

## Insights: Financial Capability

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This issue brief is based on a full paper with the same title. The full paper can be found [here](#).

## Can Educational Interventions Reduce Susceptibility to Financial Fraud?

### Summary

We experimentally examined whether concise, online educational interventions can reduce susceptibility to investment fraud among U.S. adults. Our findings indicated that these interventions can increase consumers' ability to recognize fraudulent investment opportunities and increase their knowledge about investment fraud. Although initial effects decayed over time, we found they persisted for at least three months, with support from a secondary intervention. Importantly, we found no evidence that the interventions reduced consumers' interest in investing in legitimate investment opportunities, after baseline. Benefits of the educational interventions were concentrated among individuals with higher levels of cognitive ability and financial literacy.

### Background

Financial fraud is prevalent in the U.S., with devastating impacts to victims. Some estimates suggest the direct costs of financial fraud on individuals in the U.S. to be as much as \$50 billion annually. To reduce individuals' susceptibility to financial fraud, numerous organizations and institutions provide fraud awareness education programs. Despite their prevalence, little rigorous research has been conducted to ascertain whether educational interventions are effective in reducing adults' susceptibility to scams. To address this gap, we conducted a randomized controlled trial to examine whether short, online educational interventions can reduce susceptibility to investment fraud, one type of financial fraud.

### Study Information

Using a representative sample of 2,000 adults (ages 18 and above) from the Understanding America Study, we randomly placed participants into one of three groups:

- (1) a **video treatment** in which subjects viewed a three-minute educational video about techniques often present in investment fraud;
- (2) a **text treatment** in which participants were provided reading materials about techniques often present in investment fraud (the same information offered to the video treatment group, but in a concise text format); and
- (3) a **control group** in which participants received no educational intervention.

We also tested the effect of a secondary intervention among those receiving the initial intervention. Three months after baseline, half of the participants in the video and text treatment groups were randomly assigned to receive the intervention they had not already been offered. For example, half of the participants originally in the video treatment received the text treatment as a secondary intervention, while half of those originally in the text treatment subsequently received the video treatment.

The educational interventions were centered on five techniques fraudsters often employ when engaging in investment fraud: (1) promising exorbitant rates of return (“phantom riches”); (2) touting themselves as legitimate experts (“source credibility”); (3) claiming that many individuals like the targeted consumer have already taken advantage of the opportunity (“social consensus”); (4) creating a sense of urgency (“scarcity”); and (5) creating a sense of obligation by providing freebies or discounts (“reciprocity”).

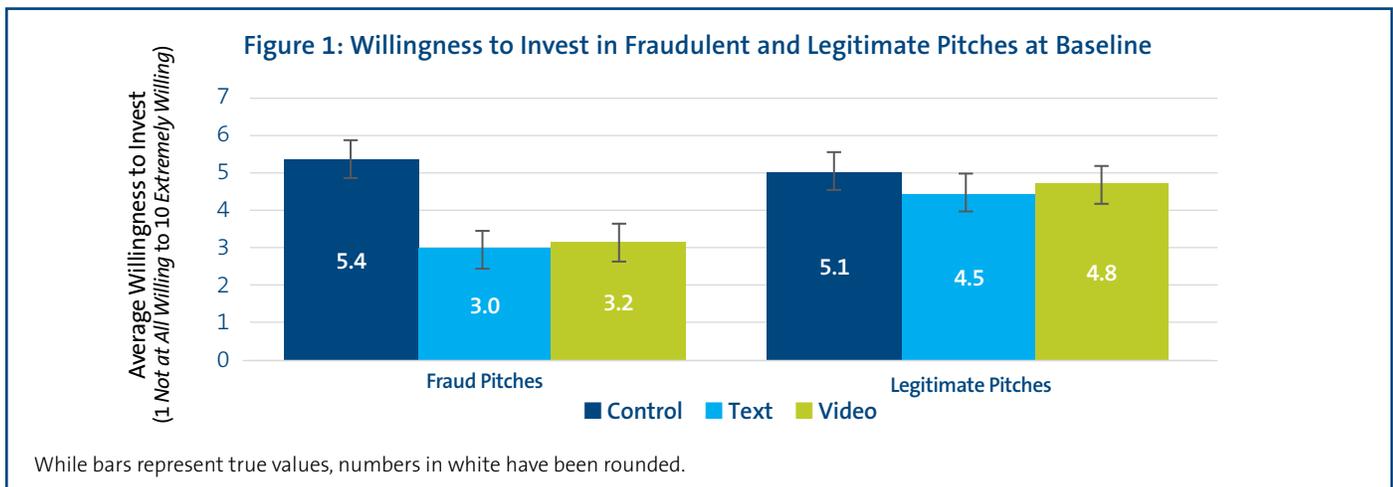
We measured fraud susceptibility immediately after the initial intervention and again six months later, using investment pitches drawn from real-world investment offers and enforcement actions initiated by the U.S. Federal Trade Commission. We intermixed legitimate investment pitches with fraudulent investment pitches to examine whether the interventions influenced participants’ general willingness to invest. For both the fraudulent and legitimate investment opportunities, we examined respondents’ willingness to invest.<sup>1</sup> Willingness scores ranged from 1 to 10, with higher scores indicating more willingness to invest.

## Key Findings

### #1 Educational interventions have immediate positive impacts

Shortly after receiving the initial intervention, participants who received the video and text treatments displayed significantly lower willingness to invest in the fraudulent investment opportunities than the individuals in the control group (Figure 1). However, differences across experimental conditions were much smaller for legitimate opportunities, suggesting that respondents who received either treatment became better at identifying potentially fraudulent schemes, rather than becoming dissuaded from investing in general. Those who received an educational intervention expressed a willingness to invest in the fraudulent investment opportunities that was 44 percent (text treatment) and 42 percent (video treatment) lower than that of participants in the control group. However, the educational interventions had a more muted impact on willingness to invest in legitimate opportunities; respective differences were 12 percent for the text treatment and 7 percent for the video treatment.

*Interventions can increase consumers’ ability to recognize fraudulent investment opportunities and increase their knowledge about investment fraud.*



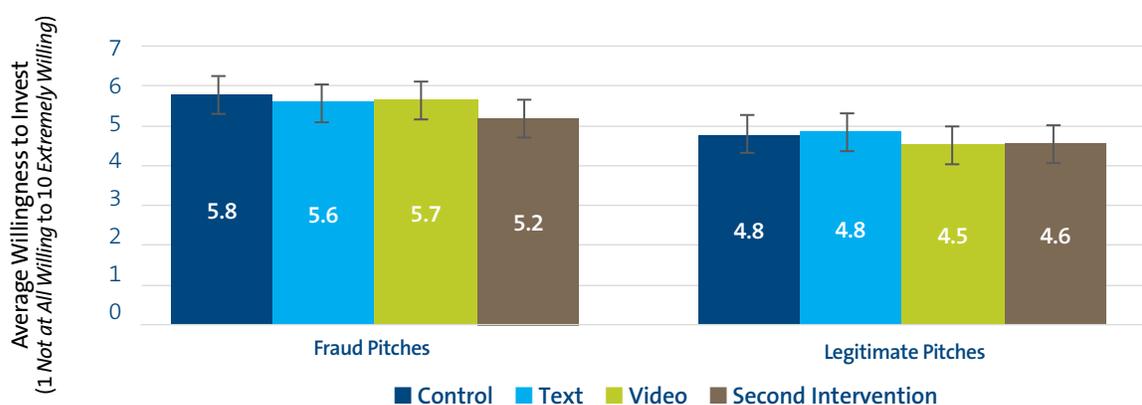
1. We also examined the effects of the interventions on participants’ beliefs about what would happen if they were to invest in the presented opportunities. For more information, see the full paper.

## #2 Educational interventions have persistent effects when coupled with repeated exposure

To measure the longer-term effects of the intervention, we resurveyed our study participants six months after the initial survey. As often occurs with educational interventions, we found that initial effects decayed over time. Six months after the initial intervention, individuals who received a video or text treatment only at baseline were no better at identifying fraudulent investment opportunities than those who had not received any intervention. However, the effects of the intervention persisted for participants who received a secondary intervention. Respondents who received the secondary intervention, three months after the initial one, expressed a willingness to invest in fraudulent investment opportunities at the six-month mark at a rate that was 10 percent lower than individuals in the control group (Figure 2).

Importantly, the educational interventions had no effect on participants' willingness to invest in legitimate opportunities at the six-month mark; there were no differences in willingness to invest between those in any treatment condition (including those who received a second intervention) and control. This suggests that while the second intervention was effective in improving participants' ability to spot fraudulent investment opportunities, it did not reduce their general willingness to invest.

Figure 2: Willingness to Invest in Fraudulent and Legitimate Pitches at the 6-Month Mark

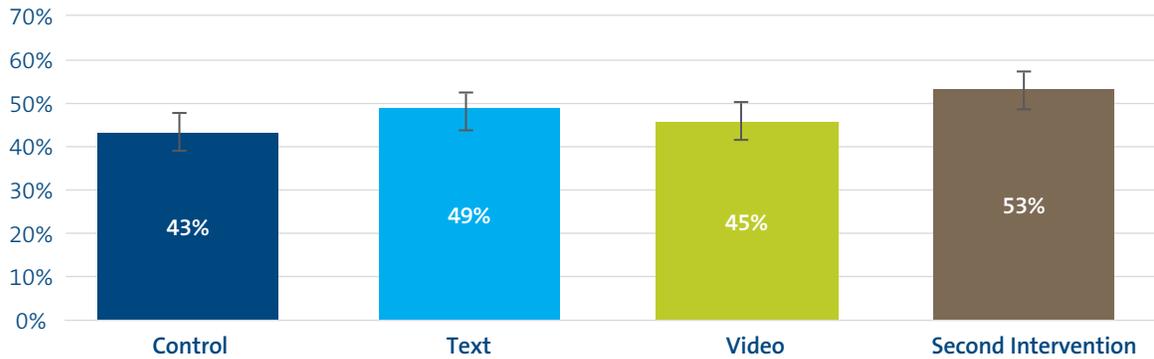


While bars represent true values, numbers in white have been rounded.

## #3 Educational interventions increase knowledge

To examine how the intervention improved participants' ability to spot fraudulent investment opportunities, we measured respondents' knowledge of the information provided in the educational interventions with a five-item test. We found that 53 percent of individuals who received the first and second intervention passed the knowledge test (responded correctly to all five items), compared to 43 percent in the control group. That is, those who received both interventions were 24 percent more likely than individuals in controls to obtain a passing score on the knowledge test (Figure 3). In contrast, we did not find statistically significant improvements on the knowledge test for individuals who received only a single text or video treatment. Thus, we found evidence that the secondary intervention created lasting impacts on consumer knowledge as well as evidence suggesting that this increased knowledge may have led to the meaningful increases in the ability to recognize fraudulent investments.

Figure 3: Financial Knowledge Test Pass Rate at the 6-Month Mark

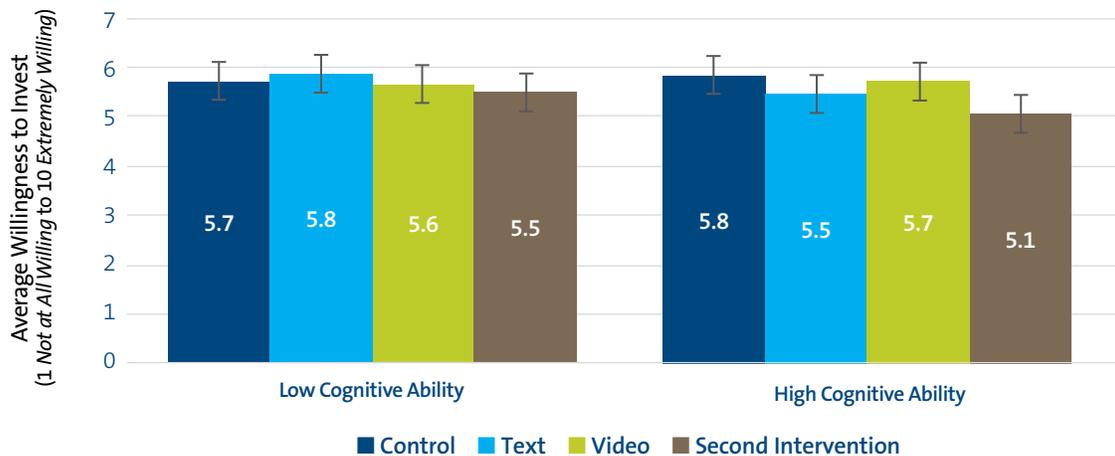


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#### #4 The effectiveness of educational interventions varies by consumer characteristics

We also examined whether the effectiveness of the educational interventions depended upon participants' levels of cognitive ability and financial literacy—two characteristics that previous research suggests influence susceptibility to fraud. We found that individuals with higher cognitive ability and higher financial literacy disproportionately benefited from the educational interventions. While we did not see any effect of treatment for those with low cognitive ability (those with cognitive ability levels in the bottom third of the distribution), individuals with higher cognitive ability who received a second intervention displayed a willingness to invest in the fraudulent opportunities that was 13 percent lower than individuals in the control group.

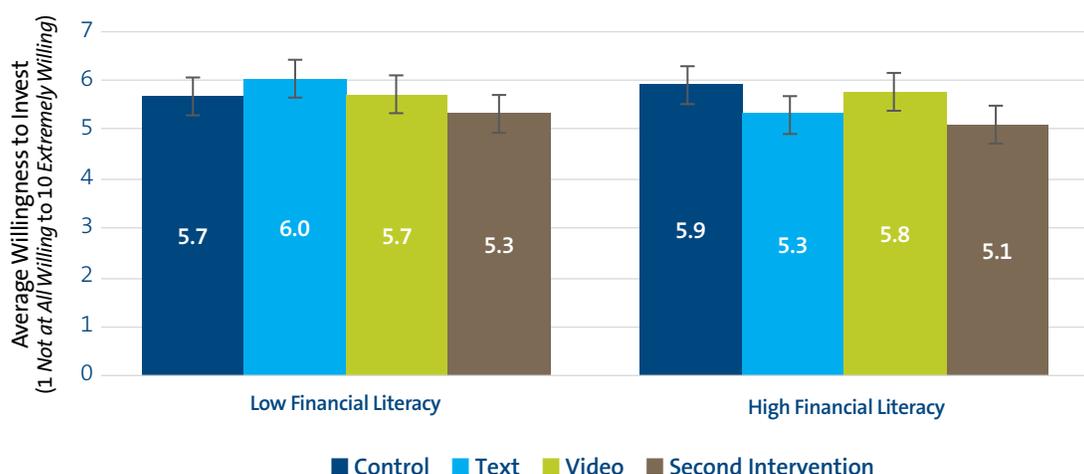
Figure 4: Willingness to Invest in Fraud Pitches at the Six-Month Mark by Level of Cognitive Ability



While bars represent true values, numbers in white have been rounded.

Relatedly, we did not find any effects of treatment for individuals with low financial literacy. However, those who had higher financial literacy and received the second intervention expressed a likelihood of investing in fraudulent pitches that was 14 percent lower than individuals in the control group. Individuals with higher financial literacy also benefited from receiving the one-time text intervention – they expressed a willingness to invest in the fraudulent pitches that was 11 percent lower than participants in control.

Figure 5: Willingness to Invest in Fraud Pitches at the Six-Month Mark by Level of Financial Literacy



While bars represent true values, numbers in white have been rounded.

## Conclusion

Financial fraud is a pervasive problem in the U.S., with severe consequences for its victims. Despite considerable effort and resources devoted to fraud education and prevention campaigns, there has been very little research examining whether educational interventions can meaningfully reduce individuals' susceptibility to financial fraud, whether they discourage investing in general, and whether any positive effects might persist over time.

We found that short, online educational interventions can increase consumers' ability to recognize, and resist, fraudulent investment opportunities. Shortly after the intervention, treated individuals were less likely to express interest in investing in fraudulent opportunities. While these deterring effects decayed over time, they were bolstered by a secondary intervention, suggesting that repeated exposure to fraud prevention education is important.

We also found that the educational interventions (particularly when coupled with a secondary intervention) improved individuals' knowledge yet had no effect on their willingness to invest in legitimate investment opportunities six months after baseline. This suggests that participants were able to internalize the information and apply it without being dissuaded from investing in general. Moreover, these benefits primarily accrued to individuals who are more likely to be investors—those with higher cognitive ability and financial literacy.

It is worth noting that six months after baseline, participants across all treatment conditions were more willing to invest in the fraudulent opportunities than the legitimate ones. This speaks to how much more compelling fraudulent opportunities can be relative to legitimate opportunities and highlights the difficult task financial fraud educators face.

Altogether, our results indicate that brief, easily–scalable online educational interventions can meaningfully reduce individuals’ susceptibility to investment fraud and that these effects could persist over time when coupled with follow up interventions. Our findings support efforts to reduce susceptibility to financial fraud through education, though they suggest that approaches featuring a single educational intervention may be less effective in the longer term. Approaches that include repeated exposure to targeted educational content may be most effective in increasing an individual’s ability to spot and avoid financial fraud, which may result in meaningfully reducing its occurrence.

#### **Disclaimer**

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