Enhancing Trust in the Social Security Administration and E-Government Among People Targeted by Fraud

4 August 2022: RDRC Annual Meeting
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Thank You

And A Short Disclaimer

The research reported herein was performed pursuant to a grant from the U.S. Social Security Administration (SSA) funded as part of the Retirement and Disability Consortium.

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The problem:

Imposter scams and the erosion of public trust

Social Security Administration imposter scams

- A telephone survey found that 46% of Americans age 18+ experienced an attempted Social Security scam between Oct-Dec 2020 alone
- 69% of Social Security beneficiaries experienced at least one Social Security scam between Oct-Dec 2020

SimplyWise (January 2021). Retirement Confidence Index. SimplyWise Retirement Confidence Index | SimplyWise

Our focus: Digital Imposter Scams

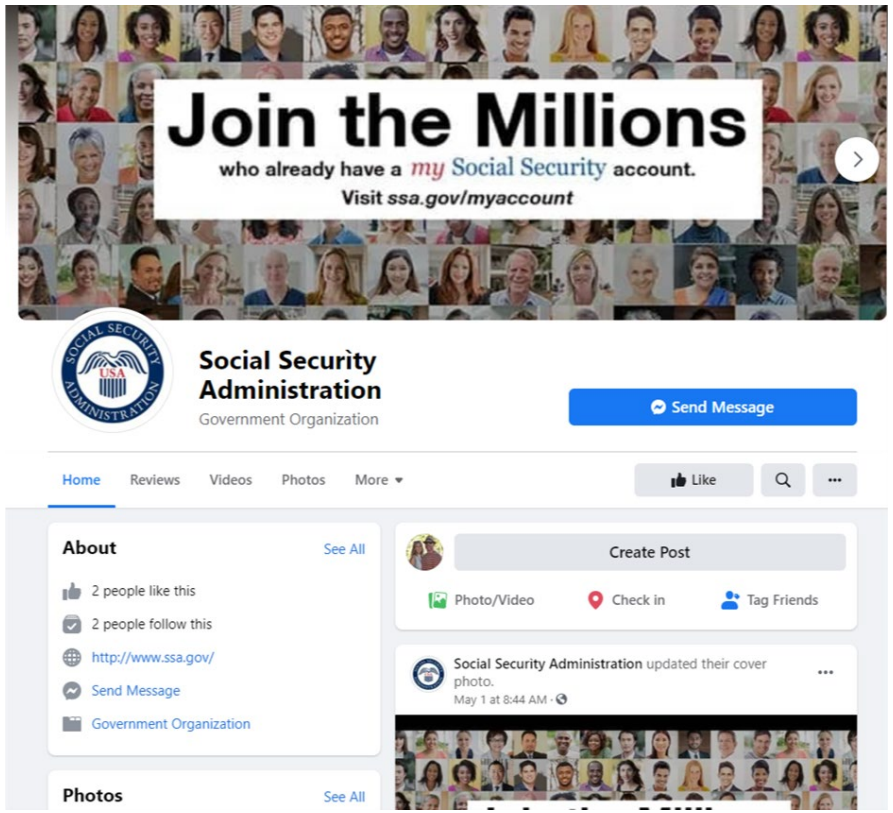
From: IRS-gov.us <usa1.tax-payers.rvs@w wt.net>
Sent: Friday, February 17, 2017 6:11 AM
To: usa1.tax-payers.rvs@wwt.net
Subject: Your IRS Data Require Immediate Action

IRS

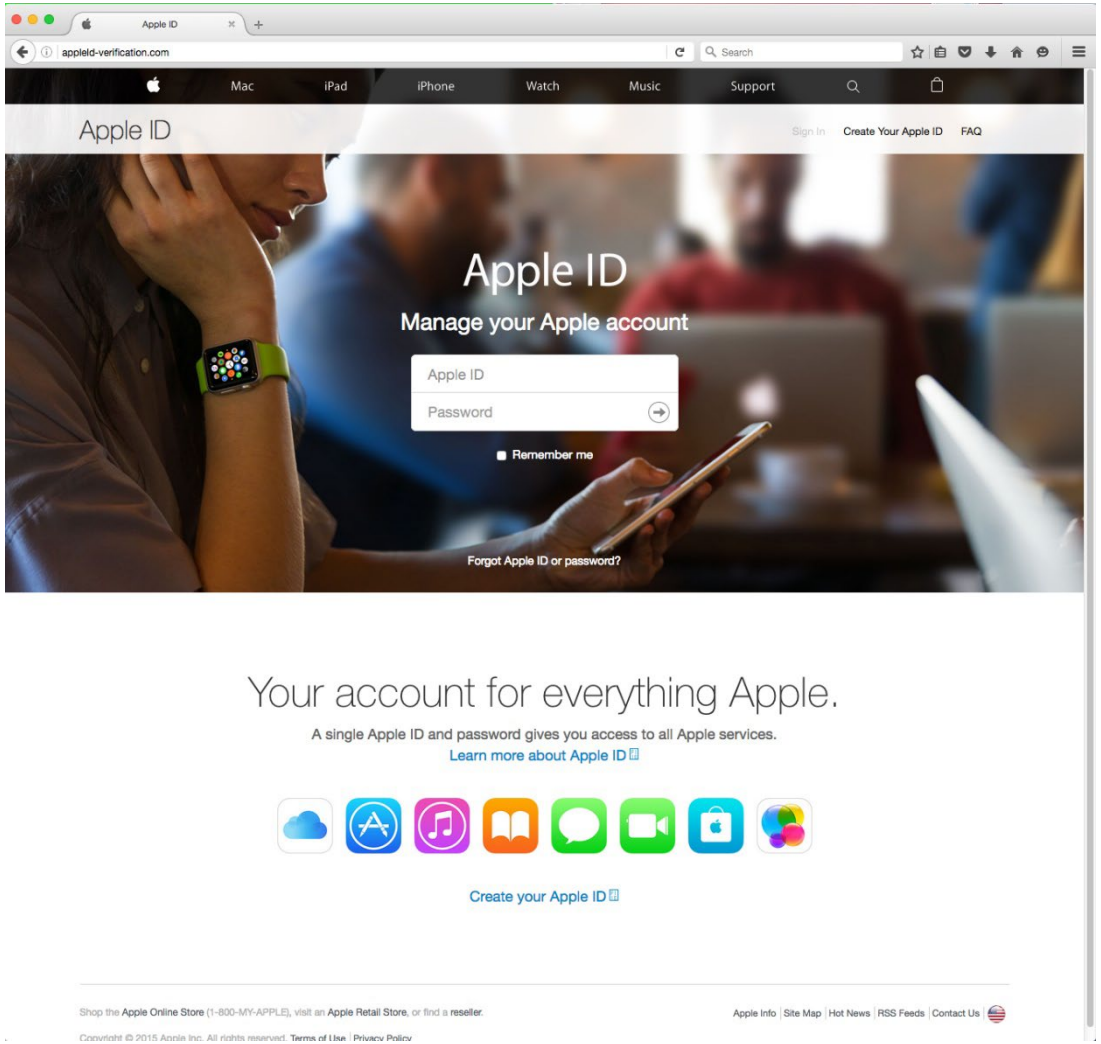
Dear IRS User,
This is an Important Message regarding your IRS Filing, from the previous year and current year.Our system indicates you have some changes in your record with us and We will like you to Kindly follow the given instructions in order to comply with our new sytem requirements.To avoid future difficulty with IRS services.
By filling out the Taypayer's information that only you and IRS know, you can feel even more secure with your yearly Tax payout, knowing all information is Up to date.
To Proceed, Please find attached HTML Web Page.

- See Attached for HTML Web Page
- Download and Save it to your Device Desktop
- Go to Device Desktop to open the HTML Web Page
- Continue by Filling your Information

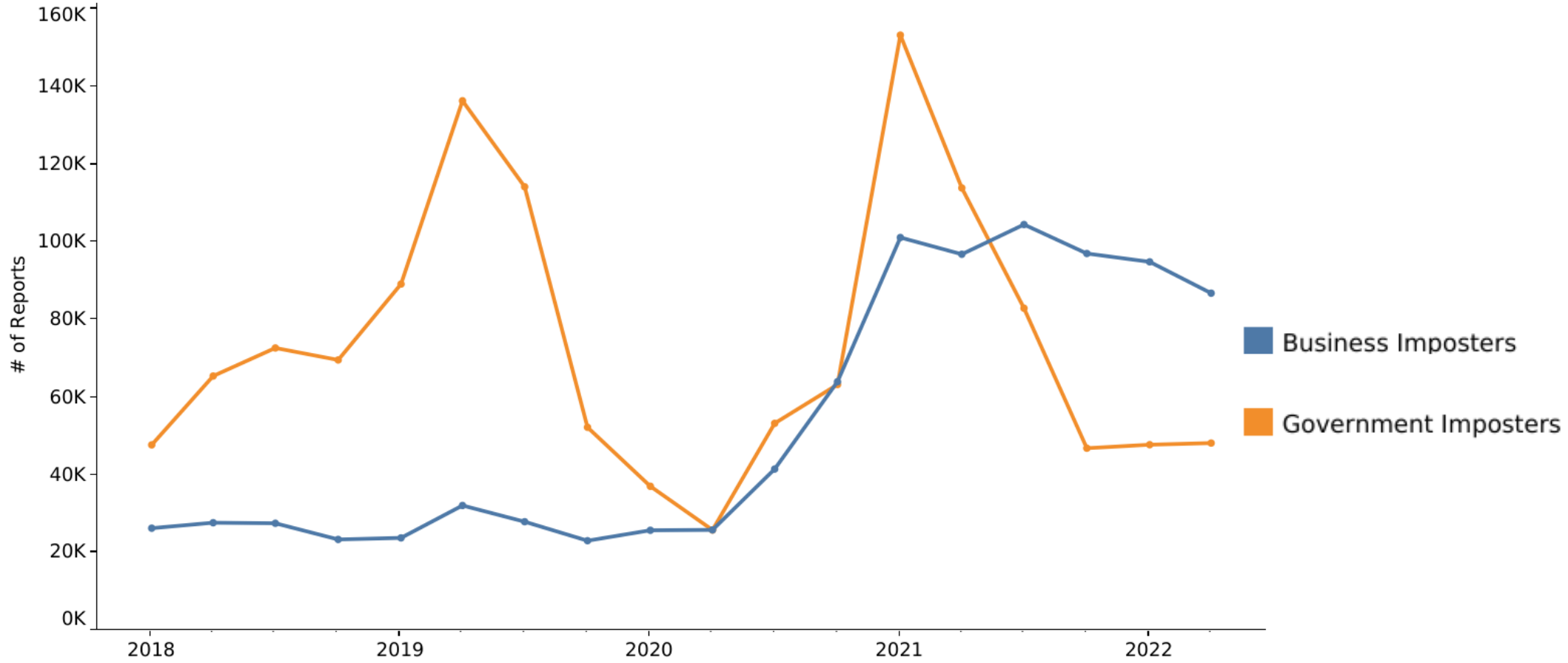
Failure to comply, IRS will leave your Information Flagged on the system which will lead to taking other actions toward your next Tax Filing/refund.
IRS will never share taxpayers personal information with third party.
Sincerely,
IRS Online Services



Businesses are increasingly targeted



Trends in Imposter Scam Consumer Reports



In 2021, 17% of consumers who reported imposter scams were victims (lost money), and the median loss was $1,000.

Source: FTC (2022) https://public.tableau.com/app/profile/federal.trade.commission/viz/FraudReports/FraudFacts

Existing Research: Countering Fraud

Specific research testing techniques to counter impostor fraud is limited. Instead, we can find:

- Practical and logical tips from organizations like the SSA, IRS, FTC and AARP

- Research on countering other types of fraud and persuasion that we can apply to this problem. For example: Forewarning can limit phone call-based scam susceptibility (Scheibe et al. 2014), and the extensive work on general influence appeals, and how to counter them (e.g. Wood and Quinn 2003)

Impact of fraud on trust

- In general, public trust in government has declined since the 1960s. Only about 25% of Americans say they can trust the government in Washington to do what is right (Pew Research Center, 2021)

- Very little research has explored the impact of fraud victimization on subsequent consumer trust

- Our study sought to examine whether there are differences in the willingness to trust legitimate communications among people who reported being targeted (and some victimized) by imposter scams relative to those who were not.

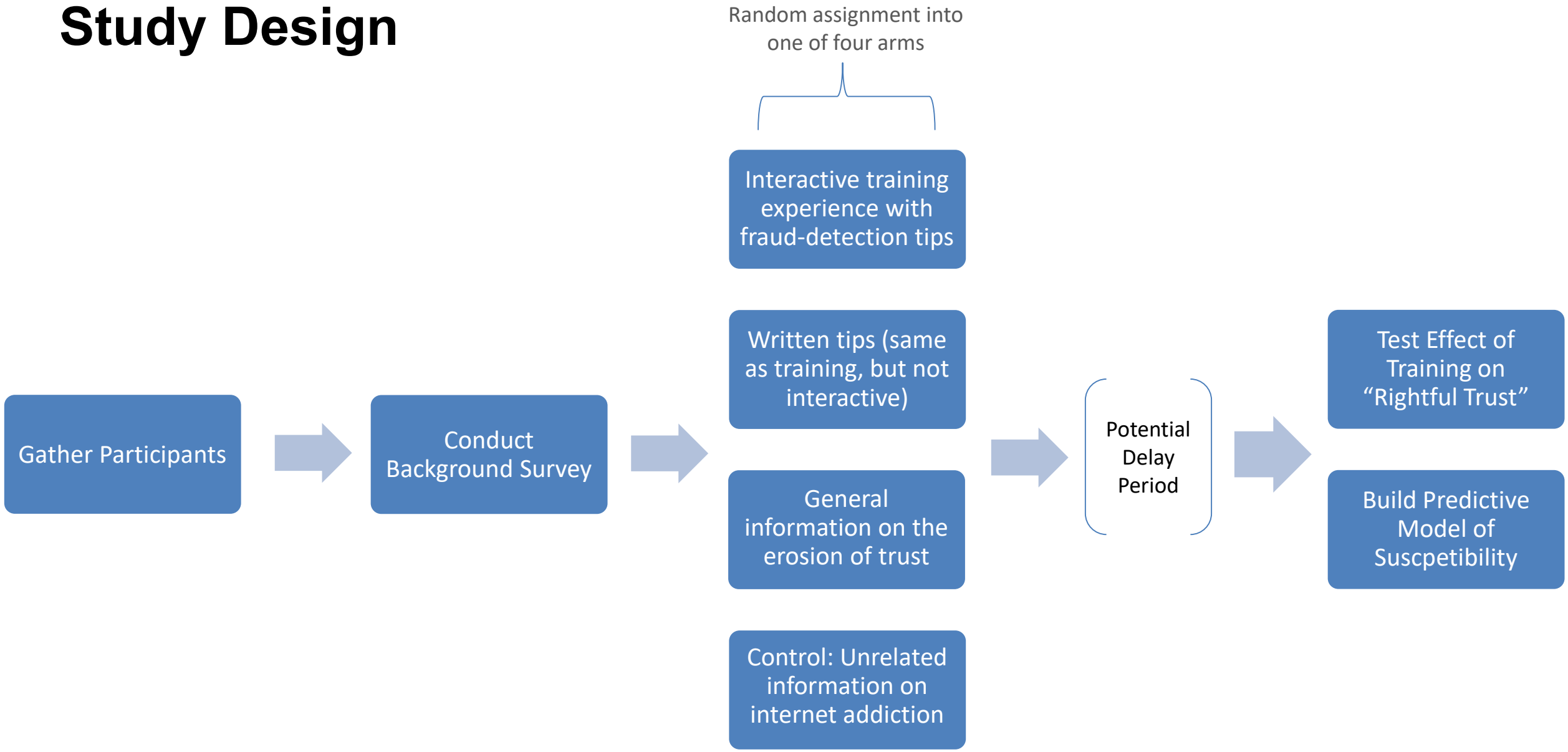
Study Design

Research Questions

1) Does prior exposure to fraud lead people to trust government communications less?

2) Can an online intervention help increase trust in real communications from the SSA and others?

Study Design



Study Design Cont.

Do this

- Test Effect of Training on "Rightful Trust"
- Build Predictive Model of Suscpetibility

For Two 'Types' of Imposters

- Government
- Business

Across two domains

- Websites
- Emails

Study Design: Population

Gather Participants: General Population

Nat Rep #1:
N= 1,200; July 9-12; 8 Communications;
Test Immediately after Training

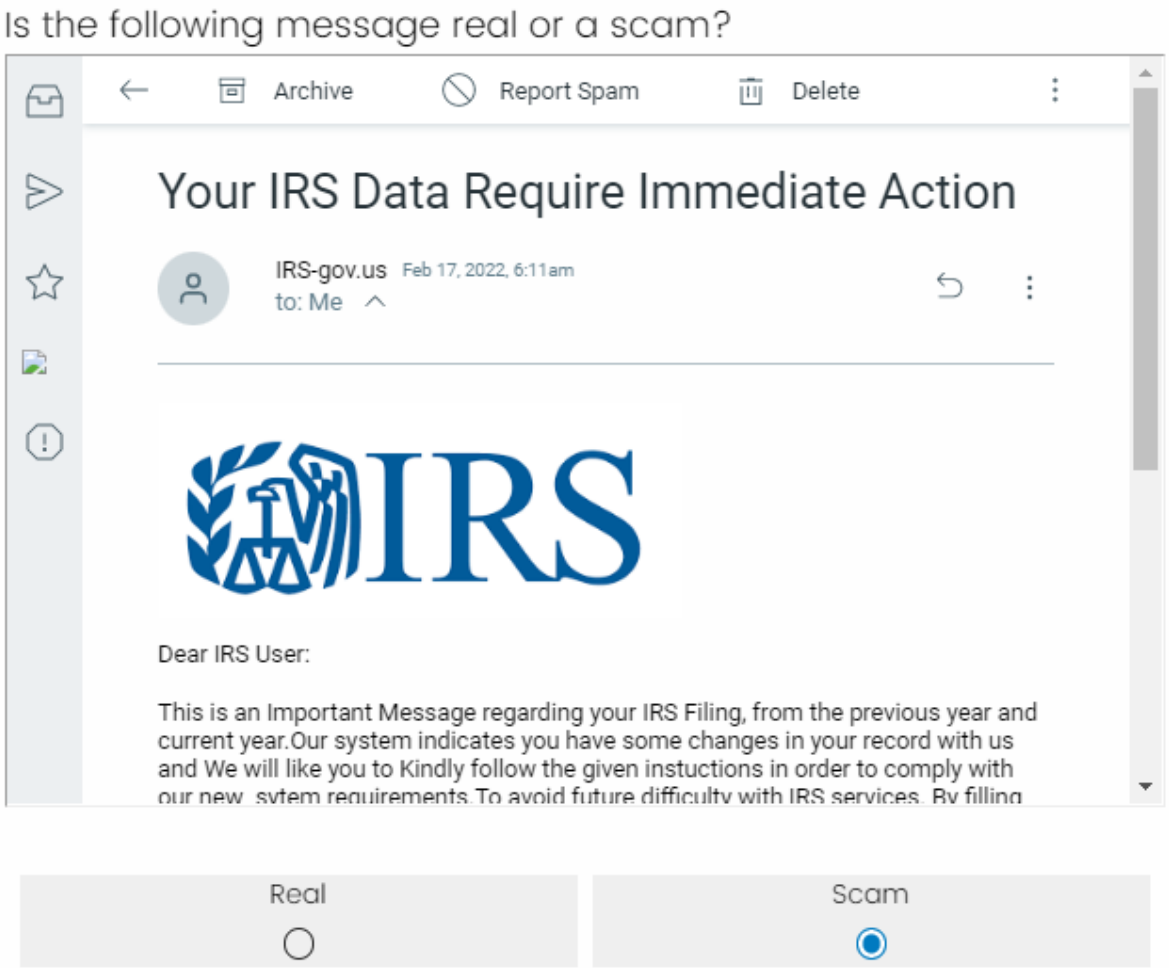
Nat Rep #2:
N = 1,200; July 30-Aug 1; 10 Communications w/ Fix to 2 Pages; Test Immediately after Training

Nat Rep #3:
N=1,200 Participants, Mid-August; 10 Communications; 2 Week Delay

Gather Participants: Prior Scam Reporters

BBB Scam Tracker Sample
Target N= 1,000
Underway now

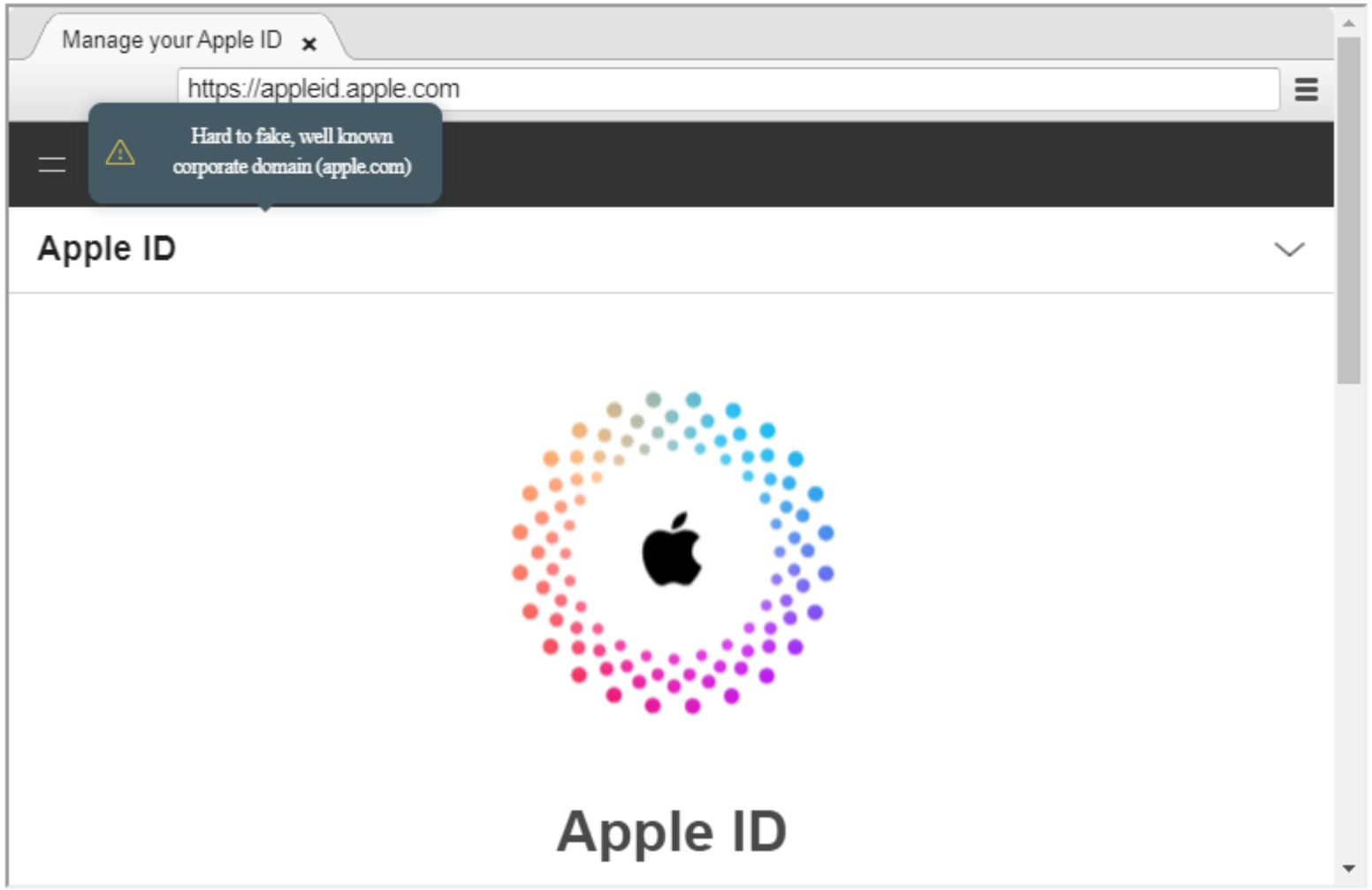
Interactive training: a series of emails and websites, where we ask participants to judge if they are real or fake



An overlay then shows tips on what to look for, *after* the participant responds

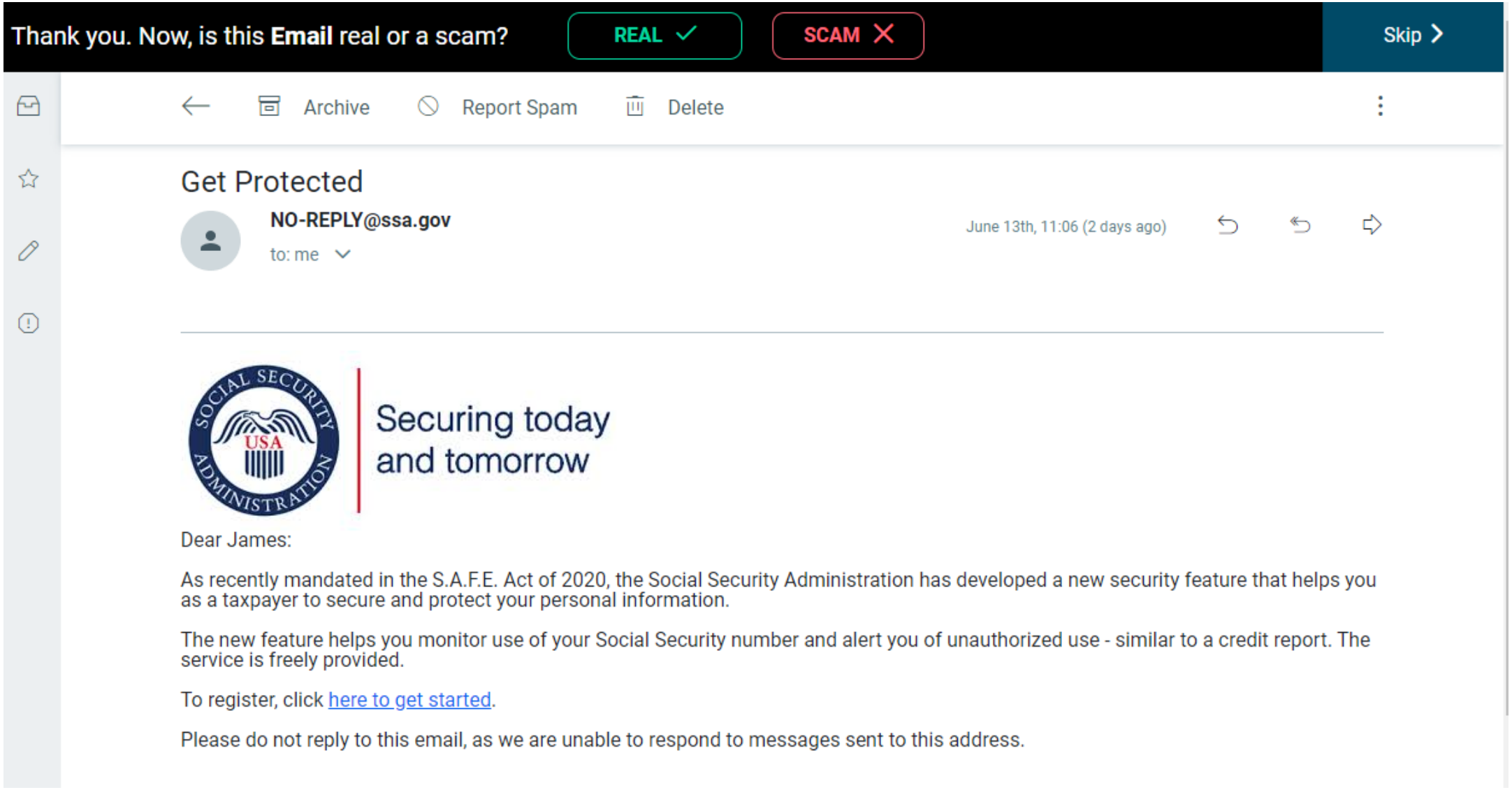
Similarly for websites

REAL. See below on learn why.

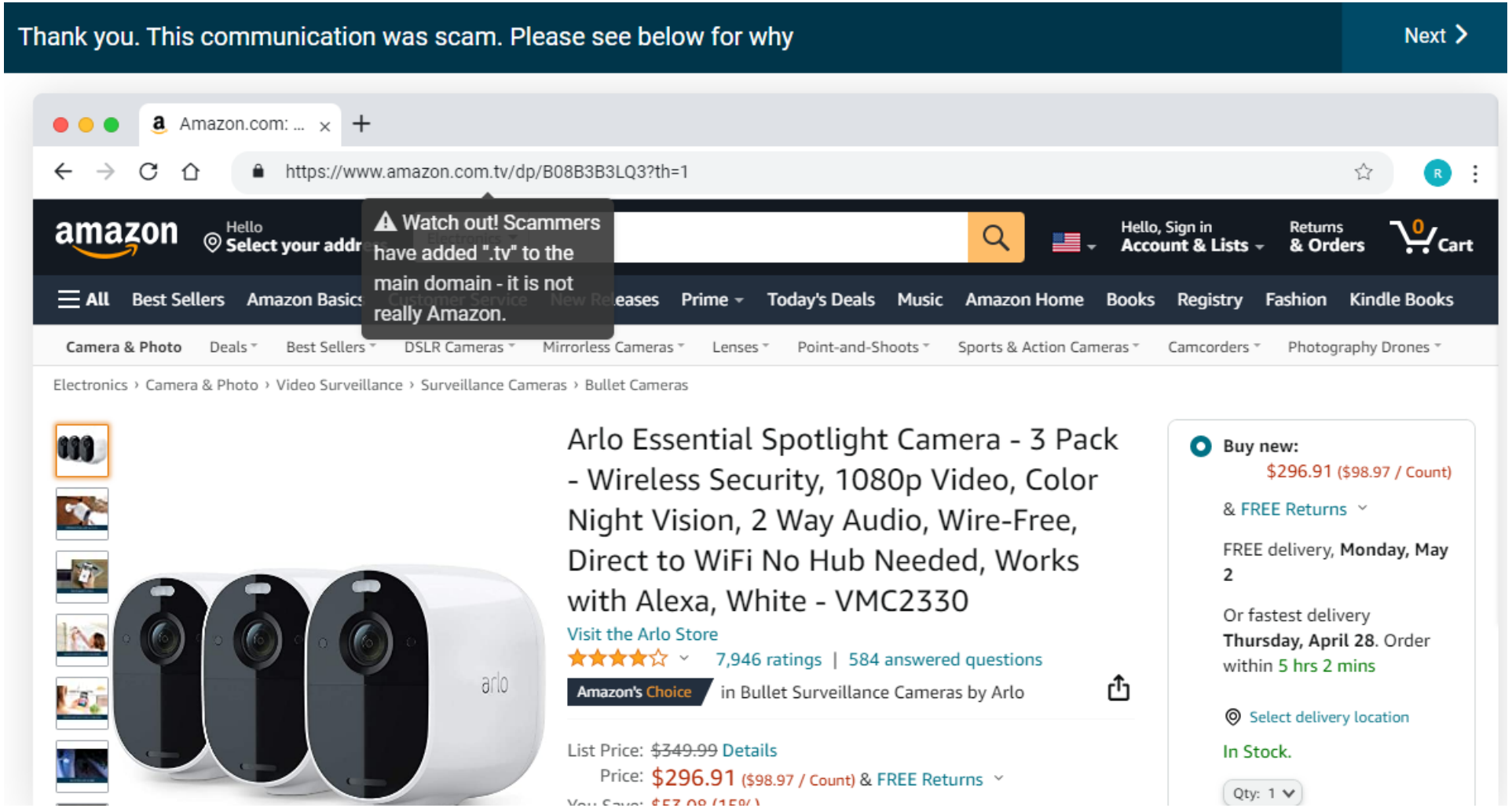


Fraud Detection
Test

Interactive Email, Web and Letter Interfaces

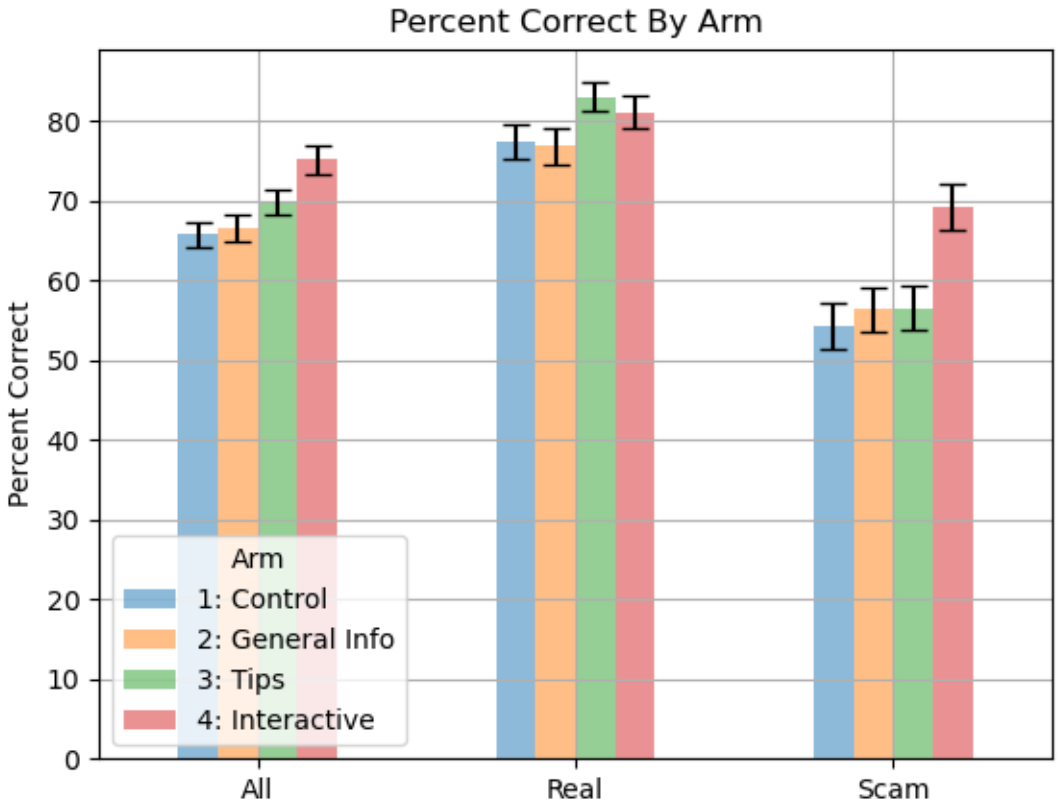


Full duplicates of existing websites, with scam modifications



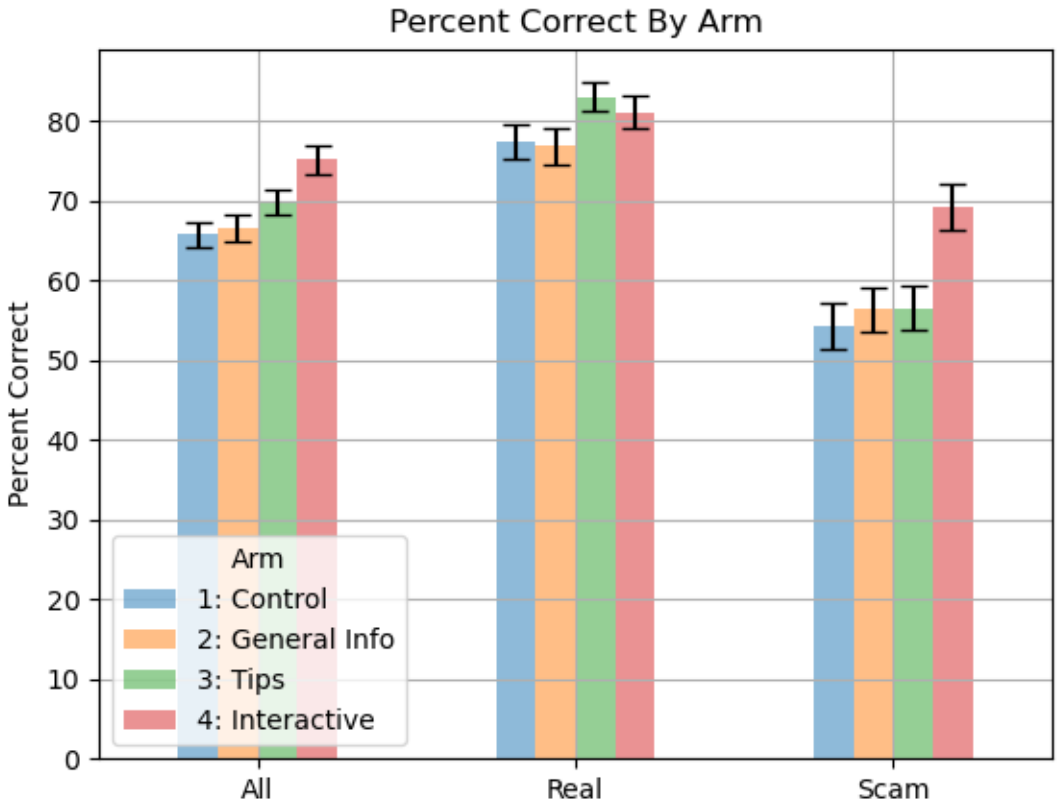
Results:
Can the public be trained?

High Level Result:Yes.



N=1132 (Nat Rep Sample 2); 95% CI shown.

Some Observations



N=1132 (Nat Rep Sample 2); 95% CI shown.

The interactive training can be very effective. An 8% increase on a 67% baseline.

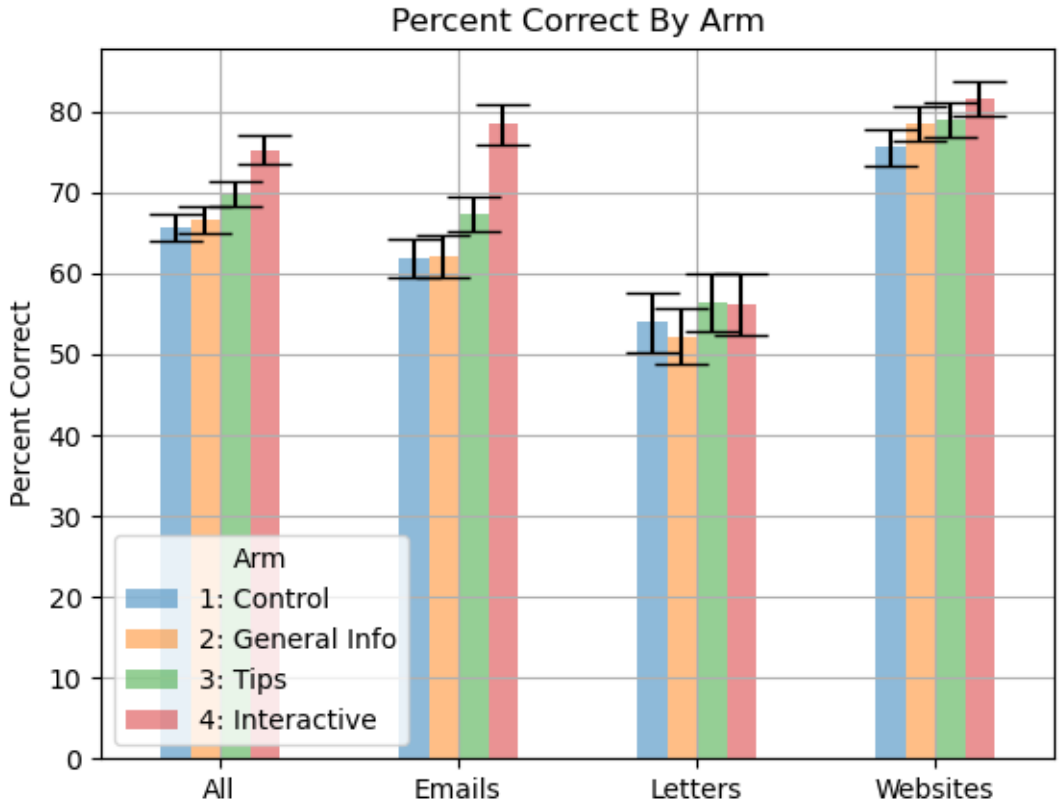
The training is far more effective at helping people *recognize scams* than at *increasing trust*: a 12% increase versus a 4% increase.

Written, non-interactive tips help: especially for increasing trust (and not for recognizing scams)

Communication Medium

The training is far more effective for emails than for websites: a 15% increase versus a 2.8% increase.

The training is NOT effective for communication mediums that were not targeted. We found no impact on the participant's ability to correctly identify real or scam Letters.



N=1132 (Nat Rep Sample 2); 95% CI shown.

Sensitivity Tests

- The results hold for both nationally representative samples, with minor variations.
- Training participants show increases in fraud-detecting behavior, consistent with these results: They are more likely to open email headers and less likely to click on links within the communications.
- The results hold in multivariate regressions, after controlling for potential incomplete randomization.
- We find no significant sub-population effects. No significant difference by age; frequency of interaction with the internet; prior experience with fraud; prior experience with SSA impostor scams; and prior loss from fraud.

Results:
What predicts distrust?

Context

- We measure trust in two ways:
  - **Self-report:** Trust in the Social Security Administration. Trust of interactions on the Internet. Confidence and trust in the US government.
  - **Revealed behavior.** The percent of real messages they correctly identify during the test among the control group.

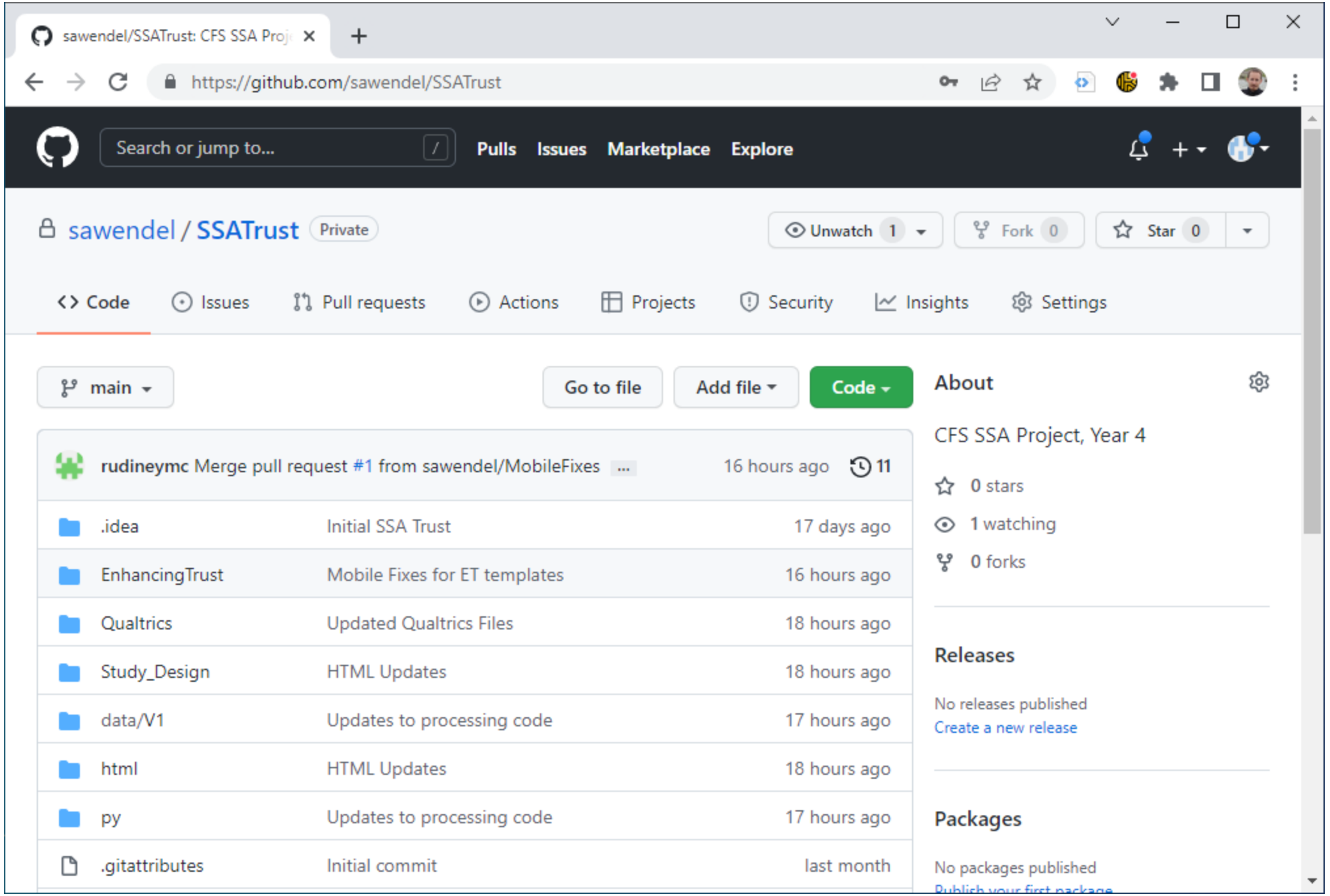
Observations

- Exposure to attempted fraud is widespread – 93% of participants reported being targeted for at least one type of fraud (at any point in the past). This is likely an underestimate.
- Only 6% reported having lost any money to any such fraud in the past.
- Only 24% of the people targeted by fraud **reported** the attempted fraud to the US Government, BBB, or other organization. This highlights the challenges of using fraud reports to understand the full breadth of fraud.
- 38% of participants reported having undergone some form of Cybersecurity training in the past.

What do we learn?

- Most importantly for this study, **prior experience with fraud has an inconsistent relationship with current trust.** The strongest results are for Internet trust – prior experience with business imposter scams and losses from fraud indicate decreased trust. Otherwise the results are neutral (non significant).
- Trust is multi-faceted and different factors may drive trust in the Internet versus the Social Security Administration.
- Income and education are generally associated with these forms of trust.
- Age has a curvilinear effect. For example, for Trust in the SSA, it decreases from 18-31, then increasing from 31+ There are similar patterns for trust in Government, the opposite for trust in the Internet.
- After controlling for age and income, retired persons show lower trust in the SSA.
- All else being equal, women appear to have less trust in each area measured (note: the results are not statistically significant for the SSA in Nat Rep Sample #2; they are for Nat Rep Sample #1).
- People who score highly on a loneliness scale are significantly more likely to distrust the SSA (see detailed results in paper)

Where you can find the code & data


sawendel/SSATrust: CFS SSA Proj
https://github.com/sawendel/SSATrust
Search or jump to...
Pulls
Issues
Marketplace
Explore
sawendel / SSATrust
Private
Unwatch 1
Fork 0
Star 0
Code
Issues
Pull requests
Actions
Projects
Security
Insights
Settings
main
Go to file
Add file
Code
rudineymc Merge pull request #1 from sawendel/MobileFixes ... 16 hours ago 11
.idea Initial SSA Trust 17 days ago
EnhancingTrust Mobile Fixes for ET templates 16 hours ago
Qualtrics Updated Qualtrics Files 18 hours ago
Study_Design HTML Updates 18 hours ago
data/V1 Updates to processing code 17 hours ago
html HTML Updates 18 hours ago
py Updates to processing code 17 hours ago
.gitattributes Initial commit last month
About
CFS SSA Project, Year 4
0 stars
1 watching
0 forks
Releases
No releases published
Create a new release
Packages
No packages published

And that’s it.

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