were less likely to report having been victims of the frauds about which the survey inquired, though those between 55 and 74 were more likely to have been victims of prize promotion frauds, one of the frauds covered by the survey.

In addition to the three fraud surveys, the Commission also conducted an exploratory experimental study that was conducted in a university economics laboratory and was aimed at identifying consumer characteristics that were correlated with whether consumers found fraudulent advertisements to be credible – a possible precursor to falling victim.³ The results of that experiment are still being analyzed. A wider range of factors that may affect the likelihood of falling victim to a fraud were included in that study than could be done in the fraud surveys. However, because that study only looked at how credible consumers found various ads to be, it could only measure the effect of consumer characteristics on one possible initial step toward becoming a victim of fraud. In addition, as is common in experimental studies – particularly those conducted in a university setting – the sample of individuals who participated in the experiment was much narrower than the general population.

The proposed study, while still exploratory and not intended to directly impact Commission policy, expands on the previous work in several ways. First, because its focus is on the characteristics that are correlated with fraud rather than the prevalence of fraud, it is not necessary to devote a lot of the survey time to questions designed to measure the incidence of various types of fraud. As a result, more consumer characteristics can be explored than was possible in the earlier fraud surveys.

Second, the proposed study would be conducted using an Internet panel maintained by a commercial company. As such, the sample of individuals included in the survey would be more reflective of the population as a whole than was obtained in the experiment conducted in the university setting. While the Commission recognizes that one cannot generalize from the findings of an Internet panel study to the population as a whole,⁴ having a sample that offers

³ OMB Control Number 3084-0155 (discontinued March 31, 2013, following the conclusion of the data collection).

⁴ The analysis of the data generated by the survey would be focused on determining whether study participants who have certain characteristics are more likely to exhibit behaviors that are likely to be associated with being a fraud victim, such as finding a fraudulent ad to be credible or indicating that they would be inclined to purchase such a product.

more diversity should allow us to see whether some of the results – or lack of results – in the earlier study conducted in the university laboratory apply to a broader, more diverse sample of consumers.

Finally, the proposed exploratory study will get somewhat closer to looking at whether the various characteristics are related to actually being victimized by fraud. As noted above, the experiment conducted in the university lab only sought to identify correlations between the various factors considered and how credible an individual found various advertisements. In addition to asking about ad credibility, the proposed study will ask questions designed to explore the likelihood that participants would actually purchase the product. While not a perfect indicator of whether a person would actually purchase a product, knowing that a person says that he or she would be likely to purchase a product based on a fraudulent ad is probably more indicative of the likelihood of becoming a victim than only knowing that the person finds the ad to be credible.

An additional step to get closer to actual victimization will be to ask participants questions, similar to those asked in the fraud survey, that are designed to learn whether the person has been a victim of weight-loss, business-opportunity, or work-at-home frauds. These types of fraud are obviously related to the weight-loss and job advertisements participants will have evaluated. While the main focus of the analysis of the data generated by the survey will be consumers' responses to the questions about ad credibility and purchase intentions, the responses to these questions can serve both as the focus of an alternative analysis and also to see whether those who find the fraudulent ads to be more credible are more likely to have been victimized in the past.

Participants in the proposed study will first be shown two advertisements and will be asked to evaluate the credibility of the ads. They will also be asked to indicate how likely they would be to purchase the product, if it was a real product, or how likely they would be to recommend the product to friends. Understanding the variation in participants' responses to these questions will be the key focus of the analysis in the study.

The two ads shown to each participant will be drawn from a set of six of the ads that were used in the previous exploratory study, the laboratory experiment study. The ads will be for three types of products or services – a diet product or plan, a job offer, and a vacation. For each of the three products, there will be two ads – one that contains claims that are implausible and likely fraudulent, and one that contains only plausible claims. Participants will be shown advertisements for two of the three products. The advertisement for one of the products shown to each participant will be a fraudulent version; the other may be either fraudulent or plausible.

The survey will also collect information on the participant's personal characteristics and behavior. Responses to these questions will be examined to see whether they are correlated with the ad credibility ratings. Most of the variables of this type included in the proposed study are based on topics explored in the fraud surveys the Commission has conducted as well as in the fraud experiment conducted in the economics laboratory. The topics covered include, for

example, whether the person is impulsive or willing to wait, whether the person exhibits cognitive impulsivity, is overconfident, and is willing to take risks. Questions are also included to measure how skeptical a person is of claims made in advertisements, both generally and in specific settings, and the participant's knowledge of how markets work – consumer literacy. Participants will also be asked questions designed to provide some information on how interested the person would be in the products that are the subject of the ads presented in the first section of the study. The study also asks for demographic information.

Understanding when and why people are vulnerable to fraud would better inform the FTC's ongoing efforts to fight fraud through law enforcement and consumer education. The results of this exploratory study are not intended to lead to enforcement actions; rather, study results should help the Commission better target its enforcement actions and consumer education initiatives. Improved understanding of why some consumers are more vulnerable to fraud may allow the Commission to improve its consumer education materials to address specific vulnerabilities, more efficiently target our education materials to particularly vulnerable populations, and adapt disclosures to address critical vulnerabilities that lead to fraud victimization.

(3) Information Technology

The proposed study will use the Internet for data collection. The Internet was selected as the means to collect data, in part, to minimize burden on respondents and to collect data in a cost-efficient manner. For example, people who choose to participate in the study will be able to view the questionnaire, as well as submit their responses via computer, at a time and location of their choosing. In addition, data reliability should be enhanced since study participants will directly enter their responses into the contractor's data collection system. There will be no risk that a person conducting the survey will mistakenly miscode what the participant actually said.

(4) Efforts to Identify Duplication/Availability of Similar Information

FTC staff's efforts to identify duplicate sources of information included a review of studies, data, and information found through literature searches and contacts with relevant scholars and government agencies. Staff also examined earlier research conducted by the FTC.

In addition to the previous studies conducted by the FTC, discussed in item (1) above, FTC staff is aware of three studies whose goal was to shed light on how consumers who have become fraud victims may differ from those who have avoided being victimized. In a 2007 study, Shadel and Pak conducted a survey of 497 general population individuals as well as 94 lottery fraud victims and 71 investment fraud victims.⁵ The authors found that investment fraud victims had higher financial literacy than the general population, but lottery fraud victims had lower financial literacy than the general population. Both lottery and investment fraud victims

⁵ Douglas Shadel and Karla Pak. "The Psychology of Consumer Fraud," PhD dissertation, Tilburg University, 2007.

were more likely than the general population to have recently experienced a negative life event, such as an illness, divorce, or decrease in income. The survey also elicited psychological measures from both sets of fraud victims and the general population. The authors found significant differences between fraud victims and the general population on optimism, impulsivity, relative deprivation, and trust in professionals.

A subsequent study by Pak and Shadel, which was sponsored by AARP, looked at known victims of five different kinds of consumer fraud – investment fraud, business opportunity fraud, lottery fraud, advance fee loan fraud, and fraud either involving the sale of a bogus prescription drug discount program or the sale of insurance designed to protect the consumer from identity theft.⁶ The responses of this set of known victims were compared by the type of fraud they had experienced and also compared to the responses of a general sample of the population. Participants were asked about their interest in what the authors call persuasion tactics – how interested the person would be in a product that was promoted with each of a series of claims, such as promising that an investment is guaranteed to return 50 percent to 100 percent in the first year or that the person was eligible to apply for a federal grant. Another series of questions asked how often the person engaged in a series of practices, such as attending sales presentations where there is a promise of a free meal or a free night’s lodging, or entering one’s name in a drawing to win a prize or a free gift. Questions about the participant’s knowledge of consumer rights and whether they had experienced a negative life event were also included.

Looking at the various characteristics individually, the authors report that the ways in which victims differed from the general population depended on the type of fraud they had experienced. For example, on average, victims of investment frauds and business opportunity frauds had significantly more education than did the general population, while victims of lottery frauds had significantly less education. Victims of both investment fraud and lottery frauds tended to be older than the general population, while the average age of advance fee loan victims did not differ significantly from that of the general population.

The British Office of Fair Trading (OFT) conducted a large study of psychological processes of scams involving (1) in-depth interviews of scam victims; (2) text-mining of a large number of scam materials; (3) general public questionnaires; and (4) a field experiment of simulated scams delivered through the mail.⁷ Similar to Shadel and Pak, the OFT found that scam victims often have greater than average background knowledge in the area of the scam’s context. Scam victims also report putting more cognitive effort into analyzing a scam’s content than do non-victims.

Although these studies examined characteristics of fraud victims, unlike the currently proposed study, none has simultaneously examined all of the factors to be included in this study.

⁶ Karla Pak and Doug Shadel, *AARP Foundation National Fraud Victim Study*, AARP Foundation, 2011.

⁷ Office of Fair Trading. *The Psychology of Scams: Provoking and Committing Errors of Judgement*, April 2009. Available at: http://www.offt.gov.uk/shared_offt/reports/consumer_protection/oft1070.pdf.

In addition, none of these studies provide a comparison to the Commission's earlier work, most notably its experimental project conducted in the university economics laboratory.

(5) Efforts to Minimize Small Organization Burden

Not applicable. The questions are being asked only of individual consumers.

(6) Consequences to Federal Program and Policy Activities/Obstacles to Reducing Burden

If this information is not collected, the FTC will lack new evidence about why consumers are susceptible to fraud. The information we propose to collect will help the FTC better understand how to fulfill its Congressional mandate to enforce laws against unfair and deceptive acts and practices. The information will also aid educational efforts to assist consumers in avoiding fraud victimization.

The study has been designed to minimize burden on respondents, using cost-effective techniques, without sacrificing the statistical value of the information to be collected.

(7) Circumstances Requiring Collection Inconsistent with Guidelines

The collection of information in the proposed study is consistent with all applicable guidelines contained in 5 C.F.R. § 1320.5(d)(2).

(8) Public Comments/Consultation Outside the Agency

As required by section 3506(c)(2) of the Paperwork Reduction Act ("PRA"), 44 U.S.C. §§ 3501-3521, the FTC published a notice seeking public comment on the proposed collection of information. *See* 74 Fed. Reg. 27796 (June 11, 2009).⁸ The FTC received no comments. Pursuant to OMB regulations (5 CFR Part 1320) that implement the PRA, the FTC is providing a second opportunity for public comment while seeking OMB approval for the study.

⁸ More time has obviously elapsed since this first notice was published than normally happens. While the Commission announced both the laboratory experiment and the Internet panel exploratory studies at the same time (*see supra* note 2), as the studies were further developed, FTC staff concluded that it would be better to wait until the laboratory experiment was largely completed before moving forward with the current study. Similarly, staff decided to wait for the completion of the most recent fraud survey. That survey has now been completed and the results published. (See note 1 and accompanying text above.) The analysis of the results of the laboratory experiment is largely complete and the findings are being prepared for publication. It is therefore time to move forward with this study.

(9) Payments or Gifts to Respondents

Those who participate in the study will be members of an Internet panel operated by Ipsos. Members of the panel receive points for participating in surveys. Once a member has accumulated 1,000 points, the points can be redeemed for a \$10 gift card. Participants in the proposed study would receive 90 points – the equivalent of \$0.90.

(10) & (11) Assurances of Confidentiality/Matters of a Sensitive Nature

This data collection will not include sensitive questions. The contractor already has the information such as name and email address needed to invite members of the panel to complete the survey. This information will not be included in the data provided to the FTC, and no personally-identifiable information will be requested in conducting the survey. As is its standard practice, the contractor is promising to treat responses confidentially. A draft of the questionnaire accompanies this submission.

(12) Estimated Annual Hours Burden

The FTC plans to seek information from 100 participants in the pre-test phase and 5,000 participants in the final data collection phase. For those who participate in the final data collection phase, the time to complete the survey is estimated at 30 minutes. An additional 5 minutes may be needed to complete the pre-test version. Thus, the overall burden for this study will be approximately 2,558 hours – 2,500 hours for the 5,000 who participate in the final data collection and 58 hours for the 100 who participate in the pre-test.

(13) Estimated Annual Cost Burden

The cost per respondent should be negligible. Participation is voluntary, and will not require any labor expenditures by respondents. There are no capital, start-up, operation, maintenance, or other similar costs to the respondents.

(14) Estimate of Cost to Federal Government

The total cost for the information collection will approximate \$168,000. Of that, approximately \$106,000 is the cost for the contractor to review the survey questionnaire, identify the consumers, conduct the surveys, and provide the resulting data to Commission staff. In addition, an estimated 1,000 hours of Commission staff time will be necessary to identify a contractor, to assist the contractor in completing its duties, to analyze the data and prepare any report on the results. The cost of this staff time is estimated to be approximately \$62,000. The cost of Commission staff time is necessarily an estimate because several factors in this calculation may vary, including the number of staff involved and the actual amount of time required. Clerical and other support services and costs of conducting the study are included in this estimate.

(15) Program Changes or Adjustments

Not applicable. This is a new collection of information.

(16) Plans for Tabulation and Publication

FTC staff plans to use standard regression and statistical hypothesis testing techniques to analyze the data. FTC staff has not determined whether the results will be published in a report or other publication, and, if so, in what manner or at what time.

(17) Display of Expiration Date for OMB Approval

The FTC will display the expiration date alongside the assigned OMB control number on the emails recruiting panel members to participate in the survey and also on the first screen of the actual study instrument.

(18) Exceptions to Certification

Not applicable.

B. COLLECTION OF INFORMATION EMPLOYING STATISTICAL METHODS

(1) Description of Sampling Methodology

The FTC proposes to use a private survey firm's panel of consumers who have agreed to complete online surveys and will obtain responses from a convenience sample of 5,000 members of the contractor's panel. The proposed study is a limited but focused exploration of the determinants of fraud susceptibility.⁹ The study focuses on individual traits and behaviors that may contribute to fraud susceptibility. Given the convenience sample, we do not intend to make population-wide projections from our results. Further, the study is intended to focus on individuals' traits and not on the characteristics of advertisements which contribute to fraud susceptibility.

Given that the study's focus is on exploring the correlations between various consumer characteristics and how consumers react to fraudulent and non-fraudulent advertisements, the fact that an Internet panel is not a random sample of the population as a whole should be less problematic than if the goal was to determine the percentage of the population at large that holds a particular view. However, it is still desirable that the sample be as demographically diverse as

⁹ Because the Internet panel from which participants in this study will be drawn is an opt-in, convenience sample and members of the panel are recruited in a variety of ways including responding to banner ads placed on various websites, it is not possible to compute a recruitment rate for the panel. As a result, it is not possible to compute an overall cumulative response rate. However, the purpose of the study is to permit comparisons of those who complete the survey and give different responses to various questions, not to project to the population as a whole.

possible. After considering the costs and benefits of various data collection methods, FTC staff concluded that the most efficient way to collect the data needed to meet the research objectives within a feasible budget is to employ an Internet panel with nationwide coverage. Thus, the FTC has retained a survey firm with an Internet panel to conduct the study in a way that, while not necessarily representative of the nation as a whole, nonetheless reflects a broad, diverse population.

Each participant in the study will be shown two hypothetical print advertisements and will be asked several questions designed to measure the participant's perception of the credibility of the ad. Participants will also be asked about the likelihood that they would purchase the product if they were interested in the type of product or service being offered, and whether they would recommend it to a friend. The ads shown to each study participant will be drawn from a set of six ads for three products – a diet plan or program, a job offering, and a beach vacation. For each product, there will be two different ads – one of which contains implausible and likely fraudulent claims, and one that only contains claims that are more plausible. Because the interest of the study is primarily consumer reactions to ads that include implausible – likely fraudulent – claims, the sampling design will result in more participants seeing the fraudulent versions of the ads. Specifically, the procedure for selecting the ads to be seen is designed so that approximately 2,200 participants will see the fraudulent versions of the ads for each product, while approximately 1,100 will see the plausible version of the ads for each product.¹⁰

The proposed study will present images of hypothetical print advertisements on a computer screen. A number of factors likely contribute to the evaluation of real advertisements' credibility, including the presentation medium and contextual clues. Our proposed study is not intended to address the effect of every component of advertisement plausibility. Our presentation format allows us to easily manipulate the advertising materials between subjects and allows subjects to easily and quickly view the entire advertisement and its claims. Although the results may not be representative of consumers' reactions to ads in other media, the design will allow us to examine susceptibility to fraud within the context of print advertisements and ensures that any effect is solely due to the change in the advertisement claims.

¹⁰ Participants will first be randomly assigned to see an ad for one of the three products included in the survey. Of those assigned to see each product, two-thirds will be shown the implausible, fraudulent version of the ad and one-third will see the plausible version. After answering questions about the first ad, each participant will be shown a second ad. The second ad each participant sees will be for a different product than the first ad that person saw. Furthermore, if the first ad a person saw had only plausible claims, the second ad will contain the implausible, likely fraudulent, claims for the second product selected. If the first ad contained implausible, likely fraudulent, claims, there will be 50 percent chance that the second ad will also contain implausible, likely fraudulent, claims and a 50 percent chance that it will only contain plausible claims. Thus, one-third of those who participate will see the implausible versions of two ads, while the other two-thirds will see one implausible and one plausible version. Accordingly, two-thirds of all ads viewed will be the implausible, fraudulent versions, while one-third will be the plausible versions. In total, these comprise 18 subgroups of the 5,000 panelists to be surveyed. Table 1 in the Appendix to this supporting statement identifies the two ads that will be shown to each of the 18 subgroups.

(2) Description of the Information Collection Procedures

The FTC will use the study to examine whether various characteristics of consumers are related to consumer susceptibility to fraudulent and deceptive advertising. The study will be conducted using 5,000 members of a panel of individuals who have agreed to participate in online studies presented to them by the contractor – Ipsos.

Description of Study Components

Ad Credibility. The ad credibility questions ask subjects to rate the credibility of plausible and implausible print ads to generate the key measure that the study will seek to understand. Each participant will see two ads selected from a set of six ads, as described in the previous section. There will be ads for three products – a diet product or plan, a job offer, and a beach vacation. For each product there will be two ads – one containing implausible, likely fraudulent, claims, and the other only containing plausible claims.

Subjects will be asked to rate the ads on three different seven-point measures of ad credibility: whether the ad is credible or not credible, truthful or not truthful, and deceptive or not deceptive. Subjects will be considered more vulnerable to fraud and deception if they rate implausible ads as credible, truthful, and non-deceptive.

Purchase Intention. Subjects will also be asked, again using a seven-point Likert scale, how likely they would be to purchase the product if they received the ad in an email or saw a flyer promoting the product. They will also be asked how likely they would be to recommend the product to a friend. Those who indicate a greater likelihood of purchasing the product or recommending it to a friend will be considered to be more vulnerable to fraud.

Fraud Victimization. In an attempt to measure consumers' actual experiences in two of the areas for which ads will be shown – diet products and job offers – the survey will include questions about experiences with diet products, work-at-home job offers, and business opportunities that have been adapted from the questions used in the most recent FTC fraud survey. While the fraud survey asked consumers to report their experiences in just the one-year period before they were interviewed, the questions here ask about experiences in the last two years. Since the instant study is not intended to measure the prevalence of fraud in the population, it is not as important to limit the time during which a fraud was experienced. And, by expanding the time period we hope to find more consumers who have been victims of these frauds, which should be beneficial in our analysis of these data.

Consumer Literacy. Consumers who have a better understanding of the risks in various marketplace situations may be less susceptible to fraudulent or deceptive advertising. We hypothesize that consumers with greater consumer literacy will deem fraudulent advertisements as less credible than individuals with less consumer literacy. Four of the seven questions in this section are drawn from the National Financial Capability Study conducted by the FINRA

Investor Education Foundation in both 2009 and 2012.¹¹ The remaining three questions – what is a consumer’s liability if his or her credit card is misused, what payment mechanism offers the greatest protection, and what is the effect of missed payment on a previous loan – are drawn from questions used in the earlier fraud experiment study and FTC staff’s general knowledge.

Numerical Skills. The ability to solve basic math problems may aid consumers in various marketplace decisions, including assessing the plausibility of claims made in advertisements. Some literature, for example, links cognitive skills, including numerical skills, to better workplace outcomes, increased household wealth, and fewer decision making biases.¹² Gerardi et al., for example, surveyed mortgage borrowers’ numerical skills and found that individuals with poorer numerical skills are more likely to be delinquent or default on their mortgages.¹³ This negative correlation between numerical skills and mortgage delinquency persists even after controlling for socio-demographic variables and mortgage characteristics.

We employ the same five-question numeracy measure used in Gerardi et al. and Banks and Oldfield.¹⁴ Banks and Oldfield suggest constructing a numerical skills index comprised of four separate groups based on responses to these five questions. These five questions were also used in the Commission’s earlier experimental study examining fraud susceptibility. We also include one of the two questions about the likely gains or losses from a gamble that was included in the earlier study.

Cognitive Reflection / Cognitive Impulsivity. To measure cognitive reflection or impulsivity, the study will use questions first proposed by Frederick, which attempt to distinguish between people who give an obvious, intuitive, but wrong answer to a question from those who deliberate enough to find the correct answer.¹⁵ Those who give the quick, but wrong, answers may be more vulnerable to fraud and deception because they may not take sufficient time to evaluate whether offers are too good to be true, when further reflection may reveal the offers to be suspect.

¹¹ The 2012 FINRA study and its results are discussed in FINRA, “Financial Capability in the United States: Report of Findings from the 2012 National Financial Capability Study,” May 2013, available at http://www.usfinancialcapability.org/downloads/NFCS_2012_Report_Natl_Findings.pdf. The questionnaire is available at http://www.usfinancialcapability.org/downloads/NFCS_2012_State_by_State_Qre.pdf.

¹² S. Burks, J. Carpenter, L. Goette, and A. Rustichini. “Cognitive Skills Affect Economic Preferences, Social Awareness, and Job Attachment,” *Proceedings of the National Academy of Sciences*. 106 (May 12, 2009), pp. 7745-7750 and J. McArdle, J. Smith, and R. Willis. “Cognition and Economic Outcomes in the Health and Retirement Survey,” National Bureau of Economics Working Paper 15266.

¹³ K. Gerardi, L. Goette, S. Meier. “Financial Literacy and Subprime Mortgage Delinquency: Evidence from a Survey Matched to Administrative Data,” Working Paper (2010).

¹⁴ J. Banks and Z. Oldfield. “Understanding Pensions: Cognitive Function, Numerical Ability and Retirement Saving,” *Fiscal Studies*, 28 (June 2007), pp. 143-170.

¹⁵ S. Frederick. “Cognitive Reflection and Decision Making.” *Journal of Economic Perspectives*, 19 (Fall 2005), pp. 25-42.

Overconfidence. A significant literature reports that many people overestimate both the accuracy of their performance on various tasks (absolute overconfidence) and the probability that their performance is above average (social or relative overconfidence).¹⁶ Participants will be asked to estimate the number of questions they correctly answered both after the six numeric skills questions and after the seven consumer literacy questions. In asking participants to estimate the number of questions they have answered correctly, we are following an approach used by Gigerenzer, et al.¹⁷ Participants will also be asked to estimate how they performed on the numeric skills questions relative to others who are participating in the survey.

Risk Aversion. Consumers who are risk averse may be less susceptible to fraud because they are less willing to take a chance on whether a product will work as promised. Consumers who are more willing to take risks may be more willing to take chances on unknown products and may therefore be more susceptible to fraudulent advertising.

We will measure risk aversion by asking participants to rate their willingness to take risks on a seven-point Likert scale. This simple question has been shown to be highly predictive of risk-taking behavior across a wide variety of contexts.¹⁸ Participants will also be asked to rate their willingness to take risks in five specific areas – financial matters, health, career, driving, and sports or leisure activities.¹⁹

Impulsivity and Impatience. Impulsive consumers may be more likely to fall victim to fraudulent offers than those who are less impulsive because they fail to take the time needed to fully understand what is being offered to them. Similarly, those who are more impatient may be more likely to fall victim.

Participants' impulsivity will be measured by asking how well each of a series of 12 adjectives would describe them. The questions will use a seven-point response scale ranging

¹⁶ See, e.g., J. Klayman, J. Soll, C. Gonzalez Vallejo, and S. Barlas, "Overconfidence: It Depends on How, What, and Whom You Ask," *Organizational Behavior and Human Decision Processes*, 79 (September 1999), pp. 216-247 and D. Dunning, D. Griffin, J. Milojkovic, and L. Ross, "The Overconfidence Effect in Social Prediction," *Journal of Personality and Social Psychology* 58 (April 1990), pp. 568-581.

¹⁷ G. Gigerenzer, U. Hoffrage, and H. Kleinbolting, "Probabilistic Mental Models: A Brunswikian Theory of Confidence," *Psychological Review*, 98 (October 1991), pp. 506-528. Gigerenzer, et al., find that consumers do a better job of estimating the number of questions they have answered correctly than the probability that they have answered questions correctly. Similarly, work by Kahneman and Tversky has found that consumers do much better when asked to estimate the number of people who satisfy a condition than when asked to estimate the percentage of people who satisfy the condition. See, e.g., A. Tversky and D. Kahneman, "Extensional Versus Intuitive Reasoning: The Conjunction Fallacy in Probability Judgment," *Psychological Review*, 90 (October 1983), pp. 293 – 315 and D. Kahneman, *Thinking, Fast and Slow*.

¹⁸ T. Dohmen, A. Falk, D. Huffman, U. Sunde, J. Schupp and G. Wagner, "Individual Risk Attitudes: New Evidence from a Large, Representative, Experimentally-Validated Survey," *Journal of the European Economic Association*, 9 (June 2011), pp. 522-550.

¹⁹ Dohmen, et al., *supra* note 18, asked similar questions in their study.

from “Would almost always describe me” to “Almost never would describe me.” This approach is drawn from the work of Puri.²⁰ In addition, participants will be asked to indicate how well the adjective “impatient” would describe them using the same seven-point scale.

General Skepticism of Advertising. We hypothesize that consumers who are skeptical of all advertising may be less susceptible to fraud simply because they discount the claims made in any advertisement. We will use a series of nine questions developed and validated by Obermiller and Spangenberg to measure consumer skepticism of advertising in general.²¹ Similar to Obermiller and Spangenberg, we will aggregate the responses to the nine-questions into a single skepticism measure.

Situation-Specific Skepticism. While a general level of skepticism may protect some consumers from being victimized by fraudulent offers, other consumers who are generally less skeptical may protect themselves by being alert to cues in specific situations that suggest that increased specific skepticism is warranted.²² In part, this kind of situation-specific skepticism may be reflected in some consumers being more skeptical of product claims made in situations that are often associated with deceptive advertising. Such situation-specific skepticism may make consumers less vulnerable to fraudulent and deceptive advertising.

In attempting to measure skepticism in specific situations, we will describe a variety of possible marketing situations to participants and ask them how likely they think the claims made are to be true. Some of these situations involve signals – such as the product being advertised in an infomercial aired on late night television, an offer that is only available if you act today, or being for a product from a company that you have not previously heard of – that might be seen as justifying increased skepticism.

Product Interest. How interested a consumer is in a type of product – *e.g.*, a weight loss product – may affect how that consumer evaluates an advertisement, independent of whether the ad contains implausible claims or is limited to claims that are more plausible. Product interest may also affect one’s response to questions about the likelihood of purchasing the product and the likelihood that the consumer has fallen victim to this type of scam.²³ Questions are therefore

²⁰ Radhika Puri, “Measuring and Modifying Consumer Impulsiveness: A Cost-Benefit Accessibility Framework,” *Journal of Consumer Psychology*, 5 (1996), pp. 87-113.

²¹ C. Obermiller and E. Spangenberg. “Development of a Scale to Measure Consumer Skepticism towards Advertising,” *Journal of Consumer Psychology*, 7 (1998), pp. 159-186.

²² A similar notion is suggested by Yamagishi and Yamagishi, who draw a distinction between general trust in people and caution in dealing with others. (T. Yamagishi and M. Yamagishi, “Trust and Commitment in the United States and Japan,” *Motivation and Emotion*, 18 (June 1994), pp. 129-166.

²³ In asking the purchase intention questions, participants are asked to answer under the explicit assumption that they are interested in what the product has to offer. For example, the question that asks about the likelihood that one would purchase FatFoe, the fraudulent weight loss product, reads “How likely would you be to try FatFoe if you wanted to lose weight” (emphasis added). While this should limit the impact of product interest on participants’ responses, there remains some risk that the responses of consumers who are not interested in losing weight will not

included to measure participants' interest in each of the three product areas for which advertisements will be presented – diet products or plans, a part-time job, or a beach vacation.

Demographics and Background. We also will collect demographic and background information from the subjects, including their age, race and ethnicity, gender, education level, size of household, and household income. Participants will also be asked whether they have experienced a serious negative life event, such as a divorce, the death of a family member or close friend, a serious injury or illness, or the loss of a job, in the last two years and whether they have more debt than they can handle financially. These are two of the factors that were found to be predictive of fraud victimization in the latest fraud survey.

Analysis of Data

The primary method of analysis will be regression analysis in which the dependent variables will be each participant's average credibility rating for each of the two ads seen, each participant's willingness to purchase or recommend the products, and, perhaps, whether the person has been a victim of fraud. The other components of the study, as described above, will provide the independent variables for the analysis. Each participant's responses will form two separate observations – one for each ad the person sees. Separate regressions will be run for the ads that include implausible, likely fraudulent, claims and the ads that are limited to plausible claims. In each case, product specific variables will be included to allow for the likely differences in credibility and willingness to purchase across the three products for which ads are presented.

In order to obtain a rough measure of the power of our analysis, we have examined how large the differences in the average credibility ratings would have to be between participants whose responses to any of the various independent variables place them in the lowest quarter of the sample and those in the highest quarter in order to have an appropriate probability of finding significance. For example, if participants are ranked from lowest to highest on their responses to our consumer literacy questions, how much difference would there have to be in the average score on ad credibility between those in the lowest quarter of the sample and those in the highest quarter to have an 80 or a 90 percent probability of finding a significant difference.

Since the six ads to be used in this study were also used in the Commission's study of fraud that was conducted in a university economics laboratory, we have estimates of the distribution of the credibility ratings of the six ads which can be used in estimating the likelihood of finding significant differences in the current study.²⁴ Assuming that the distribution of responses on the measure of ad credibility – the average of the responses to the three questions about the believability, truthfulness, and deceptiveness of the ad – in the present study are similar to what was observed in the earlier study, there is an 80 percent probability that differences in the

be as informative as will those of participants who actually want to lose weight.

²⁴ Because the previous study did not ask about willingness to purchase, we do not have existing data for these questions.

average ratings between the lowest and highest quartiles of between 0.20 and 0.27, on a scale that runs from 1 to 7, would be significant at the 5 percent level for the ads with the implausible, probably fraudulent claims. (The exact figure depends on which ad one is analyzing and is the result of differences in the standard deviations for different ads.) Such differences are approximately 16 to 18 percent of the observed standard deviation. If the observed differences are slightly larger, between 0.24 and 0.32, there is a 90 percent probability of finding a significant difference.

For the advertisements that only contain plausible claims, the differences needed to achieve similar power levels are somewhat higher. There is an 80 percent probability that an average difference of between 0.28 and 0.30 would be significant. Differences of this magnitude are around 24 to 26 percent of a standard deviation in the individual responses. Similarly, there is a 90 percent probability that a difference of between 0.32 and 0.36, 28 to 29 percent of a standard deviation, would be significant. The reason the differences need to be larger for the advertisements with only plausible claims is that, while more than 2,200 people are expected to see each advertisement that contains implausible, likely fraudulent claims, only 1,100 participants will see each ad that only has plausible claims.

Commission staff believes that these levels are appropriate for the purposes of this study. Given that the focus of the study is more on the characteristics that are correlated with consumers evaluation of problematic ads and less on their evaluation of more benign advertisements, it is appropriate that the design be more sensitive to differences in the response to the problematic advertisements.

(3) Methods to Maximize Response Rates/Reliability of Sample Data

As noted previously, the purpose of this study is to compare the responses of participants who have different characteristics, not to project response rates to the population as a whole. As such, non-response problems should not be as significant as they might be in other studies.

That said, it is still desirable to have a sample that is as broad based as possible and which has as great a response rate as possible. Specifically, it is desirable to have variation in the various demographic variables that is reflective of the population as a whole in order to be able to determine whether differences in those variables result in differences in how credible people find the advertisements to be.

Several steps will therefore be taken to maximize the response rate and to ensure that the sample is as broadly distributed as possible. First, those who will be invited to participate in the study are members of an existing Internet panel. Approximately 475,000 people are members of the Ipsos panel. Ipsos regularly recruits additional members of its panel, working with up to 100 partners and using a variety of recruiting techniques. These consumers have expressed interest in sharing their opinions via the Internet and do so regularly.

In addition, the survey instrument has been designed to be clear and concise in order to obtain the necessary information while minimizing the burden on participants. We will pre-test the survey instrument on 100 members of the online panel to ensure that we have made the questionnaire clear and concise. Adjustments to the survey instrument will be made after the pre-test if needed.

Participants will be given ample time to respond to the initial invitation and complete the survey. Those who do not respond to the first invitation will receive follow-up emails encouraging them to participate. Participants will be provided with information on how to contact the contractor's personnel if they have technical problems while attempting to complete the survey.

The sample of panel members invited to participate in the study will be selected to be as broadly distributed as possible. In addition to considering the geographic and demographic distribution of those invited, the contractor will draw on knowledge from previous surveys and sample groups that are known to be less likely to respond at a higher rate. Invitations to participate will be sent in multiple waves and those invited in subsequent waves will be adjusted based on the responses to the earlier invitations in order to make the overall sample as broad as possible.

In addition to taking steps to maximize response rates, data will be collected to permit an exploration of whether those who are more difficult to reach and those who decline to participate in the study likely differ significantly from those who do participate. The contractor will keep track of whether each person who completes the study did so after receiving the first invitation to participate or whether, and how many, subsequent invitations were needed before the person responded. In addition, the contractor has some, though imperfect, existing data on the demographics of the members of its Internet panel. Comparing these data for those who participate with those who decline may provide additional insights into the nature of the sample of participants. Finally, data on the amount of time each participant spends completing the study may provide additional insight into whether participants are taking the study seriously.

(4) Testing of Procedures or Methods Undertaken

The questionnaire will be pretested on a sample of 100 members of the contractor's Internet panel to ensure that all questions are easily understood. The pretest is also discussed in Part A above, and is part of the collection of information for which the FTC seeks OMB approval.

(5) Individuals Consulted on Statistical Aspect of the Surveys

The study has been designed by Keith Anderson, Senior Economist, Bureau of Economics (202-326-3428). It has been reviewed internally by James Lacko, Deputy Assistant Director, Bureau of Economics (202-326-3387), and Pauline Ippolito, Acting Director, Bureau of Economics (202-326-3477). The proposed instrument has also been reviewed by Manoj Hastak,

Ph.D. (202-326-2613), a faculty member in the Kogod School of Business at American University and a consumer research consultant to the Commission. Dr. Hastak has served as a consultant to the Commission on numerous experimental and survey studies. The contractor (Ipsos/Synovate, Contact: Tim Amsbary, 202-420-2036) is experienced in conducting surveys using an Internet panel and has also reviewed the proposed instrument.