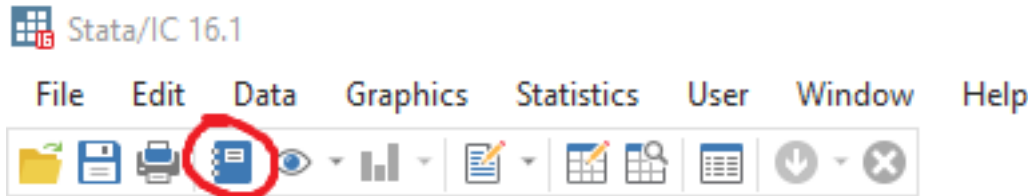


Starting a Log

1. It is important both for assignments and practical real-world use to log what you do in Stata. This will make it much easier on you when writing reports as well as when you or someone else needs to recreate the steps you took to reach your conclusions.
2. Simply click the blue notebook button (circled in red) to start your log.



3. Navigate to where you want to save your log and name the file.
4. When you are finished inputting commands, click the blue notebook again and select “close log file”.

Importing Data through Menus

1. Click “File > Import > Your File Type”
2. Browse for your dataset file
3. Click “OK”

Importing Data with Commands

1. Locate the Stata command console at the bottom of the screen, indicated by the word “Command” in blue text.
2. Click in the console
3. Type: `cd “location of folder that contains dataset”`
Ex. `cd “C:\Users\chris\desktop\Stata Stuff\Data Sets”`
4. Type: `import delimited nameofdatafile`
Ex. `import delimited Florida_COVID_Cases_0.csv`

We use the subcommand “delimited” because it is a .csv file rather than a .dta file. It helps Stata interpret names of variables more accurately.

Basic Commands through Menus

1. All Stata functions can be done through the menus on the top bar. You will be using functions located in the Data, Graphics, and Statistics menus.
2. To get a scatterplot of two certain variables, click “Graphics > Twoway Graph”. Click “Create...” and input the necessary information (y-variable and x-variable). For my dataset, which uses county-by-county data of COVID-19 cases for 9/5/2020, I want a scatterplot of *deaths* against *casesall*.

twoway - Twoway graphs

Plots

if/in

Y axis

X axis

Titles

Legend

Overall

By

Plot definitions:

Create...

Edit

Disable

Enable

Move Up

Move Down

Press "Create" to define a scatter, line, range, or other plot. Overlaid graphs may be constructed by creating multiple plot definitions.

?

↺

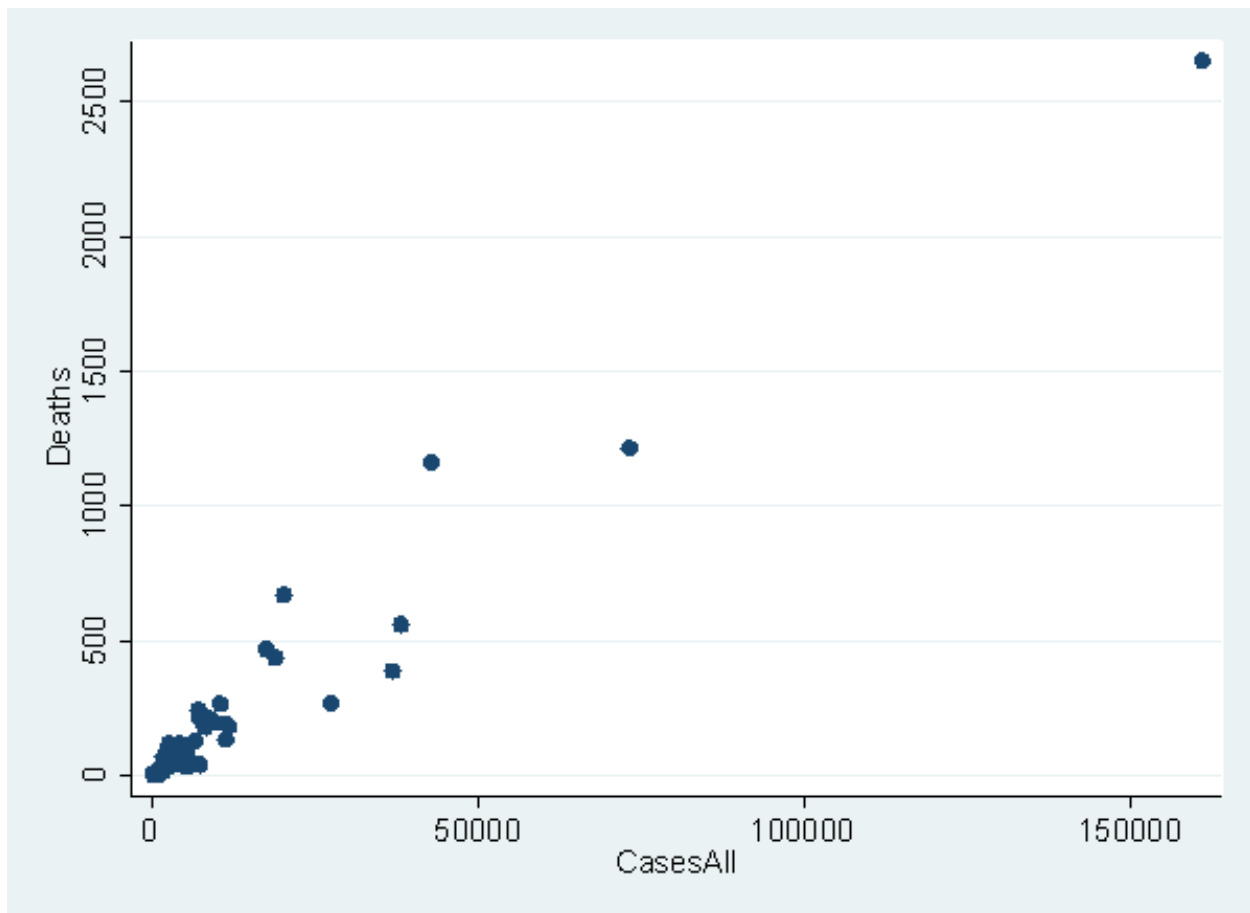
📄

OK

Cancel

Submit

Desired Output:



Note: There are other important options to consider, such as scaling, labeling, etc. For the purposes of this tutorial, they have been skipped.

3. Summary Statistics. Click “Statistics > Summaries, tables, and tests > Summary and descriptive statistics > Summary statistics”. I want the summary statistics for the variable *newcases*.

summarize - Summary statistics

Main by/if/in Weights

Variables: (leave empty for all variables)

newcases

Examples: yr* all variables starting with "yr"
xyz-abc all variables between xyz and abc

Options

☒ Standard display
☐ Display additional statistics
☐ No display; just calculate mean
☐ Use variable's display format

5 Separator line every N variables (set 0 for none)

Factor-variable display options

? ↺ 📄 OK Cancel Submit

Desired Output:

Variable	Obs	Mean	Std. Dev.	Min	Max
newcases	67	56.25373	90.30543	0	573

4. Conducting a hypothesis test. I want to test my hypothesis that the true mean of *newcases* is less than 65. I want to do a t-test, because I do not know the real standard deviation. Click “Statistics > Summaries, tables, and tests > Classical tests of hypotheses > t test (mean-comparison tests)”.

ttest - t tests (mean-comparison tests)

Main

by/if/in

t tests

☒ One-sample
☐ Two-sample using groups
☐ Two-sample using variables
☐ Paired

One-sample mean-comparison test

Variable name:

Hypothesized mean:

newcases

65

95

Confidence level

?

↺

📄

OK

Cancel

Submit

Desired Outcome:
One-sample t test

Variable	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]	
newcases	67	56.25373	11.03256	90.30543	34.22651	78.28096

mean = mean(newcases) t = -0.7928
Ho: mean = 65 degrees of freedom = 66

Ha: mean < 65 Ha: mean != 65 Ha: mean > 65
Pr(T < t) = 0.2154 Pr(|T| > |t|) = 0.4308 Pr(T > t) = 0.7846

Note: My alternative hypothesis was that the mean of newcases is less than 65. Assuming a confidence level of 95%, I cannot reject the null hypothesis. This can be seen via the bottom left "Ha: mean < 65". The calculated p-value is 0.2154, which is much greater than 0.05, my significance level.

Basic Commands done Manually

1. Steps 2 - 4 will provide the line of code typed into the command console for the given command (these steps correspond with the numbers in the “Basic Commands Through Menus” section. These commands will provide the same results as the menu commands.

2. Scatterplot of *deaths* against *casesall*:

`scatter deaths casesall`

3. Summary statistics of *newcases*:

`summarize newcases`

4. T-test of *newcases*:

`ttest newcases == 65`

5. Stata commands have a lot of documentation about them. By googling “Stata” and then the command/operation you want to perform, one of the first results should be the official Stata manual page for it. It will also describe all the other functions that can be performed with that command. For example, here is the manual page for the `ttest` command:

<https://www.stata.com/manuals13/rttest.pdf>

6. Running commands through the menus will display the code required to run it in the main window. For example, I ran this regression through the menus. You can see the code (`regress deaths casesall`) at the top notated by the bullet point.

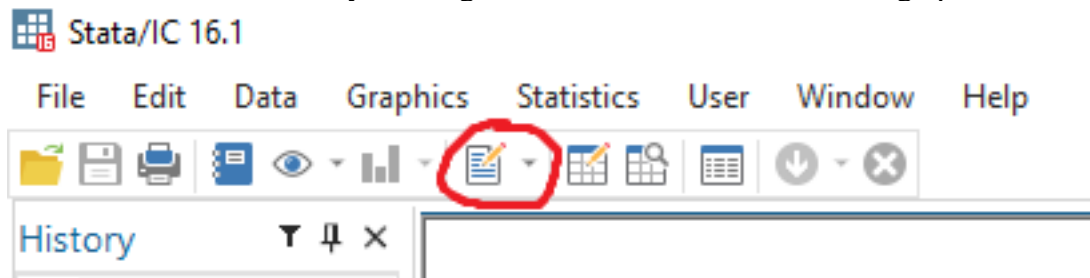
. regress deaths casesall

Source	SS	df	MS	Number of obs	=	67
Model	9239309.21	1	9239309.21	F(1, 65)	=	1159.91
Residual	517758.406	65	7965.51394	Prob > F	=	0.0000
				R-squared	=	0.9469
				Adj R-squared	=	0.9461
Total	9757067.61	66	147834.358	Root MSE	=	89.25

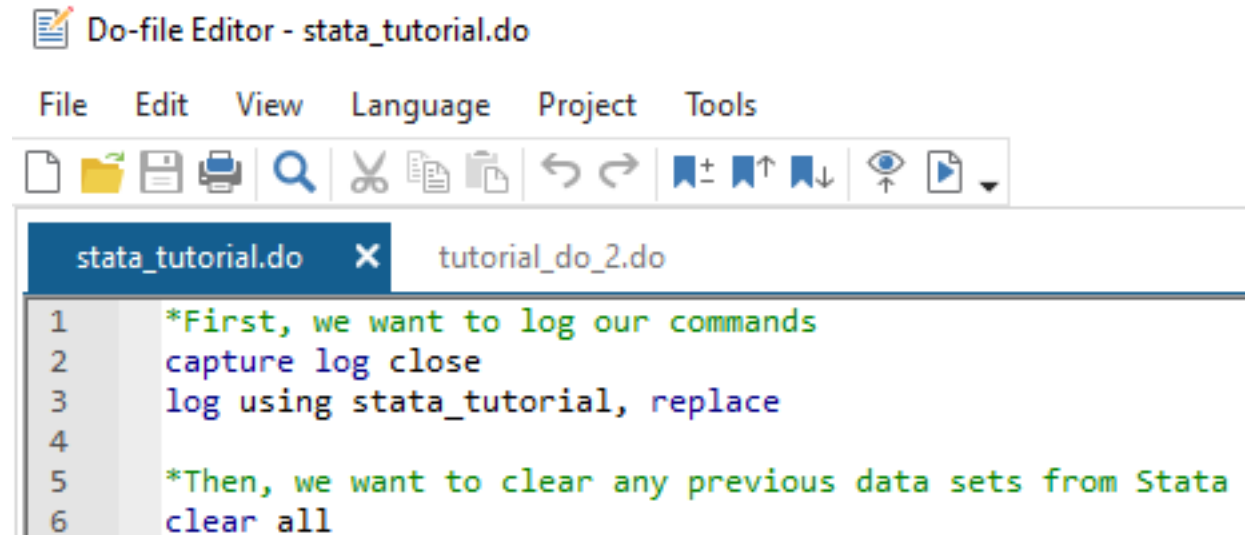
deaths	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
casesall	.016735	.0004914	34.06	0.000	.0157536	.0177163
_cons	15.73495	11.87899	1.32	0.190	-7.989038	39.45894

Using Do-Files

1. Create a new “do” file by clicking the circled button. This will bring up the “Do-file Editor”.



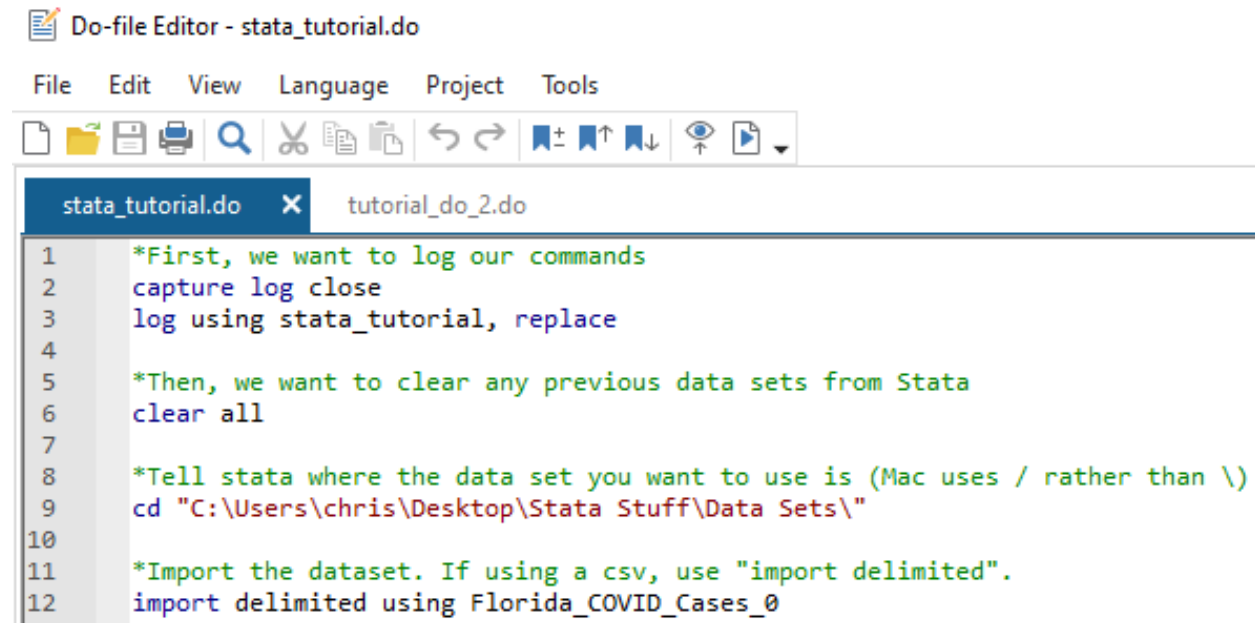
2. Start a log by typing these commands (lines 1-6):



The screenshot shows the Stata Do-file Editor interface. The title bar reads "Do-file Editor - stata_tutorial.do". The menu bar includes "File", "Edit", "View", "Language", "Project", and "Tools". The toolbar contains icons for opening files, saving, printing, searching, undo, redo, and navigating between files. The editor window has two tabs: "stata_tutorial.do" (active) and "tutorial_do_2.do". The code in the editor is as follows:

```
1  *First, we want to log our commands
2  capture log close
3  log using stata_tutorial, replace
4
5  *Then, we want to clear any previous data sets from Stata
6  clear all
```

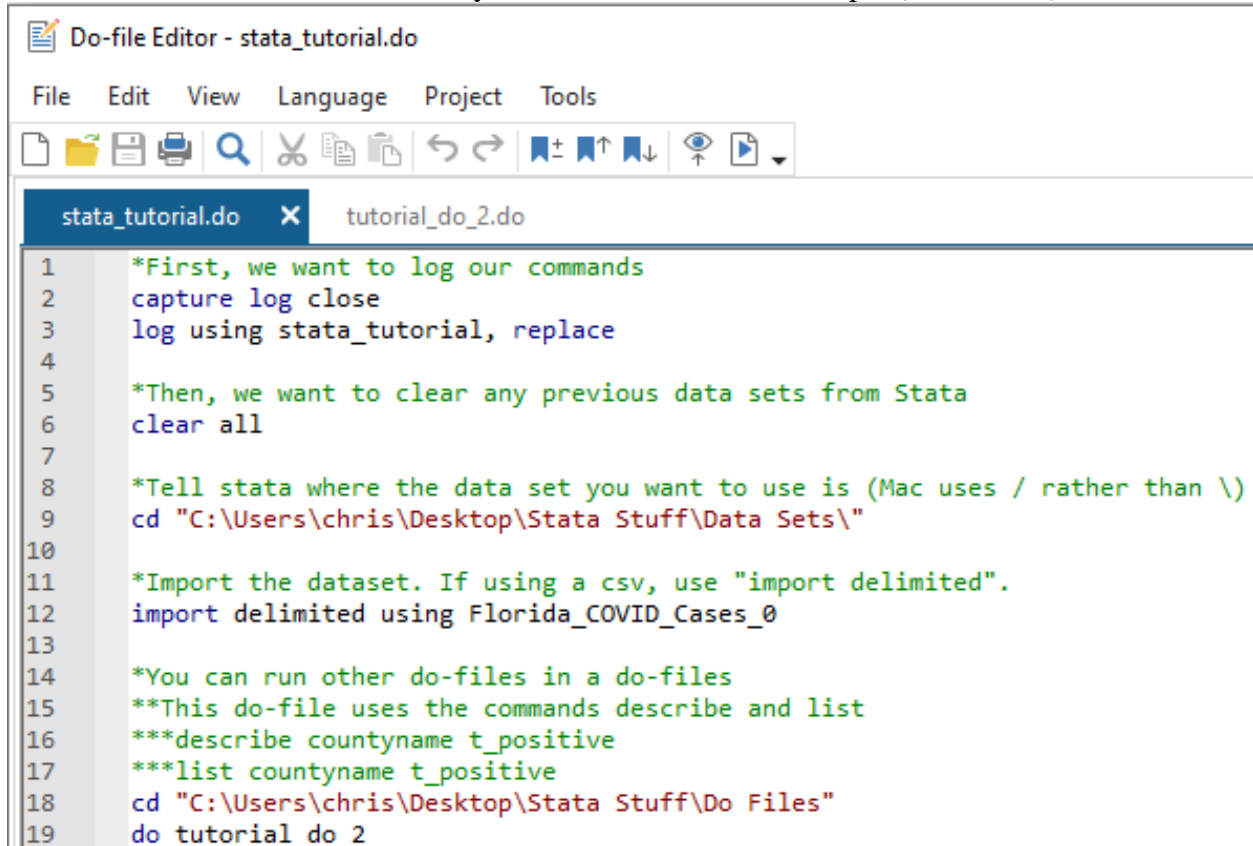
3. Then tell Stata where to find your data set file. This will allow you to just type the file name after the "import" command (lines 8-12):



This screenshot shows the same Stata Do-file Editor interface as the previous one, but with additional code added to lines 8 through 12. The code is as follows:

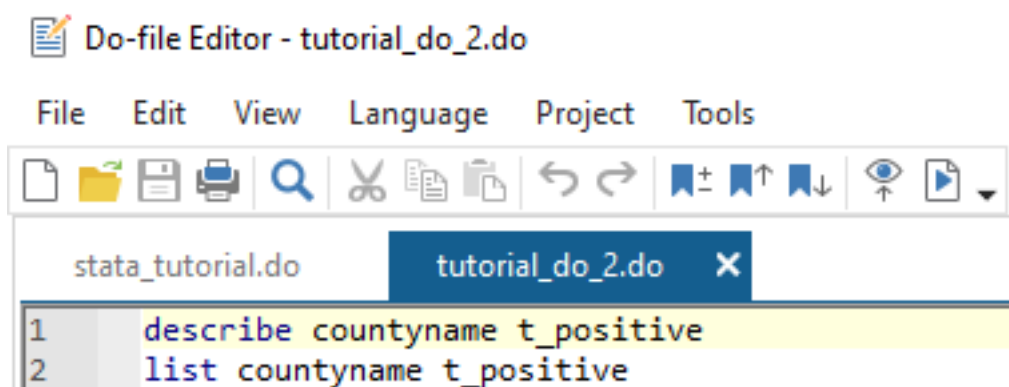
```
1  *First, we want to log our commands
2  capture log close
3  log using stata_tutorial, replace
4
5  *Then, we want to clear any previous data sets from Stata
6  clear all
7
8  *Tell stata where the data set you want to use is (Mac uses / rather than \)
9  cd "C:\Users\chris\Desktop\Stata Stuff\Data Sets\"
10
11  *Import the dataset. If using a csv, use "import delimited".
12  import delimited using Florida_COVID_Cases_0
```

4. You can run other do-files within your do-file. Here is an example (lines 14-19):



The screenshot shows the 'Do-file Editor - stata_tutorial.do' window. The menu bar includes File, Edit, View, Language, Project, and Tools. The toolbar contains icons for file operations (new, open, save, print, find, copy, paste, undo, redo), navigation (first, previous, next, last), and execution (run, stop). The tab bar shows 'stata_tutorial.do' and 'tutorial_do_2.do'. The code editor displays the following text:

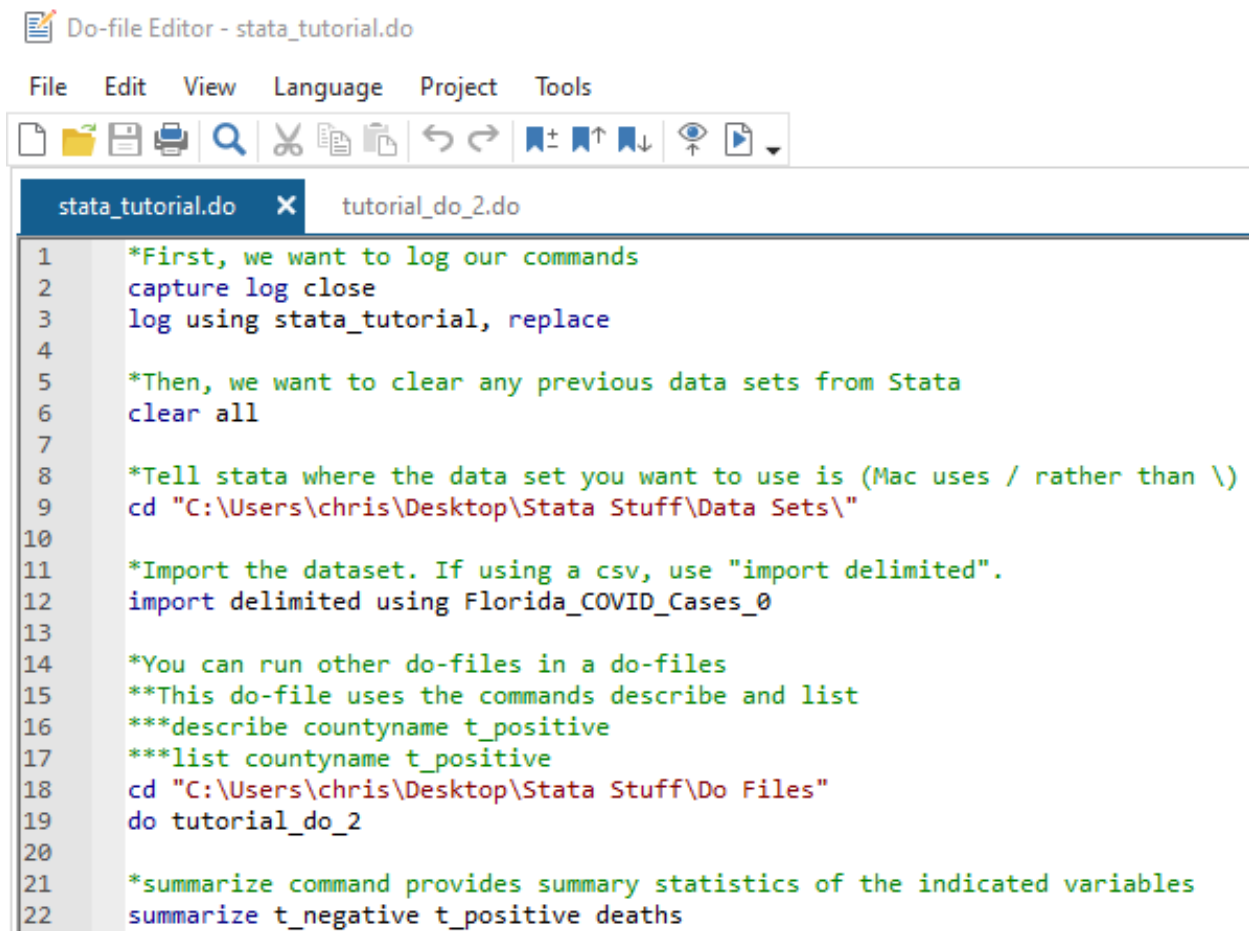
```
1  *First, we want to log our commands
2  capture log close
3  log using stata_tutorial, replace
4
5  *Then, we want to clear any previous data sets from Stata
6  clear all
7
8  *Tell stata where the data set you want to use is (Mac uses / rather than \)
9  cd "C:\Users\chris\Desktop\Stata Stuff\Data Sets\"
10
11 *Import the dataset. If using a csv, use "import delimited".
12 import delimited using Florida_COVID_Cases_0
13
14 *You can run other do-files in a do-files
15 **This do-file uses the commands describe and list
16 ***describe countyname t_positive
17 ***list countyname t_positive
18 cd "C:\Users\chris\Desktop\Stata Stuff\Do Files"
19 do tutorial_do_2
```



The screenshot shows the 'Do-file Editor - tutorial_do_2.do' window. The menu bar includes File, Edit, View, Language, Project, and Tools. The toolbar contains icons for file operations (new, open, save, print, find, copy, paste, undo, redo), navigation (first, previous, next, last), and execution (run, stop). The tab bar shows 'stata_tutorial.do' and 'tutorial_do_2.do'. The code editor displays the following text:

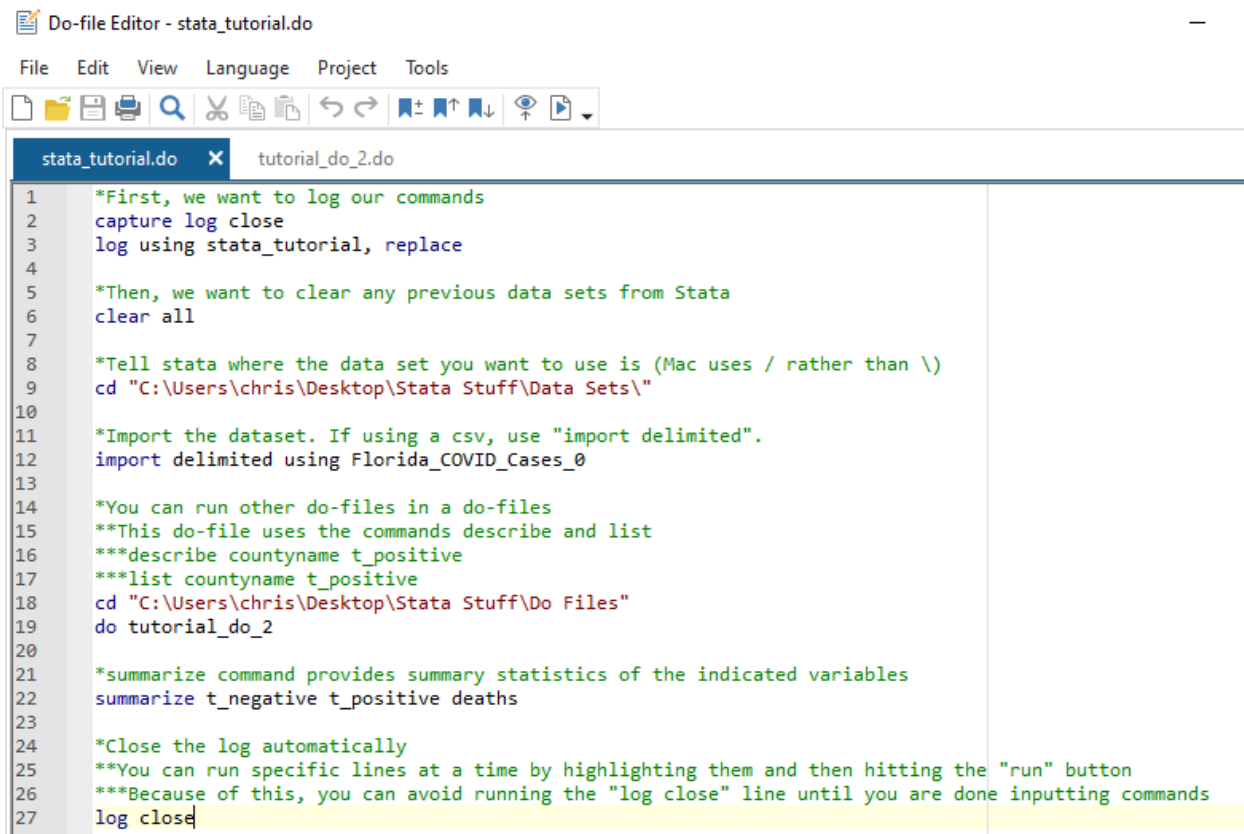
```
1  describe countyname t_positive
2  list countyname t_positive
```


5. You can also run any Stata commands within your do file (lines 21-22):



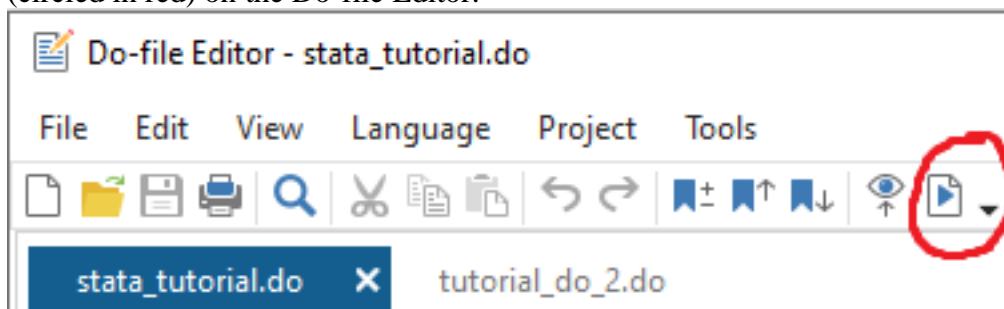
```
1  *First, we want to log our commands
2  capture log close
3  log using stata_tutorial, replace
4
5  *Then, we want to clear any previous data sets from Stata
6  clear all
7
8  *Tell stata where the data set you want to use is (Mac uses / rather than \)
9  cd "C:\Users\chris\Desktop\Stata Stuff\Data Sets\"
10
11 *Import the dataset. If using a csv, use "import delimited".
12 import delimited using Florida_COVID_Cases_0
13
14 *You can run other do-files in a do-files
15 **This do-file uses the commands describe and list
16 ***describe countyname t_positive
17 ***list countyname t_positive
18 cd "C:\Users\chris\Desktop\Stata Stuff\Do Files"
19 do tutorial_do_2
20
21 *summarize command provides summary statistics of the indicated variables
22 summarize t_negative t_positive deaths
```

6. Finally, close your log when you are done inputting commands. You can have your do-file do this automatically by typing the last line of code (lines 24-27):



```
1  *First, we want to log our commands
2  capture log close
3  log using stata_tutorial, replace
4
5  *Then, we want to clear any previous data sets from Stata
6  clear all
7
8  *Tell stata where the data set you want to use is (Mac uses / rather than \)
9  cd "C:\Users\chris\Desktop\Stata Stuff\Data Sets\"
10
11 *Import the dataset. If using a csv, use "import delimited".
12 import delimited using Florida_COVID_Cases_0
13
14 *You can run other do-files in a do-files
15 **This do-file uses the commands describe and list
16 ***describe countyname t_positive
17 ***list countyname t_positive
18 cd "C:\Users\chris\Desktop\Stata Stuff\Do Files"
19 do tutorial_do_2
20
21 *summarize command provides summary statistics of the indicated variables
22 summarize t_negative t_positive deaths
23
24 *Close the log automatically
25 **You can run specific lines at a time by highlighting them and then hitting the "run" button
26 ***Because of this, you can avoid running the "log close" line until you are done inputting commands
27 log close
```

7. To run the entire do-file or any selected lines of code, press the button with the triangle (circled in red) on the Do-file Editor.



8. Make sure to save your do-file when you are finished with it by clicking “File > Save as...”