Welcome Page and Information Sheet

NIST NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY

Welcome to the NIST Phish Cues Survey

The National Institute of Standards and Technology (NIST) is conducting an anonymous survey to understand how visually observable characteristics of phishing emails impact how people interpret a phishing email. This is your opportunity to help us understand how people decide whether an email is a phish and what visually stands out in phishing emails. Your responses will help NIST to further its research goals on this important cybersecurity issue and its evaluation of phishing awareness training methods. By participating, your contribution will be of great value to both our research efforts at NIST and the cybersecurity awareness training of your organization.

This survey should take approximately 15 minutes to complete. The survey responses are confidential and your information is strictly anonymous. Your participation is voluntary. You may choose to skip any question or quit the survey at any time. If you quit the survey, any answers that have already been provided will be retained. Once the survey is completed and submitted, your answers cannot be withdrawn. The anonymous survey results may be shared publicly. If you have any questions about this study, please contact Shanée Dawkins at shanee.dawkins@nist.gov.

If you have any questions about your rights as a research participant, please contact the NIST Research Protections Office and/or Institutional Review Board at 301-975-5445 or email rpoffice@nist.gov.

OMB Control #0693-0043
Expiration Date: 06/30/2025
NIST Generic Clearance for Usability Data Collections

A Federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with an information collection subject to the requirements of the Paperwork Reduction Act of 1995 unless the information collection has a currently valid OMB Control Number. The approved OMB Control Number for this information collection is 0693-0043. Without this approval, we could not conduct this survey/information collection. Public reporting for this information collection is estimated to be approximately 15 minutes, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the information collection. All responses to this information collection are voluntary. Send comments regarding this burden estimate or any other aspect of this information collection, including suggestions for reducing this burden to the National Institute of Standards and Technology at: 100 Bureau Drive, Attn: Shanée Dawkins.

I understand that by clicking “Next”, I am choosing to take part in this research study voluntarily.

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The questions below are about how you use your work email (not personal email). Thinking of how you use your work email only, please answer the questions below.

What kind of device do you usually use when you check your work email? Select all that apply.

- ☐ Desktop computer or laptop
- ☐ Tablet
- ☐ Smartphone
- ☐ Please list other devices used:

Which statement best describes the amount of work emails you typically receive in a day?

- ○ I get an unreasonable amount of email daily.
- ○ The amount of email I get daily is neither reasonable nor unreasonable.
- ○ I get a reasonable amount of email daily.

What time of day do you typically check your work email? Select all that apply.

- ☐ Morning
- ☐ Afternoon
- ☐ Evening
- ☐ Continuously throughout the day
- ☐ Please list times of day you typically check:

What do you look for in an email when determining whether it is a phish or not?

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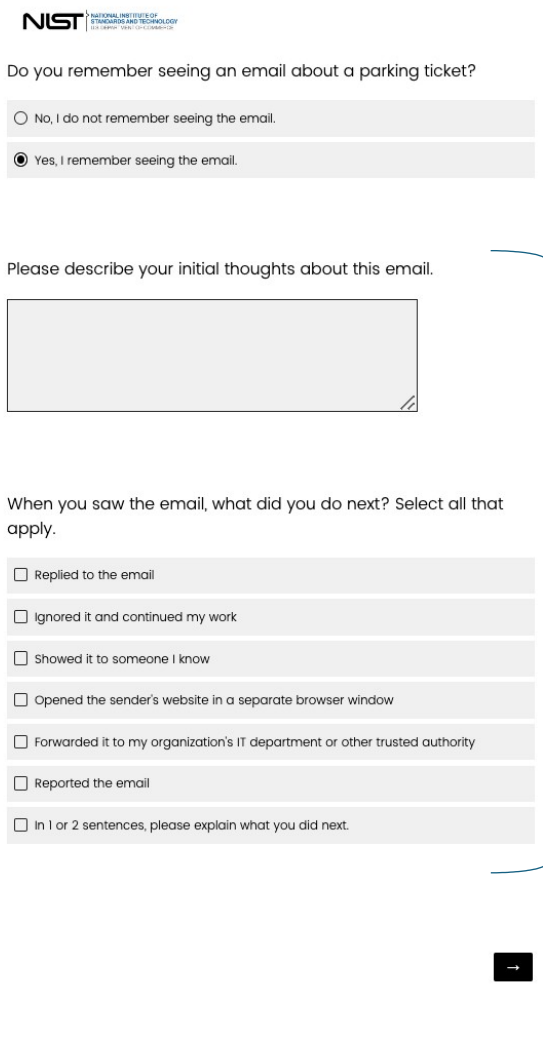

The wording of this question ("parking ticket") is conditional. The subject of the email depends on the email template the participant receives.

These questions are conditional – whether participants are asked or not depends on the participant's responses to earlier questions.
If participants select "Yes, I remember seeing the email" then they are shown these questions. If they do not select this option, they do not see

This page is conditional – whether participants are asked this question or not depends on the participant's responses to earlier questions. If participants select "No, I do not remember seeing the email" then they are shown this page. If they do not select this option, they do not see this page.

Placeholder images throughout this file are dependent on the email template the participant receives

This page has conditional questions. The bracket shows the possible questions that are shown based on responses to questions on this page.

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You recently received the email shown in the picture. Thinking back to when you first saw the email, please respond to the questions below:

Placeholder for image of phishing email

Based on responses, participants can see

Did you notice anything unusual about the email?

- (•) Yes, I thought the email looked suspicious.
- ( ) Neither suspicious nor legitimate
- ( ) No, I thought the email looked legitimate.

How much of the email did you read before deciding it looked suspicious?

- (•) I only looked at the header of the email.
- ( ) I only glanced at or skimmed the contents of the email
- ( ) I fully read or inspected the email.

How many suspicious things did you notice about the email's header?

Please list the suspicious things you noticed about the email's header.

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Did you notice anything unusual about the email?

- ( ) Yes, I thought the email looked suspicious.
- (•) Neither suspicious nor legitimate
- ( ) No, I thought the email looked legitimate.

How much of the email did you read before deciding it looked suspicious?

- ( ) I only looked at the header of the email.
- (•) I only glanced at or skimmed the contents of the email
- ( ) I fully read or inspected the email.

How many suspicious things did you notice about the email?

Please list the suspicious things you noticed about the email.

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Did you notice anything unusual about the email?

- ( ) Yes, I thought the email looked suspicious.
- ( ) Neither suspicious nor legitimate
- (•) No, I thought the email looked legitimate.

How much of the email did you read before deciding it looked legitimate?

- ( ) I only looked at the header of the email.
- (•) I only glanced at or skimmed the contents of the email
- ( ) I fully read or inspected the email.

Please explain why you thought the email looked legitimate.

→

How much of the email did you read before deciding it looked legitimate?

- (•) I only looked at the header of the email.
- ( ) I only glanced at or skimmed the contents of the email
- ( ) I fully read or inspected the email.

Please explain why you thought the email's header looked legitimate.

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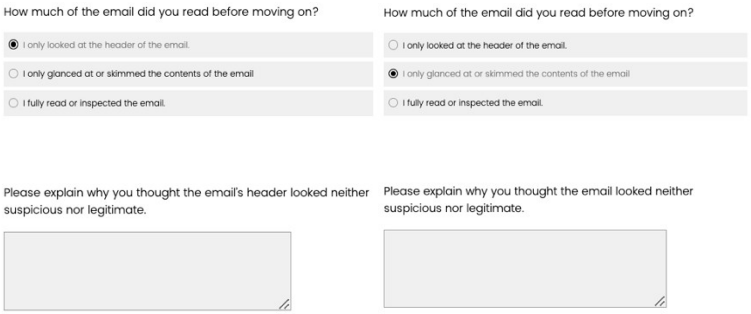
These questions are also shown if they select “I fully read or inspected



This question is also shown if they select “I fully read or inspected the

This question is also shown if they select “I fully read or inspected the email”

Page 5

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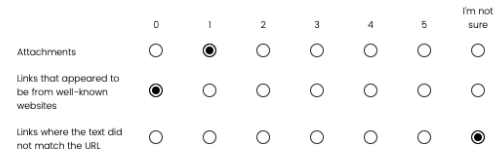
Now we will ask you questions about specific parts of the email. Thinking back to when you first saw the email, please answer the questions below.

Page 5 OR Page 6 is asked to the participant, depending on their previous survey responses. All questions on pages 5 and 6 are conditional unless otherwise noted.

For pages 5 and 6, the grid questions below the placeholder image are conditional – whether they are asked or not depends on the email template the participant receives. Only one grid question will be

Page 5

How many of the following, if any, did you notice in the email?



	0	1	2	3	4	5	I'm not sure
Attachments	○	◉	○	○	○	○	○
Links that appeared to be from well-known websites	◉	○	○	○	○	○	○
Links where the text did not match the URL	○	○	○	○	○	○	◉

You indicated that you noticed "Attachments" in the email. Please list them below.

How difficult was this email to recognize as a phishing email because of the "Attachments" that you noticed in this email?

- ○ It was very difficult to recognize.
- ○ It was moderately difficult to recognize.
- ○ It was not difficult to recognize at all.

Based on responses to the grid questions, participants can see the following questions.

These two questions appear for each grid row when participants select “1”, “2”, “3”, “4”, or “5”

How many of the following, if any, did you notice in the email?

	0	1	2	3	4	5	I'm not sure
Content or formatting that appeared to be unprofessional	○	○	○	○	○	○	○
Imitation of well-known branding or logos	○	○	○	○	○	○	○
Out-of-date branding or logos from well-known brands	○	○	○	○	○	○	○
Unexpected security icons or text.	○	○	○	○	○	○	○

Page 5

How many of the following, if any, did you notice in the email?

	0	1	2	3	4	5	I'm not sure
Details unrelated to the email's message	○	○	○	○	○	○	○
Legal language like copyright information, disclaimers, etc.	○	○	○	○	○	○	○
Pressure or urgency to do something quickly	○	○	○	○	○	○	○
Requests for sensitive or personal information	○	○	○	○	○	○	○
Threats of consequences for not doing something	○	○	○	○	○	○	○

How many of the following, if any, did you notice in the email?

	0	1	2	3	4	5	I'm not sure
Grammar errors	○	○	○	○	○	○	○
Spelling errors	○	○	○	○	○	○	○
Inconsistencies within the email's message, sender's information, and/or attachments	○	○	○	○	○	○	○

How many of the following, if any, did you notice in the email?

	0	1	2	3	4	5	I'm not sure
Offers that appeared too good to be true	○	○	○	○	○	○	○
Offers granted only for a limited time	○	○	○	○	○	○	○
Requests to help, contribute, or donate to others	○	○	○	○	○	○	○
Suggestions that something special was just for you	○	○	○	○	○	○	○

For pages 5 and 6, the grid questions are also conditional – whether they are asked or not depends on the email template the participant receives

Page 5

Now we will ask you further questions about things that **may or may not** have been present in the email.

Did you notice any of the following in the email?

	No	Yes	I'm not sure
Email's sender name did not match their email address	◉	○	○
Email's sender address appeared to be from a well-known website	○	◉	○

You indicated that you noticed that the "Email's sender address appeared to be from a well-known website". Please describe below.

How difficult was this email to recognize as a phishing email because the "Email's sender address appeared to be from a well-known website"?

- ○ It was very difficult to recognize.
- ○ It was moderately difficult to recognize.
- ○ It was not difficult to recognize at all.

Based on responses to the grid questions, participants can see the following questions.

These two questions appear for each grid row when participants select “Yes”.

Did you notice the following in the email?

	No	Yes	I'm not sure
Missing branding or logos that you expected to see	○	○	○

Did you notice any of the following in the email?

	No	Yes	I'm not sure
Email was missing an appropriate formal or informal greeting	○	○	○
Email was not personalized for you	○	○	○
Email was missing the sender's name or contact information	○	○	○

Did you notice any of the following in the email?

	No	Yes	I'm not sure
Email appeared to be work-related	○	○	○
Email appeared to be from a friend, colleague, boss, or known authority	○	○	○

For pages 5, these questions are asked to all participants and are not conditional.

Overall, how difficult was this email to recognize as a phishing email?

- ○ It was very difficult to recognize.
- ○ It was moderately difficult to recognize.
- ○ It was not difficult to recognize at all.

Email Applicability

How applicable was the email to your responsibilities at work, if at all?

- ○ The email had **no applicability** to my work responsibilities.
- ○ The email had **low applicability** to my work responsibilities.
- ○ The email had **moderate applicability** to my work responsibilities.
- ○ The email had **significant applicability** to my work responsibilities.
- ○ The email had **extreme applicability** to my work responsibilities.

What type of device were you using when you first saw the email?

- ○ Desktop computer or laptop
- ○ Tablet
- ○ Smartphone
- ○ I don't remember.
- ○ Please list other devices used:

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Page 6

Page 5 OR Page 6 is asked to the participant, depending on their previous survey responses.

The skip logic and branching are identical to page 5. The only difference between page 5 and page 6 is the wording of certain questions

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Using the screen capture of the email shown, please respond to the following questions.

Based on responses to the grid questions, participants can see the following questions.

These three questions appear for each grid row when participants select “1”, “2”, “3”, “4”,

How many of the following, if any, do you notice in the email?

	0	1	2	3	4	5	I'm not sure
Attachments	◉	○	○	○	○	○	○
Links that appear to be from well-known websites	○	◉	○	○	○	○	○
Links where the text does not match the URL	○	○	○	○	○	○	◉

You indicated that you notice "Links that appear to be from well-known websites" in the email. Please list them below.

How difficult do you think this email would be to recognize as a phishing email because of the "Links that appear to be from well-known websites" that you notice in this email?

- ○ It was very difficult to recognize.
- ○ It was moderately difficult to recognize.
- ○ It was not difficult to recognize at all.

Do you notice anything else unusual about the email?

- ○ No
- ○ I'm not sure
- ◉ Yes

Based on the response to the previous question, participants can see the following question.

This question appears when participants select “Yes”.

In 1 or 2 sentences, please describe what else you think is unusual about the email.

How many of the following, if any, do you notice in the email?

	0	1	2	3	4	5	I'm not sure
Content or formatting that appear to be unprofessional	○	○	○	○	○	○	○
Imitation of well-known branding or logos	○	○	○	○	○	○	○
Out-of-date branding or logos from well-known brands	○	○	○	○	○	○	○
Unexpected security icons or text.	○	○	○	○	○	○	○

Do you notice anything else unusual about the email?

- ○ No
- ○ I'm not sure
- ○ Yes

How many of the following, if any, do you notice in the email?

	0	1	2	3	4	5	I'm not sure
Details unrelated to the email's message	○	○	○	○	○	○	○
Legal language like copyright information, disclaimers, etc.	○	○	○	○	○	○	○
Pressure or urgency to do something quickly	○	○	○	○	○	○	○
Requests for sensitive or personal information	○	○	○	○	○	○	○
Threats of consequences for not doing something	○	○	○	○	○	○	○

Do you notice anything else unusual about the email?

- ○ No
- ○ I'm not sure
- ○ Yes

How many of the following, if any, do you notice in the email?

	0	1	2	3	4	5	I'm not sure
Grammar errors	○	○	○	○	○	○	○
Spelling errors	○	○	○	○	○	○	○
Inconsistencies within the email's message, sender's information, and/or attachments	○	○	○	○	○	○	○

Do you notice anything else unusual about the email?

- ○ No
- ○ I'm not sure
- ○ Yes

How many of the following, if any, do you notice in the email?

	0	1	2	3	4	5	I'm not sure
Offers granted only for a limited time	○	○	○	○	○	○	○
Offers that appear too good to be true	○	○	○	○	○	○	○
Requests to help, contribute, or donate to others	○	○	○	○	○	○	○
Suggestions that something special is just for you	○	○	○	○	○	○	○

Do you notice anything else unusual about the email?

- ○ No
- ○ I'm not sure
- ○ Yes

Page 6

For pages 5 and 6, the grid questions are also conditional – whether they are asked or not depends on the email template the participant receives

Now we will ask you further questions about things that **may or may not** be present in the email.

Do you notice any of the following in the email?

	No	Yes	I'm not sure
Email's sender name does not match their email address	◉	○	○
Email's sender address appears to be from a well-known website	○	◉	○

You indicated that you notice that the "Email's sender address appears to be from a well-known website". Please describe below.

How difficult do you think this email would be to recognize as a phishing email because the "Email's sender address appears to be from a well-known website"?

- ○ It was very difficult to recognize.
- ○ It was moderately difficult to recognize.
- ○ It was not difficult to recognize at all.

Do you notice anything else unusual about the email?

- ○ No
- ○ I'm not sure
- ◉ Yes

In 1 or 2 sentences, please describe what else you think is unusual about the email.

Based on responses to the grid questions, participants can see the following questions.

These three questions appear for each grid row when participant

Based on the response to the previous question, participants can see the following question.

This question appears when participants select "Yes".

Do you notice the following in the email?

	No	Yes	I'm not sure
Missing branding or logos that you expect to see	○	○	○

Do you notice anything else unusual about the email?

- ○ No
- ○ I'm not sure
- ○ Yes

Do you notice any of the following in the email?

	No	Yes	I'm not sure
Body of the email is missing the sender's name or contact information	○	○	○
Email is missing an appropriate formal or informal greeting	○	○	○
Email is not personalized for you	○	○	○

Do you notice anything else unusual about the email?

- ○ No
- ○ I'm not sure
- ○ Yes

Do you notice any of the following in the email?

	No	Yes	I'm not sure
Email appears to be from a friend, colleague, boss, or known authority	○	○	○
Email appears to be work-related	○	○	○

Do you notice anything else unusual about the email?

- ○ No
- ○ I'm not sure
- ○ Yes

For pages 6, these questions are asked to all participants and are not conditional.

Overall, how difficult do you think this email would be to recognize as a phishing email?

- ◯ It would be very difficult to recognize.
- ◯ It would be moderately difficult to recognize.
- ◯ It would not be difficult to recognize at all.

Email Applicability

How applicable is the email to your responsibilities at work, if at all?

- ◯ The email had **no applicability** to my work responsibilities.
- ◯ The email had **low applicability** to my work responsibilities.
- ◯ The email had **moderate applicability** to my work responsibilities.
- ◯ The email had **significant applicability** to my work responsibilities.
- ◯ The email had **extreme applicability** to my work responsibilities.

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Previously, we asked about the specific email used for this training exercise. Now, the questions below ask more broadly about emails you typically receive at work.

What is your level of confidence in identifying an email as a phishing email because of the following?

	No confidence	Low confidence	Neither high nor low confidence	High confidence	Extremely high confidence
Body of email is missing email sender's name or contact information	○	○	○	○	○
Details unrelated to the email's message	○	○	○	○	○
Email appears to be from a friend, colleague, boss, or known authority	○	○	○	○	○
Email appears to be work-related	○	○	○	○	○
Email has legal language (like copyright information, disclaimers, etc.)	○	○	○	○	○
Email is not personalized for you	○	○	○	○	○
Missing an appropriate formal or informal greeting	○	○	○	○	○
Offers that appear too good to be true	○	○	○	○	○
Offers that are only for a limited time	○	○	○	○	○
Pressure or urgency to do something quickly	○	○	○	○	○
Requests for sensitive or personal information	○	○	○	○	○
Requests to help, contribute, or donate to others	○	○	○	○	○
Suggestions that something special was just for you	○	○	○	○	○
Threats of consequences for not doing something	○	○	○	○	○

How likely or unlikely are you to look for the following when you are trying to decide if an email is a phish or not?

	Extremely unlikely	Unlikely	Neither likely nor unlikely	Likely	Extremely likely
Body of email is missing email sender's name or contact information	○	○	○	○	○
Details unrelated to the email's message	○	○	○	○	○
Email appears to be from a friend, colleague, boss, or known authority	○	○	○	○	○
Email appears to be work-related	○	○	○	○	○
Email has legal language (like copyright information, disclaimers, etc.)	○	○	○	○	○
Email is not personalized for you	○	○	○	○	○
Missing an appropriate formal or informal greeting	○	○	○	○	○
Offers that appear too good to be true	○	○	○	○	○
Offers that are only for a limited time	○	○	○	○	○
Pressure or urgency to do something quickly	○	○	○	○	○
Requests for sensitive or personal information	○	○	○	○	○
Requests to help, contribute, or donate to others	○	○	○	○	○
Suggestions that something special was just for you	○	○	○	○	○
Threats of consequences for not doing something	○	○	○	○	○

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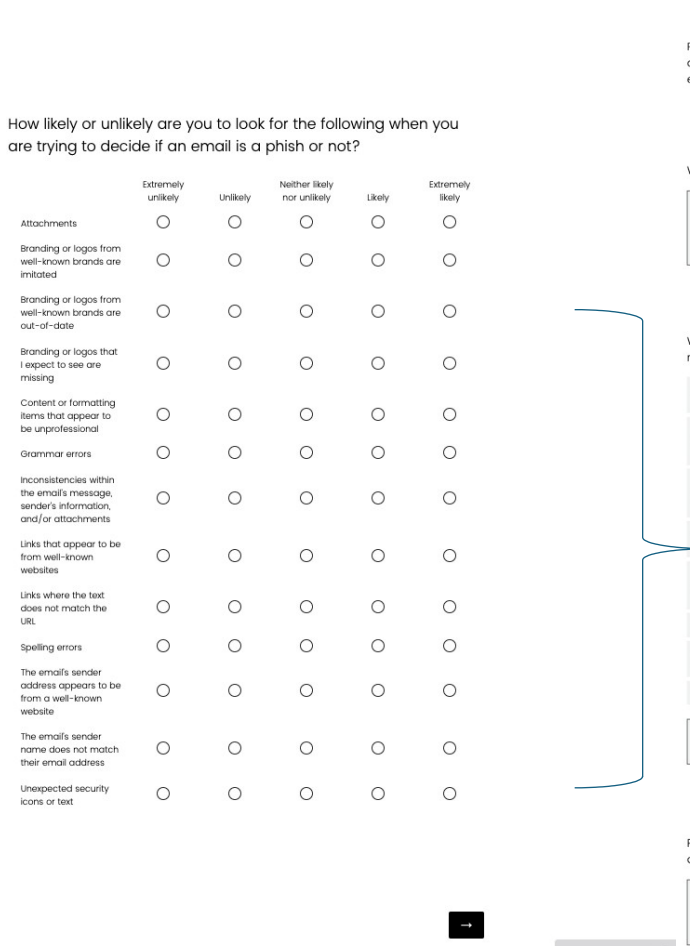
Previously, we asked about the specific email used for this training exercise. Now, the questions below ask more broadly about emails you typically receive at work.

What is your level of confidence in identifying an email as a phishing email because of the following?

	No confidence	Low confidence	Neither high nor low confidence	High confidence	Extremely high confidence
Attachments	○	○	○	○	○
Branding or logos from well-known brands are imitated	○	○	○	○	○
Branding or logos from well-known brands are out-of-date	○	○	○	○	○
Branding or logos that I expect to see are missing	○	○	○	○	○
Content or formatting items that appear to be unprofessional	○	○	○	○	○
Grammar errors	○	○	○	○	○
Inconsistencies within the email's message, sender's information, and/or attachments	○	○	○	○	○
Links that appear to be from well-known websites	○	○	○	○	○
Links where the text does not match the URL	○	○	○	○	○
Spelling errors	○	○	○	○	○
The email's sender address appears to be from a well-known website	○	○	○	○	○
The email's sender name does not match their email address	○	○	○	○	○
Unexpected security icons or text	○	○	○	○	○



NIST

Please answer the following questions about your work. We are asking these questions to better understand different types of email users. Your responses will be anonymous.

How likely or unlikely are you to look for the following when you are trying to decide if an email is a phish or not?

	Extremely unlikely	Unlikely	Neither likely nor unlikely	Likely	Extremely likely
Attachments					
Branding or logos from well-known brands are imitated					
Branding or logos from well-known brands are out-of-date					
Branding or logos that I expect to see are missing					
Content or formatting items that appear to be unprofessional					
Grammar errors					
Inconsistencies within the email's message, sender's information, and/or attachments					
Links that appear to be from well-known websites					
Links where the text does not match the URL					
Spelling errors					
The email's sender address appears to be from a well-known website					
The email's sender name does not match their email address					
Unexpected security icons or text					

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What is your age (in years)?

What is your experience with different kinds of technology (including desktop or laptop computers, tablets, smartphones, and the internet)?

- I have limited experience using technology and I don't know much about how technology works.
- I have some knowledge about how technology works, but often need to ask for help to perform more advanced activities – such as to configure the privacy settings on my cell phone.
- I can do most things that I want to do with technology and only need help occasionally.
- I can do all things that I want to do with technology without help from others.

What is your sex?

- Female
- Male

What is the highest level of school you completed?

- Less than high school
- High school diploma
- Associate's degree
- Bachelor's degree
- Master's degree or higher

When a participant hovers over a response option, examples of the job type will be displayed:

- **Administrative support**-For example, timecard tracking, travel and expense report preparation, or meeting planning.
- **Facilities support in the field**-For example, security guard, janitorial staff or groundskeeper.
- **Facilities support in the office**-For example, a facilities manager or security captain.
- **Legal**-For example, general counsel.
- **Management**-For example, Chief Executive Officer, Director, or Department Chair.
- **Mission-based**-For example, an instructor, scientist, researcher, or salesperson.
- **Organizational support**-For example, grants and contracts, employee

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U.S. DEPARTMENT OF COMMERCE

We thank you for your time spent taking this survey.
Your response has been recorded.

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