State Farm®
Enterprise Research

1x Text Fields

(October 2020)

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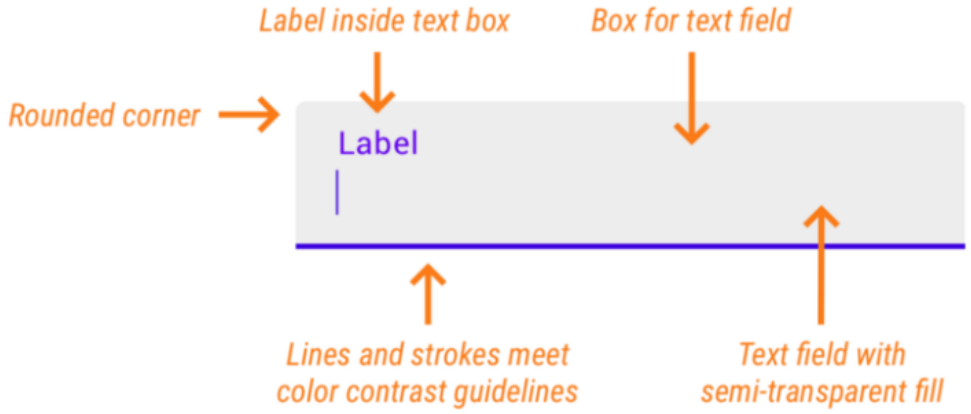
Context

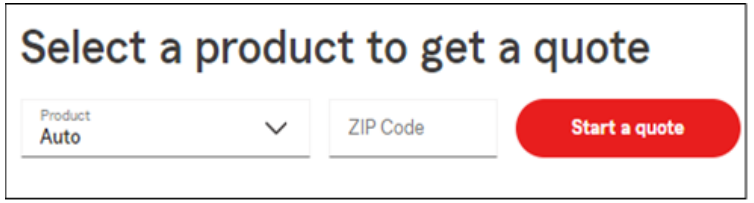
- State Farm is revising the text field components in its design library.
  - The existing text field designs were based on the researched and user validated Google Material design.
  - An A/B test comparing the new 1x drop down and text field designs to the existing designs found no statistically significant impact of the design style on the number of users clicking on the 'Start a quote' button located on the State Farm homepage.
- Two additional research activities were conducted to see how consumers reacted to the new text field designs:
  - A comparison of 2 fully interactive forms
  - A comparison of 3 static text field styles in 5 different states

Context

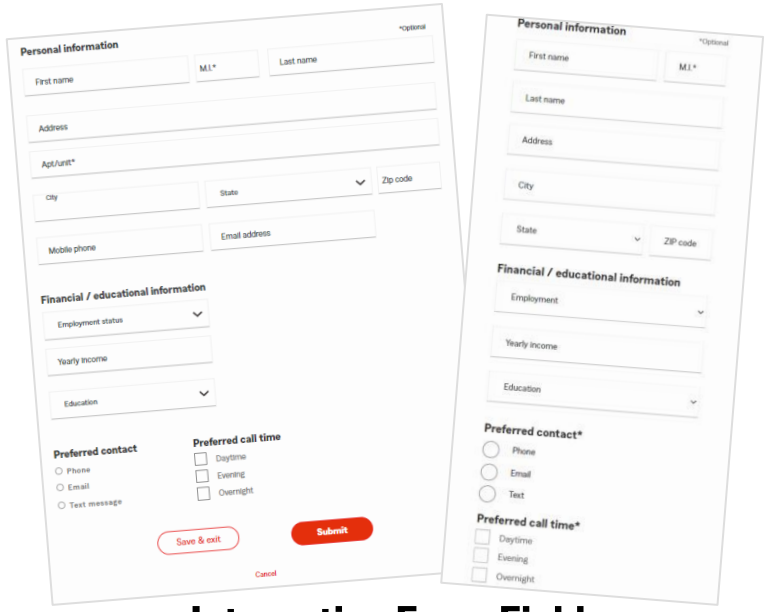


Google Material Design

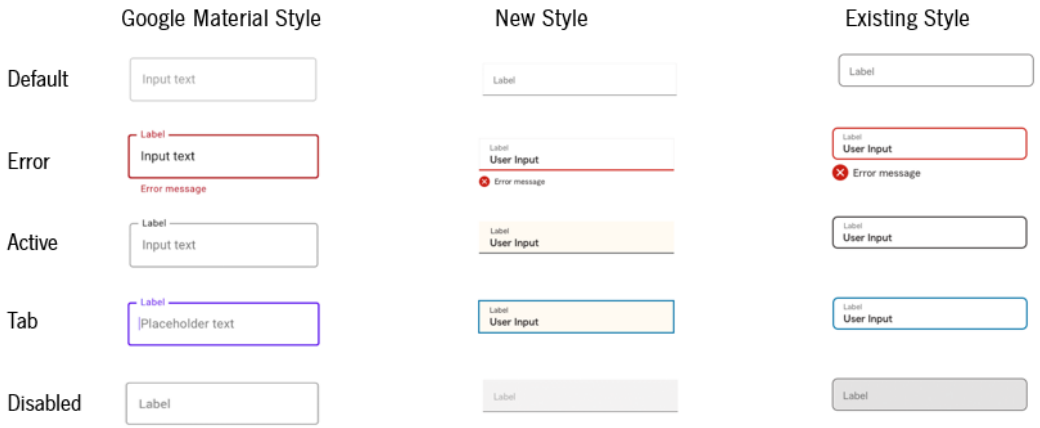
Original



Variation

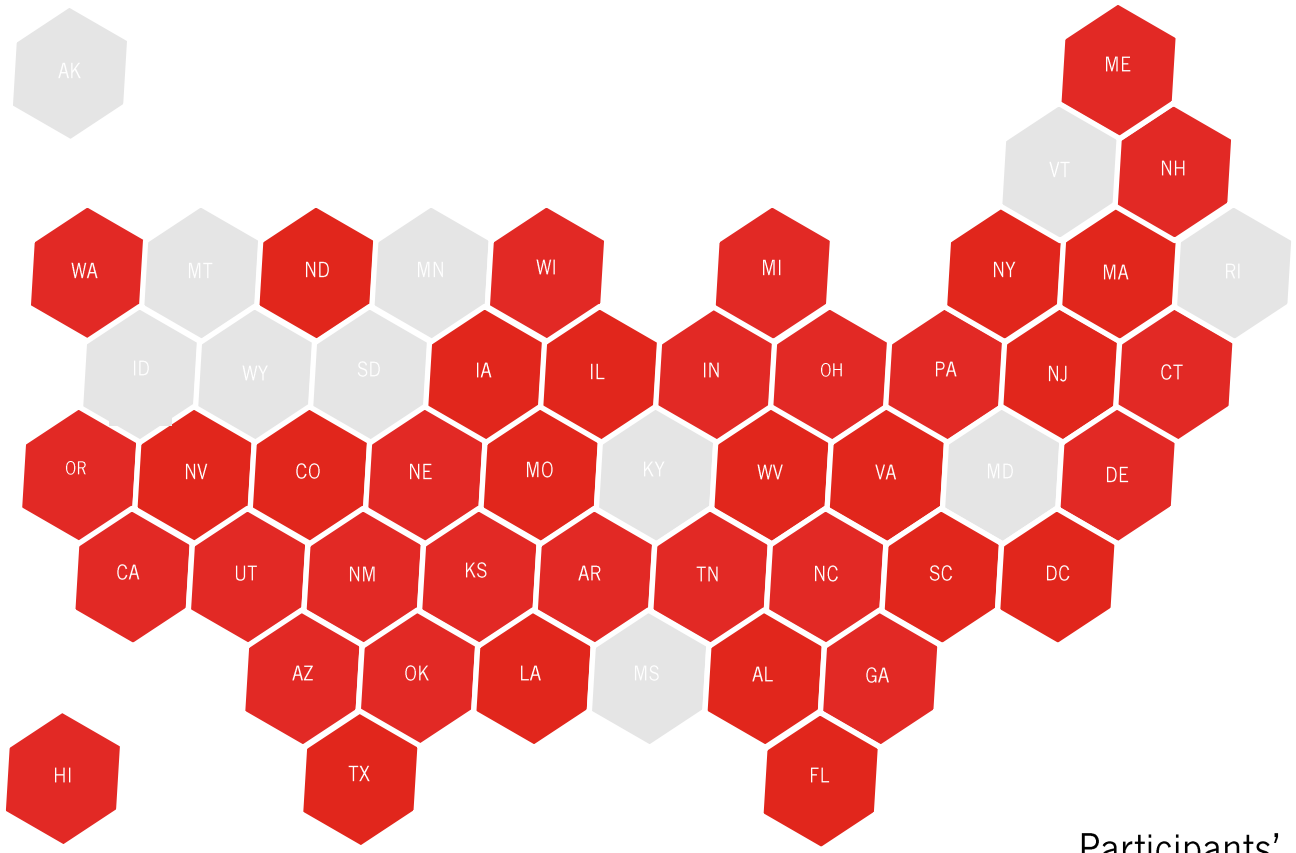


Interactive Form Fields

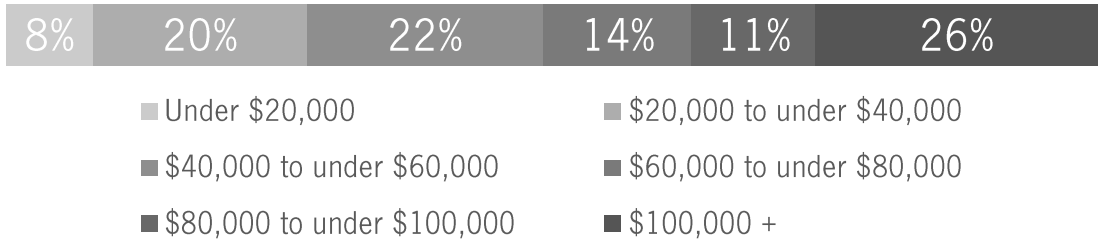


Static Text Fields

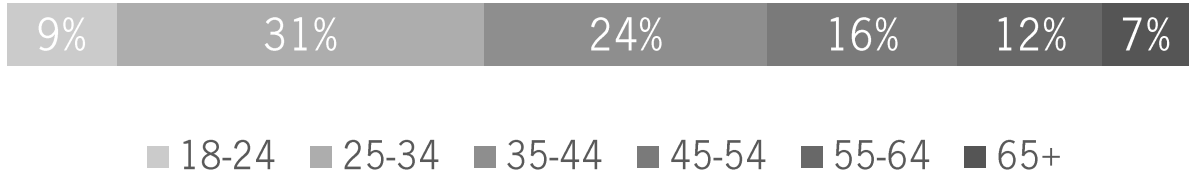
We gathered feedback from a diverse set of participants.



Participants' income:



Participants' age range:



Combined demographics for mobile (n = 150) and desktop (n = 150) study.

Executive Summary

Design preferences

- The new design style underperformed the other tested designs on all measures regardless of device type, text field state, and participant age.
- Participants found interacting with a webpage comprised of the existing design components and form fields was easier to use, more approachable, and more visually appealing than a comparable webpage using the new design style.
- When participants compared static images of text fields in 5 different states (default, error, etc.) the text fields using the new design format were the least preferred design style.
- There were no statistically significant differences in preferences based on age or device type (mobile or desktop).

Design attributes important to participants

- Participants used a variety of design characteristics to determine their preferred style including: shape, size, color, outline completeness, label placement, and visual salience.

Interactive Full Form Comparisons

(Study 1)

Background and Method

Background

- This first study was conducted to gather feedback about the holistic experience of interacting with forms using the existing and new design styles.

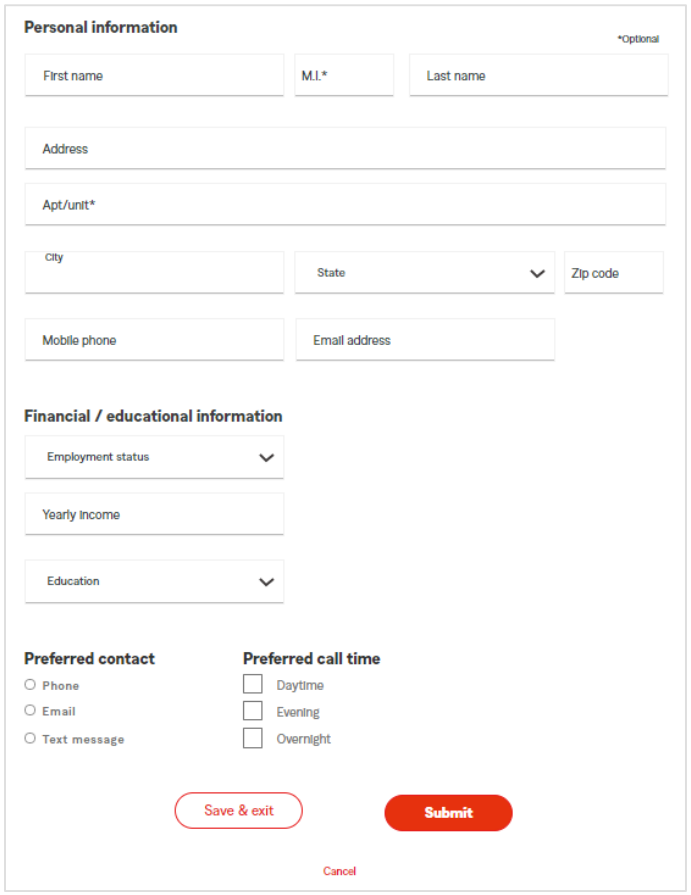
Method

- A total of 300 participants interacted with two versions of a prototype form using a desktop computer or mobile device. The forms consisted of either the existing or new text field designs.

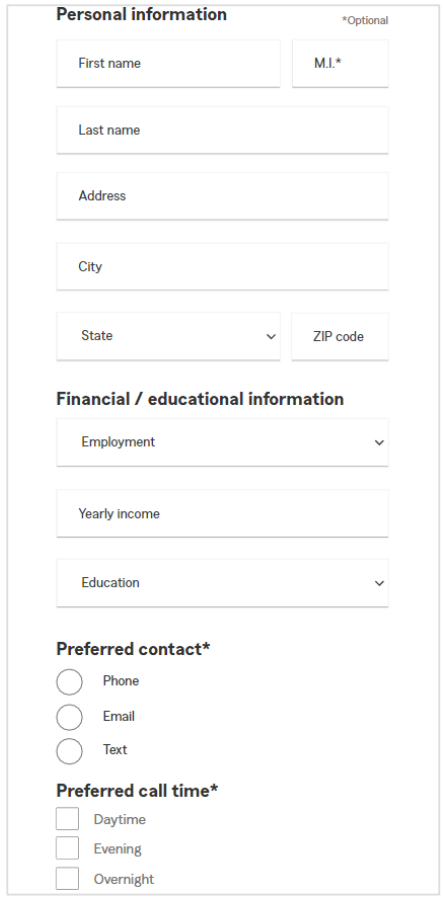
Method

New style

Desktop

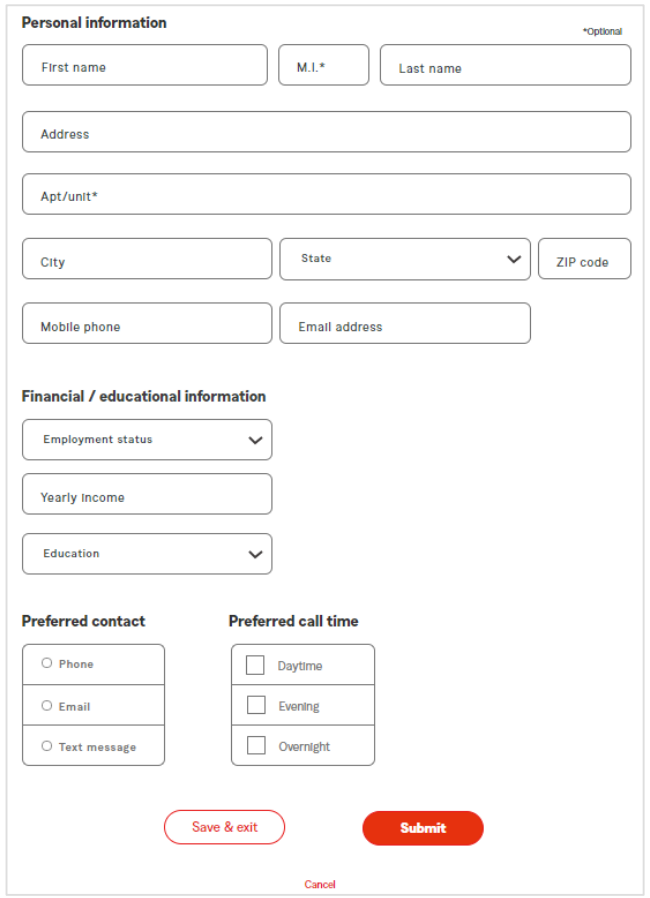


Mobile

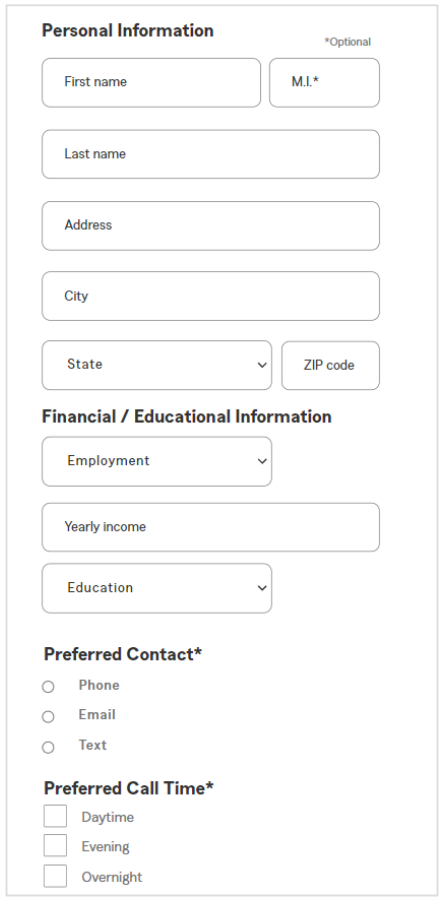


Existing style

Desktop



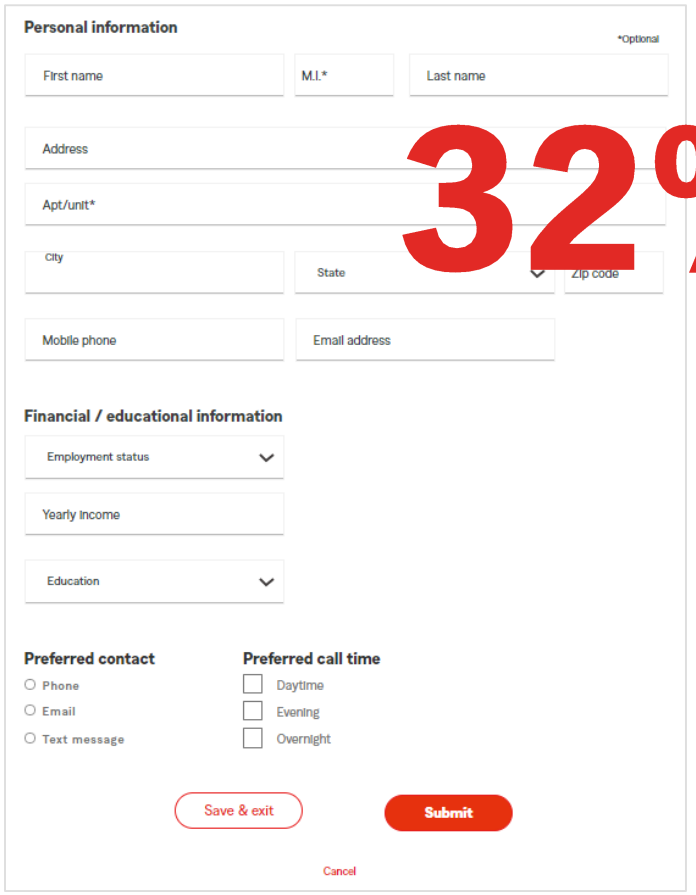
Mobile



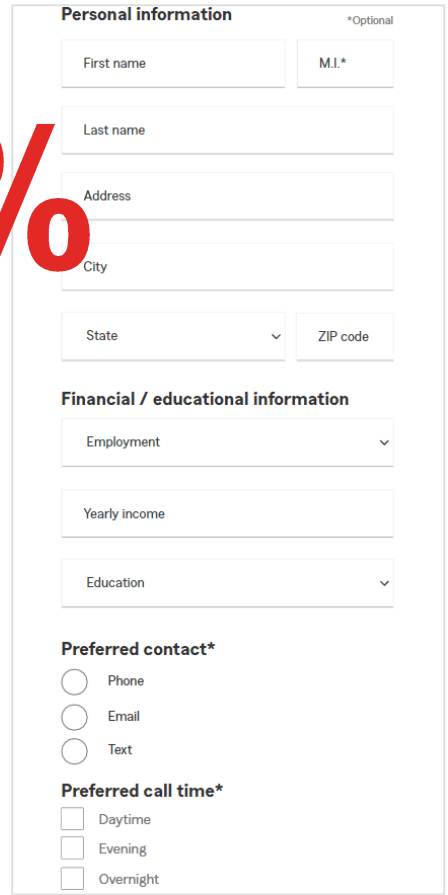
Participants preferred the existing form style over the new style.

New style

Desktop



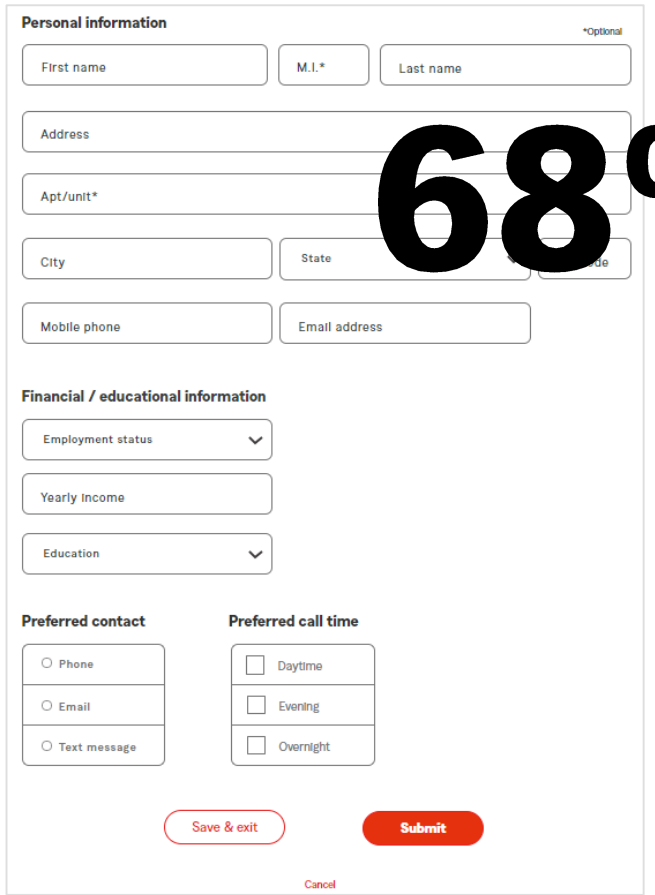
Mobile



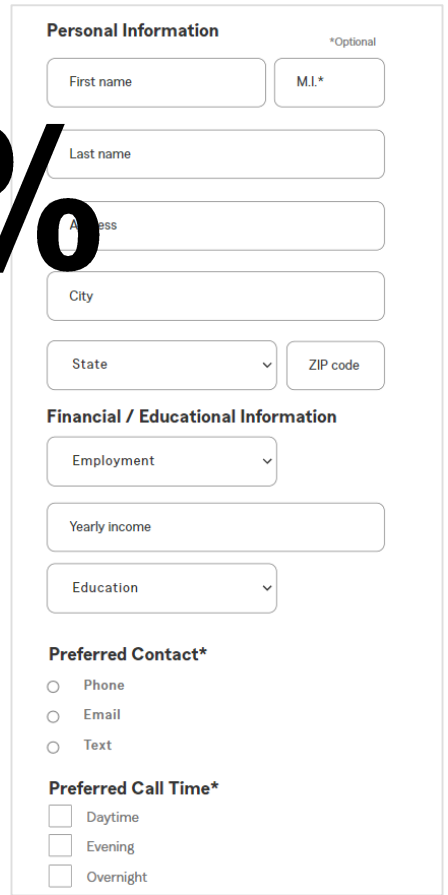
32%

Existing style

Desktop



Mobile



68%

Percent of respondents preferring each form style on mobile (n = 150) and desktop (n = 150).

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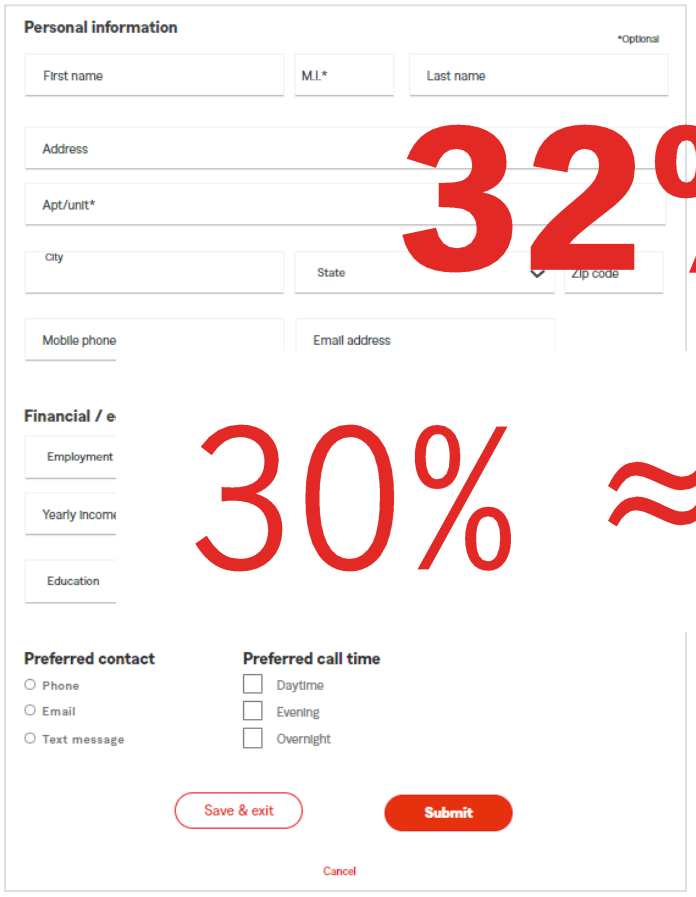
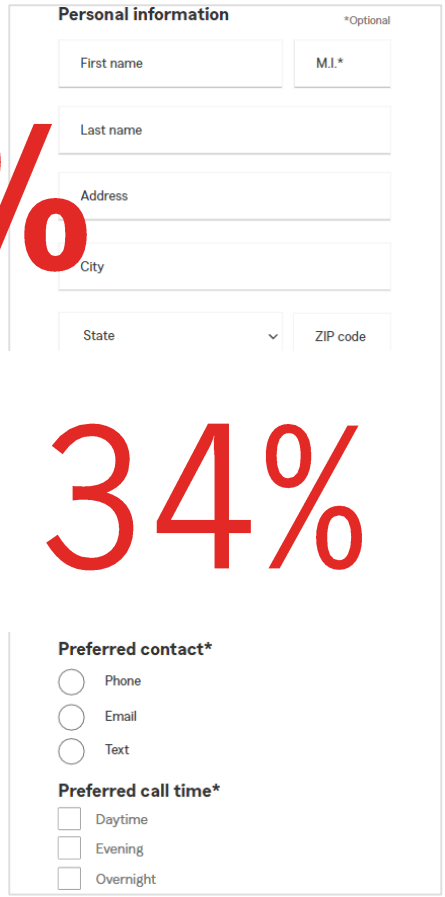
Participants preferred the existing form style on both desktop and mobile.

New style

Desktop



Mobile

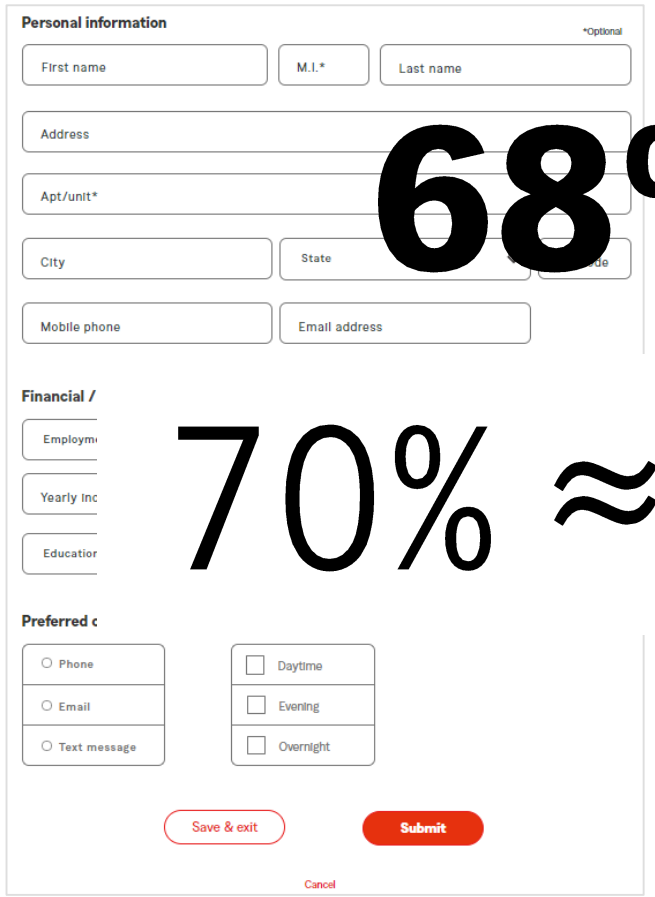


32%

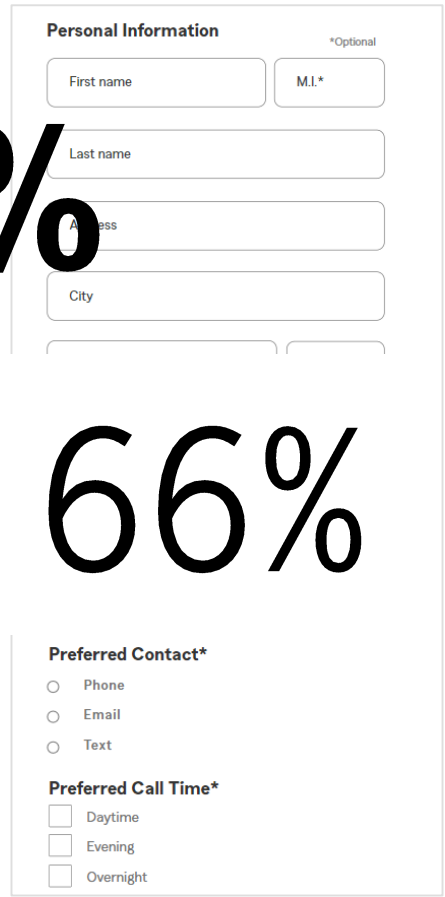
30% ≈ 34%

Existing style

Desktop



Mobile



68%

70% ≈ 66%

Percent of respondents preferring each form style on mobile (n = 150) and desktop (n = 150).

Participants found the existing form style more *usable*, *appealing*, and *approachable* than the new form style.

	New Style	Existing Style
I found _____ the most **easy to use**.	35%	65%
I found _____ the most **visually appealing**.	33%	67%
I found _____ the most **approachable**.	33%	67%

Base: respondents interacting with each form style on mobile (n = 150) and desktop (n = 150).

Participants' full form preferences were based on a variety of design characteristics.

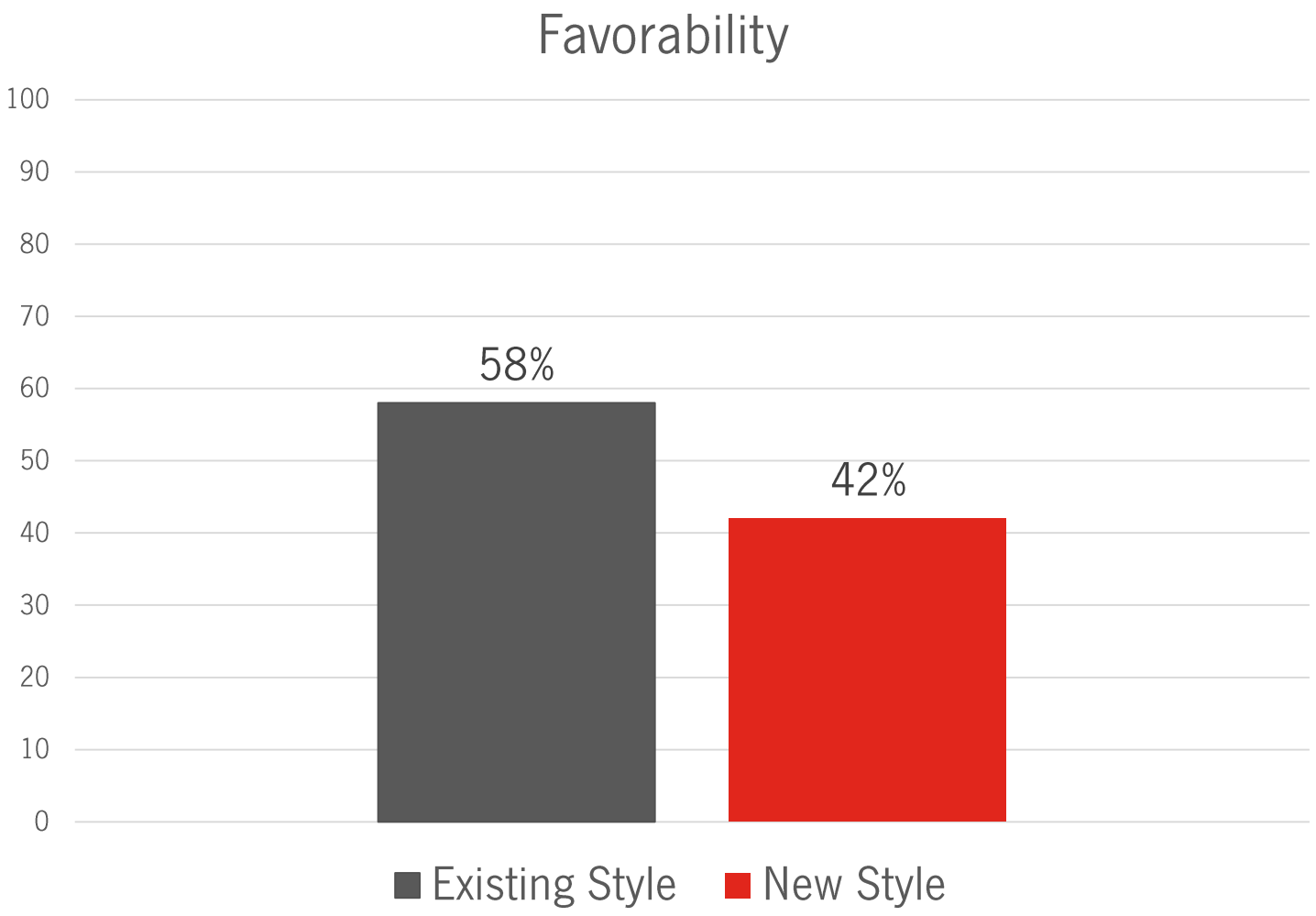
- The shape of the text fields (boxy vs. round)
- The complete or open outline of the text fields
- The new style's beige highlight on click
- The 'professional' look of the new style
- The 'clean' look of the existing style

"It feels a little more dynamic. The color that appears as you type gives it a warmer feel and gives it a little pop."
- Participant commenting on the new style

"The.. [existing style] has a design more suitable for mobile usage. The first option [new style] looks like a scanned paper document."

"The round bubbles for the information feel more current with other designs. The hard corners on the first one makes me think law firm."

Overall participants described the existing form style more favorably.



Base: respondents interacting with each form style on mobile (n = 150) and desktop (n = 150).

Business - like
Ordinary
Boring
Unattractive
Rigid
Old
Closed
Friendly
Inviting
Innovative
Fun
Energetic
Novel
Cartoony

Static Text Field Comparisons

(Study 2)

Background and Method

Background

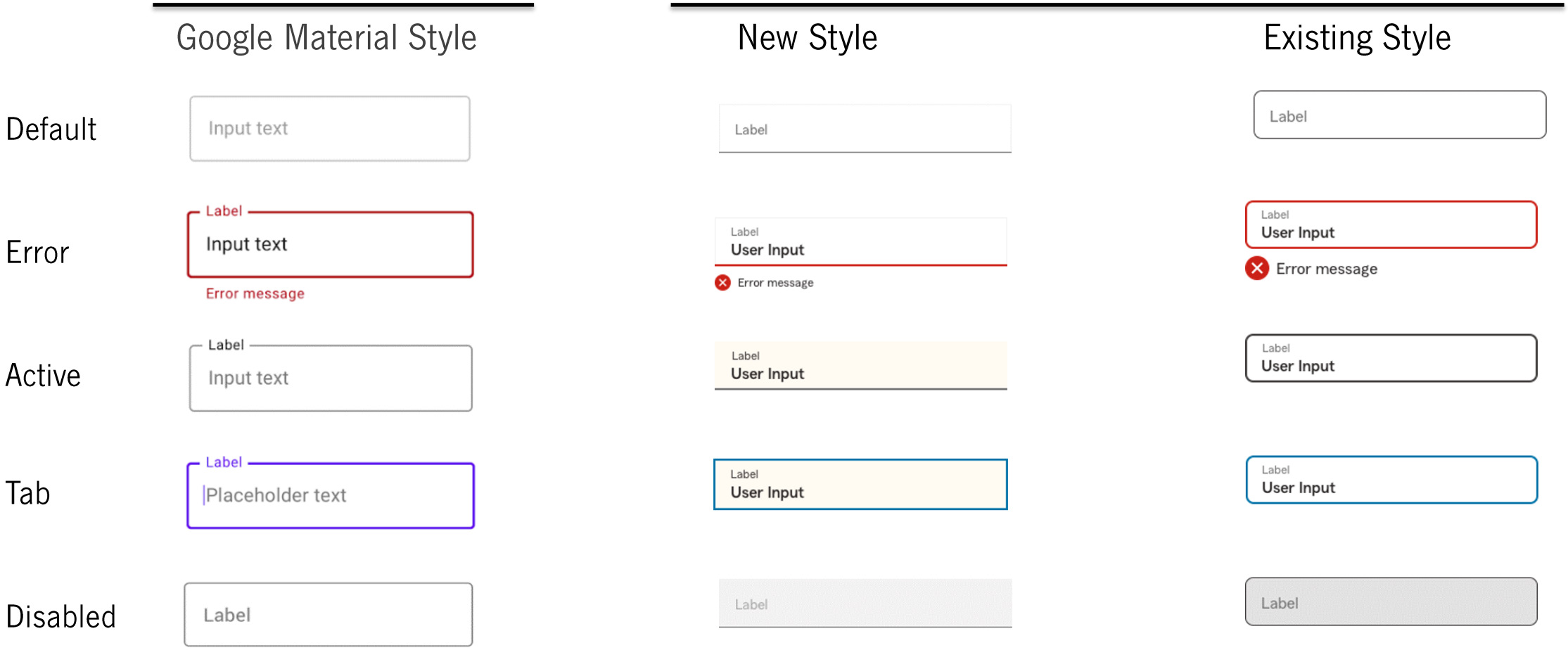
- An additional study was conducted to gain further understanding of consumers' text field design preferences.
- Because Google's Material design has been accepted as an industry standard, it was included in this study so its performance could be directly compared to State Farm's existing and new designs.

Method

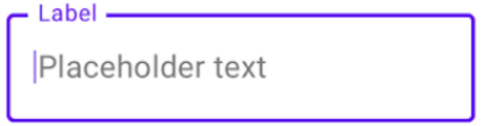
- A total of 300 participants compared static versions of the new, existing, and Google Material Design text field designs in 5 different states (default, active, error, tabbed, disabled) on mobile and desktop devices.

	Google Material Style	New Style	Existing Style
Default			

Background and Method



Participants preferred the existing text field design more than the new style for all the text field states.

	Google Material Style		New Style		Existing Style	
Default		27%		**20%**		**52%**
Error		41%		**14%**		**45%**
Active		**36%**		**29%**		34%
Tab		**44%**		**21%**		34%
Disabled		37%		**18%**		**45%**

Base: respondents reviewing the static text fields on mobile (n = 150) and desktop (n = 150).

Participants found the existing text field style more *appealing, approachable, and professional* than the new and Google styles.

	Google Style	New Style	Existing Style
I found _____ the most **visually appealing**.	38%	**20%**	**42%**
I found _____ the most **approachable**.	37%	**21%**	**42%**
I found _____ the most **professional**.	35%	**25%**	**40%**

Base: respondents reviewing the static text fields on mobile (n = 150) and desktop (n = 150).

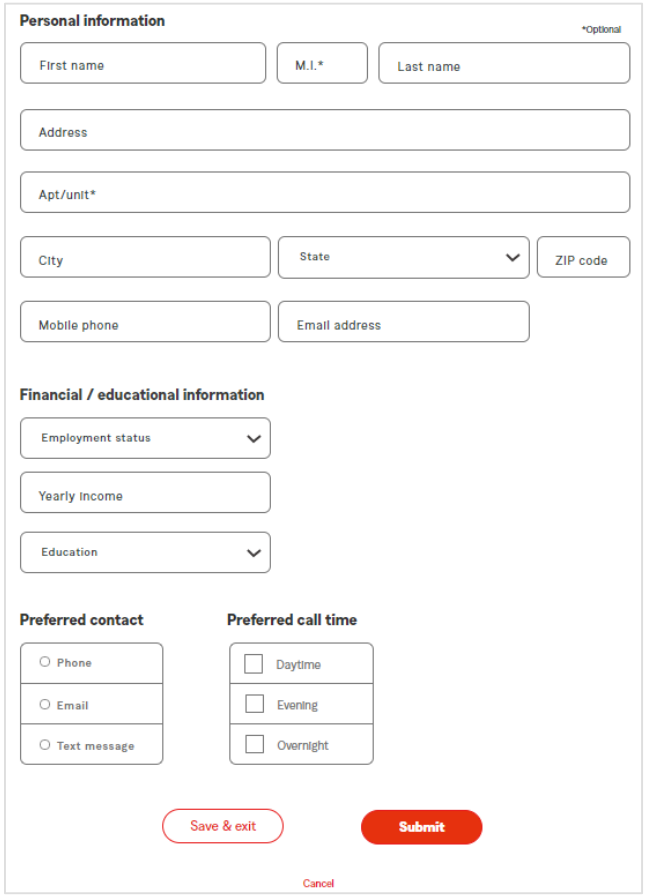
Discussion

Conclusions

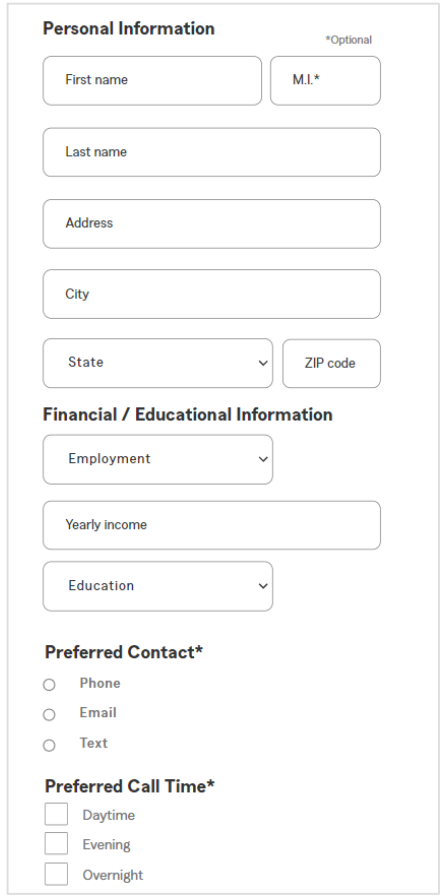
- Users drastically preferred the existing design.
- The results were consistent regardless of the device and participants ages.
- Although the A/B test did not find differences between designs when focusing on one metric (clicks), other experience metrics were heavily impacted.
  - Across all the observed experience related metrics, the existing style outperformed the new style.

Existing style

Desktop



Mobile

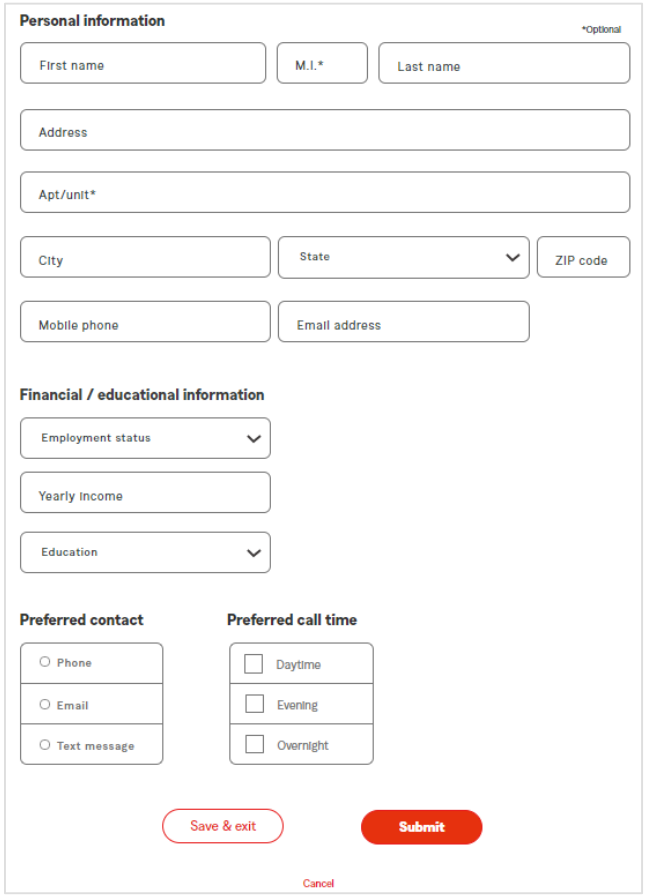


Recommendations

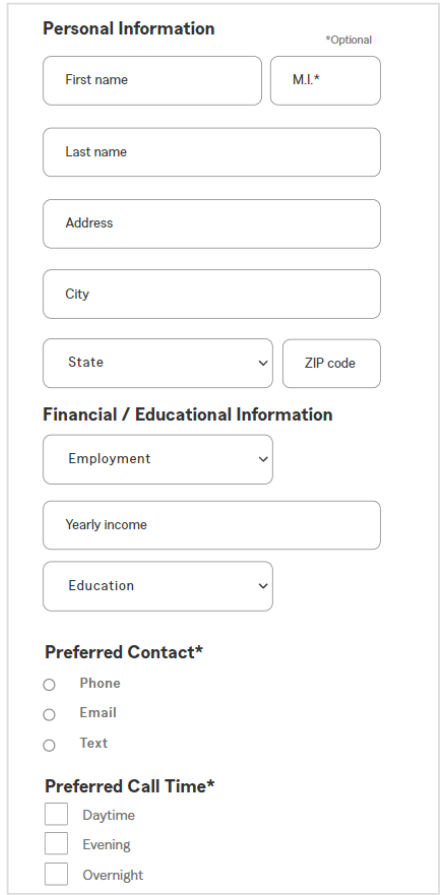
- **Keep the existing UX design pattern for mobile and desktop form fields.**
  - The existing style is closely aligned to the effective, preferred, and validated Google Material Design.
- Continue incorporating user-centered feedback in design pattern work.
- Align design and testing to solutions that target known user needs and pain-points.
- Incorporate qualitative feedback into A/B test procedures.

Existing style

Desktop



Mobile



Thank you.

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Appendix A
Detailed Text Field Results

Background and Method

Background

- To better understand consumers' preferences, participants indicated which text field style was most approachable, visually appealing, and professional.
- Google's Material design was included so its performance could be directly compared to State Farm's existing and new designs.

Method

- A total of 300 participants compared static versions of the new, existing, and Google Material Design text field designs in 5 different states (default, active, error, tabbed, disabled) on mobile and desktop devices.

	Google Material Style	New Style	Existing Style
Default			

Participants found the existing style the most *approachable* for the majority of text field states.

	Google Style	New Style	Existing Style
Default	27%	**21%**	**52%**
Active	36%	**27%**	**37%**
Error	41%	**16%**	**43%**
Tab	**44%**	**21%**	35%
Disabled	38%	**17%**	**44%**

Base: respondents reviewing the static text fields on mobile (n = 150) and desktop (n = 150).

Participants found the existing style the most *visually appealing* for the majority of text field states.

	Google Style	New Style	Existing Style
Default	27%	**21%**	**53%**
Active	**36%**	**28%**	**36%**
Error	42%	**14%**	**44%**
Tab	**49%**	**19%**	31%
Disabled	34%	**18%**	**47%**

Base: respondents reviewing the static text fields on mobile (n = 150) and desktop (n = 150).

Participants found the existing style the most *professional* for the majority of text field states.

	Google Style	New Style	Existing Style
Default	31%	**26%**	**44%**
Active	**37%**	**31%**	32%
Error	**41%**	**19%**	39%
Tab	28%	**29%**	**43%**
Disabled	38%	**22%**	**40%**

Base: respondents reviewing the static text fields on mobile (n = 150) and desktop (n = 150).

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Features that influenced participants' default state text field preference

- The shape of the text fields (boxy vs. round)
- The closed or open outline of the text fields (complete vs. outlined)
- The appearance that the Google text field has more space to enter text

"I like how the part of the box is more translucent than the bottom. It looks more sleek than the other options."
- Participant commenting on the new style

"I like the curvy look better it's more modern than traditional."
- Participant commenting on the existing style

"I like the form with boxes better because it is more professional."
- Participant commenting on the Google style

Features that influenced participants' active state text field preference

- The shape of the text fields (boxy vs. round)
- The closed or open outline of the text fields (complete vs. outlined)
- The new style's beige highlight on click
- The appearance that the Google text field has more space to enter text
- The Google style's placement of the text field label in the border after click

"It's easy for me to understand this box is active because it has a yellow background compared to the other options. I can't tell in the other options if they're active or not."

- Participant commenting on the new style

"It looks the most modern. The other options seem like something you'd see in an old program."

- Participant commenting on the existing style

"It's modern and shakes things up a bit with the label breaking up the border."

- Participant commenting on the Google style

Features that influenced participants' error state text field preference

- The shape and outline of the text fields
- The salience, visibility, and boldness of the text field
- The location of the error message and 'x'

"The red x and red underline are easy to see and understand and look good."
- Participant commenting on the new style

"It's the most obvious one showing an error. Error messages can be hard to notice, so really emphasizing it with the red perimeter and red x helps it stand out."
- Participant commenting on the existing style

"I like that the label is at the top so when I type I remember what I'm doing. I don't like the red x. It seems outdated."
- Participant commenting on the Google style

Features that influenced participants' tab state text field preference

- The purple color of the Google text field style
- The overall visual appeal and salience of the text field
- The shape and outline of the text field

"Purple doesn't seem appropriate and the rounded edges of [the old style] seem informal."
- Participant commenting on the new style

"It's noticeable without being too obnoxious."
- Participant commenting on the existing style

"I prefer this option because it seems to be a very different type of coloring that is unique and it's really pleasing to the eye for me."
- Participant commenting on the Google style

Features that influenced participants' disabled state text field preference

- The text field style's coloring
- The 'faded-ness' of the text field
- How clear, understandable, or clean the text field appeared
- The shape and outline of the text fields

"I prefer this because I like that they have the grey color scheme within the box just so that it's more clear on distinguishing the differences between the other boxes."

- Participant commenting on the new style

"...completely grayed out, letting me know there's no way I can use this area to type in. The other options are not so obvious"

- Participant commenting on the existing style

"It makes it clear that this is not an active screen."

- Participant commenting on the Google style

Video highlights of participants reacting to the deigns

- Participants discussing the new design's use of color: highlight reel link
- Participants' reactions to the new text field error style: highlight reel link
- General feedback about the new full form design: highlight reel link
- Participant feedback about the existing full form design: highlight reel link

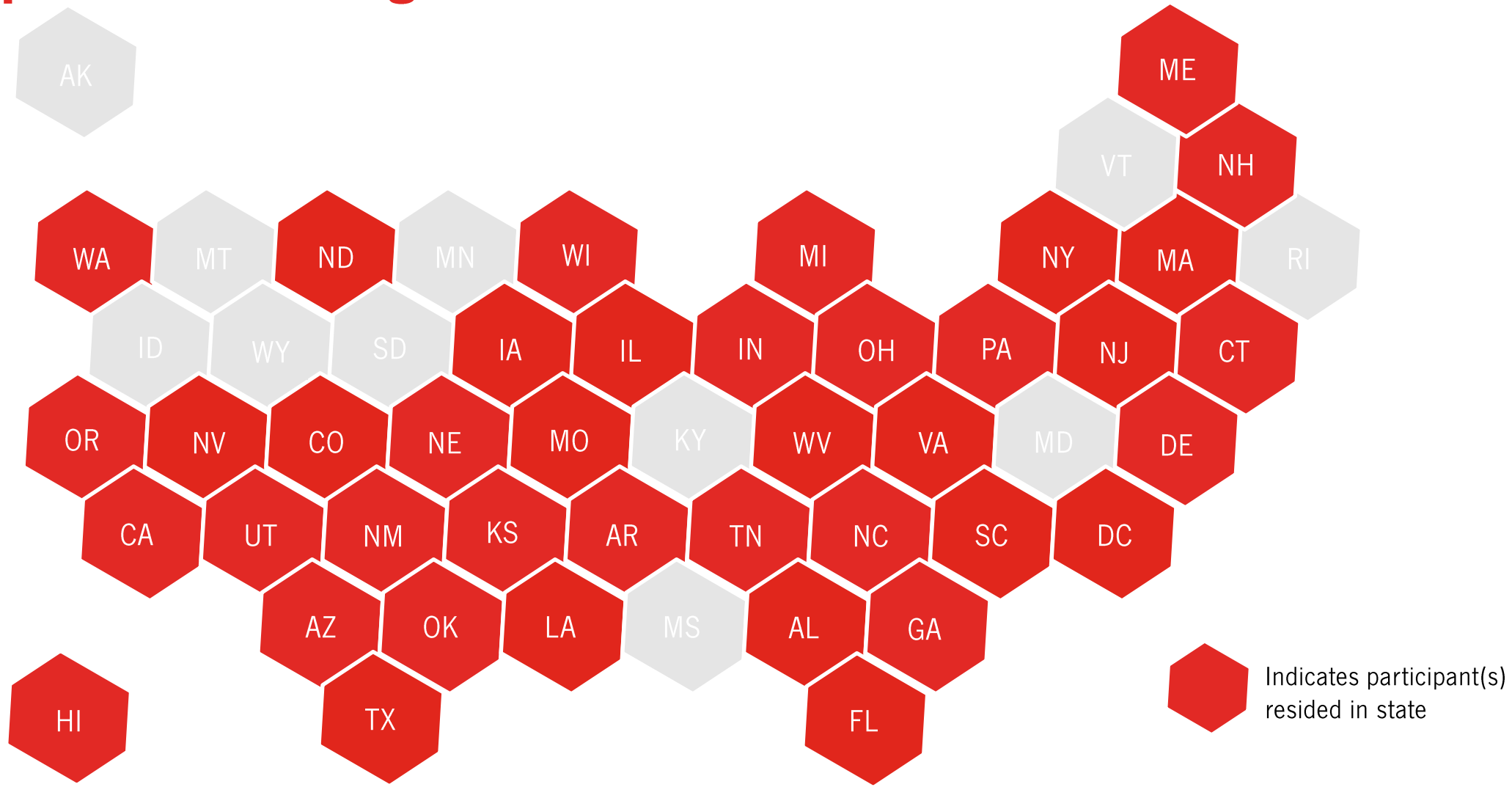
Appendix B
Participant Demographics

Participants' ages

Age Range	% of Respondents in the Age Range	
	Mobile	Desktop
18 – 24	7%	12%
25 – 34	34%	28%
35 – 44	25%	23%
45 - 54	23%	9%
55 -64	9%	15%
65+	3%	12%

Base: respondents participating on mobile (n = 150) and desktop (n = 150).

Participants lived throughout the United States.



Base: respondents participating on mobile (n = 150) and desktop (n = 150).

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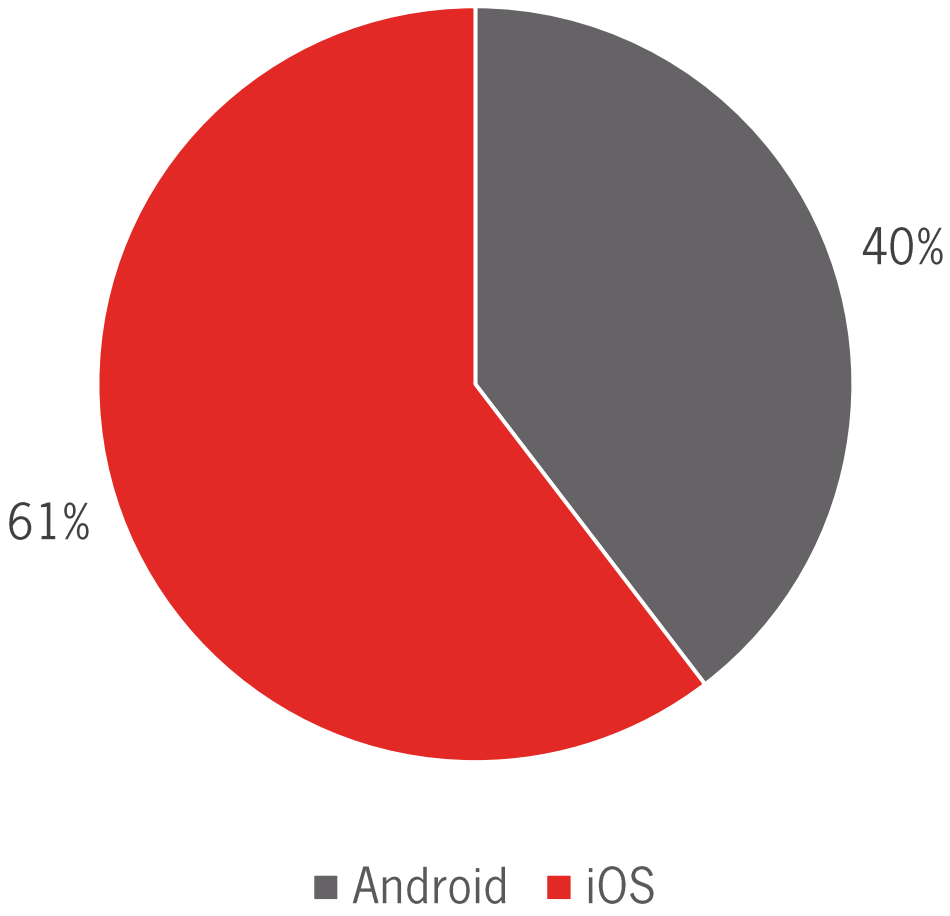
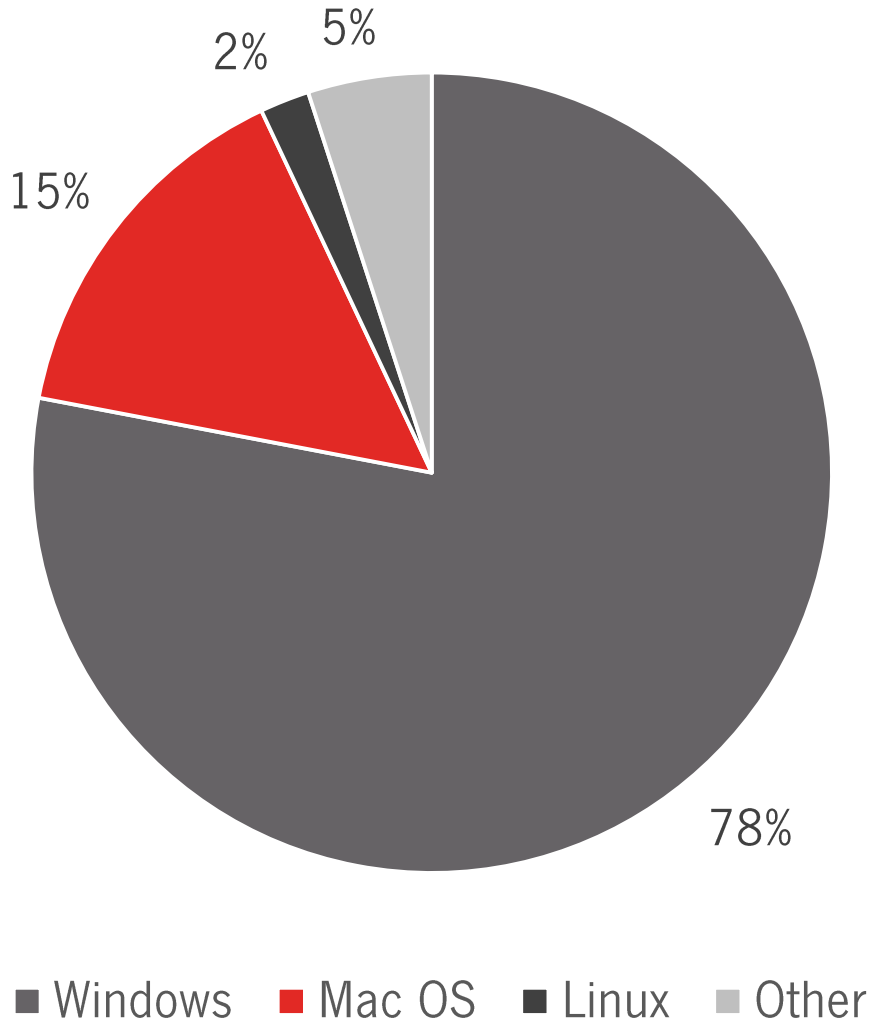
Participants' mobile device operating systems



Base: Respondents participating in the mobile study (n = 150). Percentages rounded.

Participants' desktop device operating systems

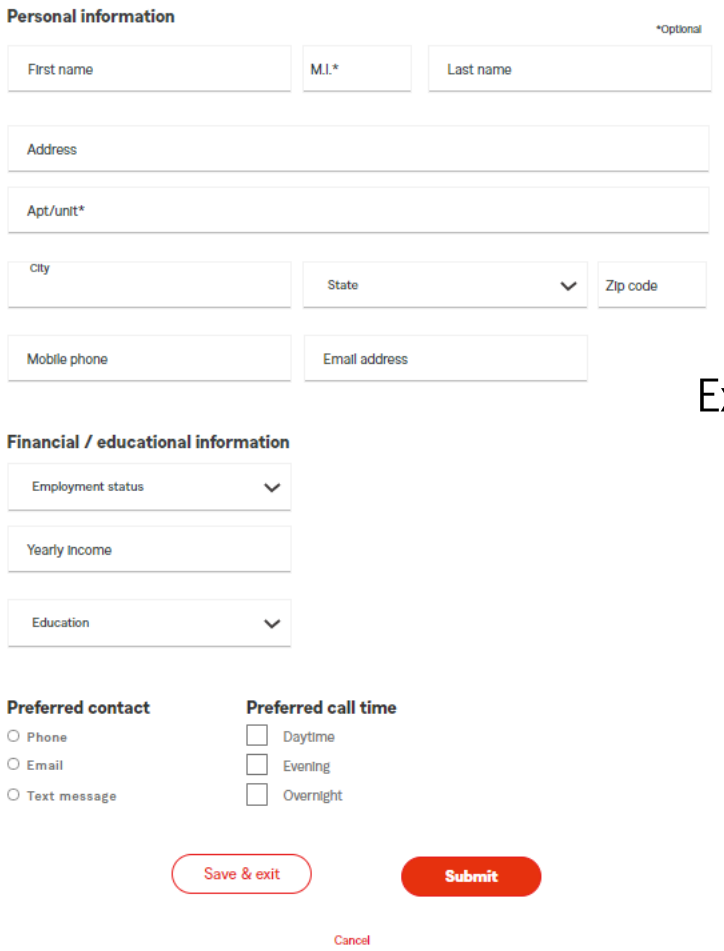


Base: Respondents participating in the desktop study (n = 150). Percentages rounded.

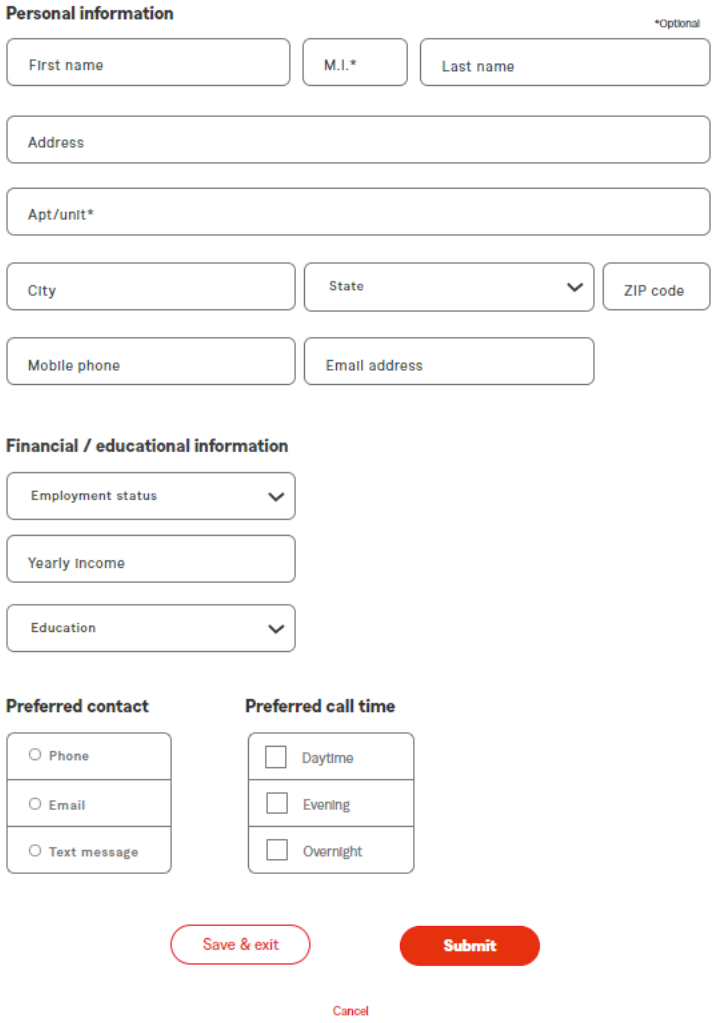
Appendix C
Designs

Desktop Forms

New Style:

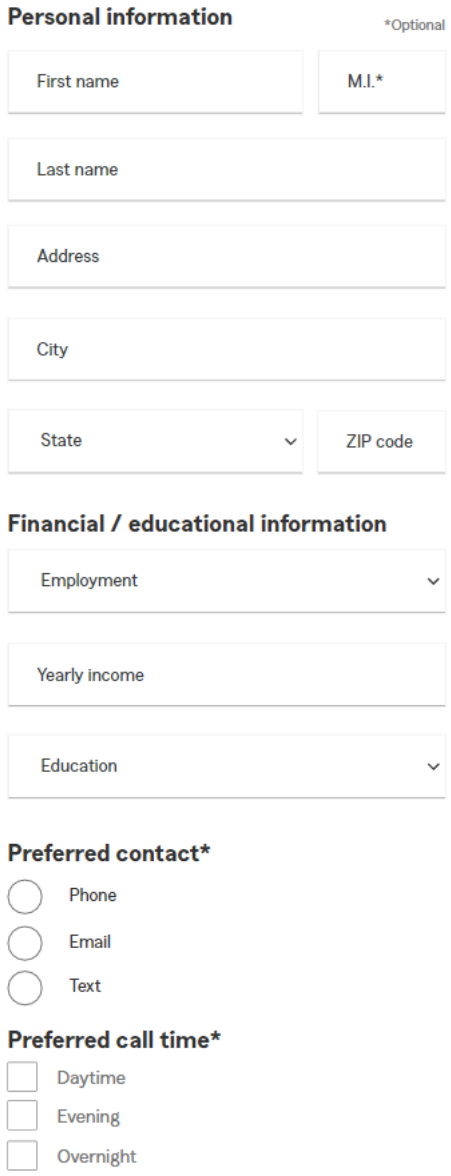


Existing Style:

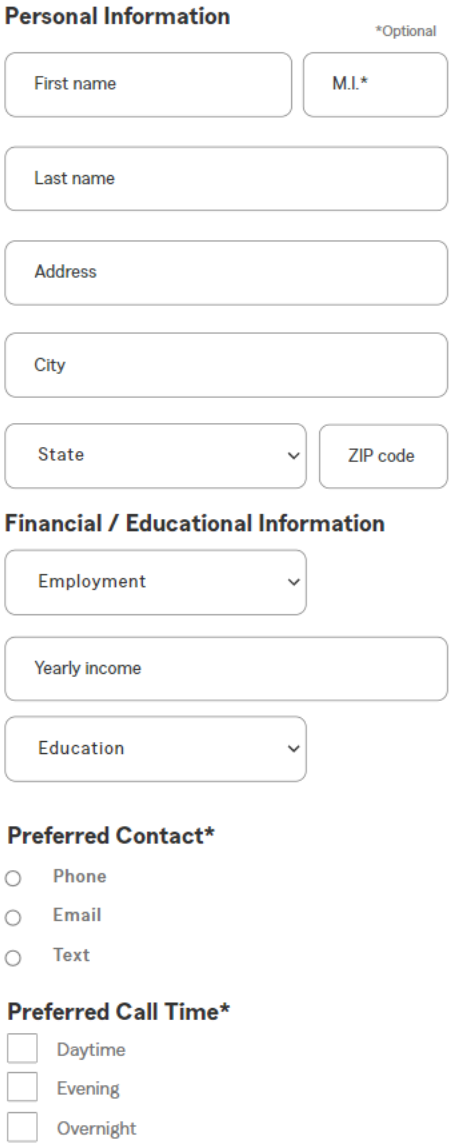


Mobile Forms

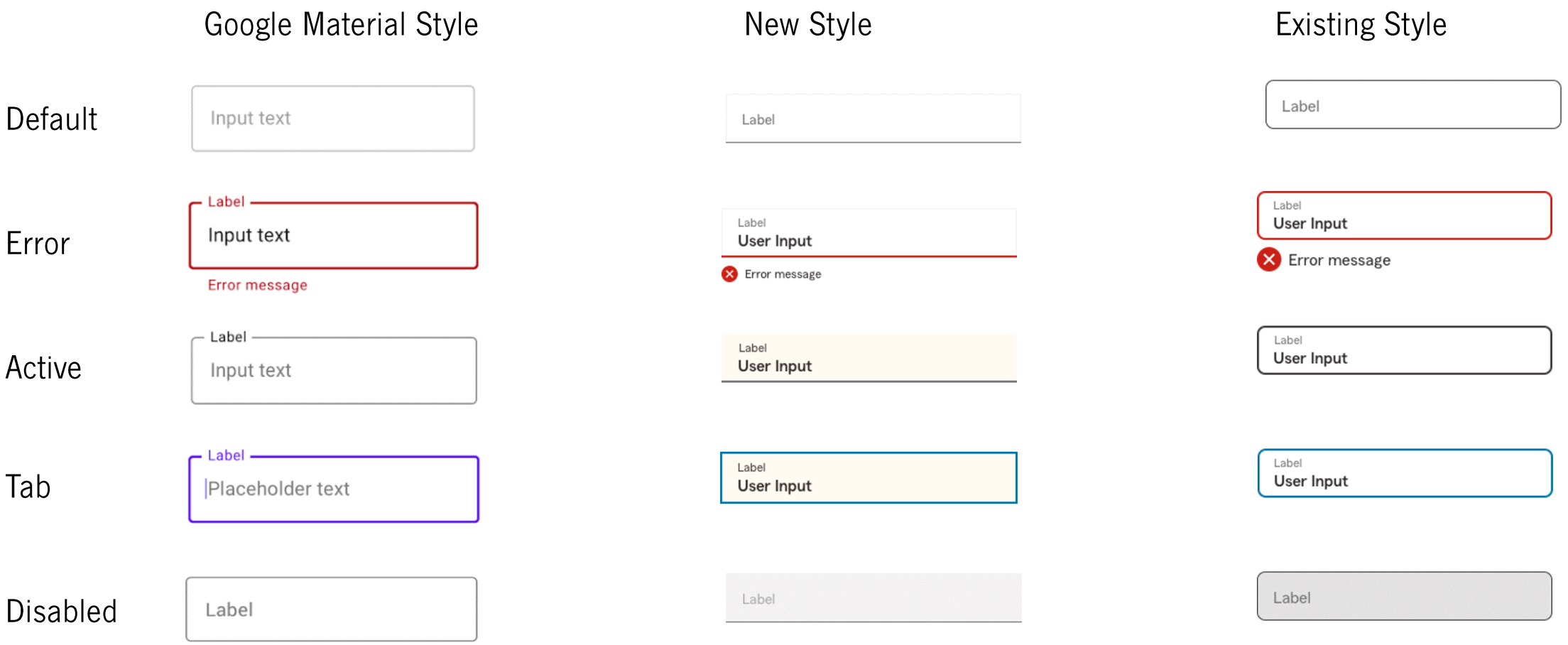
New Style:



Existing Style:



Text Field Varieties



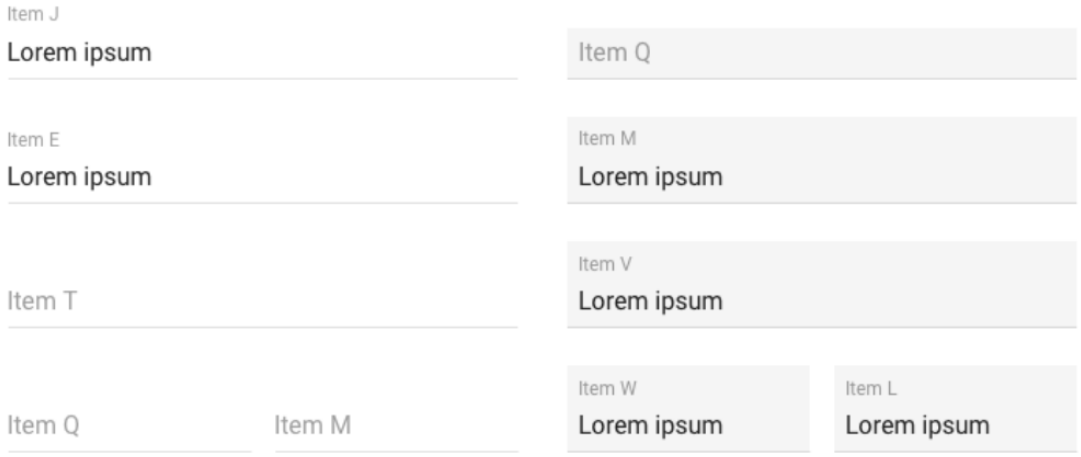
Appendix D
Google Material Design Research

How Google tested Material Design from 2016 – 2017

- Google set out to make text fields: distinguishable, readable, understandable, and easy to complete.
- Google conducted two studies with multiple parts:

Study 1

- 158 participants interacted with 3 different form styles comprised of 4 different text field styles.
- Researchers measured the time it took participants to find and click a specified field of each text field style for each of the form styles.
- Participants also ranked the 4 field styles by visual preference.



How Google tested Material Design (Cont.)

Study 2

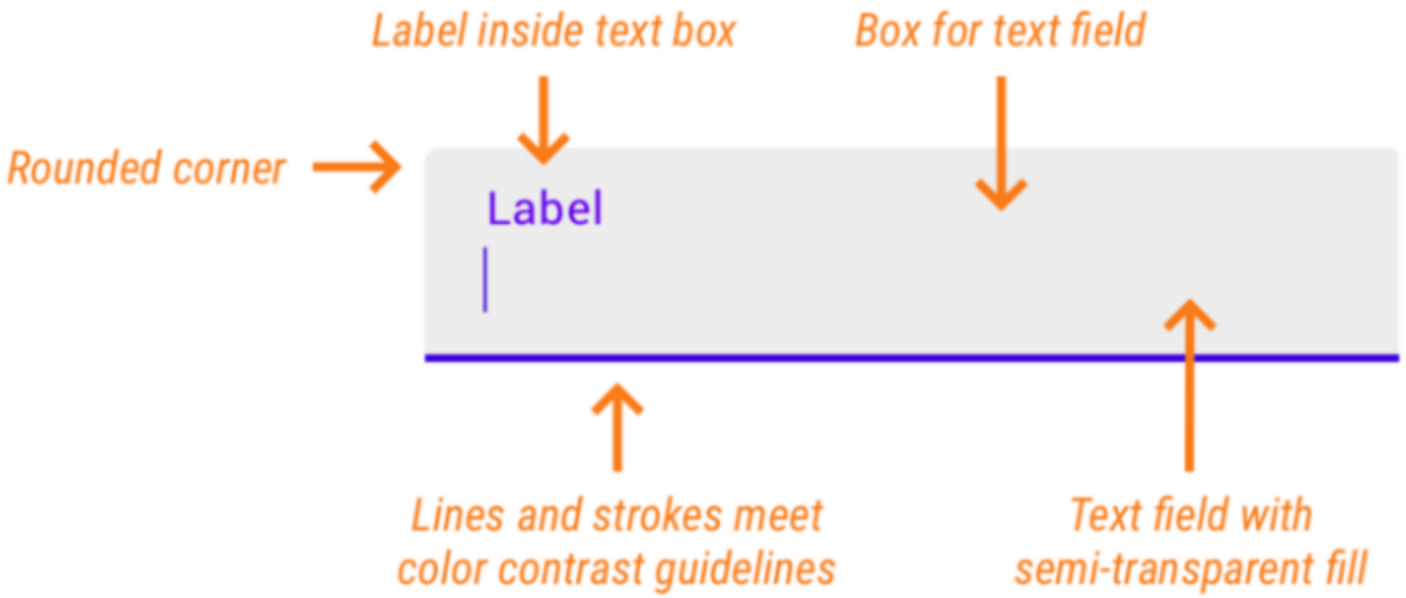
- Google created a custom tool to alter characteristics of text fields, such as label location and box style.
- Researchers used the tool to alter 7 characteristics which could be combined to create over 140 different text field styles.
- 400 participants were timed as they found and clicked on a specified field. The fields were presented in 3 form styles similar to the first study.
- Participants then answered 20 questions about their experience.

Google's Material Design guidance

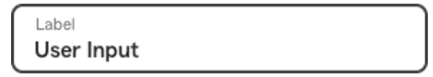
- The two studies allowed researchers to identify the characteristics important to participants' text field preferences.
- Google found (emphasis added):
  - "**Enclosed text fields with a rectangular (box) shape performed better** than those with a line affordance
  - The text field box **should be represented with a semi-transparent fill and a bottom line or with a fully transparent fill and an opaque stroke**.
  - Color contrast of the text field's lines or strokes met the **minimum 3:1 contrast ratios with the background**
  - **Label text should be placed within the bounds** of the text field box
  - Text fields **should have rounded corners**"

Source: Google

Google Material Design (filled) text field suggestion



Key differences between the active text field styles

	Google Material Style	New Style	Existing Style
			
Textbox shape	Rounded rectangle	Rectangle	Rounded rectangle
Corner	Rounded	Square	Rounded
Label	Within bounds of textbox	Inside textbox	Inside textbox
Fill	None	Highlighted	None
Outline	Complete	Open	Complete