

PURDUE UNIVERSITY SCHOLARLY PUBLISHING FIGURE GUIDELINES

ARTWORK PHOTOGRAPHS

ORGANIZATION

When sending figure files along with your text, include your photos or graphics in a separate folder labeled as “figures.” This is to ensure that none of your figures are misplaced. Including source files or Photoshop files is often helpful, particularly if the figure needs correction later. Organization is key for sending in materials. Be sure to label each photo in a way that will make it unique and easily recognizable (e.g., Ch1Fig1; Ch1Fig2). *Acceptable* file formats include: JPG, TIF, PDF, PSD, and EPS. BMP and PNG are *unacceptable*.

EMBEDDING

Do not embed photos or graphics into your Word document. Instead, within the text of your Word document, include a call-out and caption for the figure (e.g., “[Place Ch1Fig1 here.] Figure 1. This is a caption for figure 1.”). Include the figure files separately in a folder of their own.

RECOGNIZING BAD MEDIA

The first thing to remember when working with photos is 300 dpi. This means 300 dots per inch and is our standard for printing photographs. Anything less may look blurry or grainy. Typical screen resolution is 72 dpi, so taking images from the Internet can result in poor print quality. A common error in correcting bad images is to merely change the image’s resolution from 72 to 300 dpi within Adobe Photoshop. This will make the file size larger, but it will still be the same blurry or grainy photo that it once was. The key is in capturing it correctly to begin with. The size of your figure should measure 300 dpi at 4” × 6” *minimum*.



72 dpi photo



300 dpi photo

CAPTURING IMAGES

In most software used for scanning photos, an option is available for changing the resolution or capture quality. This should be set to 300 dpi or ppi (pixels per inch). Also consider in capture options selecting “B+W Photo” or “High Quality Photo” for best results.

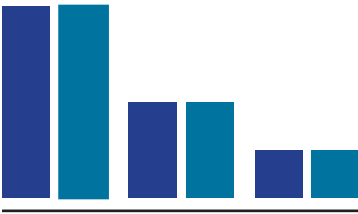
STEPS FOR CHECKING RESOLUTION

In Adobe Photoshop and virtually all other image manipulation software*, there are menus to check the size and resolution of your image. Below are steps to confirm that your image is at 300 dpi for Adobe Photoshop.

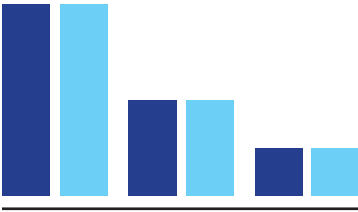
- 1) Open your photo and click “Image” from the menu at the top.
- 2) Select “Image Size...” from the dropdown menu.
- 3) It should say at least “300 pixels/inch” in the resolution box.

* In other image programs, like ArcSoft Photo Studio, you may have to look under “Edit” or a similar menu selection to find the controls for your image’s resolution.

Remember: If set below 300 dpi, do not change the value to 300 as this will not make the image better. You will need to rescan your photo.

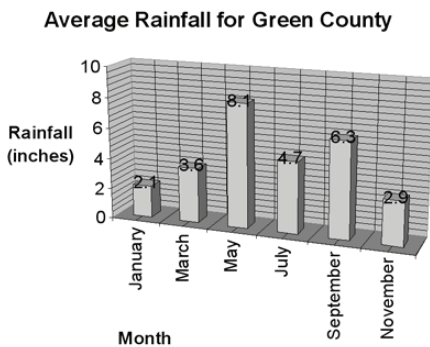


This figure in color will not translate well to black-and-white.



This figure will be clear in black-and-white.

ARTWORK GRAPHS



This overwhelming design takes away from the meaning of the data. Using excessive lines or 3-D effects can ruin your chart.

BLACK AND WHITE VS. COLOR FIGURES

Hard copy books, unless specifically negotiated, are grayscale printed; however, your e-book, which is created simultaneously, can be in color with no additional cost. This means color images will automatically be converted to grayscale for print and will need to be clear in either format.

It is often easy to forget that some colors, when converted to grays, will look the same. A standard red, blue, and green will be difficult to tell apart when put into grayscale. To check figures in gray, use Adobe Photoshop:

CONVERSION TO GRAYSCALE

To convert your file to grayscale in Adobe Photoshop:

- 1) Open your photo and click “Image” from the menu at the top.
- 2) Click “Mode.”
- 3) Select “Grayscale” from the dropdown menu.

GETTING YOUR GRAPHS READY

Graphs or figures created in Excel need to be included as Excel files and not embedded in the manuscript. It is strongly recommended that you avoid using programs like PowerPoint or Word for creating graphs. Name your file something easy to recognize and place. An example Excel file might be named “Ch1Fig3.xls.” Additionally, label clearly in your manuscript where the graph or figure is to be placed and include a descriptive caption (e.g., “[Place Ch1Fig3 here.] Figure 3. This is a caption for figure 3.”).

GRAPH DESIGN

Often authors can spend a needless amount of time on graph design. The best graph is one that conveys its information clearly and quickly, and without the use of superfluous decor. Thus, 3-D graphs and figures will only confuse the reader and take up additional space. When creating graphs, remember that simple is usually better. Another point to consider when designing your graph is its style. Bar and pie charts often look impressive in PowerPoint presentations, but simple line graphs are much easier to design and read. Be sure to consider your data set when choosing a chart style.

LINE FORMATTING

It is good to remember that the way it looks on screen when working with lines, as with so many other things, is not the way that it will look in print. Be sure not to use any fine lines. They must be at least .5 pt or higher. Anything at a lower point size may fail to appear altogether. To check or change what size your lines are, go to your Drawing toolbar within Excel. (If it is not already up, right-click any toolbar at the top, then select “Drawing.”) Click the line weight icon and set your line weight to .5pt or higher.

TEXT SIZE

Remember that you are working with limited space and will not need large type on your graphs. The standard size for a chart or figure title is 10 pt. Anything larger than this may overwhelm the rest of your page, not to mention your graph. The standard for axis labels is 9 pt., and 8 pt. is used for labeling individual data elements. Again, simplicity is preferred.

FONT CHOICE

Use either Arial or Helvetica for the text on your chart. These are clear and recognizable, and they are best suited for labeling and readability.

ACCESSIBILITY

Democrat	Republican
1. Barack Obama	1. John McCain
2. Hilary Clinton	2. Mike Huckabee
3. John Edwards	3. Mitt Romney

Simple table. Note: Additional cells are necessary when cross-alignment of information is integral to content absorption.

TABLES

Headers provide information necessary to navigating the table for users of assistive technology. Mark tables, table header cells, and table data cells semantically so that screen readers can announce the text as the user moves between cells.

Because screen readers present information linearly (that is, table cell by table cell), it is generally easier to parse tables when they are set up as simple tables. A simple table here means that there is a maximum of one header row and one header column, where a header column specifies the type of information in the column. In addition, there are no merged cells within a simple table. We understand that a simple table isn't always possible, however, and encourage use of the simplest table configuration possible.

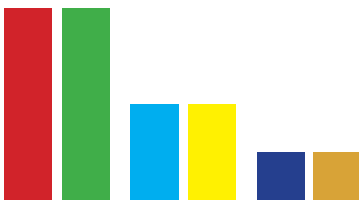
Data tables should *never* be converted into static images. *Do* provide a descriptive caption for tables.

DECORATIVE FIGURES

Figures that are nonessential (that is, that do not present important content and are used for layout or noninformative purposes) should not be used. Only figures that are central to the themes, arguments, findings, and/or narrative of the text should be included.

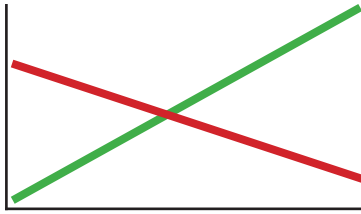
COLOR

Color *must not* be used as the sole means of conveying meaning or content. Test your figures to ensure none of the meaning is lost when you remove the colors by printing out the figure on a black-and-white printer or converting the figure to grayscale in Adobe Photoshop.

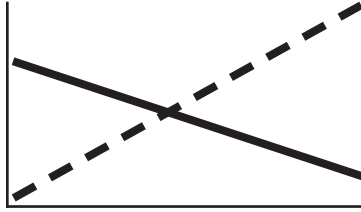


Red/green and blue/yellow are some of the worst color combinations for people who are colorblind.

Instead of using color-coding for charts and graphs, differences in line style or “texture/patterns” should be used so that the chart can be understood in black-and-white. Some patterns are better than others, and most often it is the large patterns that work.



Do not differentiate lines by color.



Do differentiate lines by texture/
pattern.

Additionally, images that convey text must present that text with sufficient contrast. Text contrast within images is particularly important if the image is of low quality or when the image is enlarged.

CAPTIONS

Captions *should not* be redundant (that is, be the same as adjacent or body text) or use phrases like “image of…” or “graphic of…”.

Captions *should* present the content and function of the image, and be succinct. Appropriate captions depend heavily on the figure’s context. A good rule of thumb to consider is to include what you might relay over the phone. Remember to include copyright attribution where appropriate.

OTHER HELPFUL GUIDELINES

For additional information and suggestions, visit:

Accessible Books Consortium

www.accessiblebooksconsortium.org

AFB AccessWorld Magazine

www.afb.org/aw/main.asp

Daisy Consortium

www.daisy.org

International Dyslexia Association

www.eida.org

National Federation of the Blind

www.nfb.org

Society for Disability Studies

www.disstudies.org