When using graphics and visuals, writers should ensure that the following areas are addressed:

- The visual is essential to the meaning of the text. Do not include a visual unless it is necessary.
- Although you may want to analyze or further discuss the visual in your text, you do not want to repeat the same information that a visual contains in the text of your essay.
- All graphics should be clear and easy to understand. All parts of the visual should be clearly labeled. If the visual is unclear, the reader may be confused.
- Readers expect to see consistency throughout essays and articles, and this applies especially to visuals. Figures and tables of similar importance should be proportional in size. Tables and figures should be numbered consecutively. All abbreviations or symbols should be used consistently throughout, and the same font should be used in all tables or figures.
- Readers should be able to interpret the figure or table without the text. All abbreviations and symbols should be carefully explained with notes, captions, and legends.

**Types of Visuals: Tables**

APA format distinguishes between two types of visuals: tables and figures. Tables provide a way for the writers to display information in an organized row and column format and are often used to compare data. Please see the next page for some examples:

Table 2. *Enrollment in local colleges, 2005*  

<table>
<thead>
<tr>
<th>College</th>
<th>New students</th>
<th>Graduating students</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Undergraduate</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cedar University</td>
<td>110</td>
<td>103</td>
<td>+7</td>
</tr>
<tr>
<td>Elm College</td>
<td>223</td>
<td>214</td>
<td>+9</td>
</tr>
<tr>
<td>Maple Academy</td>
<td>197</td>
<td>120</td>
<td>+77</td>
</tr>
<tr>
<td>Pine College</td>
<td>134</td>
<td>121</td>
<td>+13</td>
</tr>
<tr>
<td>Oak Institute</td>
<td>202</td>
<td>210</td>
<td>-8</td>
</tr>
<tr>
<td><strong>Graduate</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cedar University</td>
<td>24</td>
<td>20</td>
<td>+4</td>
</tr>
<tr>
<td>Elm College</td>
<td>43</td>
<td>53</td>
<td>-10</td>
</tr>
<tr>
<td>Maple Academy</td>
<td>3</td>
<td>11</td>
<td>-8</td>
</tr>
<tr>
<td>Pine College</td>
<td>9</td>
<td>4</td>
<td>+5</td>
</tr>
<tr>
<td>Oak Institute</td>
<td>53</td>
<td>52</td>
<td>+1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>998</strong></td>
<td><strong>908</strong></td>
<td><strong>90</strong></td>
</tr>
</tbody>
</table>

The following guidelines apply to the use of tables when formatting in APA style:

- If the table has less than two rows or columns, the information should be presented in the text.
- Refer to each table in the text of the essay and describe its contents: “Table 1 shows these results,” or “As illustrated in Table 2…”
- Number tables consecutively in the order they appear in the text.
- Create a title that offers a brief explanation of the table.
- Capitalize only the first word and words normally capitalized in the title of the table.
- Provide a heading for each row and column, even for the stub column (the first column).
- Separate rows with horizontal lines, but do not use vertical lines to separate columns.
- Place table notes directly below the table.
- Order notes by type: General information about the table, specific information about individual columns or rows, and probability explanations.
- Double space tables and use a 12 point font.

© 2010 Jupiterimages Corporation

**Hard at work.** *With a little practice, creating tables in programs like Microsoft® Word and Excel can be a cinch and add much-needed context to your writing and research!*
Table Checklist

☐ Is the table necessary?
☐ Does it belong in the print version of the article, or can it go in an online supplemental file?
☐ Are all comparable tables in the manuscript consistent in presentation?
☐ Is the title brief but explanatory?
☐ Does every column have a column head?
☐ Are all abbreviations explained, as well as special use of italics, parentheses, dashes, boldface, and special symbols?
☐ Are the notes in the following order: general note, specific note, probability note?
☐ Are all vertical rules eliminated?
☐ Are confidence intervals reported for all major point estimates? Is the confidence level—for example, 95%—stated, and is the same level of confidence used for all tables and throughout the paper?
☐ If statistical significance testing is used, are all probability level values correctly identified? Are asterisks attached to the appropriate table entries only when needed (as opposed to stating exact probabilities)? When used, is a probability level assigned the same number of asterisks in all tables in the same paper?
☐ If all or part of a copyrighted table is reproduced or adapted, do the table notes give full credit to the copyright owner? Have you received written permission for reuse (in print and electronic form) from the copyright holder and sent a copy of that written permission to the journal editor with the final version of your paper?
☐ Is the table referred to in the text?

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Statistical Testing Overview

Confidence intervals and levels, statistical significance, and probability levels are all terms used in statistical testing.

Statistical significance testing refers to testing completed to rule out that something occurs only due to chance. When a researcher conducts statistical testing, he or she uses a probability level between 0 to 1 to describe the chance of an event occurring, with 0 meaning the event will never occur and 1 meaning the event will always occur.

Writers should use asterisks to indicate statistical significance explained in the probability level note at the bottom of the table. A writer should assign a probability level the same number of asterisks from table to table within your paper, such as *p < .05 and **p < .01; attach the fewest asterisks to the largest probability and the most asterisks to the smallest probability level (Albert, 1996; Writing, n.d.).

The confidence interval is usually reported as a plus/minus figure.

For example, the results of an opinion poll may be that 56% of the respondents prefer candidate A. If the confidence interval is +/-3, then you can be certain that 53%-59% of the population agree with those sampled.

The confidence level refers to how certain you can be that the general population will agree with those sampled. For example, if the confidence level is 95%, then you can be 95% certain that 53% to 59% of the population agrees with those sampled. Researchers typically use a 95% confidence level (Siegle, n.d.).

A Word about File Resolution

The file resolution for your images largely depends on the desired outcome. Images for the web, for instance, should be relatively small so they load faster. A 12 KB (kilobyte) graphic would be preferred over a 225 KB graphic.

For materials that will be printed, images should have a resolution of at least 240-300 dpi (dots per inch), otherwise they could print very poorly. This is especially true of photographs saved as JPGs.
Microsoft® Word and PowerPoint allow writers to create tables and charts and insert them directly into their documents and presentations. The types of charts and graphs available include column, bar, pie, scatter, line, area, scatter (x,y), bubble, radar, stock, surface, and doughnut. Charts and graphs created in Microsoft® Word and PowerPoint are based on data the writer enters in Microsoft® Excel. Other forms of graphic representation include drawings and photographs.

With so many different types of visuals to choose from, writers should always carefully consider which type of visual will best present the information. For example, a column graph displays categories of variables, a bar chart demonstrates comparisons between single items; a pie chart shows percentages, a scatter plot illustrates correlations, and a line graph demonstrates relationships. Please see below for examples of each:

**Figure 1.** Column/bar graph. Note: From Microsoft® 2010. Copyright 2010 by Microsoft®.
**Figure 2.** Bar graph. Note. From Microsoft® 2010. Copyright 2010 by Microsoft®.

**Figure 3.** Pie chart. Note. From Microsoft® 2010. Copyright 2010 by Microsoft®.

**Figure 4.** Scatter plot. Note. From Microsoft® 2010. Copyright 2010 by Microsoft®.
Figure 5. Line graph. Note. From Microsoft® 2010. Copyright 2010 by Microsoft®.

Figure 6. Map. Note. From the U.S. Department of Transportation. 2005. Copyright 2010 by the Federal Highway Administration.

Citing Visuals

All graphics must be integrated into your essay by referring to them in the text of your essay. You should also explain how the figure or table is relevant to your thesis statement if necessary. Figures and tables should be included as close as possible to where they are mentioned in your text. (Note: If the work is meant for publication, figures and tables are each listed on a separate page).

Like other types of research, graphics that you borrow or copy directly from other sources have to be cited. Visuals are cited with source credits and corresponding references. Please see the next page for examples:
Photograph, Example 1: *Damson Plum near the Back Fence*

![Damson Plum near the Back Fence](image)

**Figure 7.** Damson plum near the back fence [Photograph] From B. Barber, 2008. Copyright 2008 by B. Barber.

**Sample reference citation for the photograph:**


Photograph, Example 2: Water Lily

Figure 8. Water lily [Photograph]. From S. Carlson 2009. Copyright 2009 by S. Carlson.

Sample reference citation for a photograph:
Work of Art, Example 1: Modigliani’s *Study for the Cellist*

*Figure 10.* Study for the cellist. From A. Modigliani, 1909, Retrieved from [http://www.abcgallery.com/M/modigliani/modigliani12.html](http://www.abcgallery.com/M/modigliani/modigliani12.html). Copyright 1909 by A. Modigliani.

**Sample reference citation:**

**Citing a Visual Created from Compiled Data**

If the data is from another source, but the writer compiled the data into a visual, then an in-text citation that corresponds to a full reference is listed.

**Figure 11.** Pie Chart. Note. From CNN® 2010 Opinion Research Corporation 11. Copyright 2010 by CNN®.

**Sample in-text citation:** (CNN Opinion, 2010)

**Sample reference citation:**


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**Table, Chart, or Figure Borrowed from another Source**

The following template is used if the writer reproduces a chart, figure, or table from another source:

Note. From “Title of article” by author, Date, Journal Title, Volume and issue number, Page number. Copyright date by Copyright Holder (First initial Last name; e.g. F. Zappa).

This information is included at the bottom of the table. The writer also needs to include a corresponding reference citation on the references page.
References


http://www.flickr.com/photos/wdwbarber/2928957419/


Siegle, D. (n.d.). Confidence levels and intervals. Retrieved from

http://www.gifted.uconn.edu/siegle/research/Samples/ConfidenceInterval.htm

U.S. Department of Transportation, Federal Highway Administration (Cartographer). (2005, April). St. Louis, MO-IL PM2.5 Nonattainment Area Map [Highway map]. Retrieved from


Writing an APA results section. (n.d). Retrieved from

http://courses.ed.asu.edu/green/home552/apastuff.pdf