

A Very Short Introduction to Stata

The basic *philosophy* of Stata.

Andrew Grogan-Kaylor

2024-10-17

The basic philosophy of Stata—“Stata in one sentence”—is:

`do_something to_variable(s), options`

Often it is not necessary to use any options since the authors of Stata have done such a good job of thinking about the defaults. Commands that you actually type are represented in monospace font. `x` and `y` refer to variables in your data.

Task	Command
Open data	<code>use mydata.dta</code>
Look for or find	<code>lookfor thing</code> ¹
Descriptive statistics	<code>summarize x y</code>
Frequencies	<code>tabulate x</code>
Recode	<code>recode x (old = new)(...), generate(xR)</code> ²
Rename	<code>rename x z</code>
Keep	<code>keep x y z</code>
Drop	<code>drop x y z</code>
Correlation	<code>corr x y</code>
Regression	<code>regress y x z</code>
Logistic Regression	<code>logit y x z, or</code> ³
Ordinal Logistic Regression	<code>ologit y x z, or</code> ⁴
Multinomial Logistic Regression	<code>mlogit y x z, rr</code> ⁵

¹`lookfor thing` looks for any variable with `thing` in the variable name or variable label. `lookfor somethingelse` looks for any variable with `somethingelse` in the variable name or variable label. It is often useful to `lookfor` abbreviations e.g. `lookfor anx` instead of `lookfor anxiety`.

²It is usually best practice, but not required, to `recode` values of a variable into a *new* variable, leaving the original variable untouched.

³Here we need to use the `, or` option to ask for *odds ratios* instead of *logit coefficients*.

⁴Here again we need to use the `, or` option to ask for *odds ratios* instead of *logit coefficients*.

⁵Here we need to use the `, rr` option to ask for *risk ratios* instead of *logit coefficients*.

Task	Command
Multilevel Model	<code>mixed y x z group: x</code>
Structural Equation Modeling	<code>sem (y <- x m z) (m <- x z)</code>
Histogram	<code>histogram x</code> ⁶
Bar Graph	<code>graph bar, over(x)</code>
Bar Graph (of means)	<code>graph bar y, over(x)</code>
Pie Chart	<code>graph pie, over(x)</code>
Scatterplot	<code>twoway scatter y x</code>

⁶For graphing commands, you can often add options after a `,.` e.g. `title("title of the graph"), xtitle("title of the x axis"), ytitle("title of the y axis").`