

# FORMATTING GRAPHICS AND VISUALS

Statistics and results from data analysis are often best presented in the form of a table, and a theoretical model or pages of information are often best presented in a well-designed visual such as a chart or graph. The American Psychological Association (APA) distinguishes between two types of visuals: tables and figures. Both are used to provide a large amount of information concisely and to promote greater understanding of a text. This article explains how to format tables and figures according to APA Style 7<sup>th</sup> Edition.

## TABLES

Tables are organized in a row and column format and provide information that is not already given in the text. Tables should also be able to stand alone and be understandable without the accompanying text. Therefore, having a descriptive title for the table is important and so is using a "note" to explain any symbols, abbreviations, or asterisks used in the table.

When inserting a table in your work, include the following information (also exemplified by Table 1):

1. **Table number**, aligned left, bolded, and presented in sequence: **Table 1**, **Table 2**, etc.
2. Table title, aligned left, italicized, and offering a brief description the table: *Title of Table*
3. The table itself, without shading or vertical borders; use horizontal borders only for clarity such as a top and bottom border or to separate a row containing the sums of column data.
4. **Table note**, double-spaced below the table, after the label "note" in italics: *Note*.

Use a callout such as "See Table 1" in the paragraph before the table to point the reader to it.

**Table 1**

*Example of a Table: Purdue Global Career Outcomes Rate, 2018.*

Graduates	% Employed	% Continuing education	% Military service
All graduates	91	6	2
Master's degrees	97	1	1
Bachelor's degrees	92	5	2
Associates degrees	85	11	4

*Note.* "Career outcomes rate" is not the same as an employment rate-it includes graduates who are (1) employed (whether full or part time) (2) participating in a program of voluntary service, (3) serving in the U.S. Armed Forces, or (4) enrolled in a program of continuing education.

Adapted from "Career Outcomes Surpass National Average" by Purdue University Global, 2020.

(<https://www.purdueglobal.edu/about/purdue-global-one-pager-1.jpg>). Copyright by Purdue

University Global.

## Table Notes

Table notes are only used when needed, and there can be up to three notes per table, ordered by type:

1. **General Note:** General notes are given first. Table 1 in this article has a general note. General notes provide definitions, keys, and copyright statements for any information that came from a source.
2. **Specific Note:** Specific notes provide information about individual columns or rows. If, for example, a specific column or cell's data needed explanation, a superscript letter such as "a" would be placed by the data, e.g. X<sup>a</sup>, and the same superscript letter would be placed before the note about it.
3. **Probability Note:** Probability notes explain asterisks(\*) or other symbols that provide probability values used in statistical hypothesis testing used for ruling out something occurring due to chance alone. In statistical testing, researchers use 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.

In a table or figure, **probability levels** are assigned asterisks to indicate a range in probability such as  $*p < .05$  and  $**p < .01$ , and  $***p < .001$  (APA, 2020). The fewest number of asterisks indicates the largest probability and the greatest number of asterisks indicates the smallest probability level. Plus(+) and minus(-) signs are also used in probability notes to show **confidence intervals**. For example, the results of an opinion poll may show 56% of the respondents prefer candidate A. If the confidence interval is  $\pm 3$ , then 53%-59% of the population agrees with those sampled. Probability notes may also provide **confidence levels** to indicate how certain the researcher is that the general population will agree with the poll respondents. For example, if the confidence level is 95%, then there is a 95% certainty that 53% to 59% of the population agrees with those polled. Researchers typically use a 95% confidence level.

### Example of a general note, specific note, and probability note:

*Note.* The poll revealed that respondents prefer candidate A. YA = ages 18-30. A = ages 31-43.

Adapted from "Title of Article," by A. Author, Copyright Year, *Publication Title*, vol(issue) page-page.

(URL). Copyright year by Copyright holder or Copyright License or In the public domain.

Data are for all genders.

$*p < .05$ .  $**p < .01$ .

In the example above, the notes are double spaced, and each type of note begins on a new line with the first note providing general information about the table including a copyright note for the data used in the table. **A reference entry is also required** for that source on the reference list for the paper. The second note gives specific information about the data in the rows, and the third note provides the probability (p) values.

## Table Checklist

- Is the table necessary?
- Is the table mentioned in the text?
- Is the table inserted under the paragraph where it is first mentioned?
- Is the title brief but explanatory and one double-spaced line below the table number?
- Are all vertical borders in the table eliminated?
- Does every column have a heading including?
- Are the notes in the following order: general note, specific note, probability note?
- Are all abbreviations, symbols, and special uses of dashes, italics, or boldface explained?
- If the table is for statistical testing, are probability levels identified?
- If more than one table is used, are probability level asterisks consistent from table to table?
- With statistical testing data, are confidence intervals reported and consistent for all tables?
- If all or part of a copyrighted table is reproduced or adapted, does the general table note give full credit to the copyright owner and have a corresponding reference entry?

## FIGURES

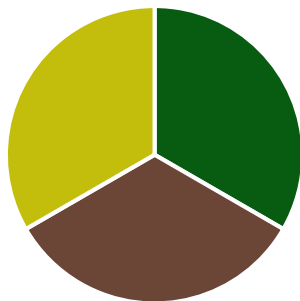
Figures include visuals such as charts graphs, pictures, maps, etc. When inserting a figure in your work, include the following information (also exemplified in Figure 1):

1. **Figure number**, aligned left, bolded, and presented in sequence: **Figure 1**, **Figure 2**, etc.
2. **Figure title**, aligned left, italicized, and offering a brief description the table (See Figure 1).
3. **The figure itself**
4. **Figure note**, double-spaced below the table after the label “note” in italics: *Note*.

Use a callout such as “See Figure 1” in the paragraph before the figure to point the reader to it.

### Figure 1

*Example of a Figure: The Three Elements of APA Style*



*Note.* This pie chart was created with the Microsoft Word Chart tool located on the Insert tab. The tool automatically creates a key below the figure for the chart’s sections, so for the APA Style note, a textbox with a white background is inserted over the Microsoft Word formatting to provide the color key, which is as follows: Yellow = formatting, green = in-text citations, and brown = references.

The Chart tool in [Microsoft Word](#) and [Microsoft PowerPoint](#) provides options for various types of graphs and charts. With so many types to choose from, it's important to carefully consider which type will best present the information. For example,

- a column chart 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.

The [Microsoft Office Support](#) webpage provides examples of these types of charts and more.

## Figure Notes

As with tables, there can be up to three notes under the figure, ordered by type: (a) general information about the figure including a copyright statement for compiled data or images from the Internet, (b) specific information about individual sections, bars, graphs, or other elements of the figure, and (c) probability explanations as discussed in the section on tables.

### Copyright Statements for Compiled Data

When you use data and information in your table or figure that was compiled from research, the figure must contain a general note with a copyright statement identifying the copyright holder of that information. Because you are using this information for an academic purpose that is not for profit, you will not need to also acquire permission from the copyholder. It is considered "fair use" for students and scholars to use information that has been previously published if the information is attributed to the copyright holder with proper documentation.

Use the following copyright statement template in a note for reproduced data that came from a journal or book:

**Journal:** Note. From [or Adapted from] "Title of Article," by A. A. Author, year, *Journal Title*, Volume(Issue), p. xx. (DOI or URL). Copyright year by Name of Copyright Holder or Creative Commons License such as [CC BY-NC](#) or In the public domain.

**Book:** Note. From [or Adapted from] *Title of Book* (p. xx-xx), by A. A. Author, year, Publisher (DOI or URL). Copyright year by Name of Copyright Holder or Creative Commons License such as [CC BY-NC](#) or In the public domain.

### Copyright Statements for Images

Images are different than compiled data. Permission is required to use a copyrighted photograph or a screenshot of someone else's entire data table. It is an act of plagiarism to use a copyrighted image or work without permission unless that image

- has a Creative Commons license, which allows for reprinting or
- is in the Public Domain.

Copyright statements for images vary based on the source from where it was retrieved. For a reprinted or adapted image, use the following template at the end of a general note:

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Figures 2 through 4 use the above copyright statement template for images from different sources.

### Figure 2

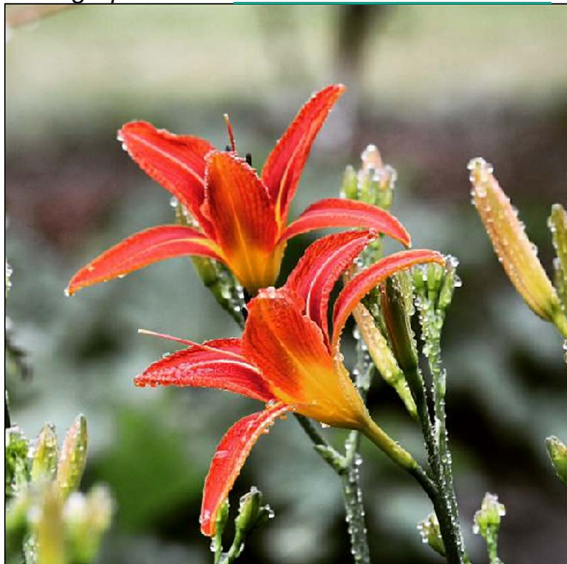
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*Note.* From *Water Lily*, by S. Carlson, 2009. Copyright 2009 by S. Carlson. Reprinted with permission.

### Figure 3

*Photograph With a [Creative Commons License](#) for Reproduction Without Permission*



*Note.* From *Lilies After Rain*, by C. Cairns, 2015, Flickr. (<https://flic.kr/p/vDHife>). CC BY 2.0.

### Figure 4

*Photograph in the Public Domain*



Note. Public domain works are not protected by copyright law or have expired copyrights such as works published before January 1, 1924. From *Study of a Cellist*, by A. Modigliani, 1909, Abcgallery. (<http://www.abcgallery.com/M/modigliani/modigliani12.html>). In the public domain.

### Reference Entries for Figures

In addition to a copyright attribution, include a reference entry for any source credited in a figure note. Below is the APA Style (7<sup>th</sup> ed.) reference entry template for a photograph:

Author last name, First initial. Middle initial. (year). *Title of Photograph* [Photograph]. Site or Source Name. URL

### Figure Checklist

- Is the figure necessary?
- Is the figure mentioned in the paper's text?
- Is the figure inserted under the paragraph where it is first mentioned?
- Does the text explain how the figure is relevant to the discussion in the paper without repeating all the information from the figure in the text?
- Does the figure title provide a brief explanation?
- Are all elements of the figure clearly labeled?
- Are all figures numbered consecutively?
- Is proper credit given to the source of the figure in the figure note?
- Has a reference entry been provided for the source of the figure?
- Is the resolution clear enough to be read and understood?

## References

American Psychological Association. (2020). *Publication manual of the American Psychological Association* (7th ed.). <https://doi.org/10.1037/0000165-000>