

Writing about Your Findings

A Handout from the EcoTeach Center, Duke University

Prepared by Paul Dudenhefer, Writing Tutor



In economics papers, quantitative information (such as your findings) is usually presented in tables. But as informative as a table might be, it cannot stand alone: it must be correspondingly discussed in the running text. This handout will discuss how to do just that, how to write about data that are presented in a table.

When you present information in a table, there are at least two expectations that you need to fulfill. The first is that you explicitly introduce the table. You are expected to point out to your readers that the table exists and indicate, briefly, its general content. Usually, those two things can be accomplished in a single sentence: “Table 1 shows the incomes earned by full-time workers in the United States,” or “Table 1 provides demographic statistics on the sample population,” or “In table 1, I present the results of the three regressions.” Once you introduce the table and briefly describe its general contents, you can discuss the table more particularly. That brings us to our second expectation.

The second expectation is that you identify the main points made by the data in the table. The table cannot, and should not be expected to, “speak for itself.” Rather, you should explicitly tell your readers the important realities that the data show: “As we see in table 1, 45% of the sample earned less than \$25,000 in 2003,” or “Table 1 reveals several significant characteristics of our sample that could affect our results: one-third of women in the sample had less than a high-school education; nearly two-thirds were unmarried; and exactly one-half had at least one child under 3,” or “As expected, the coefficient on education is, in every regression, significant and positive.” Please note that you are not expected to comment on or restate every piece of information that a table contains; but you are expected to point out to your readers the “meaning” or your interpretation of the data in it.

All of this is to say that you have to describe the contents of the table in the text. You cannot simply refer to a table (or worse, not refer to it at all!) and leave it at that.

Ideally, the column heads in your table should be self-explanatory. But sometimes they are not. For instance, when presenting the results of several regressions, you may simply have as column heads the numbers “1,” “2,” “3,” and “4,” the first number standing for the first regression, the second, for the second, and so on. When that is the case—when your column heads are not self-explanatory—you will be expected, in the running text, to explain what they mean.

Let’s consider a hypothetical rhetorical situation for which you might construct a table in which to present your findings. The situation is drawn almost wholesale from *Writing Economics: A Guide for Harvard’s Sophomore Economics Concentrators*, which Harvard has kindly allowed us to use. Suppose that you are writing about the effect of education on wages. Suppose your main regression places an individual’s wage on the left-hand side and regressors such as education, race, and gender on the right-hand side. You believe that the regressor of interest—education—is correlated with the error term of the wage equation: that is, more “able” people earn more at their jobs and also obtain more education. Because of this correlation between the error term and education, the measured effect of education in the regression will reflect not only the true causal effect of education on wages but also some of the effect of ability on wages. To circumvent this “ability bias”

you use a separate measure as a proxy for ability. Though such a proxy is not available, assume for the sake of exposition that a special data set contains an individual's evaluation by his or her second-grade teacher. When presenting your results, you want to focus only on the estimates of the education effect and the ability effect. Your table might look something like this:

Table 1 OLS Estimate of the Effect of Education on Wages. Dependent Variable: Log of Yearly Earnings, 1985–1995

	1	2	3	4
Years of Education	.091	.031	.086	.027
Ability Dummy		.251		.301
State Dummies	No	No	Yes	Yes
No. of Observations	35,001	35,001	19,505	18,505
No. of Persons	5,505	5,505	4,590	4,590
Adjusted R ²	.50	.55	.76	.79

How would a discussion of this table likely go? Here is one possibility:

Table 1 presents the OLS estimates of the effect of education on wages. It shows that including a measure of ability in the wage equation dramatically lowers the predicted effect of education on earnings. Column 1 does not include an ability measure and indicates that a year of education raises wages by 9.1 percent. Column 2 adds the ability measure; the education effect now drops to 3.1 percent. Columns 3 and 4 show that this general pattern is repeated even when state-level dummy variables are included. The estimates in table 1 are therefore consistent with the hypothesis that the OLS estimates suffer from an upward ability bias.

A few points are instructive here. First, the discussion begins by introducing the table and indicating its content (“Table 1 presents the OLS estimates . . .”). Second, the meaning or conclusion to be drawn from the table is explicitly stated (“It shows that including a measure . . .”). Indeed, the conclusion is even restated in a different way at the end of the discussion (“The estimates in table 1 are therefore . . .”). And third, the discussion does not mention every single piece of data in the table. Instead, it selects for discussion only those data that are important for the task at hand.

Too often, authors do not pay close attention to the paragraphs that describe their results. After all, the results are in the table; what difference does it make how they are described in the text? But it is necessary to craft carefully paragraphs that describe your results. Any well-designed empirical project is complex; a lot of factors must be considered in order for any single factor to be precisely estimated. You want to guide the reader and focus his or her attention on the important parts of the table, and in the right order. Moreover, no empirical paper turns out perfectly. Usually, the data do not resoundingly support each and every idea. In those cases, it is crucial to discuss your results as honestly and carefully as possible.