# CIC IT Accessibility and Usability Proposed Responses to the DOJ Request for Comments on ADA and Web Accessibility

## Use of Proposed Responses

The proposed response was developed over the past month as part of the activities of the CIC IT Accessibility and Usability Working group. The document is intended to support IT administrators and CIOs in their consideration of making a response to the DOJ request. The work can also be used by members of the CIC IT Accessibility and Usability working group in making their own responses.

Original DOJ Request in the Federal Register:

http://www.federalregister.gov/articles/2010/07/26/2010-18334/nondiscrimination-on-the-basis-of-disability-accessibility-of-web-information-and-services-of-state

## Submission of Comments and Posting of Public Comments

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Comments on this ANPRM will also be made available for public viewing by appointment at the Disability Rights Section, located at 1425 New York Avenue, NW., Suite 4039, Washington, DC 20005, during normal business hours. To arrange an appointment to review the comments, please contact the ADA Information Line at (800) 514-0301 (voice) or (800) 514-0383 (TTY).Show citation box

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# Proposed Responses to DOJ Questions

## A. Accessibility standards to apply to Web sites of covered titles II and III entities

As previously mentioned, the Web Accessibility Initiative (WAI) of the World Wide Web Consortium (W3C®) has created recognized voluntary international guidelines for Web accessibility. These guidelines, set out in the Web Content Accessibility Guidelines (WCAG), detail how to make Web content accessible to individuals with disabilities. The most recent and updated version of the WCAG, the WCAG 2.0, was published in December 2008 and is available at http://www.w3.org/TR/WCAG20/ (last visited June 29, 2010). According to the WAI, the WCAG 2.0 "applies broadly to more advanced technologies; is easier to use and understand; and is more precisely testable with automated testing and human evaluation."See WAI, Web Content Accessibility Guidelines (WCAG) Overview, available at http://www.w3.org/WAI/intro/wcag.php (last visited June 29, 2010).Show citation box

The WCAG 2.0 contains 12 guidelines addressing Web accessibility. Each guideline contains testable criteria for objectively determining if Web content satisfies the guideline. In order for a Web page to conform to the WCAG 2.0, the Web page must satisfy the criteria for all 12 guidelines under one of three conformance levels: A, AA, or AAA. The three levels of conformance indicate a measure of accessibility and feasibility. Level A, which is the minimum level of conformance for access, contains criteria that provide basic Web accessibility and that are the most feasible for Web content developers. Level AA, which is the intermediate level for access, contains enhanced criteria that provide more comprehensive Web accessibility and yet are still feasible for Web content developers. Level AAA, which is the maximum level of access, contains criteria that may be less feasible for Web content developers. In fact, WAI does not recommend that Level AAA conformance be required as a general policy for entire Web sites because it is not possible to satisfy all Level AAA criteria for some content. See W3C®, Understanding WCAG 2.0: Understanding Conformance (Dec. 2008), http://www.w3.org/TR/UNDERSTANDING-WCAG20/conformance.html (last visited June 29, 2010).Show citation box

Standards for Web site accessibility also exist for Federal government agencies, which are required to make their Web sites accessible under section 508 of the Rehabilitation Act of 1973, 29 U.S.C. 794(d) (section 508). Specifically, the Web sites of Federal government agencies must comply with the Electronic and Information Technology Accessibility Standards (section 508 standards) published by the U.S. Access Board, 36 CFR 1194, available at http://www.access-board.gov/sec508/standards.htm (last visited June 29, 2010). The Access Board is currently revising the section 508 standards, in part to harmonize the standards with model guidelines, such as the WCAG.Show citation box

## Question 1. Should the Department adopt the WCAG 2.0's "Level AA Success Criteria" as its standard for Web site accessibility for entities covered by titles II and III of the ADA? Is there any reason why the Department should consider

**adopting another success criteria level of the WCAG 2.0? Please explain your answer.**

*Suggested Response to Question 1:*

The Committee on Institutional Cooperation's Information Technology Accessibility and Usability Advisory Group (CIC IT Accessibility) supports the adoption of the WCAG 2.0 Level AA Success Criteria as the legal standard for web accessibility under the Americans with Disabilities Act.

The web is inherently an international technology with international governance. Therefore, it is most sensible to leverage the work of the standards-setting bodies of the web - particularly the World Wide Web Consortium's Web Accessibility Initiative and its work on the Web Content Accessibility Guidelines - as the foundation of U.S. standards on web site accessibility.

## Question 2. Should the Department adopt the section 508 standards instead of the WCAG guidelines as its standard for Web site accessibility under titles II and III of the ADA? Is there a difference in compliance burdens and costs between the two standards? Please explain your answer.

*Suggested Response to Question 2:*

It is the position of CIC IT Accessibility that the adoption of a single set of accessibility standards is of overriding importance. Implementing a strengthened Americans with Disabilities Act that specifically addresses success criteria for accessibility of ALL online public accommodations would diminish - if not render obsolete - the need for a unique set of requirements relating to the accessibility of online accommodations of federally funded facilities.

The most cost-efficient outcome of the DoJ's effort to explicitly extend the reach of the ADA to online public accommodations would be the endorsement of a single standard for accessibility based on the WCAG 2.0 success criteria.

It is assumed the requirements of the current section 1194.21 Software applications and operating systems and section 1194.22 Web-based intranet and internet information and applications of Section 508 published in 1999 would be deprecated in favor of new requirements based on WCAG 2.0 success criteria if web accessibility is included as part of ADA.

## Question 3. How should the Department address the ongoing changes to WCAG and section 508 standards? Should covered entities be given the option to comply with the latest requirements?

*Suggested Response to Question 3:*

Web technologies and developer design patterns continue to evolve at a rapid pace.  Therefore it is recommended the DOJ support the development of best practice techniques for meeting WCAG 2.0 success criteria specified as requirements under the ADA. The techniques should include both minimal and optimal techniques for making web resources not only accessible, but also usable by people with

disabilities. Many of the minimal requirements for some technologies could be taken from the current WCAG 2.0 techniques document. The techniques will need to be reviewed on at least an annual basis to take into account changes in web technology, developer design patterns, browsers, video/audio players and assistive technology capabilities.

It is recommended the DoJ support the development of an ADA techniques group that would be able to collaborate and harmonize efforts with other international groups to develop techniques for specific web technologies such as HTML, JavaScript, SVG, Video, Audio, Adobe PDF and Flash. The process of developing the techniques should allow for open public participation, review and comment; and include both minimal and optimal techniques for the meeting of success criteria with a particular technology.

The techniques are important because they can be used by tool developers to support accessible authoring and evaluation tools.  The availability of a set of techniques would help ensure that authoring tools are more consistent in how they author web-accessible materials and evaluation tools would give more consistent results in identifying accessibility features and problems.  Rules in evaluation tools can also provide much more specific information on a violation of a success criteria and help minimize the need for manual inspection of accessibility features.

Since the WCAG 2.0 documents are intended to be technology-neutral, CIC IT Accessibility does not anticipate that the success criteria therein will be in a constant state of flux. New technologies for presenting content will likely continue to be developed, however. Review and revision of techniques recommended to implement the ADA success criteria in these emerging technologies must be a continuing feature of the DoJ's web accessibility efforts.

Compliance with the latest requirements should follow a similar review structure and timeline to the implementation of the initial ADA web accessibility requirements under discussion here.

## Question 4. Given the ever-changing nature of many Web sites, should the Department adopt performance standards instead of any set of specific technical standards for Web site accessibility? Please explain your support for or opposition to this option. If you support performance standards, please provide specific information on how such performance standards should be framed.

### *Suggested Response to Question 4:*
If a set of specific technical standards is chosen, then a process for frequent revision of the technical standards will be required. Otherwise there is the risk that some standards will become irrelevant over time. The WCAG 2.0 Guidelines and Success Criteria are written in a technology-neutral fashion that makes frequent updates less necessary. Each success criterion given for WCAG 2.0 Guidelines includes a list of techniques, or combinations of techniques, to be used to meet each success criterion. In many cases, multiple sufficient techniques are available. As new techniques are identified that meet a given success criterion, they are added to the listing. This approach allows existing WCAG 2.0 Success Criteria to remain relevant over time.

The proposed revisions to Section 508 provide for adaptation to new technologies as well:

- It states in E107 that web pages that conform to level AA of WCAG 2.0 will be considered to meet all of the rules in Chapters 4, 5, and 6 except for extra requirements that address user preferences, authoring tools, and multimedia. This appears to mean that techniques listed as sufficient for SC in WCAG 2.0 apply for the proposed revisions to Section 508 as well.
- In E106 the proposed revisions provide for "Equivalent Facilitation" in cases where technologies that provide for equivalent or greater access can be used instead of the rules.
- E103.5.2 goes further stating that if the proposed rules do not fully cover a product's features, that a broader functional performance criteria can be used (supplied in Chapter 2) to evaluate compliance.

Language that is inclusive of the WCAG 2.0's techniques for meeting guidelines and success criteria along with the proposed revision to Section 508's Equivalent Facilitation and Functional Performance Criteria would give the ADA's update lasting relevancy. However, these performance standards alone cannot fully assure accessibility. Human testing should be used whenever possible to further verify automated testing and in cases where only human testing can confirm accessibility.

# B. Coverage limitations

It is the Department's intention to regulate only governmental entities and public accommodations covered by the ADA that provide goods, services, programs, or activities to the public via Web sites on the Internet. Although some litigants have asserted that "the Internet" itself should be considered a place of public accommodation, the Department does not address this issue here. The Department believes that title III reaches the Web sites of entities that provide goods or services that fall within the 12 categories of "public accommodations," as defined by the statute and regulations. Because the Department is focused on the goods and services of public accommodations that operate exclusively or through some type of presence on the Web—whether hosting their own Web site or participating in a host's Web site—the Department wishes to make clear the limited scope of its regulations. For example, the Department is considering proposing explicit regulatory language that makes clear that Web content created or posted by Web site users for personal, noncommercial use is not covered, even if that content is posted on the Web site of a public accommodation or a public entity. This would include individual participation in popular online communities, forums, or networks in which people upload personal videos or photos or engage in exchanges with other users. The Department could also make clear that public accommodations and public entities are not liable for inaccessible content posted to their sites by individuals not under their control as long as they provide their Web site users the ability to make their posts accessible.

In addition, the Department does not intend to propose regulatory text that reaches the informal or occasional trading, selling, or bartering of goods or services by private individuals in the context of an online marketplace. The Department could distinguish such occasional trading activity by individuals acting in a private capacity from legally established business entities, ranging from sole proprietorships to limited liability companies and corporations. As long as these business entities offer the goods or services of a public accommodation online, they would be responsible for making such offerings accessible to individuals with disabilities. Lastly, a public accommodation or public entity would not be required to ensure the accessibility of Web sites that are linked to its site, but that it does not operate or control. However, to the extent an entity requires users of its Web site to utilize another Web site in order to take part in its goods and services (e.g., payment for items on one Web site must be processed through another Web site), the entity may be liable for the accessibility of other sites it requires its patrons to use even if it does not operate or control the site.

**Question 5. The Department seeks specific feedback on the limitations for coverage that it is considering. Should the Department adopt any specific parameters regarding its proposed coverage limitations? How should the Department distinguish, in the context of an online marketplace, between informal or occasional trading, selling, or bartering of goods or services by private individuals and activities that are formal and more than occasional? Are there other areas or matters regarding which the Department should consider adopting additional coverage limitations? Please provide as much detail as possible in your response.**

*Suggested Response to Question 5:*

Any exemptions should be very limited, since accessibility considered at design time is cost effective and insures the greatest accessibility. Any exemptions should be based on how the web site is used, popularity, revenue and resources to maintain and develop the web site. For example, Facebook is considered a system for personal expression and at face value could be considered a potential exemption since it is a free service and is used for personal expression. But many Facebook pages are designed to communicate and share information for educational, commercial or public service purposes, and from an educational perspective the concepts of social interaction using Facebook are a popular topic of research. The use of "free" services like Facebook, YouTube and Google Docs are often used as part of instruction in higher education, so extending ADA to include these types of services is critical for accessible education, since it is difficult or impossible to ban their use in higher education. Entities should only be exempted when they are determined to have a minimal impact on public commerce and education because of the limited usage scope of the web resource (e.g., a web site for a local, small-scale business venture) or a web resource geared for use by only a small group of people (e.g., a web site for a social club), even though such resources maybe visible to anyone on the web.

Possible Exemption Criteria:

- Small businesses with online sales below a certain amount of gross revenue
- Non-profit organization web site with a operating budget below a certain amount
- Personal web sites maintained by individuals or families for non-commercial purposes, non-public service, and non-educational purposes
- Social clubs with membership below a certain number of people that have a web site to promote club events, ideas, and values

# C. Compliance Issues

Question 6 has three parts

## Part 6.1: What resources and services are available to public accommodations and public entities to make their Web sites accessible?

*Suggested Response to Question 6 Part 1:*

Many free and commercial tools and resources are available for evaluating web sites for accessibility. A wide range of courses and tutorials address accessible web design. As web accessibility becomes a part of mainstream web development it will be integrated into all web development instruction and this is one reason to include web accessibility as part of ADA.

The more market demand there is for web accessibility training, authoring, and evaluation tools and resources, the more will become available. The increase in accessibility of a wider range of web resources will prompt more users with disabilities to use the web. This will in turn increase their knowledge of the issues, helping them to become better advocates for web accessibility. The following is a list of some of the resources used by the CIC institutions to support web accessibility initiatives:

Selected Accessible Web Design Resources:

- W3C Web Accessibility Initiative, http://www.w3.org/WAI/
- WebAIM, http://www.webaim.org
- Web Best Practices Working Group, http://collaborate.athenpro.org/group/web/
- iCITA HTML Best Practices, http://html.cita.illinois.edu
- OpenAjax Alliance. http://www.openajax.org/member/wiki/Accessibility

CIC Intuitional Support Web Sites for Web Accessibility

- Illinois at Urbana/Champaign, IT Accessibility Initiative, http://itaccessibility.illinois.edu/
- Illinois at Chicago, http://www.uic.edu/home/wdw/accessweb/what.html
- Indiana, http://www.indiana.edu/~iuadapts/services/web-accessibility/
- Iowa, http://cs.its.uiowa.edu/wts/access.shtml
- Michigan, http://www.umich.edu/webaccess/
- Michigan State University, http://webaccess.msu.edu/
- Northwestern, http://www.northwestern.edu/univ-relations/webcomm/styleguide/accessibility.html
- Penn State University, http://www.equity.psu.edu/accesspsu/webresources.htm
- Purdue, http://www.purdue.edu/webaccessibility/
- The Ohio State University, Web Accessibility Center, http://wac.osu.edu/
- Wisconsin, DO-IT, http://www.doit.wisc.edu/accessibility/

Open Source and Free Tools used by CIC Institutions for Web Accessibility

- AChecker, http://achecker.ca/checker/
- Fangs Screen Reader Emulator for Firefox , https://addons.mozilla.org/en-US/firefox/addon/402/
- WAVE, http://wave.webaim.org
- WAVE Toolbar for Firefox, http://wave.webaim.org/toolbar
- IE Accessibility Toolbar, http://www.visionaustralia.org.au/ais/toolbar/
- FireEyes add-on for Firefox, http://www.deque.com/products/worldspace-fireeyes
- Juicy Studio Luminosity Colour Contrast Ratio Analyzer, http://juicystudio.com/services/luminositycontrastratio.php
- Functional Accessibility Evaluator, http://fae.cita.illinois.edu
- Accessibility Evaluator for Firefox, https://addons.mozilla.org/en-US/firefox/addon/5809/

## Part 6.2: What is the ability of covered entities to make their Web sites accessible with in-house staff?

*Suggested Response to Question 6 Part 2:*

Many web developers within CIC institutions are already including accessible design practices in their web development processes and purchasing decisions. Designing accessible web resources requires forethought and some planning, but it does not require special degrees or a decade of experience in web development or understanding disabilities. Developers do, however, need to understand coding HTML pages according to web standards, which leads naturally to satisfying many Section 508 and WCAG 2.0 web accessibility requirements.  Adhering to web standards has the added benefit of saving developers time in creating new web resources and maintaining existing pages.

If outsourcing development, the requirement for accessibility needs to be made up front in the contract with coding details on how accessibility should be addressed. Even relatively small organizations likely can find in-house expertise sufficient to produce accessible pages. Online conferencing tools can enable organizations to provide accessibility training at a relatively low cost.

The biggest challenge within CIC institutions is the decentralized nature of web development across campus units. Typically, colleges, departments, support units, research efforts, and outreach projects all have their own web development staff and their own web technologies. Students are often used in web development projects, and are by nature transient. This makes it a constant challenge to raise awareness of the importance of accessible design and provide developers with training and feedback.

## Part 6.3: What technical assistance should the Department make available to public entities and public accommodations to assist them with complying with this rule?

The most important service that the DoJ can provide is to help bring web developers, accessibility experts, and people with disabilities together to share their experiences and to exchange ideas on accessible design. People with disabilities will benefit from more accessible web resources and developers will be certain that their efforts are actually meeting the functional needs of people with disabilities. Results of these exchanges can be used to develop and share best practices for accessible web design. The Disability Technical Assistance Project (DBTAC) and State Assistive Technology Projects are potential models that could provide regional centers of support and coordination for ADA implementation of web accessibility. Hosting regional centers at universities and colleges, along with requiring that results be integrated into college curricula would help build accessible web design knowledge and practices into the next generation of IT professionals.

The diversity of web development and deployment technologies, along with developers of widely varying skills, and understanding of the needs of people with disabilities will require a decentralized approach to providing resources. One problem web developers often face is trying to translate general web accessibility to the specific technologies they use and the features of the web sites and applications they are creating.  Because of this, implementation guides need to be tailored to meet developer needs.

The DOJ could also support the development of free and open source tools to support accessible web evaluation, authoring, and development environments, systems, and frameworks. This will help organizations easily begin the process of learning about their web sites' accessibility issues. The more that development and evaluation tools can help web developers learn about and apply web accessibility best practices, the more accessible their web sites will be. One example project is the Accessibility Task Force of the OpenAjax Alliance (http://www.openajax.org/member/wiki/Accessibility).

## Question 7. Are there distinct or specialized features used on Web sites that render compliance with accessibility requirements difficult or impossible?

*Suggested Response to Question 7:*
Every effort should be made to use technologies that render/create web sites that are accessible, including keeping current with web coding practices and adaptive technology. If this is not possible in certain cases, the ADA prescribes providing alternative options for access to the information, goods, and services. (See Accessibility of State and Local Government Web sites to People with Disabilities, available at http://www.ada.gov/websites2.htm.) These alternatives must provide an equal degree of access in terms of hours of operation, and range of available information, options, and services.

It must be verified that these alternative provide acceptable, equivalent functional performance and information access. Generating accurate synchronized captions, audio descriptions, etc. for video content or transcripts for podcasts requires considerable resources.  For sites presenting large volumes of content through video or audio, transcripts/audio descriptions, this can be prohibitive if required for every instance.  The same applies for production of alternative media such as tactile representations of complex charts and diagrams, Braille encoding of music scores, math, or chemical equations where

simple alternate text does not suffice. In these cases, provision to meet such requirements on an as-requested basis should be made.

## Question 8. Given that most Web sites today provide significant amounts of services and information in a dynamic, evolving setting that would be difficult, if not impossible, to replicate through alternative, accessible means, to what extent can accessible alternatives still be provided? Might viable accessible alternatives still exist for simple, non-dynamic Web sites?

*Suggested Response to Question 8:*

Rather than putting resources into providing alternatives, web developers should work toward building dynamic, "rich" sites and web applications that are accessible. The supposition that it is difficult or impossible to provide dynamic services or content accessibly is incorrect. Accessibility must be considered in the very beginning design stage. When accessibility issues are considered in the personas used in design, creative designers can easily provide accessible web sites and applications.

Software that attempts to automatically generate a one-size-fits-all "text only" version of a site or other similar alternative cannot provide a user experience equal to that of a well-designed site used with adaptive technology (such as a screen-reader) selected and configured to meet the specific needs of its user. For example, if a site contains a quiz, the accessible alternative most likely will not provide interactivity, thus the student does not get feedback or knowledge and skills reinforcement. Furthermore, manually generated accessible alternatives frequently are forgotten or ignored and fall out of date. In cases where an alternative site is the only option, it must be maintained at all times. A model for this is Amazon's mobile site, which is preferred by many screen reader users due to its clear organization and elimination of extraneous information. Developments in the area of information delivery to mobile devices may provide paradigms to assist with accessible web development in general.

# D. Effective Date

Following the publication of a final rule, the Department must set an effective date for the application of any new title II or title III regulations requiring the Web sites of entities covered by the ADA to be accessible. When the ADA was enacted, the effective dates for various provisions were delayed in order to provide time for covered entities to become familiar with their new obligations. Under the 1991 regulations, new construction under title II and alterations under either title II or title III had to comply with the design standards of the Department's new regulations by January 26, 1992, six months after the regulations were published. See 28 CFR 35.151(a)-(b); 28 CFR 36.402(a). For new construction under title III, the ADA requirements applied to facilities of public accommodations designed and constructed for first occupancy after January 26, 1993—-eighteen months after the ADA Standards were published by the Department. See 28 CFR 36.401(a).Show citation box

The Department is considering an effective date of six months after the publication of the final rule for newly created Web sites or pages, i.e., those that have been placed online for the first time six months after the publication of the final rule. Under such a proposal, newly created or completely redesigned Web sites will have to come into total compliance with any Web access requirements adopted by the Department. New pages on existing Web sites would need to comply with the Web access requirements to the maximum extent feasible. The Department is considering this provision for new pages on existing Web sites because the Department recognizes that certain features on existing Web sites—such as navigation components or use of integrated Web technology with limited capacity for accessibility— cannot be completely altered or replaced without a complete redesign of the entire site. For this reason, the Department is considering requiring new pages on existing Web sites to comply with the accessibility requirements to the maximum extent feasible. The Department recognizes, however, that in some cases this may result in incomplete accessibility of new pages. For existing Web sites or pages, the Department is considering having the Web site access requirement apply two years after the date of publication of the final rule. The Department is considering this period of time for existing Web sites because it recognizes that many Web sites have hundreds (and some thousands) of pages that will need to be made accessible.

**Question 9. The Department seeks comment on the proposed time frames for compliance. Are the proposed effective dates for the regulations reasonable or should the Department adopt shorter or longer periods for compliance? Please provide as much detail as possible in support of your view.**

*Suggested Response to Question 9:*
For existing web sites or pages, there should be a definite timeline for compliance. There are a variety of opinions on the length of that timeline, but on average the group believes that the two year time frame is acceptable.  For newly created web sites or pages, the group feels the six month time frame is

acceptable, if not ideal.  Covered sites created after the effective date of regulation should be in compliance upon pubic deployment.

## Question 10. The Department seeks comment regarding whether such a requirement would cause some businesses to remove older material rather than change the content into an accessible format. Should the Department adopt a safe harbor for such content so long as it is not updated or modified?

*Suggested Response to Question 10:*
A "Safe Harbor" for existing web sites should only be granted under extraordinary conditions. These sites should be little used and only useful to a small group. These safe harbor sites should be expected to comply within a reasonable period of time, perhaps 3-4 years.

## Question 11. Should the Department take an incremental approach in adopting accessibility regulations applicable to Web sites and adopt a different effective date for covered entities based on certain criteria? For instance, should the Department's regulation initially apply to entities of a certain size (e.g., entities with 15 or more employees or earning a certain amount of revenue) or certain categories of entities (e.g., retail Web sites)? Please provide as much detail and information as possible in support of your view.

*Suggested Response to Question 11:*
We believe an incremental approach is warranted in some circumstances. In general, we recommend timelines for full implementation not extend beyond two years from the effective date of regulation.

We recommend the following:

- Upon the effective date of the regulation, all newly authored web pages/web applications, regardless of the entity, should be in compliance at the time the page/application is deployed.
- Entities which provide services that are essential for independence, such as banking institutions, public utilities, and health care service entities, should also be expected to comply immediately upon the effective date of regulation.
- Public services, including those that fall within categories 6, 7, 8,10, and 11 (see ADA categories, below), should comply fully within one year.
- For the remaining covered entities, the DoJ should base timelines for implementation on the uniqueness, size, and revenue of the entity (see also our response to Question 5, regarding scope). If an entity is the only available provider in a region (unique), it should be expected to comply within one year of the effective date of regulation. In the case of multiple providers within a region, larger entities (entities with more than 15 employees or annual revenue exceeding $500,000) should comply within one year and smaller entities within two years.

ADA public service categories:

- An inn, hotel, motel, or other place of lodging, except for an establishment located within a building that contains not more than five rooms for rent or hire and that is actually occupied by the proprietor of the establishment as the residence of the proprietor;
- A restaurant, bar, or other establishment serving food or drink;
- A motion picture house, theater, concert hall, stadium, or other place of exhibition or entertainment;
- An auditorium, convention center, lecture hall, or other place of public gathering;
- A bakery, grocery store, clothing store, hardware store, shopping center, or other sales or rental establishment;
- A laundromat, dry-cleaner, bank, barber shop, beauty shop, travel service, shoe repair service, funeral parlor, gas station, office of an accountant or lawyer, pharmacy, insurance office, professional office of a health care provider, hospital, or other service establishment;
- A terminal, depot, or other station used for specified public transportation;
- A museum, library, gallery, or other place of public display or collection;
- A park, zoo, amusement park, or other place of recreation;
- A nursery, elementary, secondary, undergraduate, or postgraduate private school, or other place of education;
- A day care center, senior citizen center, homeless shelter, food bank, adoption agency, or other social service center establishment; and
- A gymnasium, health spa, bowling alley, golf course, or other place of exercise or recreation.

# E. Cost and Benefits of Web Site Regulations

Executive Order 12866 requires Federal agencies to submit "significant regulatory action" to the Office of Management and Budget's (OMB) Office of Information and Regulatory Affairs (OIRA) for review and approval prior to publication in the Federal Register. See E.O. 12866, 58 FR 51735 (Sept. 30, 1993), as amended; OMB Budget Circular A 4, http://www.whitehouse.gov/OMB/circulars/a004/a-4.pdf (Sept. 17, 2003) (last visited June 29, 2010). A proposed regulatory action is deemed to be "economically significant" under section 3(f)(1) of Executive Order 12866 if it has an annual effect on the economy of $100 million or more. Id. Regulatory actions that are deemed to be economically significant must include a formal regulatory analysis--a report analyzing the economic costs and benefits of the regulatory action. A formal cost-benefit analysis must include both qualitative and quantitative measurements of the benefits and costs of the proposed rule as well as a discussion of each potentially effective and reasonably feasible alternative. Since this is an ANPRM, the Department is not required to conduct certain economic analyses or written assessments that otherwise may be required for other more formal types of agency regulatory actions (e.g., notices of proposed rulemaking or final rules). If any proposed rule the Department issues regarding Web access is likely to have an economically significant impact on the economy, the Department will prepare a formal regulatory analysis.Show citation box

**Question 12. What data source do you recommend to assist the Department in estimating the number of public accommodations (i.e., entities whose operations affect commerce and that fall within at least one of the 12 categories of public accommodations listed above) and State and local governments to be covered by any Web site accessibility regulations adopted by the Department under the ADA? Please include any data or information regarding entities the Department might consider limiting coverage of, as discussed in the "coverage limitations" section above.**

*Suggested Response to Question 12:*
Data for the number of entities contained in each of the twelve categories and State and local governments should be available through the Census Bureau or Bureau of Labor Statistics. There are likely to be other Federal sources of information as well, including the Department of Commerce and private or non-profit sources.  The latter may provide employee counts should there be an interest in implementing safe harbor or small-entity limitations. The number of individuals with disabilities accessing these sites will vary according to their customer base.

A fall 2007 survey by the Accessibility/Usability IT group of the CIC (Big Ten schools) indicated that students with disabilities seeking assistance were approximately 2.5% of total enrollment. To put this in context, a survey by the University of Illinois Urbana Champaign determined that the 3% of its students asking for assistance represented approximately 1/3 of all students with disabilities. The other 2/3 were either not aware that services were available or chose not to ask for help. Assuming that these percentages hold for CIC schools, approximately 7.5% of students have a disability, and would

potentially benefit from the extension of ADA requirements to public service entities. This equates to approximately 1.37 million students in the United States (U.S. Department of Education, 2007: 18,248,128 from "The Almanac of Higher Education," The Chronicle of Higher Education, August 28, 2009).

ADA public service categories:

- An inn, hotel, motel, or other place of lodging, except for an establishment located within a building that contains not more than five rooms for rent or hire and that is actually occupied by the proprietor of the establishment as the residence of the proprietor;
- A restaurant, bar, or other establishment serving food or drink;
- A motion picture house, theater, concert hall, stadium, or other place of exhibition or entertainment;
- An auditorium, convention center, lecture hall, or other place of public gathering;
- A bakery, grocery store, clothing store, hardware store, shopping center, or other sales or rental establishment
- A laundromat, dry-cleaner, bank, barber shop, beauty shop, travel service, shoe repair service, funeral parlor, gas station, office of an accountant or lawyer, pharmacy, insurance office, professional office of a health care provider, hospital, or other service establishment;
- A terminal, depot, or other station used for specified public transportation;
- A museum, library, gallery, or other place of public display or collection;
- A park, zoo, amusement park, or other place of recreation;
- A nursery, elementary, secondary, undergraduate, or postgraduate private school, or other place of education;
- A day care center, senior citizen center, homeless shelter, food bank, adoption agency, or other social service center establishment;
- A gymnasium, health spa, bowling alley, golf course, or other place of exercise or recreation

## Question 13. What are the annual costs generally associated with creating, maintaining, operating, and updating a Web site? What additional costs are associated with creating and maintaining an accessible Web site? Please include estimates of specific compliance and maintenance costs (software, hardware, contracting, employee time, etc.). What, if any, unquantifiable costs can be anticipated from amendments to the ADA regulations regarding Web site access?

*Suggested Response to Question 13:*

*Annual costs associated with creating, maintaining, operating and updating a Web site*

Providing numbers, percentages, and estimates is difficult due to the lack of formal research or data comparing the costs of creating accessible/compliant Web resources versus non-accessible non-compliant ones. A "best guess," based on anecdotal information and the experiences of Web

accessibility advocates, is that adding 10 to 15 percent in costs for staff is a reasonable estimate. A better answer is that "it depends." Costs of creating and maintaining an accessible Web resource vary, depending on the following:

- The size of the organization
- The skill and knowledge of web developers and designers
- The site's information architecture
- The site's size, complexity, and maintenance schedule

Once accessibility compliance is in place, ongoing staff training and professional development costs should be no greater than before the site redesign. It is critical that staff receive ongoing training to ensure that they keep pace with changing technologies, new standards, and the constantly evolving protocols for accessibility testing. However, this is no different than in other areas of information technology, such as security and data management.

Addressing accessibility early on in design and development is significantly less expensive than retrofitting a Web site. Many obstacles to accessibility can be removed at the simple markup level, including such basics as alt attributes, page titles, headings, and lists. (Of course, complexity increases when rich applications, Flash, and more complicated scripting are part of a Web resource.) Early attention to accessibility pays other important dividends: higher success rates when using automated testing systems, and greater ease and speed of redesigns.

### Costs of updating (retrofitting to make accessible) Web sites

If accessibility is addressed late in design, required changes can be very costly. Improving the accessibility of existing Web sites requires significant one-time costs beyond normal maintenance costs. And if continued professional development is not addressed, the institution's Web site will not remain accessible. Training is critical. In many cases, informal and inappropriate training of Web developers has led to significant accessibility issues. Following standards shortens site development time and makes pages easier to maintain. Debugging and troubleshooting is also easier.

### Unquantifiable benefits anticipated from amendments to the ADA regulations

Making the Web accessible to people with disabilities also provides significant benefits to those without disabilities. There are significant overlaps in designing for accessibility and, for example, in designing for mobile devices and search engine optimization. Furthermore, what works well for people with disabilities benefits the ever-growing aging population. Other and more difficult to measure advantages and benefits of an accessible and compliant Web site include the following:

- Maintaining a positive public image
- Increasing access
- Conforming to laws or regulations
- Preventing litigation

The effects of lawsuits and litigation should be included in the overall costs of Web resource development. Cost-benefit assessments for accessibility should also include the effects on an organization's public image and a market analysis of the risks and benefits of providing Web access to all or denying access to any.

The Internet is no longer optional. An accessible web is essential for participating in education, employment, commerce, civics, health and safety. Changes to ADA regarding Web accessibility will affect future generations of Web programmers and managers and increase access for people with disabilities, the elderly and others.

For more information on the social, technical, financial, legal, and policy factors that affect a decision to incorporate accessibility, see "Developing a Web Accessibility Business Case for Your Organization: Overview" (http://www.w3.org/WAI/bcase), developed by the W3C Web Accessibility Initiative. A University of Vienna study estimates the absolute and relative total accessibility costs (based on size of organization and a Web site's level of complexity) and the relative savings for accessible Web sites based on increased reach (audience). The study concludes "that costs are likely to be dominated by benefits . . . and improving the accessibility of a Web site is an easy-to-attain, cost-effective business opportunity." (Source: A Cost-Benefit Approach for Accessible Web Presence, Valeska Heerdt and Christine Strauss. University of Vienna, Department of Business Studies, Volume 3118/2004, 626, DOI: 10.1007/978-3-540-27817-7_49 www.springerlink.com/index/d5jy0ewplea12d4x.pd.)

Incurred costs of litigation are quantifiable, as finance and budget-related offices in any institution keep close track of legal fees, staff and administration costs; cost of training and upgrading professional competencies; and the costs of new services and processes to make faculty and student-generated content accessible. And of course, there are the potential punitive costs.

In addition to the fix-it costs for web sites, there are costs of enterprise systems replacement. Organizations purchase a great deal of enterprise-level software, from learning management systems (LMS) to business process tools. New purchasing processes must be in place; the cost of data migration strategies and implementation could be significant. These are entirely quantifiable as well.

## Question 14. What are the benefits that can be anticipated from action by the Department to amend the ADA regulations to address Web site accessibility? Please include anticipated benefits for individuals with disabilities, businesses, and other affected parties, including benefits that cannot be fully monetized or otherwise quantified.

*Suggested Response to Question 13:*
The plain intent of the ADA, that public accommodations must be open to persons with disabilities, is in itself a reflection of the country's best vision of itself as is embodied in the Declaration of Independence: "We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of

Happiness." (Source: National Archives and Records Administration. Declaration of Independence – Transcript. http://www.archives.gov/exhibits/charters/declaration_transcript.html)

Where some may argue that "equality of access" may not be an inalienable right, it is easy to argue that without equality of access, these inalienable rights are diminished. Today, lack of access to the web is nearly as excluding as lack of access to physical facilities. By amending ADA regulations to explicitly include web accessibility, persons with disabilities gain the full measure of the enormous benefit to knowledge, society and commerce embodied in the Web.

Clearly, extending ADA to include public vendors and services will have a very dramatic and positive impact on the ability of students, faculty and staff to be able to use the web as part of their educational and employment activities in higher education. These individuals' use of the web cannot easily be confined to sites built within higher education. Commercial vendors and public information services used with in higher education for research, course delivery, and business transactions are outside of the control of higher education web accessibility policies.  It is critical that people with disabilities be able to access and fully participate in these services and resources.

Extending ADA to the web also will increase the feedback to these vendors as a wider range of users ask for accessibility. The more web sites are required to be accessible, the more the skills and expectations and the skills of people with disabilities will be raised.

Both commercial enterprises and educational institutions will gain from the collective intelligence and perspective of this currently-underserved population. Businesses with accessible web sites will gain from a larger marketplace that includes individuals with disabilities, users of mobile devices, and those finding the sites via search engines. In short, all users will benefit.

## Question 15. What, if any, are the likely or potential unintended consequences (positive or negative) of Web site accessibility requirements? For example, would the costs of a requirement to provide captioning to videos cause covered entities to provide fewer videos on their Web sites?

*Suggested Response to Question 15:*
Overall, the benefits of creating accessible web sites are far reaching.  Accessible sites are better optimized to be discovered and accurately indexed by search engines. In addition, the more accessible a site is, the more likely it will be of use to a larger number of devices running on a larger number of platforms.

The benefits for all users are great. As the nation's population ages, accessible sites will help ensure that more individuals can remain productive for a longer period of time. The availability of accessible sites can enhance the job market for individuals with disabilities, as well as those in rural areas where transportation is difficult if not impossible. Enabling a site's information to be spoken aloud, for example, can bring that information to a large cadre of individuals who have had little access for reasons that can include literacy issues, reading disabilities, and linguistic barriers.

The expense of captioning and/or providing audio descriptions for videos or transcriptions of audio is real.  It is one of the few areas of accessibility in which there is currently a well-defined additional cost. Short-term, this accessibility requirement may cause displacement of some online video or require setting up a demand based service to enable users to request captions for videos and web site having the capability to provide the captions in a timely way. However, a requirement to provide captioning on videos will accelerate innovation. As demand increases to provide compelling, yet accessible, online experiences, enterprising developers of video-authoring applications will invest in speech-to-text technologies to deliver first-draft captions into video editing workflow.

## Question 16. Are there any other effective and reasonably feasible alternatives to making the Web sites of public accommodations accessible that the Department should consider? If so, please provide as much detail about these alternatives, including information regarding their costs and effectiveness in your answer.

*Suggested Response to Question 16:*
The department should consider alternative forms of access, in particular telephone (voice and TTY) and cellphone text message.  During the transition of web-based services to full compliance, all services, discounts, and coupons should be provided through the alternative means at no additional charge to the customer. Availability of alternative services should be comparable to availability of online services (that is, 24 hours a day, 7 days a week). Customer service personnel should be easily reachable within a reasonable time, if the service cannot be automated. It may also prove the case that not all information is convertible to web-based formats in an effective manner. In such cases, alternative access should become a permanent service.

# F. Impact on Small Entities

Consistent with the Regulatory Flexibility Act of 1980 and Executive Order 13272, the Department must consider the impacts of any proposed rule on small entities, including small businesses, small nonprofit organizations, and small governmental jurisdictions. See 5 U.S.C. 603-04 (2006); E.O. 13272, 67 FR 53461 (Aug. 13, 2002). The Department will make an initial determination as to whether any rule it proposes is likely to have a significant economic impact on a substantial number of small entities, and if so, the Department will prepare an initial regulatory flexibility analysis analyzing the economic impacts on small entities and regulatory alternatives that reduce the regulatory burden on small entities while achieving the goals of the regulation. In response to this ANPRM, the Department encourages small entities to provide cost data on the potential economic impact of adopting a specific requirement for Web site accessibility and recommendations on less burdensome alternatives, with cost information.

**Question 17. The Department seeks input regarding the impact the measures being contemplated by the Department with regard to Web accessibility will have on small entities if adopted by the Department. The Department encourages you to include any cost data on the potential economic impact on small entities with your response. Please provide information on capital costs for equipment, such as hardware and software needed to meet the regulatory requirements; costs of modifying existing processes and procedures; any affects to sales and profits, including increases in business due to tapping markets not previously reached; changes in market competition as a result of the rule; and cost for hiring web professionals for to assistance in making existing Web sites accessible.**

*Suggested Response to Question 17:*
The economic impact for small entities will be minimal if new web sites are designed with accessibility in mind. Accessibility is more about adherence to web coding standards and best practices than about acquiring specialized hardware or software. Most small entities hire independent contractors to set up their web sites and web authoring tools. For web contractors knowledgeable about web accessibility, building an accessible web site should take no more time than building an inaccessible web site.

However, remediating an existing web site to make it accessible can be problematic and expensive. Depending on how the site is implemented, this remediation effort can amount to anywhere from an hours' work for a simple site to thousands of dollars for a complex site. Web contractors generally charge in the range of $30 per hour to over $100 per hour. Accessible web programming is a specialized skill set, and the increased demand for accessibility remediation work will likely drive the billing rate to the higher end of this range. Additionally, entities owning complex web sites may have to upgrade their e-commerce or content management software as accessibility-supporting features are implemented in new versions of the software.

Many small entities are using cloud-based web solutions, such as Google Apps. Those doing so will be dependent on vendors providing web templates and web authoring tools that produce accessible web sites. Hosting services must upgrade the accessibility of their platforms.

For small entities producing and maintaining their own web sites, staff will need to be trained to acquire necessary skills. Fortunately, there are many free online training resources, such as WebAIM.org, and for-fee training classes, both online and on-premise, offered by several companies. There are many free web accessibility testing tools available as well. In addition to these resources, it would be highly beneficial for the Department to offer additional funding and support for this educational effort. (See response to Question 18.)

Although there can be costs associated with web site remediation, these costs pale in comparison to making a restroom accessible, adding a wheelchair ramp to a building entrance, or installing a curb cut. Digital accessibility is much less costly to implement than physical plant accessibility, and just as critical. We believe, with rare exceptions, these costs are not an onerous burden for small entities.

Any investment in web site accessibility will allow small entities to recoup substantial financial rewards. According to WebAIM.org, "Conservative statistics indicate that at least 8.5% of the population has a disability that would affect Internet use" and these statistics do not include the aging population that benefits from web sites being more accessible. (Source: WebAIM: Blog – The ADA and the Web: Concerns and Misconceptions, Jared Smith. http://webaim.org/blog/the-ada-and-the-web-concerns-and-misconceptions/)  Web sites that are made available to this population are tapping into a huge market. Additionally, making a web site accessible increases the overall usability of the web site for everyone and improves the performance of the web site for mobile devices. A web site that is easier to use will be more profitable.

**Question 18. Are there alternatives that the Department can adopt, which were not previously discussed in response to Questions 11 or 16, that will alleviate the burden on small entities? Should there be different compliance requirements or timetables for small entities that take into account the resources available to small entities or should the Department adopt an exemption for certain or all small entities from coverage of the rule, in whole or in part. Please provide as much detail as possible in your response.**

*Suggested Response to Question 18:*
Unless compliance is technically not possible, we believe that all covered entities (see responses dealing with scope, safe harbor, and exemption, above), regardless of size, should be required to comply, following the timetable given in the response to Question 11, above. Given how often the web sites of even very small businesses tend to be updated and revised, we feel that two years should be adequate in most if not all cases. However, if temporary exemptions or extended timetables are deemed necessary, these might be determined according to the impact the web site/service has on persons with disabilities. For example businesses that provide key services and conveniences for faculty, staff, or students at a university, such as a bookstore, a graphic design or printing company, or a housing or food

catering business that is a university preferred vendor, could be held to a more strict timetable for compliance than, say, a small, independent restaurant or clothing store that is merely frequented occasionally by university personnel or students.

To further alleviate the burden on small entities, DoJ could consider helping sponsor and/or sanction development of accessibility evaluation and remediation software that could assist these entities and not-for-profit organizations with limited revenues. It could also consider sponsoring and/or developing online accessibility training materials and/or courses, perhaps including development of "certification" courses (see Question 19). Championing such resources and helping develop and promulgate training could enable small entities and not-for-profits to gain a quick, in-depth understanding of accessibility so that they could fix areas where they are out of compliance.

# G. Other Issues

## Question 19. The Department is interested in gathering other information or data relating to the Department's objective to provide requirements for Web accessibility under titles II and III of the ADA.

Are there additional issues or information not addressed by the Department's questions that are important for the Department to consider? Please provide as much detail as possible in your response.

*Suggested Response to Question 19:*
An important step would be to support the development of a certification process so that qualified individuals and organizations could make an assessment of the accessibility of a web based resource based on current standards of practice of web accessibility for meeting ADA or WCAG 2.0 requirements for the technologies that are used to create web based resources and the technologies used to render web resources to people with disabilities. This would essentially create the equivalent of certification of web accessibility, similar to a certification of a building or transportation service meeting current ADA building standards. This would help unify the meaning of what web accessibility means in practice and start to develop a society of professional practitioners who could advance the practice, education and research in the area of web accessibility. Certification and professional practice is an important resource if higher education is ever going to include IT accessibility in its curriculum for pre-service training of IT professionals and computer scientists. This is similar to how accessibility has been included into the education of architects, civil and construction engineering programs.