

2023
BOSTON

**Accessibility in
Communications**



Speakers

- **Discussion Leader**
Amy Nehl, Director of Public Affairs | Oregon Housing and Community Services
- **Nichole Bui**, Vice President | AEM Corporation
- **Chelsea Bunch**, Director of Equity, Diversity & Inclusion | Oregon Housing and Community Services
- **Devon Hirth**, Staff User Experience Designer, Safety Net Innovation Lab | Code for America
- **Marcelo Paiva**, Inclusive Designer, Accessibility Specialist | AEM Corporation

Introductions

Amy Nehl (she/her)
Director of Public Affairs

Chelsea Bunch (she/her)
Director of Equity, Diversity & Inclusion



Importance of Accessibility

Accessible communications ensure that anyone can get the information they need and respond to that information with a similar amount of time and effort.

- Inclusivity - improves outreach to residents and partners and even you
 - The Curb Cut effect
- Increases the methods and tools used to communicate
- It's the right thing to do
- It's the law! Protected under the Americans with Disability Act (ADA)
- Helps remove barriers in the communities served



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WCAG and Regulations

Marcelo Paiva and Nichole Bui, AEM Corporation



AEM Corporation Background

- Presenters
 - Marcelo Paiva – Inclusive Design & Accessibility
 - Nichole Bui – Accessibility Champion
- About AEM
 - Woman-owned consulting firm based out of Herndon, VA
 - High-visibility projects in website modernization, digital accessibility, user experience, data science, privacy, and cybersecurity



State of Digital Accessibility

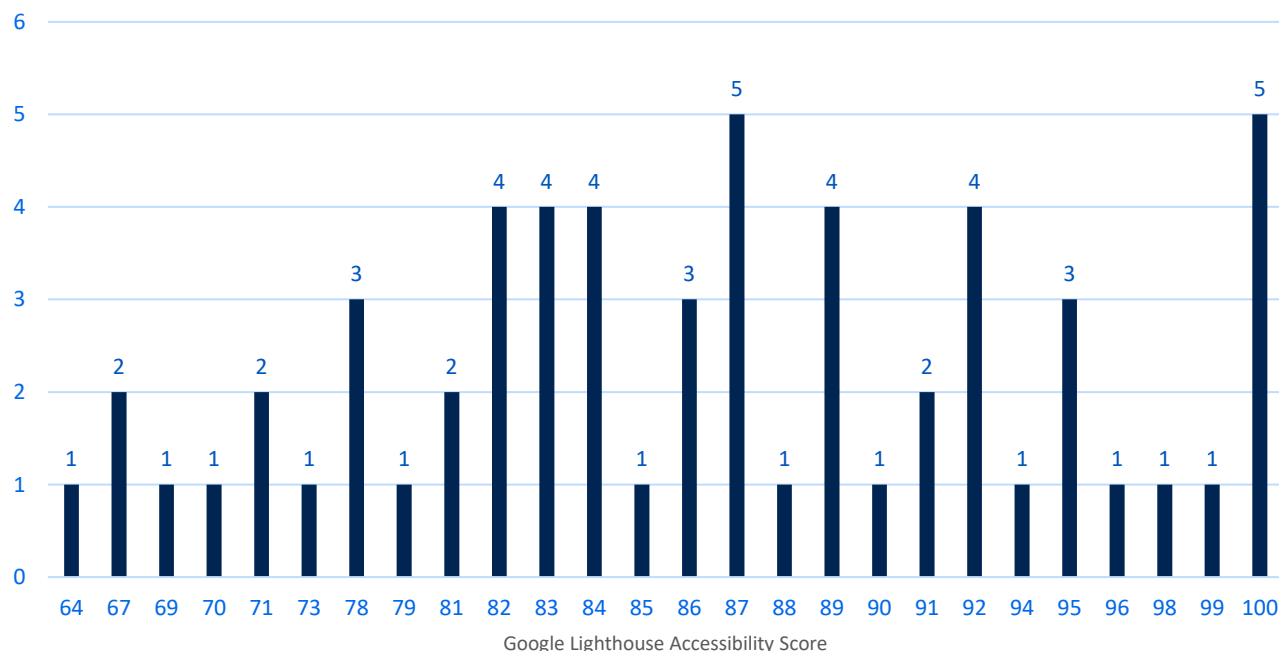
- **96.3% of the internet today is not fully accessible to people with disabilities.**
 - Home pages had detected WCAG 2 failures.
 - Million home page list combines the top home pages and domains from the Majestic Millions list, the Alexa Top 1,000,000 web sites, and the DomCop top 10 million domains.
- ADA website accessibility lawsuits filed against businesses **in Federal court** went up 400% between 2017 and 2022.

Sources:

- <https://webaim.org/projects/million/>
- <https://www.adatitleiii.com/2023/01/plaintiffs-set-a-new-record-for-website-accessibility-lawsuit-filings-in-2022/>

State of HFA Compliance

HFA Website Home Page Accessibility Score - Google Lighthouse



Scores based on Google Lighthouse audit in early October 2023 for HFA home page.

Where do you stand? We are happy to discuss your score from our audit.

Key Takeaway:

- Most sites have an opportunity to be more accessible.

Manual testing is always needed:

- Each automated tool has their own scoring methodology.
- Automated tools can only detect a subset of issues and do not guarantee accessibility.

Reading W3C Guidelines is **not fun**

W3C Recommendation

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W3C

Abstract

Status of This Document

Introduction

- 0.1 Background on WCAG 2
- 0.2 WCAG 2 Layers of Guidance
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- 0.4 Requirements for WCAG 2.1
- 0.5 Comparison with WCAG 2.0
 - 0.5.1 New Features in WCAG 2.1
 - 0.5.2 Numbering in WCAG 2.1
 - 0.5.3 Conformance to WCAG 2.1
- 0.6 Later Versions of Accessibility Guidelines

1. Perceivable

- 1.1 Text Alternatives
 - 1.1.1 Non-text Content
- 1.2 Time-based Media
 - 1.2.1 Audio-only and Video-only (Prerecorded)
 - 1.2.2 Captions (Prerecorded)
 - 1.2.3 Audio Description or Media Alternative (Prerecorded)
 - 1.2.4 Captions (Live)
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Web Content Accessibility Guidelines (WCAG) 2.1

W3C Recommendation 05 June 2018

This version:
<https://www.w3.org/TR/2018/REC-WCAG21-20180605/>

Latest published version:
<https://www.w3.org/TR/WCAG21/>

Latest editor's draft:
<https://w3c.github.io/wcag/21/guidelines/>

Implementation report:
<https://www.w3.org/WAI/WCAG21/implementation-report/>

Previous version:
<https://www.w3.org/TR/2018/PR-WCAG21-20180424/>

Previous Recommendation:
<https://www.w3.org/TR/2008/REC-WCAG20-20081211/>

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 Gregg Vanderheiden (Trace R&D Center, University of Wisconsin-Madison)
 Wendy Chisholm (W3C)

World Wide Web Consortium (W3C) Web Content Accessibility Guidelines (WCAG 2.0), a globally recognized voluntary consensus standard for web content and the Information and Communication Technology (ICT)

Web Content Accessibility Guidelines (WCAG)

4 Principles

1. Perceivable

interface components need to be presentable to a user in a way that they can discern regardless of which senses they do or do not have use of.

2. Operable

user interface and navigation components need to be able to be used by everyone, including people who do not use a standard keyboard and mouse.

3. Understandable

people must be able to understand information in your web content, how to find the information they want, and how to use any tools or features offered.

4. Robust

can be accessed on a variety of devices, including assistive technologies, and remain accessible as technology and user agents evolve.

13 Guidelines

1.1 Text Alternatives

1.2 Time-Based Media

1.3 Adaptable

1.4 Distinguishable

2.1 Keyboard Accessible

2.2 Enough Time

2.3 Seizures and Physical Reactions

2.4 Navigable

2.5 Input Modalities




3.1 Readable

3.2 Predictable

3.3 Input Assistance

4.1 Compatible

The WCAG 2.2 – Levels of Conformance

Level	Understanding	You're addressing Accessibility
A (lowest)	Essential If this isn't met, assistive technology may not be able to read, understand, or fully operate the page or view.	 After QA
AA (low bar)	Ideal Support (Section 508) Required for multiple government and public body websites.	 Before Development
AAA (highest)	Specialized Support This is typically reserved for parts of websites and web apps that serve a specialized audience.	 Before Design

It is important to invest in accessibility from the start. Estimates for fixing accessibility issues in production range from **30x to 100x** more than addressing it early in the design process.

WCAG 2.2 is here!

Became official W3C Recommendation on Oct 5, 2023.

Changes:

Guideline 2.4 Navigable

- 2.4.11 Focus Not Obscured (Minimum) (AA)
- 2.4.12 Focus Not Obscured (Enhanced) (AAA)
- 2.4.13 Focus Appearance (AAA)

Guideline 2.5 Input Modalities

- 2.5.7 Dragging Movements (AA)
- 2.5.8 Target Size (Minimum) (AA)

Guideline 3.2 Predictable

- 3.2.6 Consistent Help (A)

Guideline 3.3 Input Assistance

- 3.3.7 Redundant Entry (A)
- 3.3.8 Accessible Authentication (Minimum) (AA)
- 3.3.9 Accessible Authentication (Enhanced) (AAA)

Section 508

- **Rehabilitation Act of 1973**
 - Prohibits discrimination on the basis of disability in federal programs or programs receiving federal aid or employment.
- **1998 refresh**
 - Amended to include Section 508—which incorporates the “digital” side of accessibility; required federal agencies to make their electronic and information technology accessible to people with disabilities.
- **2017 refresh**
 - Expanded to include electronic documents.
 - **Synchronized the U.S. federal government with worldwide accessibility standards such as the W3C’s WCAG 2.0 – AA.**

Americans with Disabilities Act 1990

- **ADA Title II requires state/local governments** to give people with disabilities an equal opportunity to benefit from all of their programs, services, and activities.
- **Title II – Proposed 2023 refresh**
 - The Department of Justice proposed technical standards for web content and mobile app accessibility to give public entities greater clarity in exactly how to meet their ADA obligations and to help ensure equal access to government services for people with disabilities.
 - Key proposals
 - Adopt the WCAG Version 2.1, Level AA as the technical standard.
 - Web content and mobile apps would have to comply with the technical standard.

ADA Title II Compliance Deadline

- With this upcoming rule **state and local governments** would have to comply to Title II amendments of the ADA for **web and mobile app accessibility**.

Public Entity Size	Compliance Date
Fewer than 50,000 persons or special district governments	<u>Three years</u> after publication of the final rule.
50,000 or more persons	<u>Two years</u> after publication of the final rule.

Tips for Compliance

- **Prioritize accessibility during requirements and design phases** – Include individuals with disabilities from day-one. Use content-first approach.
- **Use combination of automated and manual testing** – Use tools to identify common digital accessibility issues. Consult with persons with disabilities and assistive technology specialists to identify and remove barriers only a human can identify.
- **Do not use accessibility overlays** as they do not actually solve critical accessibility problems in the code.
- **Continuous remediation** – fix your website as you go. Address color contrast, navigation, code, and content reading level at every opportunity.



Reach out to learn more about your
site's accessibility score →

aemcorp.com

A Mission for Accessibility

- **We do more than advocate for usability** — We help to set W3C standards. We also build tools for both designers and developers that make it hard not to be accessible from the start.
- **We don't just use the US Web Design System (USWDS)** — We manage the code for the most accessible version of the USWDS (WGAC 2.1 Level AAA).
- **We hear how painful overlays are to navigate** — We are creating the first “accessibility center” that is native to the web experience and respects the privacy of all users. Change language, reading level, layout, and more.

References

- <https://www.w3.org/TR/WCAG21/>
- <https://www.w3.org/WAI/standards-guidelines/wcag/new-in-22/#status-timeline-changes>
- <https://bootcamp.uxdesign.cc/understanding-web-accessibility-standards-ada-section-508-and-wcag-compliance-143cfb8b691e>
- <https://www.ada.gov/notices/2023/07/20/web-nprm/>
- <https://www.regulations.gov/document/DOJ-CRT-2023-0007-0001/>

Thank you!

To stay in touch, please connect by email or on LinkedIn.

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Focus on Language Access

Chelsea Bunch (she/her)
Director of Equity, Diversity & Inclusion



Translation vs. Transcreation

Navigation services - Services for people at risk of or experiencing homelessness to help navigate the different resources and aid available to them and that fit their unique needs so that they can have a safe, healthy and affordable place to live and thrive

- Chinese Mandarin direct translation: 导航服务
 - Translated as directional navigation help like North, East, West, and South
- Chinese Mandarin transcreation: 帮扶指导服务
 - Definition incorporates context that this helps people get connected to the right services

We cannot expect others to know the jargon and nuances of housing finance and affordable housing language.

Incorporating Accessibility into Program Design

- *Goal of Oregon Emergency Rental Assistance Program ERA program rollout was speed.*
- To increase accessibility, OHCS:
 - Edited application based on feedback
 - Changed website language and layout to be more accessible
 - Program-specific webpage
- Incorporated lessons learned into other program areas, like Oregon Homeowner Assistance Fund (HAF)
- Contracted translation services

Language Access

- To improve state inclusivity, OHCS requested additional funding for language access services, which was suggested by the Racial Justice Council and supported by the community.
- During 2023-25 Legislative Session, Oregon Legislators approved \$1.7 million for increased language access in agency programs.
- Prior to approval OHCS engaged with:
 - Technical Assistance providers
 - Elected officials

Language Access Goals

- Understand our internal process and gaps
- Create policy that supports process
- Build out needs assessment through RFP for culturally specific organizations
- Meet Statewide Housing Plan goals, which includes equity and racial justice
- Determine how to best spend funding
- Making transcreation the goal rather than just translation

Establishing Language Services

At OHCS we have:

- Three translation vendor contracts in place serving different needs
- Created a glossary of housing finance terms transcreated into Spanish and Mandarin Chinese

At OHCS we are working to:

- Include language access in all programs
- Build structure so future staff can keep translation going
- Include requirements in RFPs and contracts so our partners can meet language requirements

2023 BOSTON

**Devon Hirth | He/Him/His
Staff User Experience (UX) Designer
Code for America**



My “why?”

- I experienced the need for accessible services during my time at the New York City Mayor’s Office.
- We always prioritized creating accessible services, however, I contracted COVID early during the pandemic and experienced reduced cognitive function while trying help New Yorkers navigate rapidly changing information through communications.

CODE *for* AMERICA

We're people centered problem solvers
Showing that with the mindful use of technology
Government can work well for *everyone*

Our Values

1

Listen first

2

Include those who've
been excluded

3

Act with
intention

We believe...

- Services can be simple, accessible, and easy to use
- Outcomes can be measurably better
- Better can cost less
- We can serve everyone with respect and dignity

Core accessibility principles

- Our service should accommodate *regardless of a client's vision, display quality, or light environment.*
- Our service should be *forgiving to those with motor or visual disabilities.*
- Using our service should *accommodate people under high stress, time pressure, or with cognitive disabilities.*
- Our service should *always be written in plain, simple language.*

Accessibility standards

- Heuristics
- Honeycrisp Design System (internal)
- Web Content Accessibility Guidelines 2.1 AA
- We meet our partners where they are
 - Voluntary Product Accessibility Template or VPAT assessments

WCAG 2.1 AA Criterion Template

File Edit View Insert Format Data Tools Extensions Help

Menus 100% 123 Default... 11 B I A

A1 WCAG Criteria

	A	B	C
1	WCAG Criteria	Conformance	Testing Guide
2	Grey does not apply for a given column. Orange indicates this criteria should be tested for this column.		
3	1.1.1 Non-text Content	Not Appli...	
4	1.3.1 Info and Relationships	Not Appli...	Screen reader test, refer to testing notes
5	1.3.2 Meaningful Sequence	Not Appli...	Screen reader test, refer to testing notes
6	1.3.3 Sensory Characteristics	Not Appli...	
7			Browser test; Option 1. Use the device emulation feature in developer tools panel, either change the aspect ratio directly or use the rotate button. Option 2. Use your device and rotate it. Assert: Content is not restricted to the orientation of the viewport
	1.3.4 Orientation	Not Appli...	
8	1.3.5 Identify Input Purpose	Not Appli...	Screen reader test, refer to testing notes
9	1.4.1 Use of Color	Not Appli...	This is a visual test that can be conducted in any browser
10			Browser test; Option 1. Chrome developer tools. By inspecting the element, the contrast ratio is displayed when hovering over the element. Inspect all relevant elements. Learn about using the contrast tool in Chrome Developer Tools. Option 2. WAVE by WebAim Chrome extension.
	1.4.3 Contrast (Minimum)	Not Appli...	
11	1.4.4 Resize text	Not Appli...	Browser test; Step 1: Zoom the page view up to 200% Assert: Functionality is preserved when zooming.
12	1.4.5 Images of Text	Not Appli...	
13			Browser test; Step 1: Resizing the browser until the element is 320px wide. Assert: Functionality is preserved without scrolling.
	1.4.10 Reflow	Not Appli...	

Moving forward


- **Empower** more “champions” within the organization
- Move toward a “beyond compliance” **mindset**
- Invest in **impact**
 - Adopt the **U.S. Web Design System (public)**
 - Participate in policy, “[Nondiscrimination on the Basis of Disability; Accessibility of Web Information and Services of State and Local Government Entities](#)”

Everyone can be an accessibility champion!


Keyboard Testing

The keyboard is one of the main ways folks with disabilities navigate the web. Keyboard tests can help you simulate their experience and uncover fundamental accessibility issues.


It's easy! Here are common keys and combinations to start.




Press the Tab key to move forward through interactive elements



Press the Shift and the Tab at the same time to move backward




Press the Spacebar or Enter/Return to interact with elements




Press the Arrow keys to move up, down, left, or right in an interactive group

What are you looking for in your test?

- Perceivable.** Interactive elements have a visible “focus” state.
- Operable.** Interactive elements work as expected.
- Understandable.** Interactive elements are navigated in the same order they are presented.
- Robust.** What the screen reader announces makes sense and helps you navigate the page.



View more examples and resources bit.ly/cfa11y-kt



CODE *for* **AMERICA** **SAFETY NET**
INNOVATION LAB

Advancing Human-Centered Benefits Delivery

Mission: Transform the social safety net by utilizing human-centered technology and movement strategy to remove barriers to public benefit enrollment, usage, and retention

Vision: A modern, people-centered social safety net that provides economic security and health equity and serves all of us, nationwide



Our work

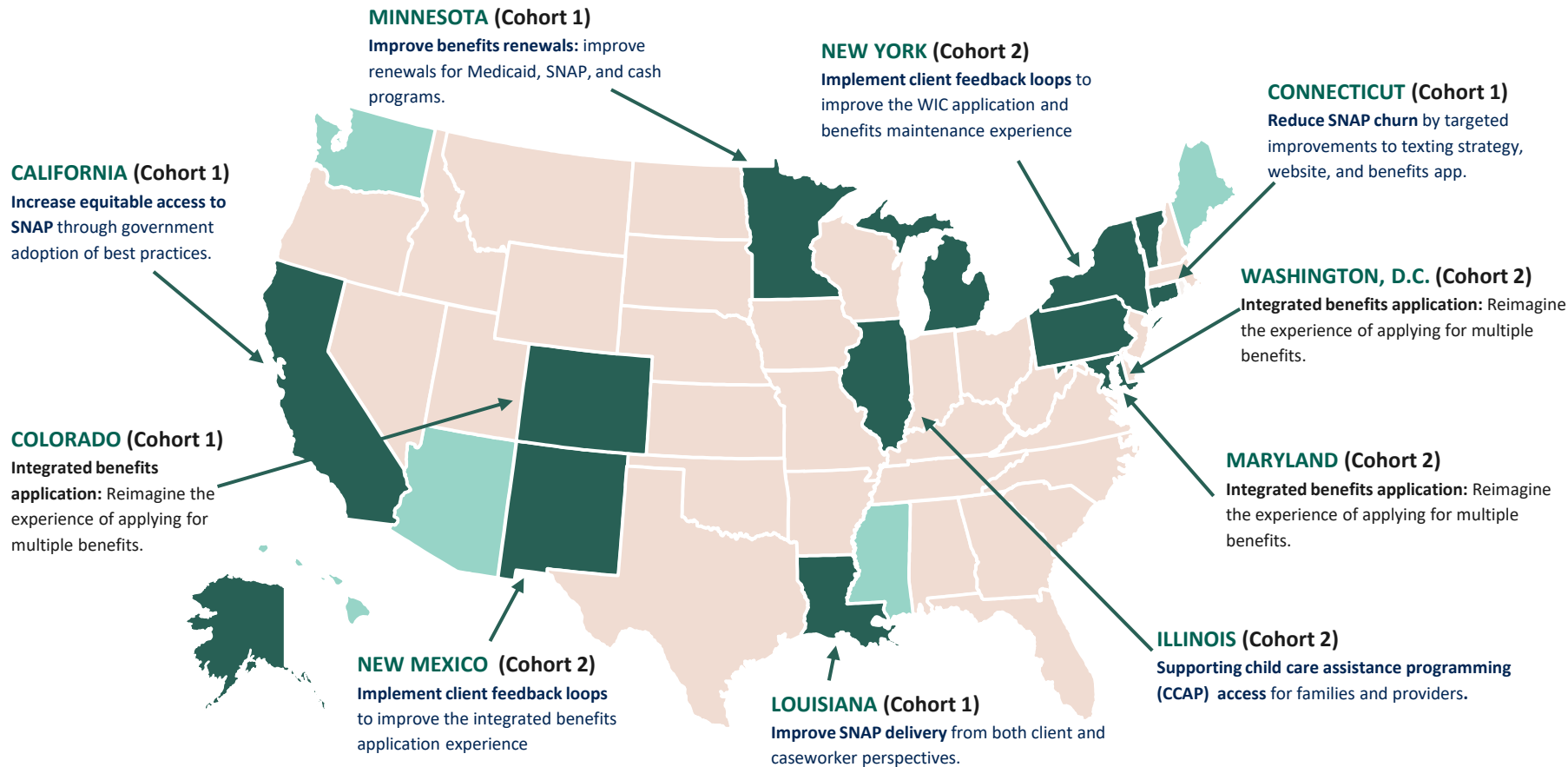
We're partnering with states nationwide to...

- ... optimize digital **enrollment**
- ... streamline **renewals**
- ... facilitate and integrate **feedback**



Where we've worked

● Current and former partners ● Consultative visits



From values, to principles, to standards, to practice

Here are the top 10 things to always remember about good form design. Synthesized from our values, to principles, to standards. This certainly doesn't cover everything. However, beyond this list, there are many great in-depth resources to seek out and guides about making digital forms inclusive for everyone.

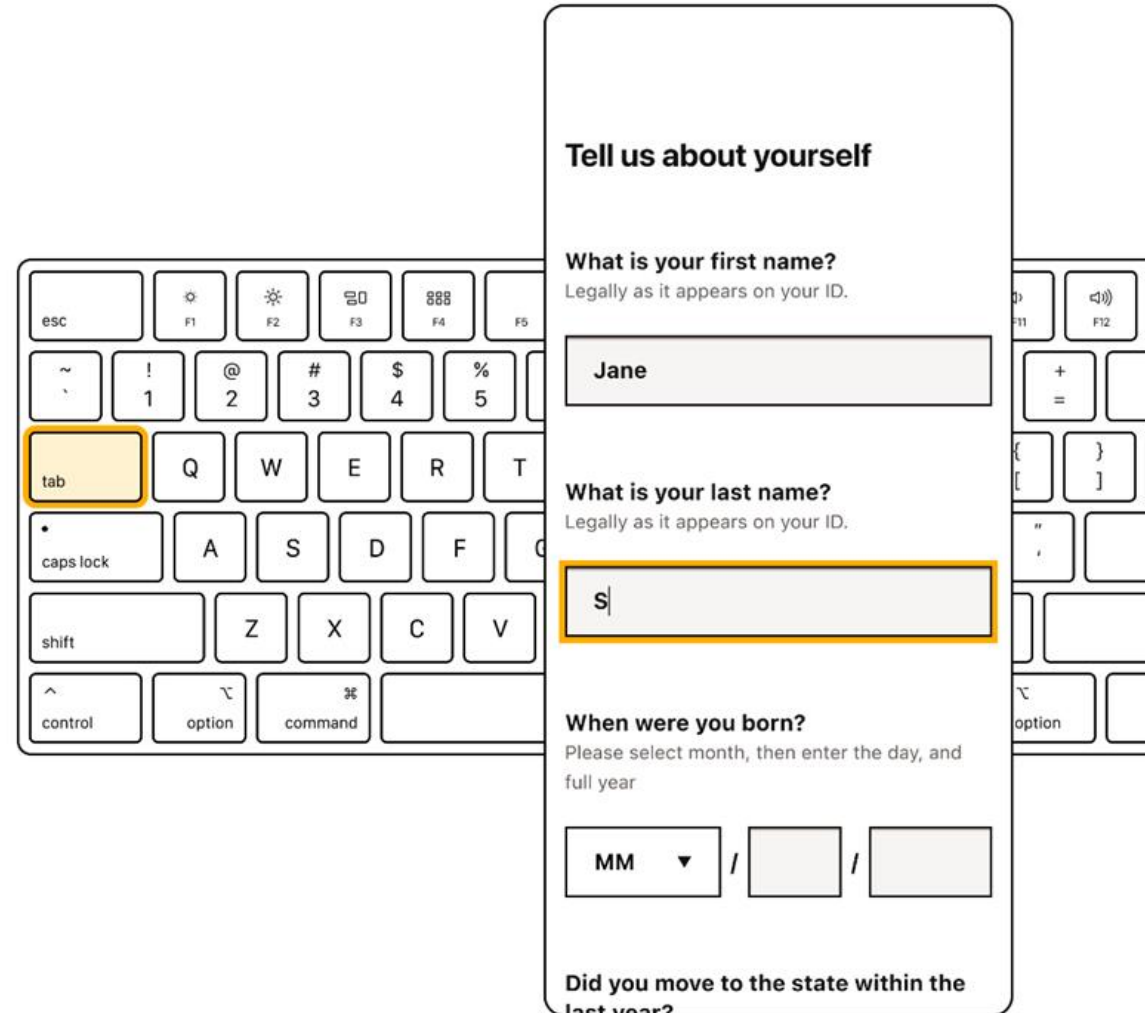
Number 1

Make sure people can fill out the form on their phones, whether upright or rotated, and in different lighting conditions.



Number 2

People should be able to use their keyboard to move around and fill out the form. This means they can only use the tab key, shift and tab keys, the spacebar, the enter key, and the arrow keys.



Tell us about yourself

What is your first name?
Legally as it appears on your ID.

What is your last name?
Legally as it appears on your ID.

When were you born?
Please select month, then enter the day, and full year

 / /

Did you move to the state within the last year?

Number 3

If your form is complicated, break it into sections and pages. Each page should have around 1 to 5 questions. People should be able to skip questions that don't apply to them.



Step 1 of 6

Tell us about yourself

What is your first name?
Legally as it appears on your ID.

What is your last name?
Legally as it appears on your ID.

When were you born?
Please select month, then enter the day, and full year

MM ▼ / /

Step 2 of 6

What is your mailing address?

Street name

Street address line 2

City

State

Number 4

Arrange the questions in a way that feels like a normal conversation. People shouldn't have to repeat themselves or remember things from other pages.

Step 3 of 6

Tell us about your household

Including you, how many people are in your household? This is usually people who you both live with and share resources.

Enter the number of people (including yourself)

Continue

Step 3 of 6

Tell us about the next person in your household

What is their first name?
Legally as it appears on their ID.

What is their last name?
Legally as it appears on their ID.

When were they born?
Please select month, then enter the day, and full year

MM ▾ / /

Number 5

Each question in the form should have a visible, meaningful, easy-to-understand label and interactive form element. Each label should be close to its form element and associated with each other through coded attributes.

1. Visible, meaningful, easy-to-understand label

2. Form element

What is your first name?
Legally as it appears on your ID.

Number 6

For tricky questions, provide helpful information before the form element. This could be instructions about formatting an answer or answering the question accurately.

1. Helpful information

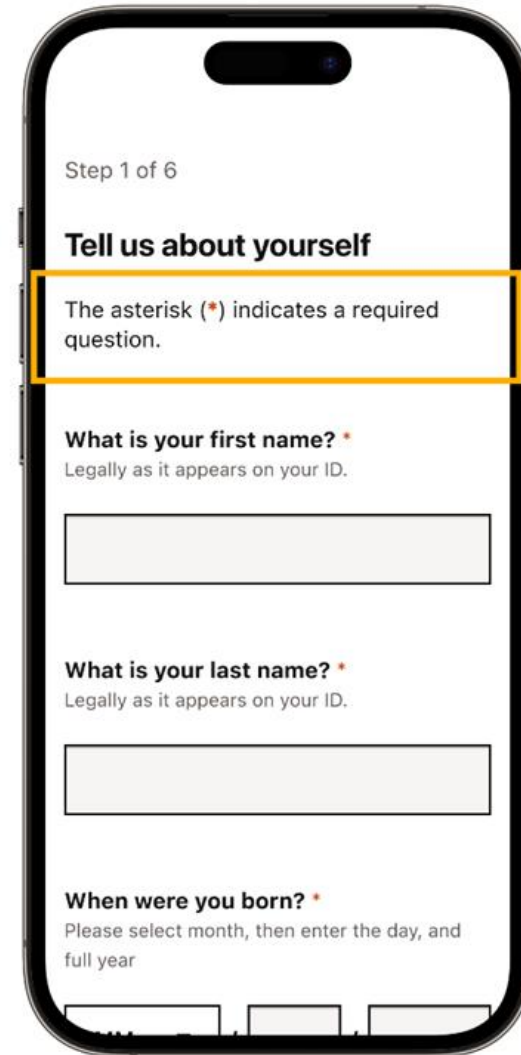
Tell us about your household

Including you, how many people are in your household? This is usually people who you both live with and share resources.

Enter the number of people
(including yourself)

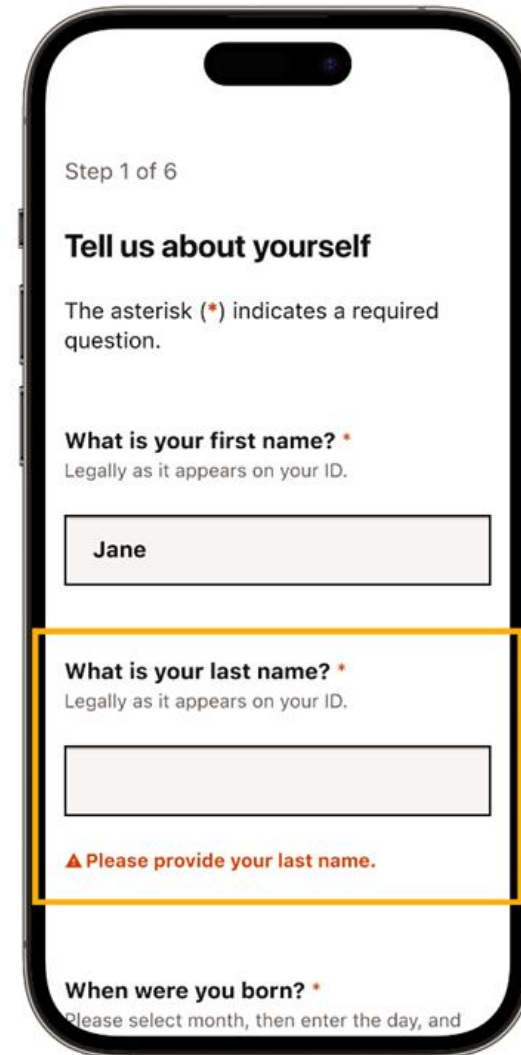
Number 7

Consider whether you need optional questions in your form and clearly show which questions are required.



Number 8

When someone makes a mistake or misses a required question, use assertive but forgiving validation. The message should be near the question they need to fix.



Step 1 of 6

Tell us about yourself

The asterisk (*) indicates a required question.

What is your first name? *
Legally as it appears on your ID.

Jane

What is your last name? *
Legally as it appears on your ID.

▲ Please provide your last name.

When were you born? *
Please select month, then enter the day, and

Number 9

If there are many questions or choices for a particular question, like checkboxes, group them with a clear label (and ensure they use the fieldset HTML element).

1. Label

What sources did you receive income from?

Please check all that apply.

Jobs (salary, wages, commissions or tips)

Self-employment

Unemployment

Retirement

2. Multiple choices

Number 10

Design the appearance of your form questions to look familiar, use a big and simple (sans-serif) font, and have good contrast. Use dark or black text on a light or white background with a dark border.

1. **Big, simple font**
2. **Good contrast**

What is your first name?
Legally as it appears on your ID.

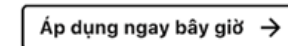
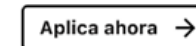
Number 11

Wait, you said ten, right...? Well, this one is so important that it must be included. Make sure your form can be read in the **language your users prefer**.

1. Language selector



2. Start forms in preferred language



More

- Come learn more at **FormFest**. *Better government, one form at a time*
 - A free virtual event showcasing governments working to make services accessible to everyone through online forms. Presented with Code for America and the **Digital Service Network at the Beeck Center for Social Impact + Innovation**. codeforamerica.org/events/formfest-2023
- codeforamerica.org/safetynetpartner
 - A great way to receive updates on our best practices, etc.