

## Introductory Stata workshop

Command	Description	Sample Code	Sample Description
<b>help (command name)</b>	Pulls up STATA's help menu	help gen	Brings up the help menu for "gen"
<b>// comments</b>	Comment at the end of a line	clear all // This is a comment	Uses the command clear all and then adds a comment at the end of the line
<b>* comments</b>	Single line comment	* More comments	Can only be used at the beginning of a line
<b>/* comments */</b>	Anything between /* and */ will be commented out	/* This is a comment ... And so is this */	All of the text is interpreted as a comment by STATA
<b>cd</b>	Change the directory	cd "C:\Downloads"	Tells STATA to open and save files in the "C:\Downloads" folder
<b>use</b>	Reads in STATA (.dta) data	use "Entrance.dta", clear	Reads in "Entrance.dta" after clearing "flavor2.csv" from memory
<b>infile using</b>	Reads in ASCII (.txt) data	infile id gender age gpa act sat actsat athlete using "entrance.txt"	Reads in the file "entrance.txt"
<b>insheet using</b>	Reads in a spreadsheet (.csv) data	insheet using "flavor2.csv", clear	Reads in the file "flavor2.csv" after clearing previous data from memory
<b>clear all</b>	Clears everything from STATA's memory	clear all	See description
<b><u>b</u>rowse</b>	Opens the Data Browser. Can be used by itself. Can also enter in variable names to view only specific variables.	browse	See description
<b><u>e</u>dit</b>	Opens the Data Editor. Can be used by itself. Can also enter in variable names to view only specific variables.	edit	See description
<b><u>s</u>ummarize</b>	# of obs., mean, std. dev., min, max	sum gpa	Summary info. for gpa

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<b>sum variable, detail</b>	Summarize command with more details	sum gpa, d	Summary of gpa with percentiles, skewness, kurtosis, median, etc.
<b>mean</b>	Estimates the true mean w/ conf. intervals	mean act	Estimate mean of act
<b>tabulate</b>	Creates two-way frequency tables	tab act gender	Two-way frequency table of act and gender
<b>tab1</b>	Creates two-way frequency tables	tab1 act gender	Two-way frequency table of act and gender
<b>frequency</b>	Lists frequency tables	fre act gender	Separate frequency tables of act and gender
<b>proportion</b>	Estimate proportions with conf. intervals	proportion age	Estimated proportion of age by each unique value of the var. age
<b>histogram</b>	Histogram of a single variable	histogram gpa	Histogram of the variable gpa
<b>scatter</b>	Scatter plot of two variables	scatter gpa act, title(gpa/act Regression)	Scatter plot of gpa vs. act with the specified title
<b>pwcorr</b>	Produces a correlation table	pwcorr gpa act, sig	Shows correlation and significance between gpa and act
<b>reg</b>	Computes a linear regression of the included variables	reg gpa act	Regresses act on gpa
<b>generate</b>	Create a variable	gen fpc = 1	new variable fpc with all cells = 1
	Create a dummy variable	gen YoungFem = ((gender==1) & (age==17))	YoungFem = 1 if gender is 1 and is 17 (= 0 otherwise)
	Create an ID, or serial variable	gen id_2 = _n	Id_2 = the observation # of in the dataset for each observation
	Create a variable = # obs.	gen obs = _N	Obs = 49 , which is the total # of obs. In the data

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<b>egen</b>	<p>Generate with functions</p> <p>There are a number of functions that can be used with the egen command.</p> <p>Do a “help egen” command for a full list of all functions.</p>	<pre>egen actsat_rank = rank(actsat) egen actsat_rank_age = rank(actsat), by(age) egen mean_actsat = mean(actsat) egen mean_actsat_age = mean(actsat), by(age)</pre>	<p>Generate the variable actsat_rank, shows the rank of each person on their ACT and SAT scores. Can also look at rank by their age.</p> <p>You can also generate a mean score for a variable, and you can generate a mean score, by another variable.</p>
<b>preserve</b>	<p>Temporarily preserve the current data set. Must be done before making changes to data.</p>	<pre>preserve</pre>	
<b>restore</b>	Restores data to preserved point		
<b>rename</b>	Rename an existing variable	<pre>rename sat SAT</pre>	Renames sat “SAT”
<b>recode</b>	<p>Changing the values of a numeric variable. Does not work with string variables. Replace can be used for string variables.</p>	<pre>recode gender (2=1) (1=0)</pre>	Gender now equals 0 for females and 1 for males
	<p>Create a new categorical variable using the recode command</p>	<pre>recode age (17/18=0) (else=1), gen(old)</pre>	New variable old = 0 if age value ranges from 17 to 18
<b>drop</b>	Removes variables or observations	<pre>drop if gpa &lt; 2.00</pre>	Removes observations where gpa less than 2
<b>label variable</b>	Give an entire variable a label	<pre>label var gender "Male"</pre>	Adds the label “gender” to the variable Male
<b>label define</b>	Create a label for given values. The name you give the label can be anything.	<pre>label define race_label 0"white" 1"black" 2"hispanic" 3 "asian"</pre>	Creates a label named “race_label” that will label all values of 0 as “white” and all values of 1 as “black” and so forth.
<b>label values</b>	Apply the created label to values	<pre>label values race race_label</pre>	Applies the label “race_label” to the variable “race”
<b>sort</b>	Sort the entire data by listed variables	<pre>sort age</pre>	Sorts by the value of age (ascending is the default)

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<b>order</b>	Rearrange the order of variables in the data	<code>order actsat actsat_rank actsat_rank_age</code>	Places the variables listed in that order in the data set
<b>list</b>	Lists values of variables in the output window	<code>list age in 1/10</code>	Lists the first ten values of age (in the sorted order)
<b>tostring</b>	Convert a numeric variable to text (string)	<code>tostring id, replace</code>	Converts the variable id into string variable
<b>destring</b>	Convert a text (string) variable to numeric. All values of the variable must be numbers.	<code>destring id, replace</code>	Converts the variable id into numeric variable

## Tips and Tricks

- Stata files can also be opened by dragging them into Stata
- Stata is case sensitive
  - All commands are lowercase
  - Variable names must match exactly
- Use the keyboard shortcut (control d) to execute commands in the do-file
- It is generally unnecessary to save changes to your data set if you used a do-file
  - The do-file should be saved, and can be re-run to replicate what you already did
  - Any saves should be made with a new file name so as not to change your original file