

Stata Workshop

OCGSE Second year paper course

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Introduction to Stata

What is Stata?

Stata is a powerful statistical software used for data management, analysis, and graphical visualization.

Capabilities:

Stata allows users to perform a wide range of statistical analyses, manage large datasets, and create dynamic reports and graphics. It is well-suited for handling complex economic data.

Comparison with other software:

Similar to other statistical tools like SAS and SPSS, Stata offers an intuitive command syntax but is particularly favored for its user-friendly interface and robust community support.

Downloading Stata

Stata is a licensed software; however, as students of the University of Ottawa and Carleton University, you have free access through your respective institutions:

University of Ottawa:

Download Stata here

Carleton University:

Download Stata here

Understanding the Stata Interface

Main Window:

- Primary area to view the results of commands and manage output.
- Typically displays command results, error messages, and other textual output.

Command Window:

- Located below the Main Window.
- Area for typing and executing Stata commands directly.

Menu and Toolbar:

- Found at the top of the window.
- Provides access to most of Stata's features and commands through graphical interface options.

Variables Window:

- Situated on the right, displaying a list of variables in the current dataset.
- Shows variable names, labels, and types for quick reference.

Understanding the Stata Interface

Properties Window:

- Located below the Variables Window.
- Displays properties of the selected variable, like labels and missing values.

Review Window:

- Positioned on the left side of the interface.
- Logs recently executed commands, allowing for easy re-execution.

Data Editor:

- Accessed via the toolbar.
- Opens a spreadsheet-like window for viewing and manually editing data.

Do-file Editor:

- A scripting window for writing, editing, and running do-files.
- Do-files are batches of commands that can be saved and run to reproduce analyses.

Information and support

- 1 To access Stata's documentation for commands and features, use the `help` command in Stata's Command Window.
- 2 For beginners, a comprehensive guide to getting started is available at the official Stata Bookstore:
`https://www.stata.com/bookstore/getting-started-windows/`
- 3 Statalist Forum: Engage with a community of Stata users, ask questions, and share insights at:
`https://www.statalist.org`
- 4 Utilize ChatGPT for interactive help on Stata commands, coding practices, and troubleshooting.

Remember, practicing with real datasets and replicating analyses from research papers can be one of the best ways to learn!

Getting Started with Stata

- 1 To create a log file to record all commands and outputs:
Go to File > Log > Begin..., and enter filename.log in the dialog box. or log using filename.log, replace
- 2 To create a do file for running batches of commands:
Go to File > New Do-file Editor, which opens the editor where you can write and save commands. doedit
- 3 To set the working directory to manage files easily:
Use the command `cd "C:\path\to\your\folder"` in the Command Window, or go to File > Change Working Directory... and browse to your folder.
- 4 To check the current working directory:
Use the command `pwd`. This will display the path of the current working directory, letting you verify where Stata is accessing and saving files.

Example 1. Using Log Files in Stata

- 1 Clear Stata's memory: `clear all`.
- 2 Ensure your working directory is correct (`pwd` to print the current directory).
- 3 Start a log file: `log using mylog.log, replace`.
- 4 Run commands, e.g., open a dataset (`sysuse auto`) and summarize variables (`summarize`).
- 5 Close the log file: `log close`.
- 6 The log file `mylog.log` contains all commands and results, including errors.
- 7 For a text format log, specify `.txt` extension: `log using mylog.txt, replace`.

Opening Data Files in Stata

- To open a Stata dataset (.dta file):
 - Use the command: `use "filename.dta", replacing "filename" with your file's name.`
- To import data from Excel (.xlsx file):
 - Use the command: `import excel "filename.xlsx", firstrow clear`
- To import CSV data (.csv file):
 - Use the command: `import delimited "filename.csv", delimiter(",") clear`
- To use Stata's preloaded datasets:
 - Use the command: `sysuse "datasetname", replacing "datasetname" with the name of one of Stata's built-in datasets. (auto?)`

Always ensure the correct path to the file is provided if it's not in the current working directory.