JOHNS HOPKINS
BLOOMBERG SCHOOL
of PUBLIC HEALTH

An Introduction to Authoring Accessible Documents

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Before We Get Started

Please **download**:

> Files for Download:
> https://tinyurl.com/CTLAccessibleMaterials
> *(requires login with JHED ID @jh.edu)*

_PracticeDoc.docx

_PracticePowerPoint.pptx

Also, bookmark the site!

OBJECTIVES

By the end of this workshop, you should be able to:

- ► Meet the minimum digital accessibility expectations of Johns Hopkins faculty.

- ► Know what tools are available in Microsoft products to help you get there.

- ► Understand why we can't rely on automated checkers alone.

- ► Know the value in employing these skills all the time, with every document, and not just "when you have time" or "when it really matters".

Our End Goal: Employ Best Practices for Accessible Materials

► Use accessible templates

► Use built-in tools, including Styles, to maintain structure & formatting

► Consider color contrast ratios & never rely on color alone

► Provide alternative text for images *(& any complex non-text object)*

► Use accessibility checkers

► Provide captions & alternative accessible formats for video & audio

► Become familiar with University resources
   ► *Digital Accessibility at JHU*
      https://accessibility.jhu.edu/

Why Worry?

JHU & the Bloomberg School's Commitment

[We are committed] *"to helping students succeed in our rigorous academic offerings. This includes making our learning environment one that is accessible, providing equitable opportunity and usability for all individuals, regardless of limitations. In our dedication to student success, we are taking action to follow University-wide guidelines that require all new course materials created after January 1, 2021, to be accessible[1]."*

Accessible instructional content will align with the WCAG 2.1 AA (Web Content Accessibility Guidelines) success criteria put forth by the World Wide Web Consortium (W3C).

A Moral and Ethical Responsibility

"Every member of the Johns Hopkins University community deserves equal access to the abundant educational and employment opportunities we offer."[1]

► Accessibility is part of Inclusivity

► Accessible environments are enhanced environments

► We all have an ethical and moral responsibility

A Legal Responsibility

► ADA (1990)

► Rehabilitation Act of 1973

    ► Section 504 (1973)
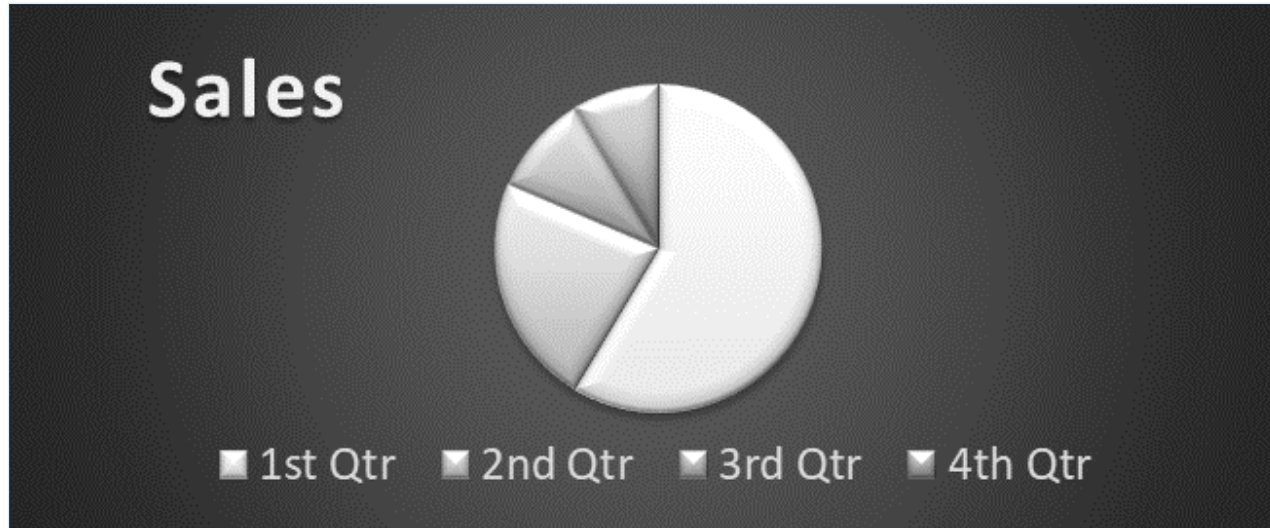
    ► Section 508 (1998)
        ● "508 Refresh" (2018)

We All Benefit from Accessibile Documents

► Routinely employing practices that consider universal accessibility puts your best foot forward

  ► Professional
  ► Conscientious
  ► Considers sustainability
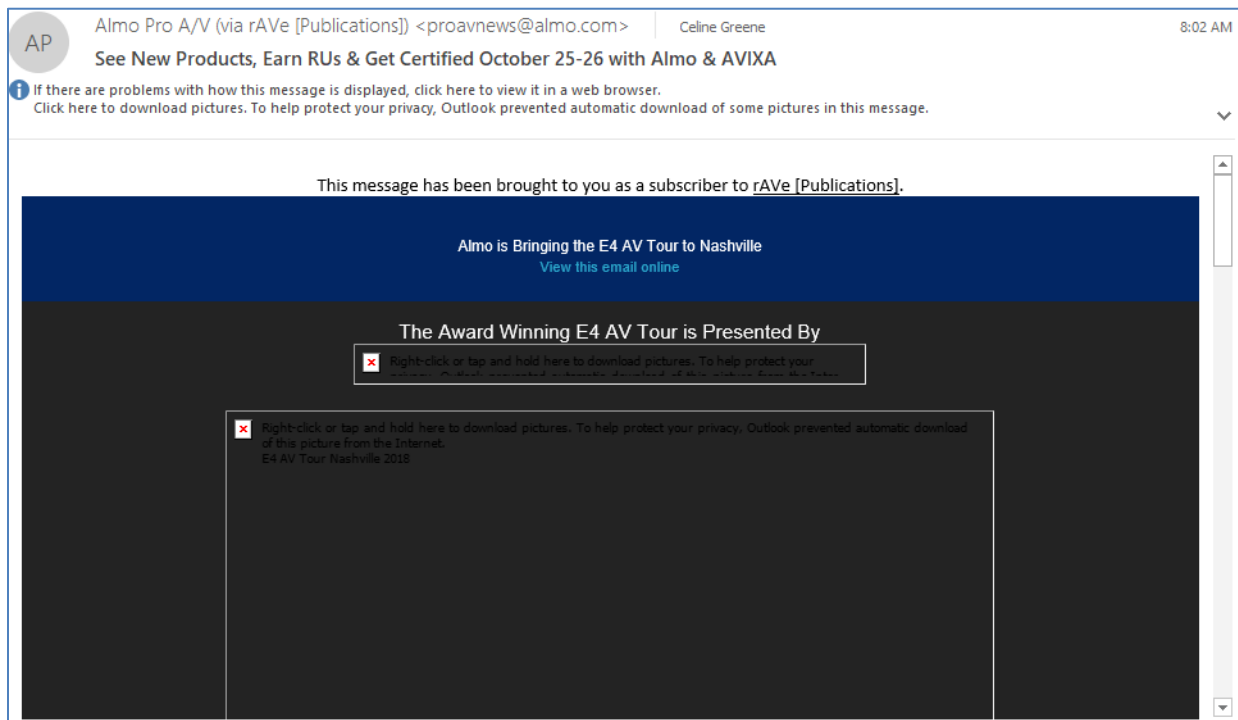   ● Hides "the complexity of technology"
  ► Reaches a **larger audience**
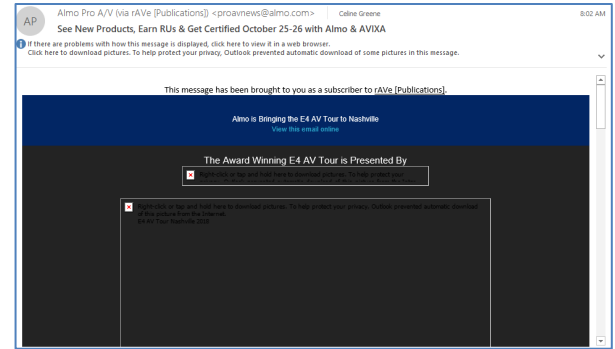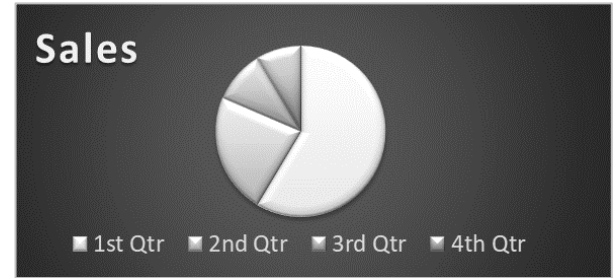
Enrollment Category	Maryland	Nation
% Undergraduate	80.9	85.2
% African American	26.6	12.6
% Hispanic	8	15.7
% Asian	6.8	5.9
% White		51.7
% All Minorities	41.7	38.3
% Foreign	5.4	4.9

We All Benefit – 1

"Statistics: IrisTech." *Iris - Software for Eye Protection, Health and Productivity*, 23 Oct. 2019, https://iristech.co/statistics/.

We All Benefit – 2

We All Benefit – 3

Comparative Higher Education Statistics: Maryland and the Nation

Enrollment Category	Maryland	Nation
% Undergraduate	80.9	85.2
% African American	26.6	12.6
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Poorly formatted table compares higher ed enrollment in Maryland vs. the Nation across demographic categories. See source for details.
Source: Maryland Higher Education Commission. *2018 Data Book.* "Comparative Higher Education Statistics: Maryland and the Nation".

Best Practices toward Authoring Accessible Documents

Best Practices

▶ Consider levels of effort (human and technical)

▶ Employ tools toward efficiency and precision

▶ Are sustainable to avoid retrofitting or rework

Selected Best Practices in Microsoft Office

Follow Along with the Practice Files (_PracticeDoc.docx and _PracticePowerPoint.pptx)
found inside: https://tinyurl.com/CTLAccessibleMaterials

Best Practices – All Documents: Document Structure

▶ Document structure: the way the parts of a document are programmatically organized in relation to each other

    ▶ Serves as a navigation aid
    ▶ Ensures "robustness" across formats and platforms

▶ Use TEMPLATES

▶ Use STYLES (Headings, Lists, Tables, Paragraphs, Column breaks, etc.)

    ▶ Control appearance/layout and reading order
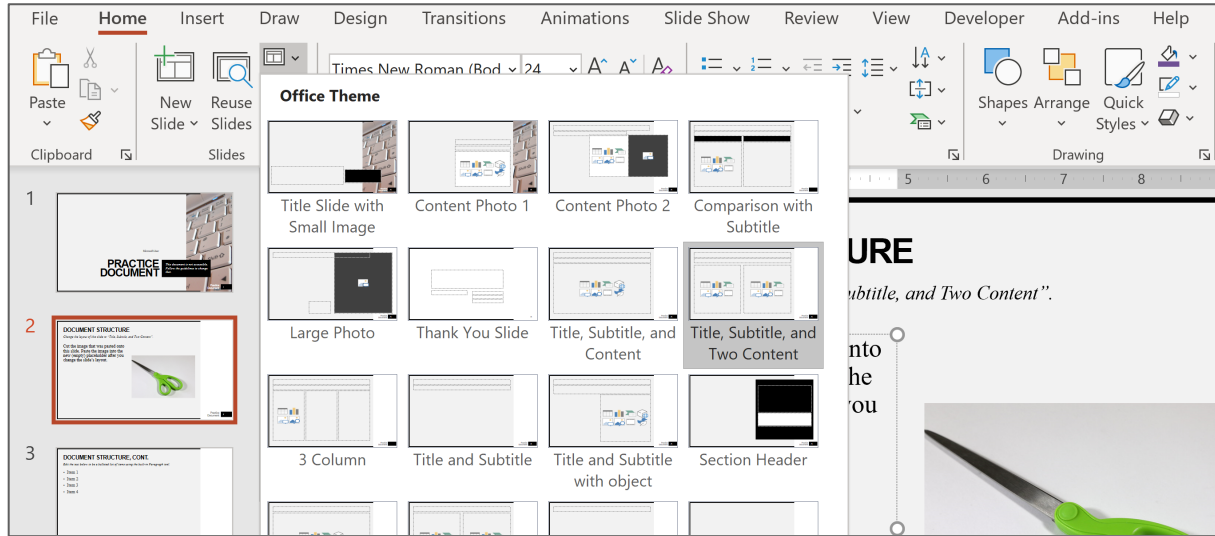
Structure in Microsoft Office: Word

▶ Use Styles and document parts (e.g. Headings, Tables, Bullets, Footer)

▶ Use Page Setup and Formatting for controlling layout
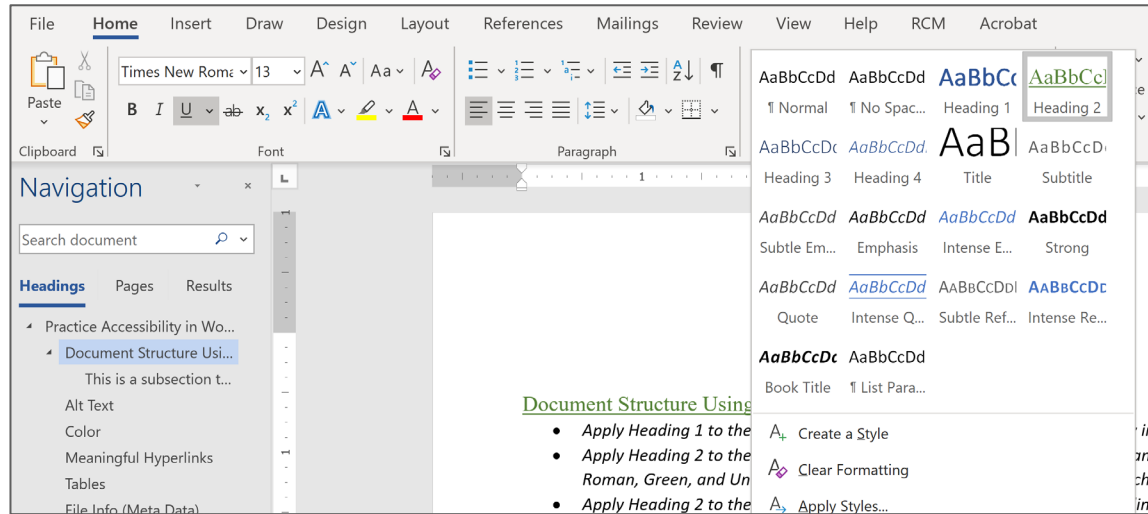
Structure in Microsoft Office: PowerPoint

▶ Use templates and only rely on a slide master layout's placeholders

▶ Each slide must have a unique title

Best Practices – All Documents: Alternative (Alt) Text

► Simple, succinct text to
  ► describe any *non-decorative* image
  ► summarize any complex element (table, chart, embedded multimedia, etc.)

► Alt text should convey the meaning of the object
  ► Images should avoid including text if possible; if not, mention it in alt text
  ► Do not state the obvious
  ► Use appropriate language (context)
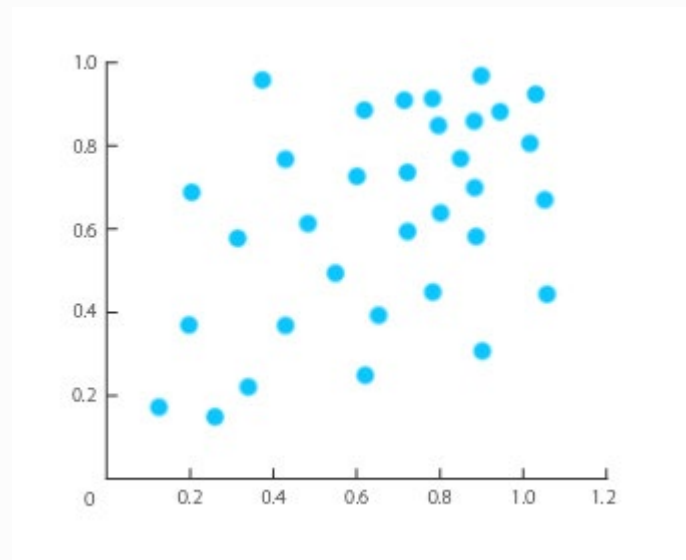
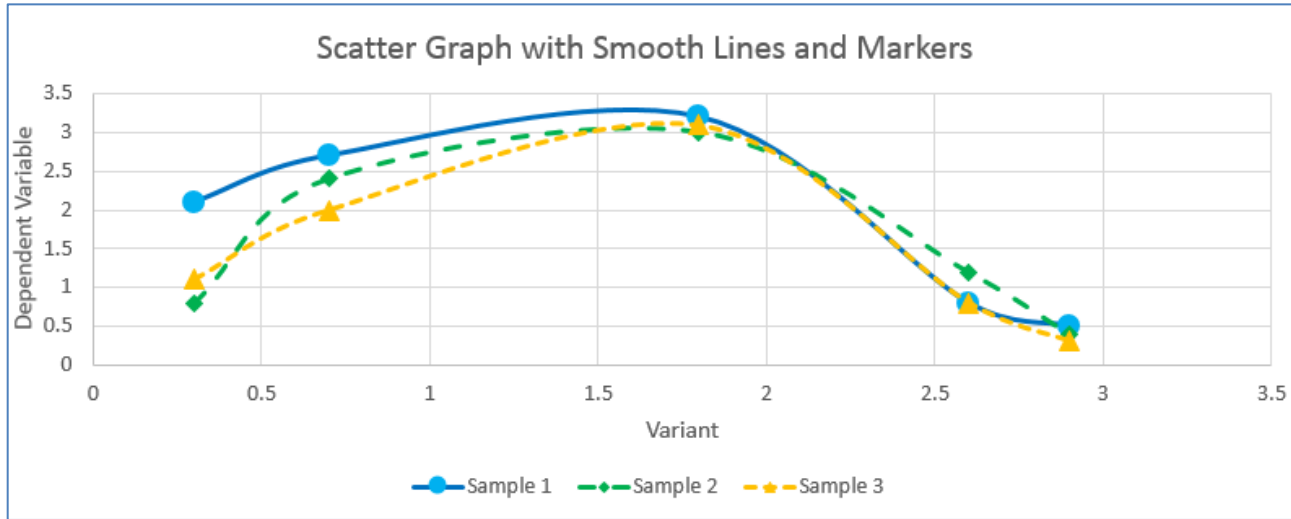# Alt Text in Microsoft Office

https://tinyurl.com/MSSupportAltText
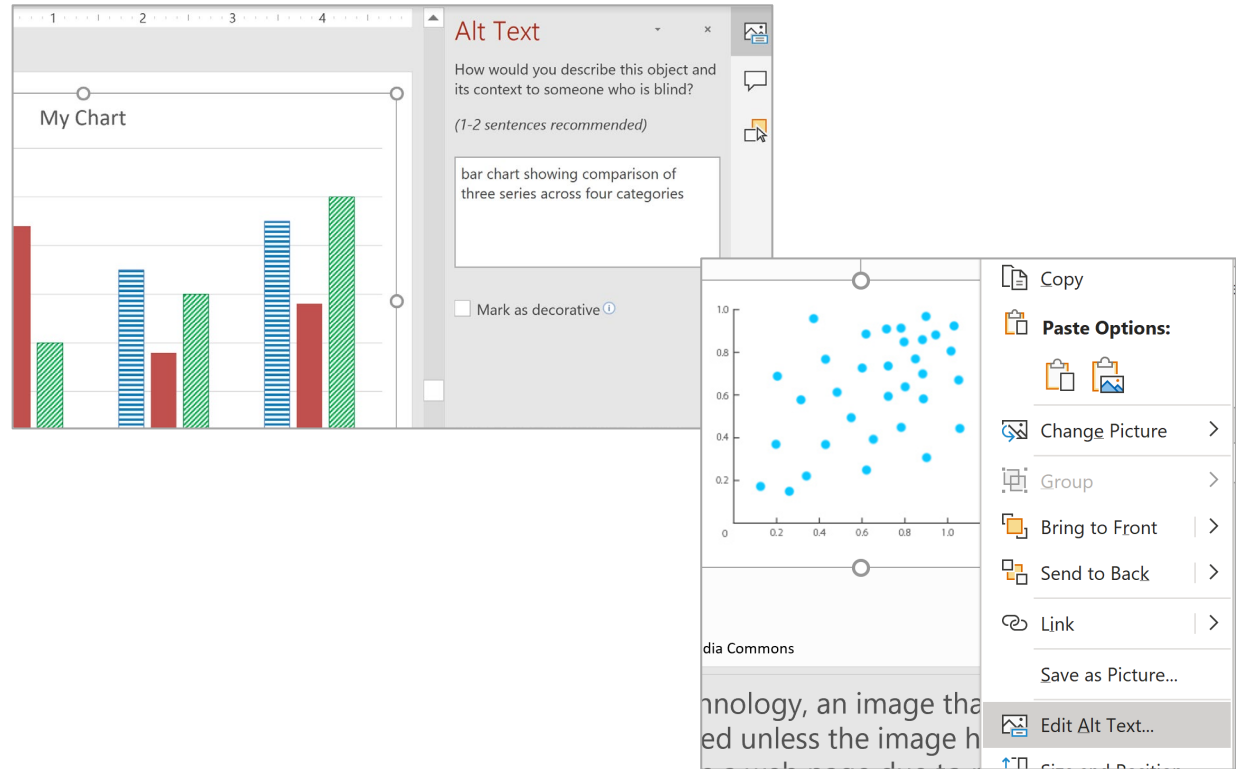
ACTIVITY: Add alt text on image and line graph in _PracticeDoc.docx and _PracticePowerPoint.pptx (slides 4 & 5)

Best Practices – All Documents: Color

► Do not use color alone to convey meaning
  ► Alternatives: shapes, line types, emphasis (underline, bold, italics), etc.

Scatter Graph with Smooth Lines and Markers

ACTIVITY: Edit line graph in _PracticeDoc.docx and _PracticePowerPoint.pptx (slide 5) to distinguish lines by something other than color
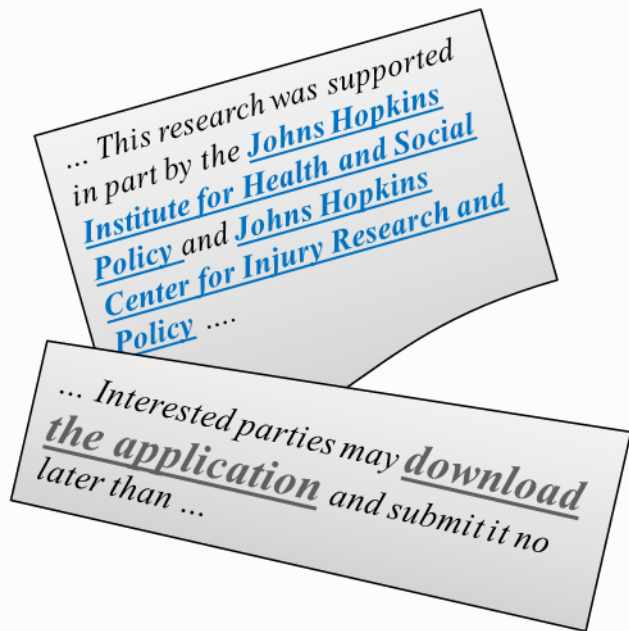
21

Best Practices – All Documents: Contrast Ratio

► The contrast (light to dark) of objects next to or overlaying each other must be sufficient (at least 4.5 to 1, in most cases)

  ► Text over background images
  ► Text inside a table with cell shading
  ► Color-coded maps
  ► https://contrastchecker.com/

Heading 1	Heading 2
Item 1	Item 2
Item 3	Item 4

Best Practices – All Documents: Hyperlinks

... This research was supported in part by the Johns Hopkins Institute for Health and Social Policy and Johns Hopkins Center for Injury Research and Policy ...

... Interested parties may **download** **the application** and submit it no later than ...

► Use "Meaningful" text
  ► Inform users where link navigates them
    ● Exception: when the URL *is* the meaningful text
      ▪ *Consider a URL shortener*
  ► Indicate purpose of linked resource
  ► Consider [PIC], [VIDEO], or [AUDIO] alongside the link if format isn't obvious

► Distinguish hyperlink from the surrounding text by something other than color

Best Practices – All Documents: Do not use Tables for Layout

▶ Tables present sorted, or organized, categories of data.

▶ Do _not_ use tables for controlling layout!

  ▶ Instead use paragraph formatting, columns, section breaks, line spacing, etc.
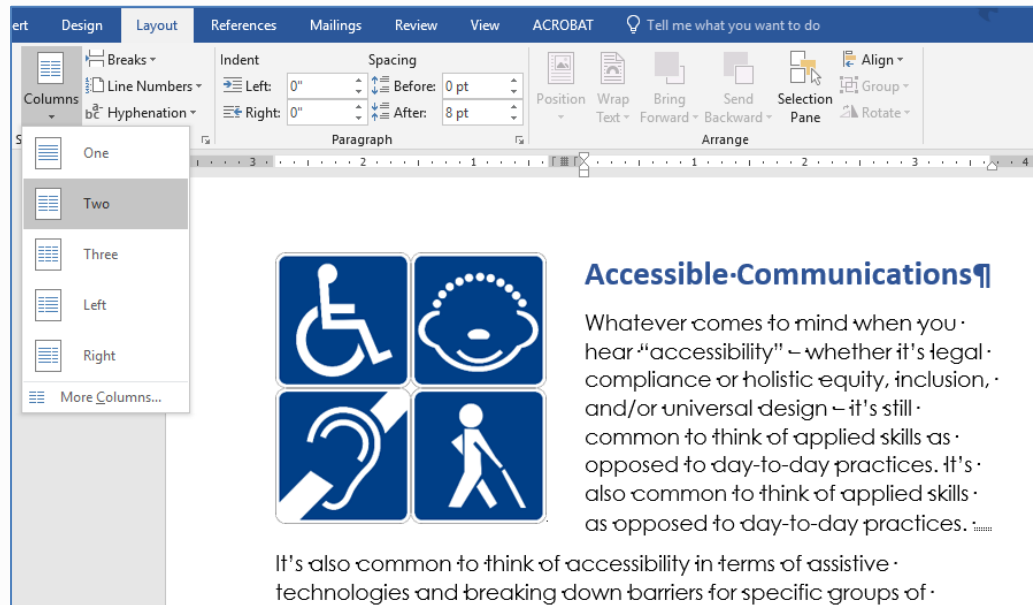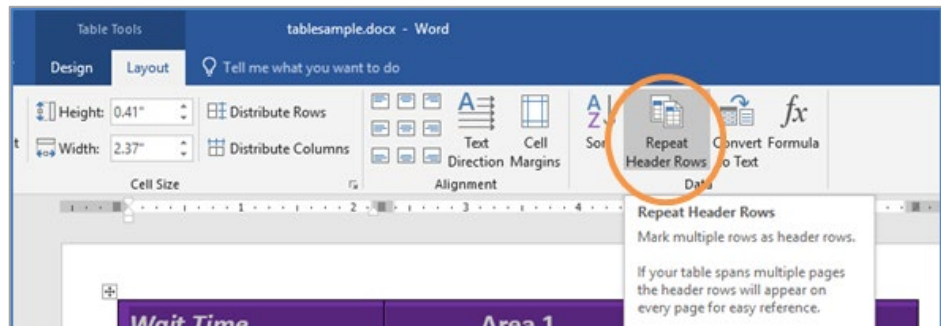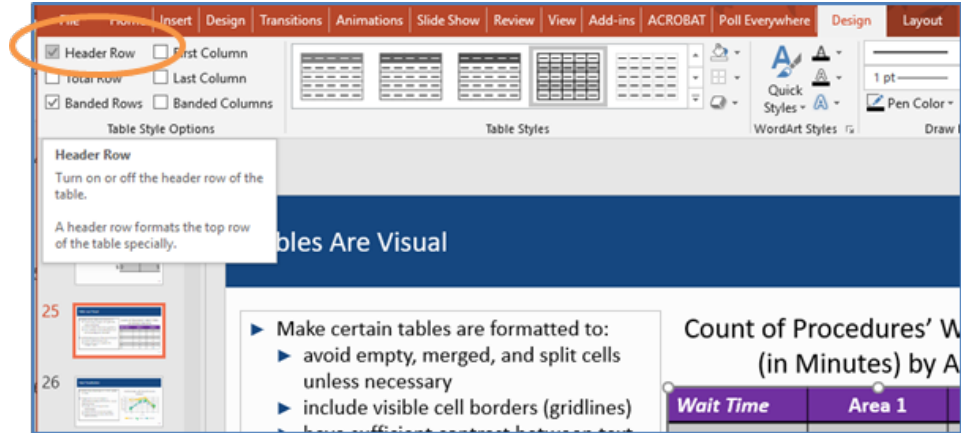
Best Practices – All Documents: Tables

► Always insert a table or use a table placeholder

► Make certain tables are formatted to:
  ► include Table Header Row
  ► avoid empty, merged, and split cells unless necessary
  ► include visible cell borders (gridlines)
  ► have sufficient contrast between text and any background fill colors
  ► include a caption for complex tables

| Enrollment Category	Maryland	Nation
% Undergraduate	80.9	85.2
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% White	45.2	51.7
% All Minorities	41.7	38.3
% Foreign	5.4	4.9

Tables in Microsoft Office

► Design → Header Row

► Word: Layout → Repeat Header Rows

# Best Practices – All Documents: Navigation, Properties/Attributes

▶ **Navigation** is always made better when there are
  - ▶ **Page numbers** in Word and Excel documents
  - ▶ **Slide numbers** and **Unique slide titles** in PowerPoint

▶ **Document Properties** assist users and technologies to:
  - ▶ Search
  - ▶ Navigate
  - ▶ Know something about a file (without opening it!)

▶ Aim to complete **title, key words** ("tags"), & **author**

▶ Save files with **no restrictions**
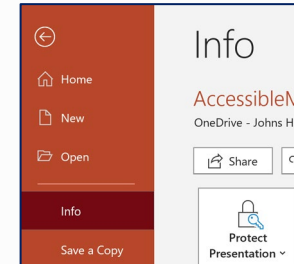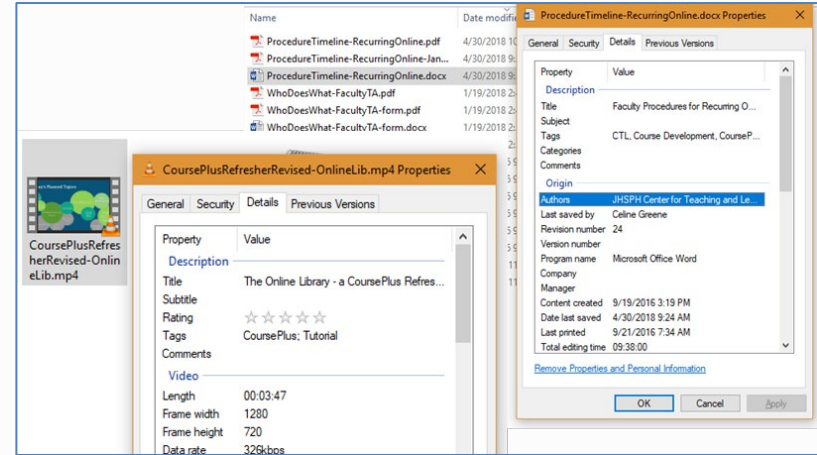
The Microsoft Office Accessibility Checker

Running the Accessibility Checker

https://tinyurl.com/MSSupportAccessibilityChecker
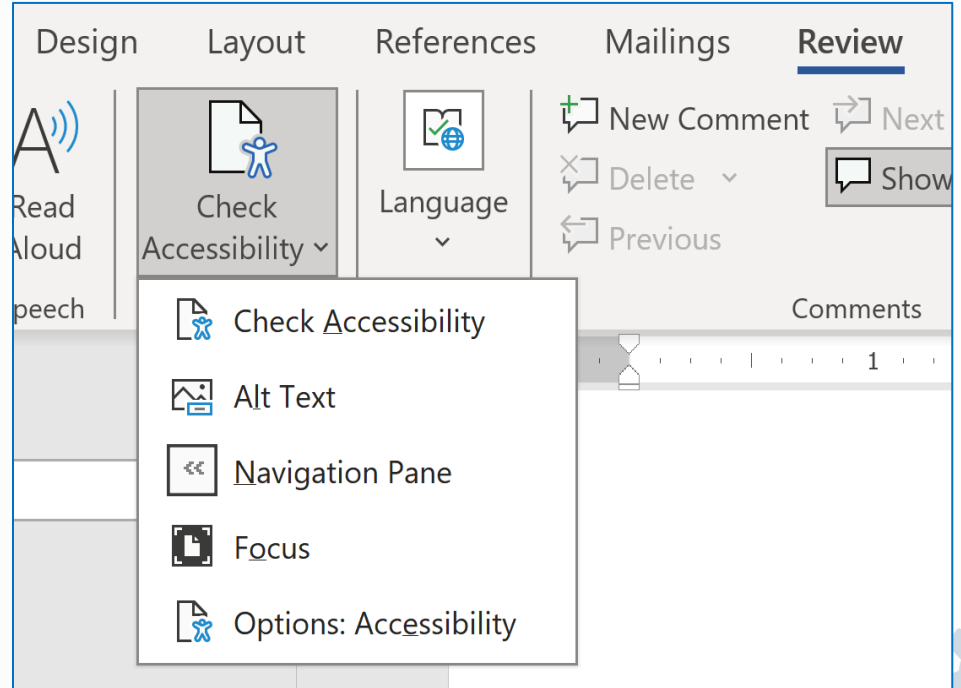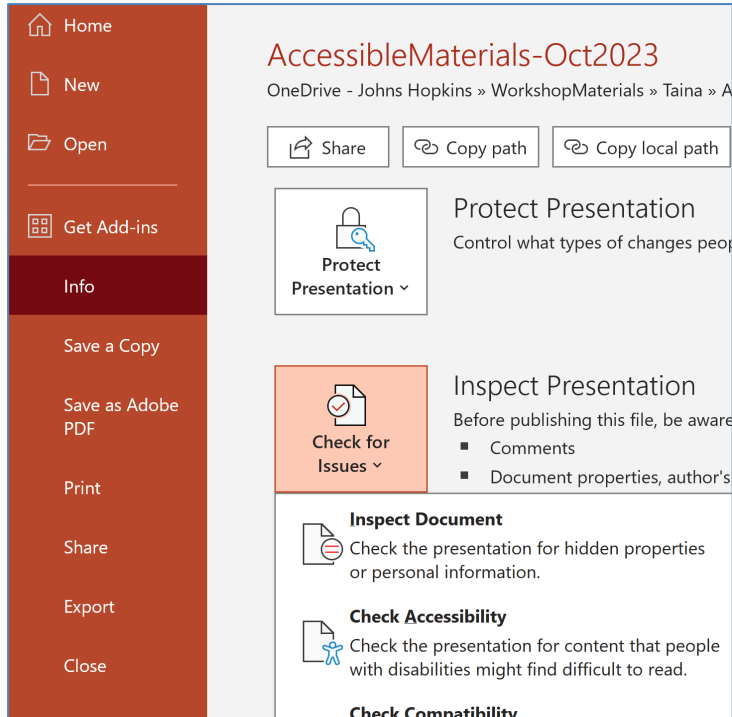
MS Accessibility Checker

▶ Classifies:
  ▶ Errors
  ▶ Warnings
  ▶ Tips

Errors:

▶ *Images – alt text*

▶ *Slides – unique titles*

▶ *Tables – headers*

▶ *Structure – Styles, Table of Contents*

Warnings:

▶ *Meaningful hyperlinks*

▶ *Tables – no split, merged, or empty cells*

▶ *Blank characters*

▶ *Color contrast*

Get Started Now!

▶ Practice what you've learned

▶ Avoid rework

▶ Remind yourself of legal, ethical and moral reasons

▶ Focus on the end goal: benefit everyone

... all the time

Accessibility is a Public Health Issue

THANK YOU

► Files for Download: https://tinyurl.com/CTLAccessibleMaterials (requires login with JHED ID @jh.edu)

► Please download:

► PracticeDoc-Solution.docx

► PracticePowerPoint-Solution.pptx