

STUDY SERIES  
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**An Accessibility Evaluation  
of the History of the Census Bureau Web Site**

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*Disclaimer:* This report is released to inform interested parties of research and to encourage discussion. The views expressed are those of the author and not necessarily those of the U.S. Census Bureau.

**AN ACCESSIBILITY EVALUATION  
OF THE HISTORY OF THE  
CENSUS BUREAU WEB SITE**

Human-Computer Interaction Memorandum Series # 111

**Submitted to:**

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## **INTRODUCTION**

Since June 2001, Federal regulations have required that U. S. Government Web sites and other software developed by or for the U. S. Government provide comparable access to the information for all users<sup>1</sup>. Computer users who have visual and or other disabilities are entitled to have the same access as users who do not currently have any disabilities

Some practitioners consider accessibility to be a subset of usability, while others think of accessibility as related, but separate from usability. Accessibility guidelines have several checkpoints that address more general usability, such as a logical tab order, dividing large information blocks into more manageable groups, and using the clearest and simplest language appropriate. Even if the application complies with the regulation, it still may not be usable, as the Census Bureau's Usability Lab has found in other testing. Both usability and accessibility testing need to be done to identify problems that actual users may have.

## **BACKGROUND**

This accessibility evaluation was performed on the proposed new History of the Census Bureau web site. The Management Services Office (MSO) requested that the Statistical Research Division (SRD) use its expertise to verify and/or identify accessibility problems in the SRD accessibility lab. This web site will allow users to read about Census Bureau history.

## **PURPOSE**

The purpose of this evaluation is to report and rate the severity of accessibility problems to the developer of the software so that the problems can be resolved. The priority for accessibility problems is rated high, medium, or low. An item flagged as high means that the user could not perform the task at all. An item flagged as medium means that the user could perform the task, but with difficulty. An item flagged as low priority means that the user is not presented the same information as the able-bodied user, but can still perform the task.

## **SCOPE AND METHOD**

This evaluation is primarily focused on testing accessibility for computer users with visual disabilities. Accessibility testing is performed using the Job Access With Speech (JAWS) 8 screen reading software<sup>2</sup>. For the purpose of this report, an item is judged to be accessible (compliant with the regulations) if its screen text is read out loud, in a coherent order by JAWS. Graphics are accessible if they have alternate/alternative text (henceforth ALT text) associated with them. Usability problems are detected by listening to the content vocalized by the screen reader and visual inspection by an analyst with experience in usability. These problems are included in this report as issues to evaluate in formal usability testing if resources are available.

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<sup>1</sup> <http://www.section508.gov/index.cfm?FuseAction=Content&ID=3>

<sup>2</sup> <http://www.freedomsscientific.com>

## **FINDINGS**

Findings for the Census Bureau history web site are detailed in Figures 1-5. This application has the following accessibility issues:

- Skip links, for bypassing navigation bars, are not used.
- ALT text for images is redundant or misspelled.
- A text transcript is missing for the Census Anthem lyrics.

Each of these issues violates a Section 508 regulation as indicated in the body of this report.

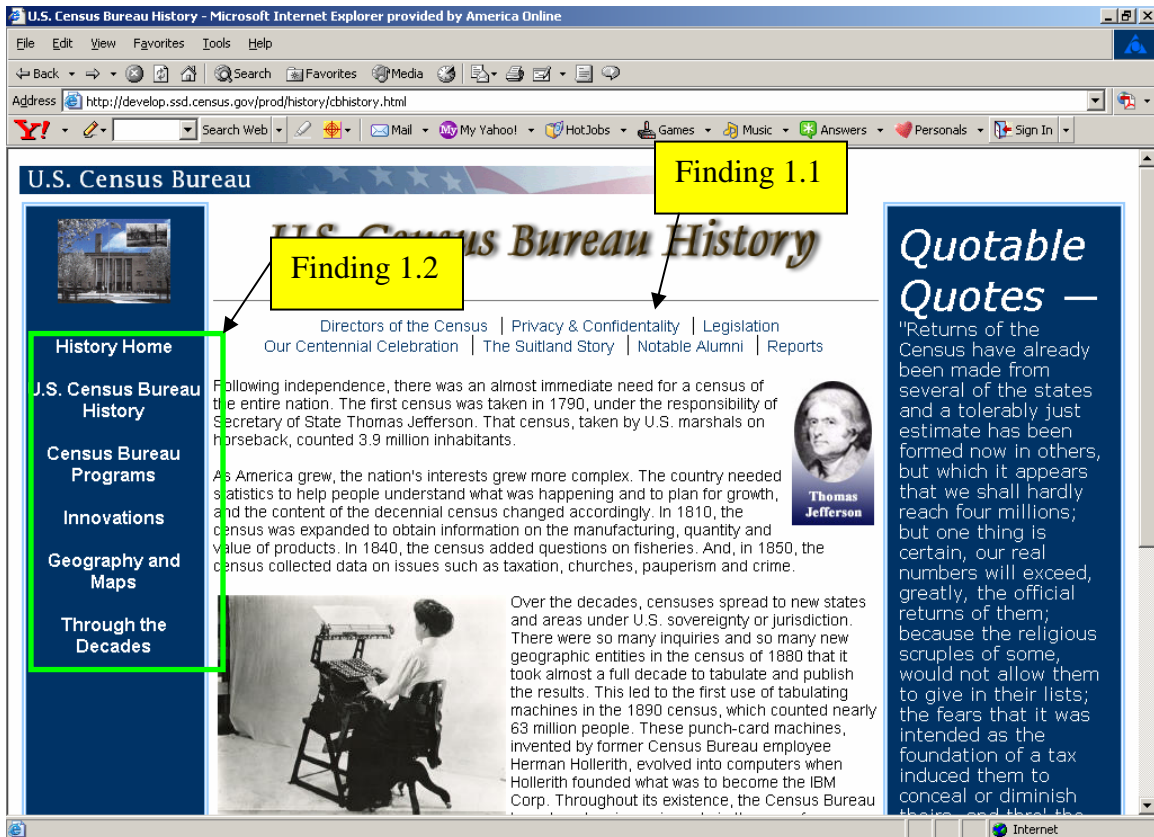


Figure 1. This screen has a typo and lacks skip links for the left navigation bar.

**Finding 1.1:** The word “confidentiality” is misspelled.

**Recommendation:** Replace the misspelled word with “Confidentiality”. Since the screen reader will read the text as it is, misspelled words with odd pronunciations will be confusing to users with visual impairments.

**Finding 1.2:** Skip links are not used. (Global)

**Priority:** High

**Details:** The left vertical navigation bar does not have skip links. The absence of skip links violates 194.22 paragraph O of the Section 508 regulation.

**Recommendation:** Skip links allow a screen reader user to bypass unwanted content and quickly access information related to their current task. Web applications must have skip links to be compliant with Section 508. Place a one-pixel transparent graphical link prior to the navigation bar and have it link to a screen element immediately following the last navigation bar element. The graphical link should have alt text providing users of screen readers the option to skip the navigation bar, such as “Press enter to skip left navigation bar.”

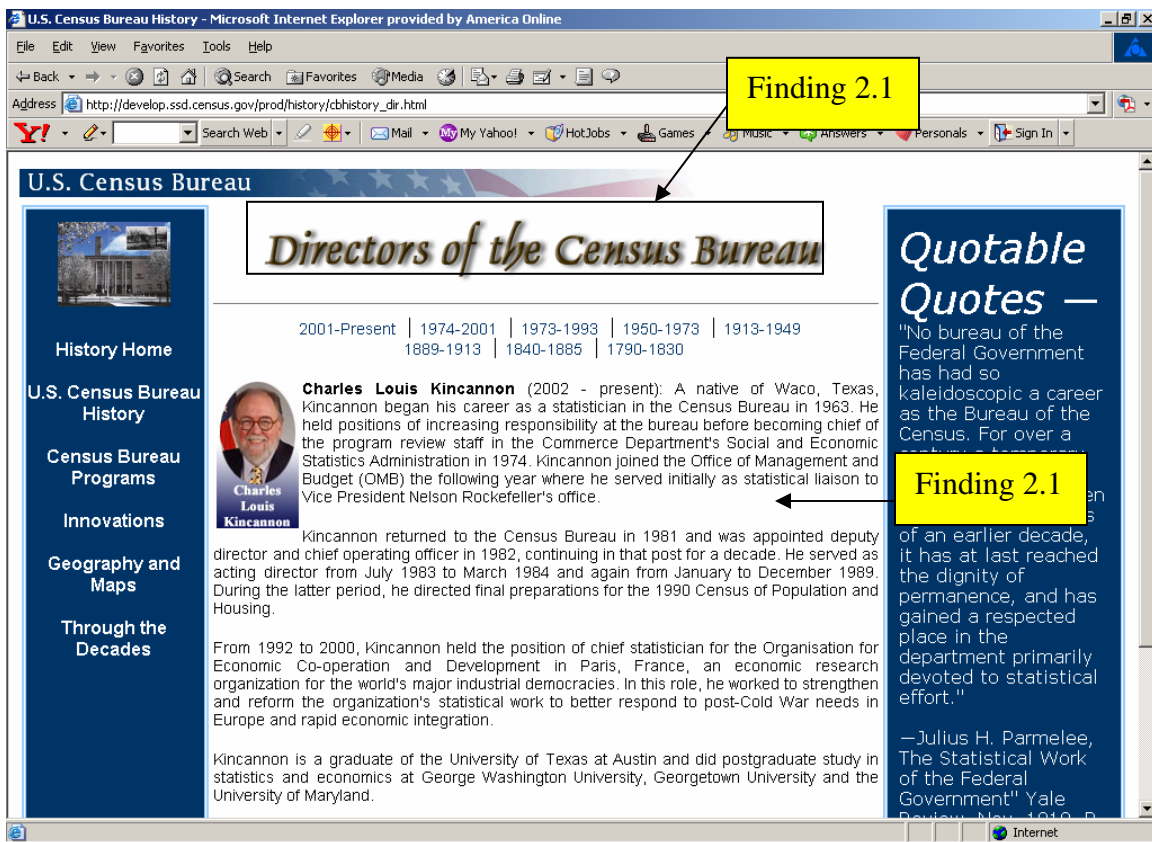


Figure 2. The title “Directors of the Census Bureau” is not heard by screen reader users.

**Finding 2.1: The title is a graphic lacking associated ALT text.**

**Priority: High**

**Details: The title graphic lacks ALT text describing the text. The lack of ALT text violates 1194.21 paragraph A of the Section 508 regulation**

**Recommendation: Set alt = “Directors of the Census Bureau”.**

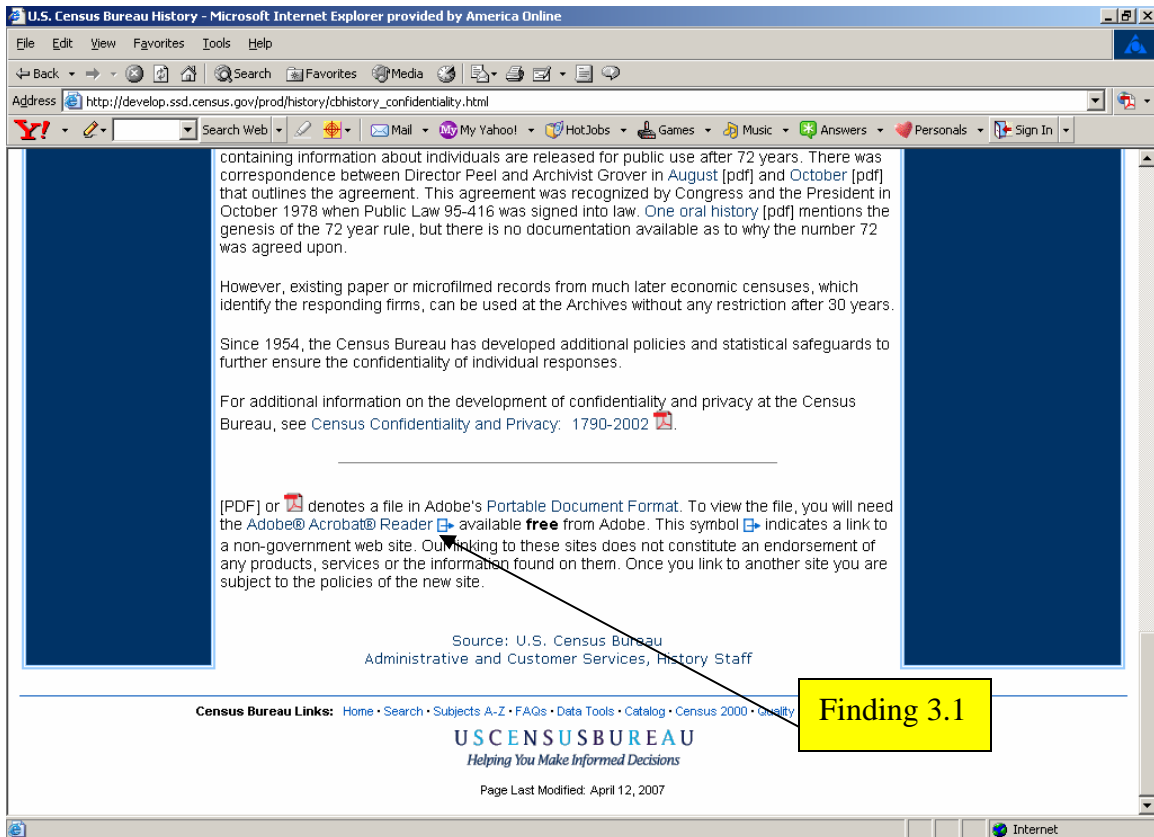


Figure 3. ALT text for the first graphical link to a non-government site is redundant.

**Finding 3.1:** The ALT and LONGDESC text for this graphical link are repeated later on this screen.

Priority: Medium

Details: A screen reader user hears the same text repeated, which wastes time.

Recommendation: Set alt = "" and delete the longdesc entry.

**Finding 3.1** applies to the `cbhistory_confidentiality`, `cbhistory_legislation`, and `cbhistory_reports` screens.

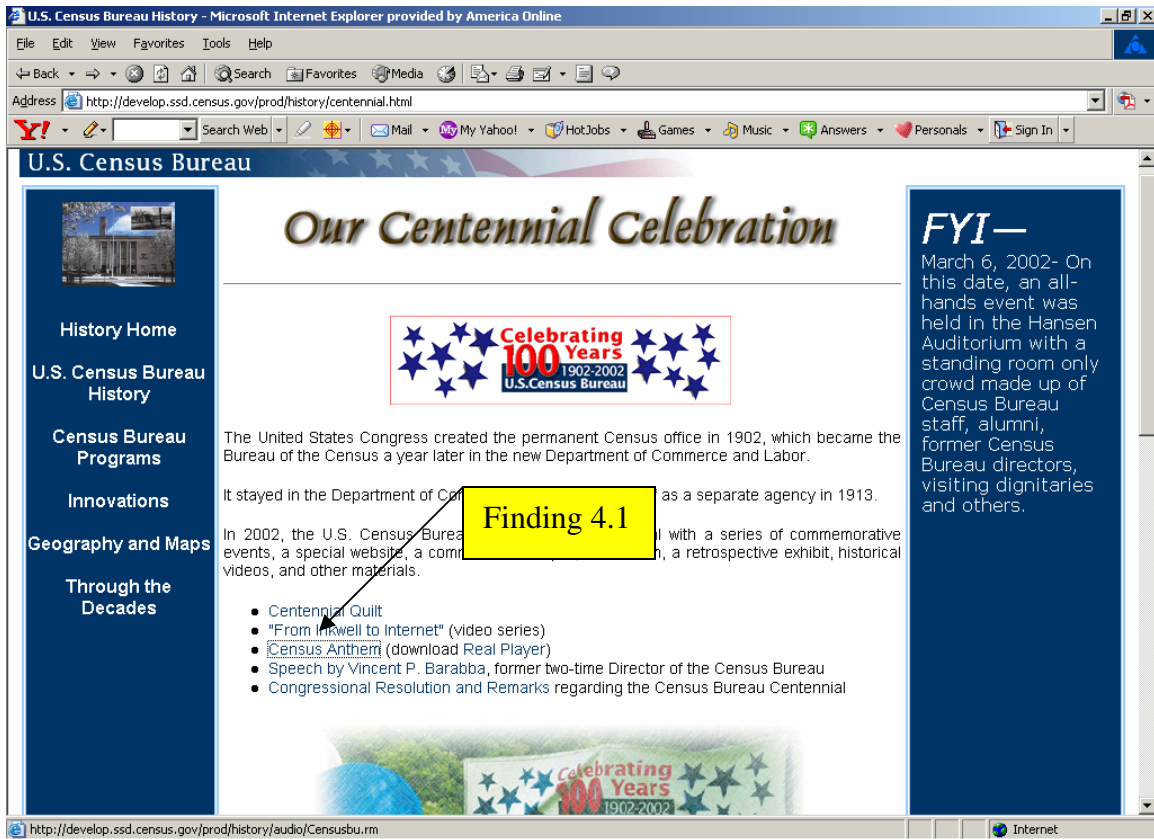


Figure 4. A text alternative to the recorded music is required by Section 508.

**Finding 4.1: A transcript of the Census Anthem is required.**

**Priority:** High

**Details:** Persons who cannot hear lack access to the lyrics of the Census Anthem. This behavior violates 194.22 paragraph A of the Section 508 regulation.

**Recommendation:** Use the LONGDESC attribute to set up a web page containing the lyrics. We recommend a link stating "Click here for the transcript". Details on programming the LONGDESC are found at

<http://www.webaim.org/techniques/images/longdesc.php>



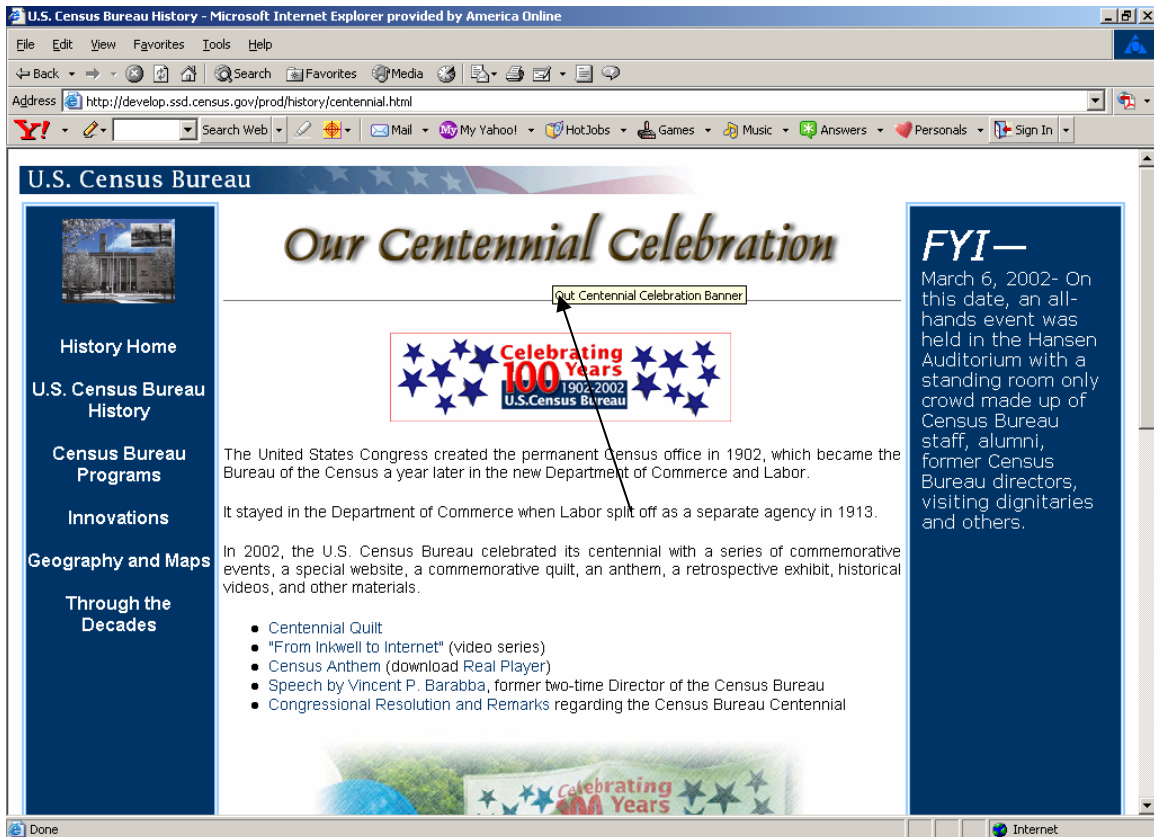


Figure 5. The banner alt text has a typographical error, which will be read as is by the screen reader.

Replace the word “Out” with “Our”.

## SUMMARY

This web site requires very little work to be compliant with the Section 508 regulations. The left navigation bar needs to have a skip link programmed, so screen reader users can bypass it and go quickly to the main page content. ALT text for images needs to be deleted or corrected. The Census Anthem must have a text transcript available so persons with hearing loss can read the lyrics. When all these recommendations are implemented, the web site will be compliant with the Section 508 regulations.