



Can Online Educational Interventions Reduce Susceptibility to Financial Fraud?

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Financial Fraud

- Financial fraud is prevalent and increasingly targeting older adults
- Consequences of being victimized can be disastrous
- Numerous educational interventions and programs target fraud awareness
- Yet little academic research on what approaches are effective



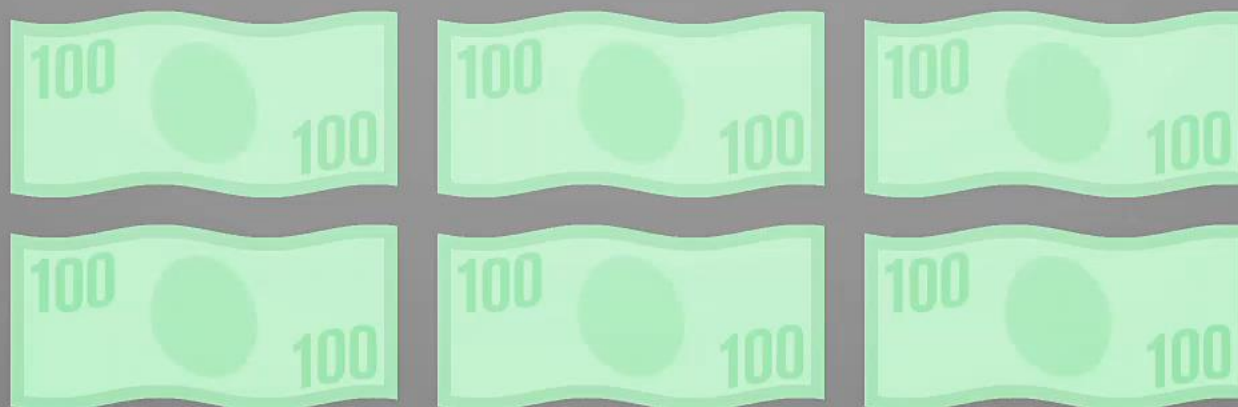
Project

- RCT investigating whether online educational interventions can reduce fraud susceptibility
- 2,000 subjects from the Understanding America Study
- Participants randomized into:
 - Video treatment
 - Text treatment
 - Control
- Half treatment group gets a reminder at 3 months
- Examine immediate effects and effects at 6 months



Intervention

Tactic 2: Phantom Riches





Intervention

Phantom Riches



Step 2. Steer clear of "phantom riches."

Be wary of an investment pitch that guarantees a certain return or promises spectacular profits—what fraud fighters call "phantom riches."

No legitimate salesperson can make those kinds of promises. An ethical salesperson will admit that ***every investment involves risk.***

Red Flag Rule



Take time to think through the pitch:

- Is the salesperson dangling unreasonably high or unusually steady returns? Guarantees?
- Is the opportunity extremely low- or no-risk?
- Are they saying that the investment itself will lead to a different—and much better—lifestyle?

When it comes to investing, there is a tradeoff between the potential for greater rewards and the risk of loss. There is no such thing as a risk-free investment. You can manage and take steps to minimize your exposure by taking time to do your own homework so that you fully understand the risks associated with the investment.



Fraud Pitch Example

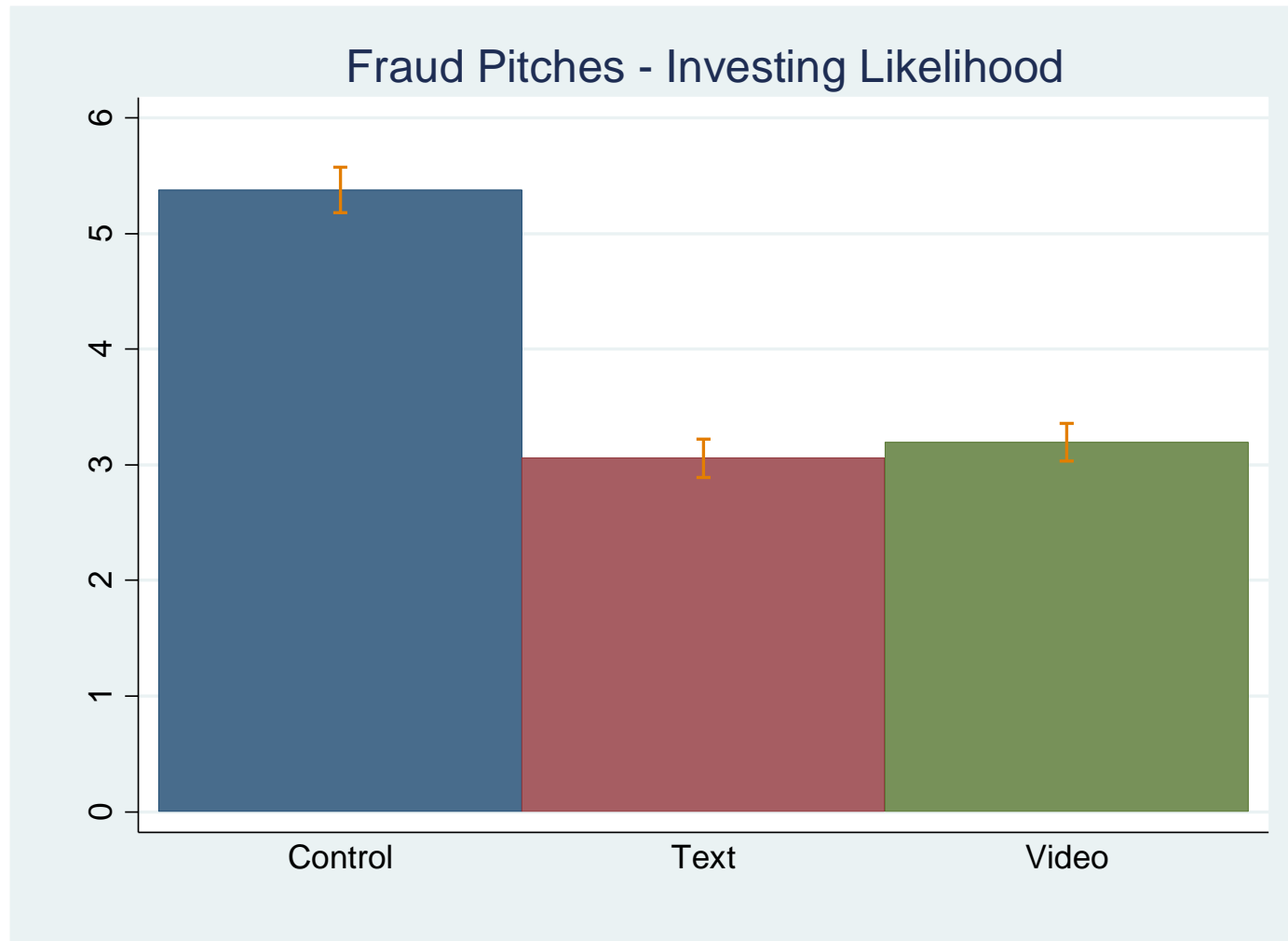
*My friends informed me about a very reliable high-yield investment program I've been extremely impressed with. The program **pays from 2% to 3.4% daily** depending on the investment plan you choose. The minimum term of investment is 180 days, after which you can either recover the sum of your initial investment or continue further participation in the project. You can also invest on a compound basis and **get huge returns**. It **guarantees the safety of the invested amount** and even pays a **5% referral commission**.*



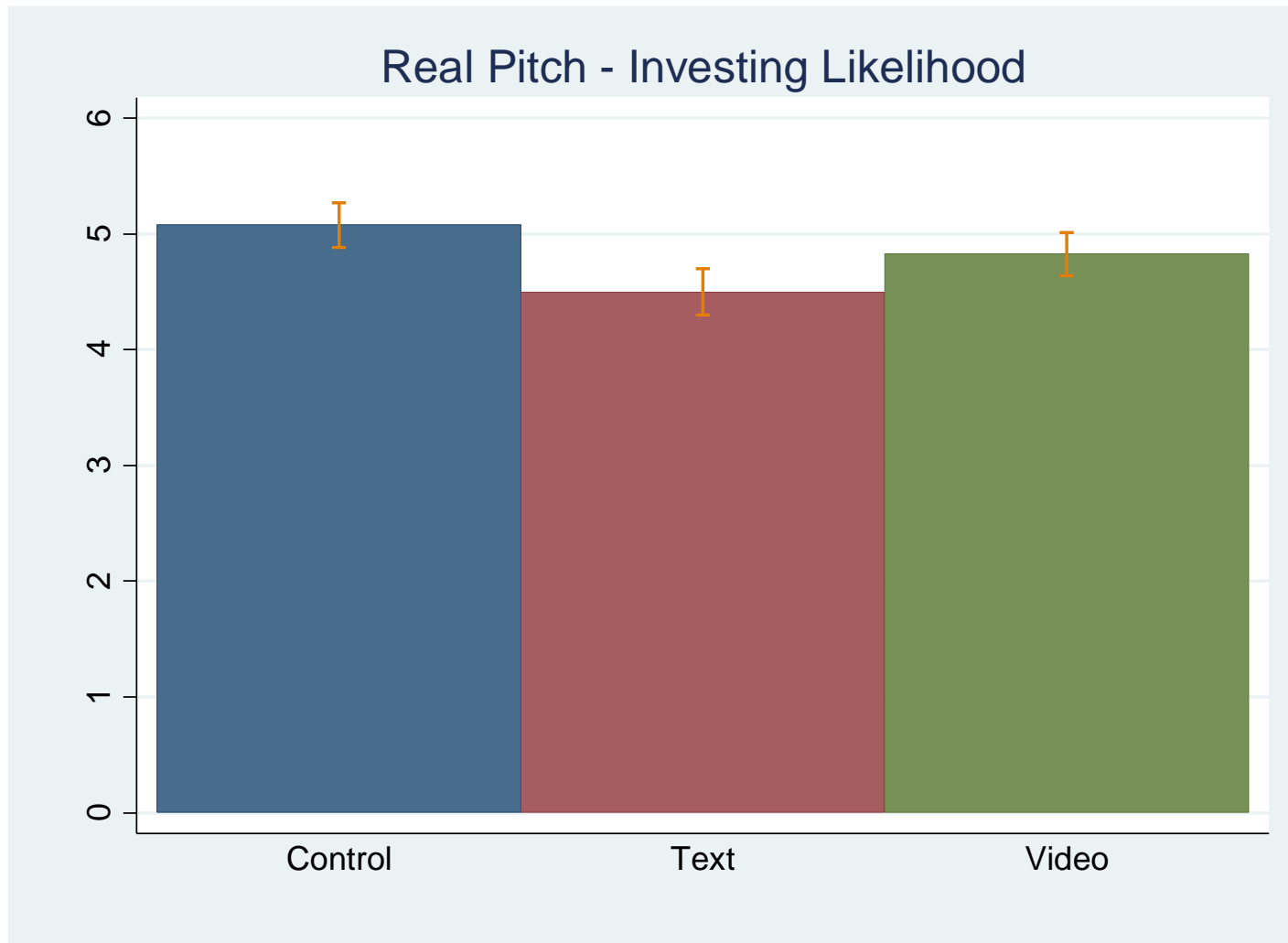
Legitimate Pitch

This fund is designed to provide investors with exposure to the entire U.S. equity market, including small-, mid-, and large-cap growth and value stocks. The fund's key attributes are its low costs, broad diversification, and the potential for tax efficiency. Investors looking for a low-cost way to gain broad exposure to the U.S. stock market who are willing to accept the volatility that comes with stock market investing may wish to consider this fund as either a core equity holding or your only domestic stock fund.

Lower Willingness to Invest in Fraud Pitch



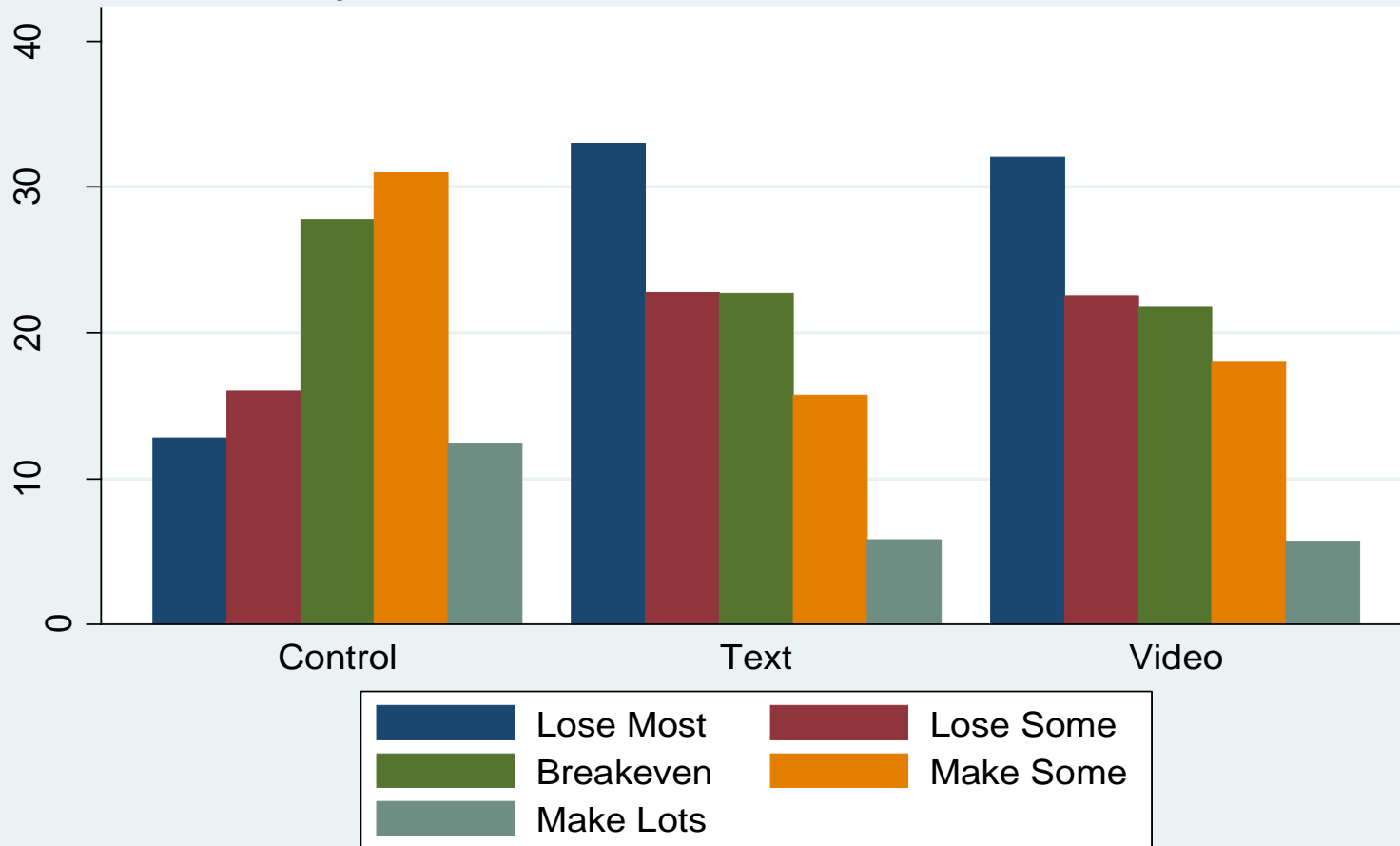
Muted Differences for Legitimate Pitch



Large Shift in Distribution for Fraud Pitches

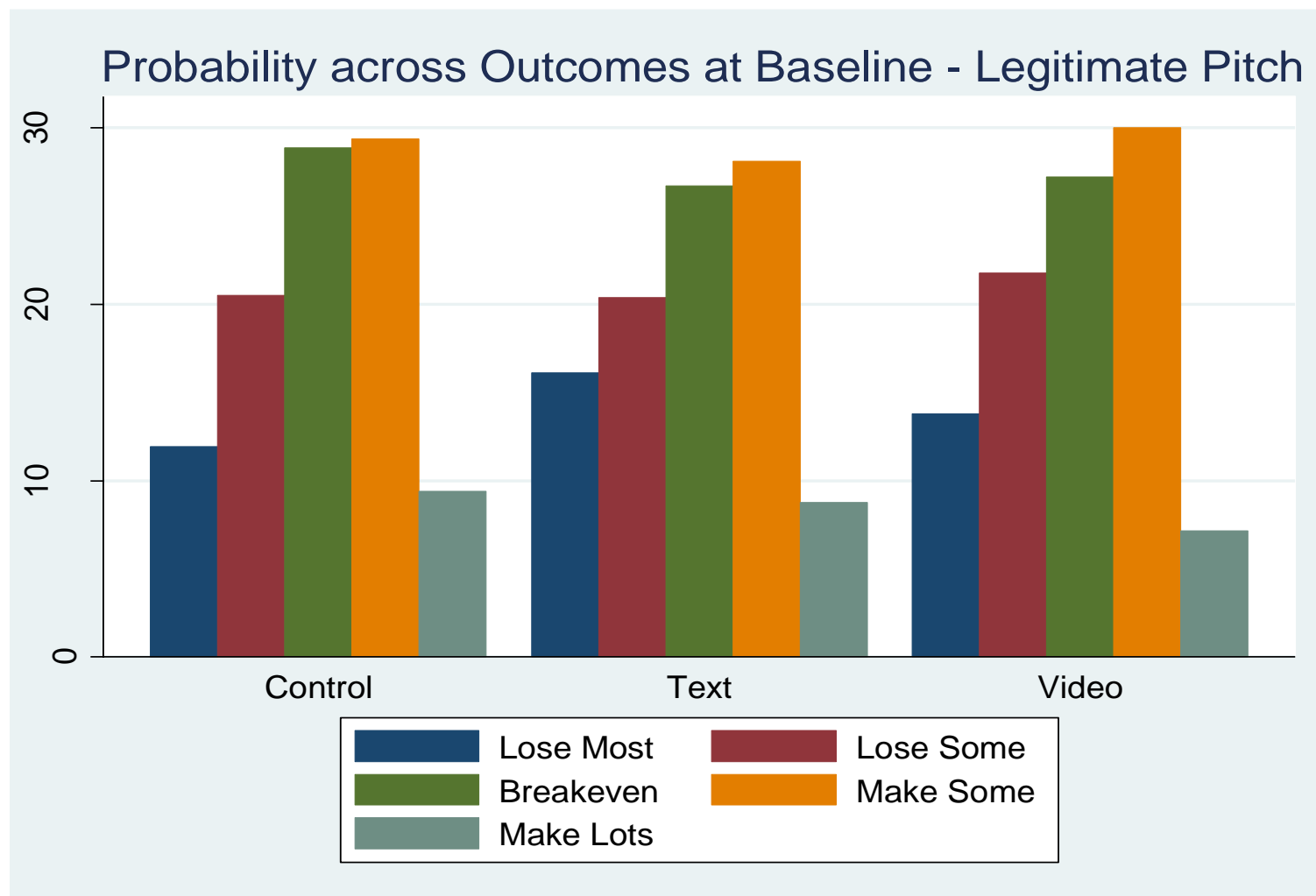


Probability across Outcomes at Baseline - Fraud Pitches





Muted Shift for Legitimate Pitch

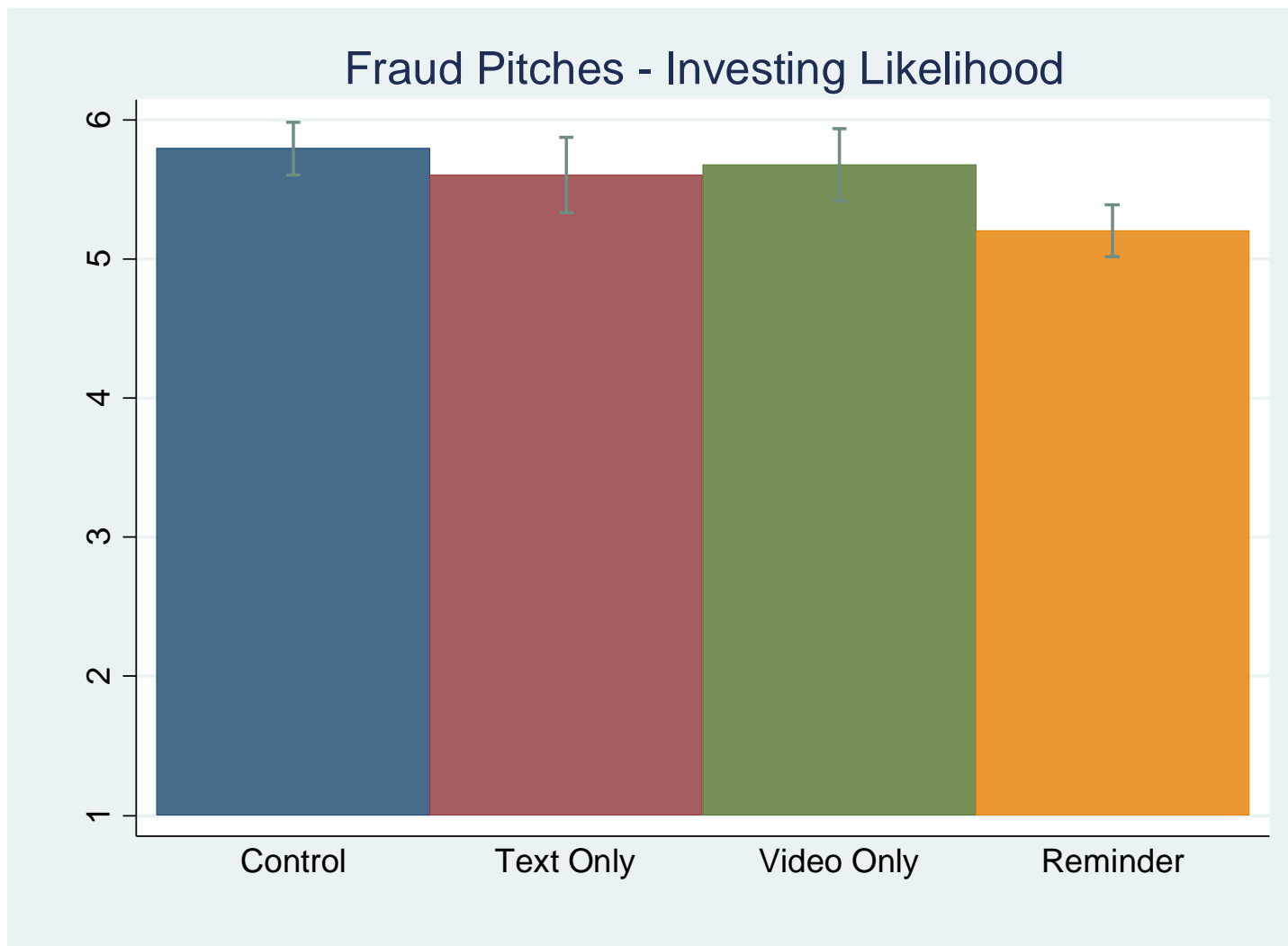




Six Month Endline

- Re-measured fraud susceptibility 6 months after baseline
- Added two new fraud and one new legitimate investment pitch
- Half video (text) treatment received the text (video) treatment 3 months after baseline as a reminder

Persistent Effect on Willingness - Reminder





Persistent Effect on Willingness - Reminder

Average Likelihood of Investing across Fraud Ads at Endline

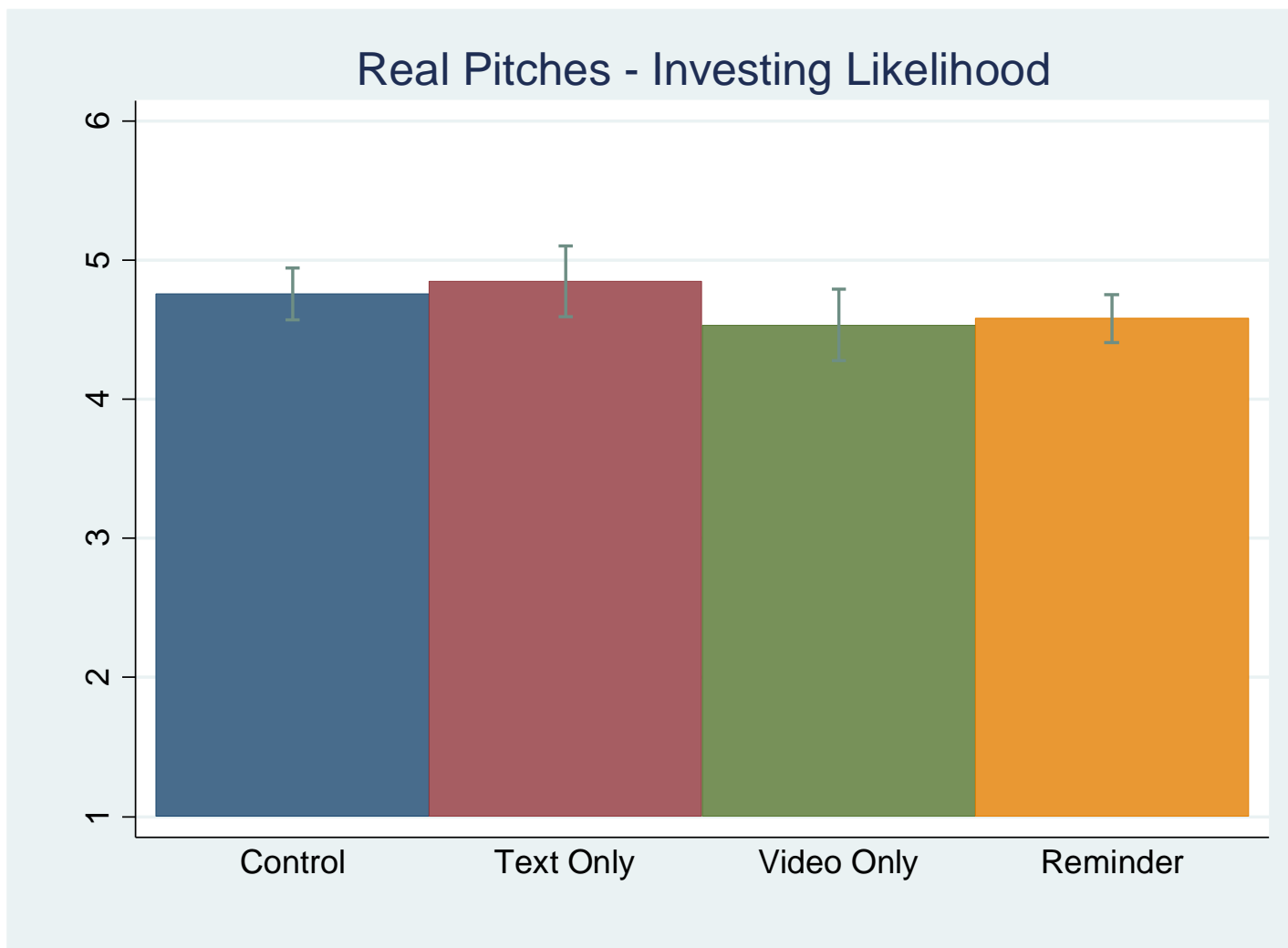
VARIABLES	(1) Invest Likelihood	(2) Invest Likelihood
Video only	-0.110 (0.165)	-0.110 (0.165)
Text only	-0.162 (0.169)	-0.161 (0.169)
Reminder	-0.549*** (0.134)	
Text + Video		-0.654*** (0.161)
Video + Text		-0.438*** (0.165)
Constant	6.475*** (0.242)	6.485*** (0.242)
Includes Covariates?	Yes	Yes
Observations	1,780	1,780
R-squared	0.025	0.026

Robust standard errors in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$



No Differences for Legitimate Ads





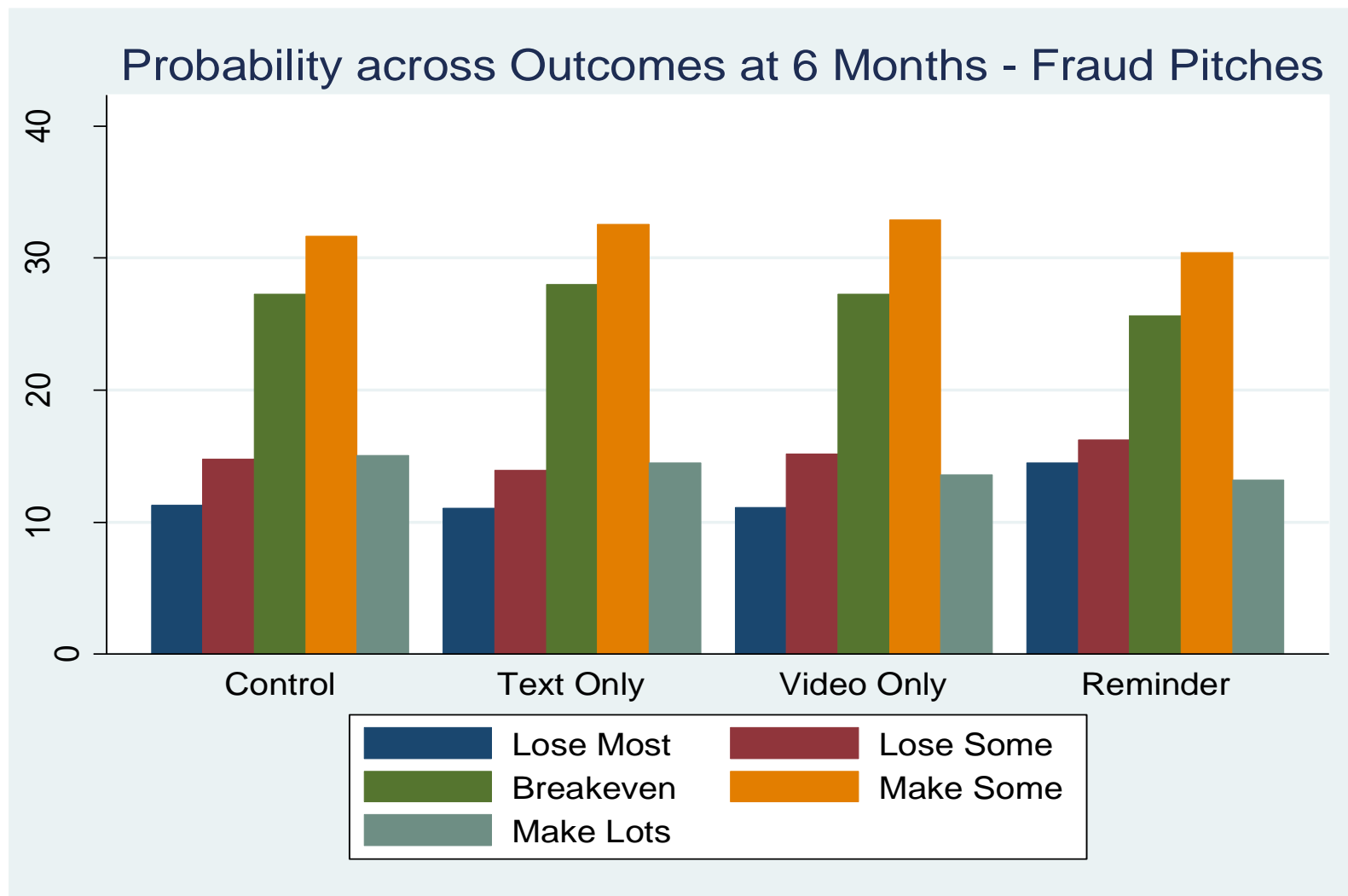
No Difference for Legitimate Ads

Average Likelihood of Investing across Real Ads

VARIABLES	(1) Invest Likelihood	(2) Invest Likelihood
Video only	-0.213 (0.159)	-0.213 (0.159)
Text only	0.098 (0.157)	0.098 (0.157)
Reminder	-0.162 (0.126)	
Text + Video		-0.152 (0.151)
Video + Text		-0.173 (0.154)
Constant	5.733*** (0.241)	5.732*** (0.241)
Includes Covariates?	Yes	Yes
Observations	1,781	1,781
R-squared	0.057	0.057



Distribution Shift for Fraud Pitches





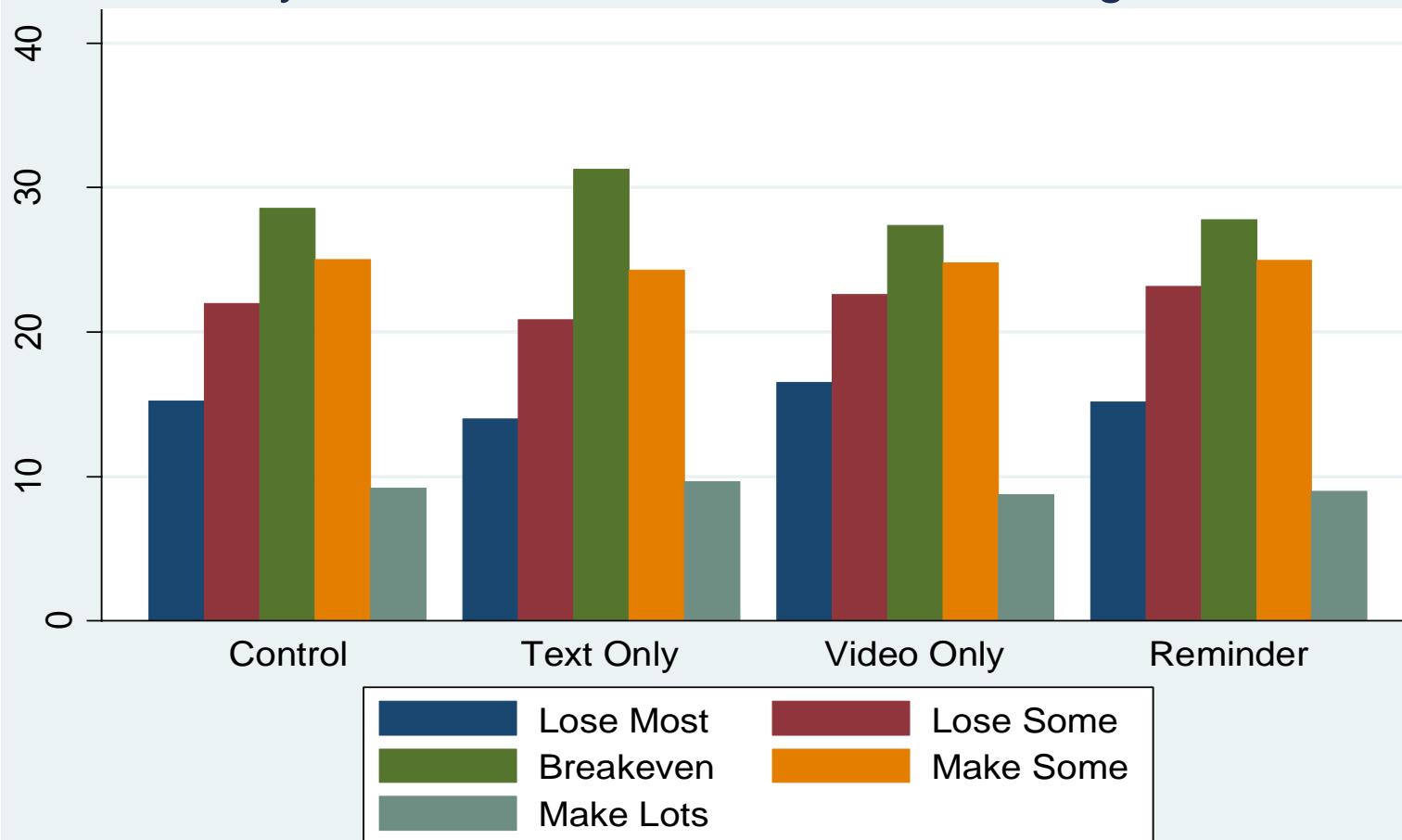
Distribution Shift for Fraud Pitches

Probability assigned to Negative Outcomes - Fraud Pitches		
VARIABLES	(1) Lose Some/All	(2) Lose Some/All
Video only	0.170 (1.641)	0.168 (1.642)
Text only	-1.144 (1.619)	-1.146 (1.619)
Reminder	4.562*** (1.385)	
Text + Reminder		5.384*** (1.680)
Video + Reminder		3.703** (1.742)
Constant	27.788*** (2.733)	27.714*** (2.734)
Includes Covariates?	Yes	Yes
Observations	1,777	1,777
R-squared	0.022	0.023



No Differences for Legitimate Pitches

Probability across Outcomes at 6 months - Legitimate Pitches





No Differences for Legitimate Pitches

Probability assigned to Negative Outcomes - Real Pitches

VARIABLES	(1)	(2)
	Lose Some/All	Lose Some/All
Video only	1.673 (1.768)	1.671 (1.768)
Text only	-2.399 (1.623)	-2.400 (1.623)
Reminder	1.224 (1.367)	
Text + Reminder		1.868 (1.661)
Video + Reminder		0.550 (1.666)
Constant	30.992*** (2.804)	30.934*** (2.807)
Includes Covariates?	Yes	Yes
Observations	1,777	1,777
R-squared	0.020	0.021

Effects Driven by Changes in Knowledge



Passed Knowledge Test - Endline

VARIABLES	(1) Knowledge Test	(2) Knowledge Test
Video only	0.021 (0.035)	0.021 (0.035)
Text only	0.048 (0.035)	0.048 (0.035)
Reminder	0.091*** (0.029)	
Text + Reminder		0.075** (0.035)
Video + Reminder		0.108*** (0.035)
Constant	0.290*** (0.051)	0.292*** (0.051)
Includes Covariates?	Yes	Yes
Observations	1,780	1,780
R-squared	0.044	0.044



Differences Based on Financial Literacy

VARIABLES	(1) Willingness to Invest	(2) Probability Lose at Least Some	(3) Probability Lose Most or All
Video Only * Higher Fin	-0.214 (0.226)	1.296 (2.261)	0.614 (1.556)
Video Only * Low Fin	0.044 (0.275)	0.067 (2.795)	-0.487 (2.098)
Text Only * Higher Fin	-0.552** (0.244)	1.762 (2.454)	2.011 (1.845)
Text Only * Low Fin	0.325 (0.273)	-3.760 (2.331)	-2.600 (1.730)
Reminder * Higher Fin	-0.800*** (0.187)	8.585*** (1.970)	6.070*** (1.409)
Reminder * Low Fin	-0.330 (0.218)	0.295 (2.121)	-0.647 (1.633)
Higher Fin	7.202*** (0.353)	24.873*** (3.476)	10.640*** (2.700)
Low Fin	6.672*** (0.325)	30.183*** (3.221)	15.183*** (2.584)
Includes Covariates?	Yes	Yes	Yes
Observations	1,561	1,562	1,562
R-squared	0.855	0.586	0.338



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Differences Based on Cognitive Ability

VARIABLES	(1) Willingness to Invest	(2) Probability Lose at Least Some	(3) Probability Lose Most or All
Video Only * Higher Cog	-0.152 (0.199)	0.133 (1.964)	-0.305 (1.341)
Video Only * Low Cog	-0.046 (0.291)	0.561 (2.921)	0.057 (2.260)
Text Only * Higher Cog	-0.318 (0.205)	1.427 (2.074)	2.058 (1.608)
Text Only * Low Cog	0.125 (0.296)	-5.862** (2.537)	-4.452** (1.787)
Reminder * Higher Cog	-0.737*** (0.169)	6.795*** (1.765)	4.749*** (1.285)
Reminder * Low Cog	-0.203 (0.223)	0.287 (2.263)	0.159 (1.780)
Higher Cog	6.980*** (0.292)	24.364*** (2.954)	10.344*** (2.291)
Low Cog	6.616*** (0.297)	30.609*** (2.939)	14.966*** (2.367)
Includes Covariates?	Yes	Yes	Yes
Observations	1,770	1,771	1,771
R-squared	0.854	0.585	0.341



Discussion/Policy Implications

- Short educational interventions can meaningfully improve ability to spot fraudulent investments
 - Effects decay over time
 - Though persist (with reminders) for at least 3 months
 - No differences on willingness to invest/beliefs for legitimate investment opportunities
 - Effects concentrated among the financially sophisticated
- Improved ability driven by changes in knowledge
 - Participants internalized the information and applied selectively (and appropriately)