A Short Guide to Making Good Tables

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When presenting data either in summary form or to report the results of some type of statistical analysis, many researchers have a tendency to overlook the importance of how the information is displayed. In many ways the presentation is as important as what is being presented. Poor presentation can confuse the reader, make the author look careless or sloppy, and even lead to incorrect or misleading inferences (sometimes intentionally). *In most, if not all, cases, presenting this information in the form of a chart or graph is the optimal method.* However, in some cases, researchers still choose to utilize tables for this purpose.

Perhaps the most important factor in constructing good tables is to give it the ability to 'stand alone.' In other words, a reader should be able to extract all the relevant information you are trying to disseminate by looking at the table alone without the need to reference the body of the paper. Additionally, aesthetics matter to a greater degree than most people realize. Cluttered, unorganized tables give the impression that the processes used to produce the data were also cluttered and unorganized.

This guide outlines a set of best practices that will help you create good tables. As you are learning how to properly construct tables, you should also be carefully examining examples in published articles to see an array of good (and not-so-good) examples for how to clearly present the data in tabular form.

- Good Labeling is Essential.

    - Numbering — All tables should be numbered sequentially (e.g. Table 1, Table 2, etc.).
    - Title — Every table should have a clear, descriptive title.
    - Column (or row) headings — Every column in a table should have a clear name. Avoid abbreviations, symbols, or other shorthand labels.
    - Variable names — Give all variables clear, meaningful names. You are writing for a human reader, not a software package. Additionally, with dummy variables it is generally preferable from an informational perspective to use the meaning

of one of the values — usually the value coded "1" — as the name (e.g. *Female* rather than *Gender*).

– Caption or Note — All tables should have a caption that is sufficiently clear and detailed so that the reader can ascertain exactly what is being conveyed without needing to reference the text of the paper. This should be left-justified below the body of the table in footnote sized type. For example, a caption for a table of regression estimate might read: "Cell entries are OLS coefficients estimates, with Huber-White Robust standard errors in parentheses. The dependent variable is..."

– Include Vital Info — Check that you clearly lay out the statistical method, dependent variable, explanatory variable(s) of interest, and data range (e.g. U.S. House of Representatives from 1950-2000). Work this information into the title or the caption as appropriate.

- Aesthetics Matter!

– Avoid unnecessary lines — Generally a horizontal line (or double line) at the top and bottom of the table and a horizontal line under the column headings is all that is needed. Sometimes additional horizontal lines are useful to separate different categories of information (e.g. between coefficient estimates and summary information in a table of regression estimates). As a general rule, vertical lines should not be used.

– Be judicious in significant digits reported — Be consistent in the number of significant digits after the decimal point that are reported, but remember that this represents a trade-off between precision and conciseness. It is very rare that the degree of precision needed will require you to report more than three significant digits after the decimal.

– Decimal align columns of numbers — Columns of numbers will often not line up evenly, making it more difficult to compare them at a glance. Aligning such columns on the decimal as opposed to centering or right or left-justifying will solve this problem and look better aesthetically.

- Carefully Construct Content

– Include all essential information (but nothing more) — What is the purpose of your table? Are you trying to convey summary data? Model estimates? Your answer to this question will determine exactly what should be included in your table. However, regardless of the type of data you are summarizing, you should include all essential information necessary to accomplish this goal. For example, if you are presenting a table of estimates from a regression model, you should include coefficient estimates, standard error estimates, and some measure of significance such as p-values.

– Be clear about what the numbers mean — Make sure that either from the column headings, variable names, or the caption to the table it is absolutely clear what all numbers represent. The unit of measurements, any transformations, or other vital information should be clearly presented.

– Do not mislead — Be honest in your tabular presentation. Do not exclude information that should be included, but that makes your results look "weak."

– Avoid "stars" — There is a tendency to use differing numbers of asterisks to convey statistical significance at different levels of confidence. Do not do this. This is an example of the institutionalization of a bad habit. However, top political science journals are now moving away from this practice (see, e.g. the *AJPS Style Manual*). Instead present p-values or some alternative method that allows the reader to make their own judgements about acceptable levels of significance. If you want to argue that a p-value of 0.06 is sufficient for significance, do so in the text, do not try to trick the reader by adjusting your stars.