### Stata

# Why Stata

Stata is a complete software package that provides all your data science needs—data manipulation, visualization, statistics, and automated reporting.



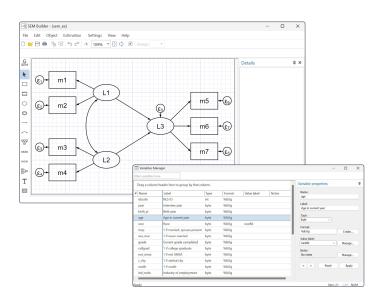


#### Easy to learn and use

All of Stata's features can be accessed through menus, dialogs, the Data Editor, the Graph Editor, and other interface features. This means you can easily point and click or drag and drop your way to any statistical, visualization, or data manipulation task you wish to perform.

If you prefer, you can type commands to perform your analysis.

Stata's commands are intuitive and easy to learn. Need a cross-tabulation of two variables? Type **tabulate var1 var2**. Need to fit a linear regression model? Type **regress y x1 x2**. Even better, everything you learn about performing a task can be applied to other tasks. Simply add if **region=="south"** to any command to limit your analysis to individuals from the south in your sample. Add **vce(robust)** to any estimator to obtain standard errors and hypothesis tests that are robust to many common assumptions.

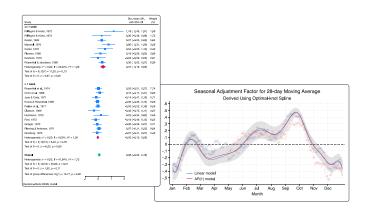


#### Complete data manipulation facilities

Stata's data manipulation features give you complete control of all types of data. You can import data from Excel, SAS, SPSS, JDBC and ODBC sources, and more. You can sort, match, merge, append, and reshape datasets. You can process numeric or string variables (including Unicode, very long strings, and BLOBs). Stata also has advanced tools for managing specialized data such as survival/duration data, time-series data, panel/longitudinal data, multilevel data, categorical data, discrete choice data, multiple imputation, and survey data.

#### Publication-quality graphics

With Stata, you can point and click to create a custom graph. Or you can write scripts to produce hundreds or thousands of graphs in a reproducible manner. Export graphs to EPS or TIFF for publication, to PNG or SVG for the web, or to PDF for viewing. Easily fine-tune your graph using Stata's interactive Graph Editor.



#### Easy to automate

You have tasks that you do all the time—create a particular kind of variable, produce a particular table, perform a sequence of statistical steps, compute an RMSE, etc. If you have written a script to perform your task on a given dataset, it is easy to transform that script into something that can be used on all your datasets, on any set of variables, and on any set of observations.

#### Easy to extend

Your script may be so useful that you want to turn it into something that you can share with colleagues or even make available to all Stata users. That's also easy. With just a little code, you can turn an automation script into a Stata command that supports the same standard features that Stata's official commands support.

#### Advanced programming

Stata includes an advanced programming language—Mata. Mata has the structures, pointers, and classes that you expect in your programming language and adds direct support for matrix programming. Though you don't need to program to use Stata, it is comforting to know that a fast and complete programming language is an integral part of Stata.

Stata also provides integration with other languages. With PyStata, you can harness all the power of Python from within Stata or harness all the power of Stata from within Python. Stata also lets you incorporate C, C++, and Java plugins in your Stata programs via a native API for each language. And you can even embed Java code directly in your Stata code!

#### Broad suite of statistical features

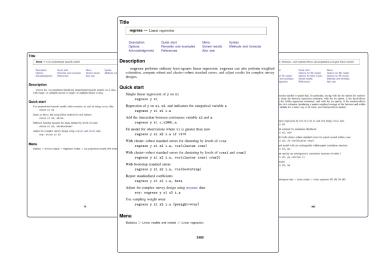
You want a statistical package that does everything you need. And one that also addresses the expanding range of statistical methods. Research professionals from all disciplines use Stata to analyze their data—and so can you.

Stata puts hundreds of statistical tools at your fingertips. If you need standard methods such as cross-tabulations, *t* tests, and linear regression or advanced techniques such as Bayesian analysis, dynamic panel-data models, and latent class analysis, you will find them in Stata. Whether you are a student or a seasoned researcher, Stata gives you all the tools you need.

#### Real documentation

When it comes time to perform your analyses or understand the methods you are using, Stata does not leave you on your own. Each of our data manipulation and statistical features are fully explained with examples on real data and discussions of how to interpret results.

Stata is a big package and so has lots of documentation—over 18,000 pages in 35 volumes. But don't worry; type **help** *my topic*, and it will bring up everything you need to know about your topic.



#### Truly reproducible research

Stata has been dedicated to reproducible research for over 35 years. Stata is the only statistical package with integrated versioning. Any script you wrote in 1985 will still run and produce the same results today. Any dataset created in 1985 can be read today. And the same will be true in 2050

#### Automated reporting and customizable tables

Stata provides all the tools you need to automate reporting your results. Create Word or PDF files, populate Excel worksheets with results and format them to your liking, and mix Markdown, HTML, Stata results, and Stata graphs, all from within Stata. Create tables that compare regression results or summary statistics, use default styles or apply your own, export your tables to Word, PDF, HTML, IATEX, Excel, or Markdown, and include them in your reports.

#### **Trusted**

We don't just write statistical methods. We validate them. The results you see from a Stata estimator rest on comparisons with other estimators, Monte Carlo simulations of consistency and coverage, and extensive testing by our statisticians. Every Stata we ship has passed a certification suite that includes 4.1 million lines of testing code that produces 5.8 million lines of output. We certify every number and piece of text from those 5.8 million lines of output.

#### Continuously updated

StataCorp continually develops new features to enhance Stata software, from the latest statistical methods to the best in reporting, data visualization, and the user interface. With StataNow™, you do not have to wait until the next major release to begin using new features. We will release new features as soon as they are ready so that you can take advantage of them right away.

#### Compatible

Stata will run on Windows, Mac, and Linux/Unix computers; however, our licenses are not platform specific. Stata datasets, programs, and other data can be shared across platforms without translation.

#### **Affordable**

Stata is not sold in modules, which means you get everything in one package! Stata offers several purchase options to fit your budget. Annual and multiyear subscriptions ensure you always have access to the latest features.

#### Resources + support

Our resources and support make learning Stata and staying connected easy.

FREE WEBINARS

Join us from anywhere—short and convenient for busy schedules, webinars are a great way to learn about Stata from our experts. Even better, they are free!

**D** VIDEO TUTORIALS

Stata's YouTube channel is the perfect resource for new users to Stata, users wanting to learn a new feature in Stata, and professors looking for aids in teaching with Stata.

**STATA CONFERENCES** 

Whether you are a beginner or an expert, you will find something just for you at the Stata Conferences, which are held each year in various locations around the world.

**STATA PRESS** 

Stata Press publishes books and manuals about Stata and general statistics topics for professional researchers of all disciplines.

STATA BLOG

We write the official Stata Blog, Not Elsewhere Classified (NEC), to share things we think you will find instructive, informative, or just plain entertaining.

**TRAINING** 

Stata provides hands-on classroom and web-based training courses, customized on-site training courses, and online training through NetCourses, webinars, and video tutorials.

STATA NEWS

The Stata News is a free publication containing articles on using Stata, new release announcements and updates, training schedules, Stata Press books, Stata Conferences, and more.

STATALIST: THE STATA FORUM

More than 50,000 Stata users exchange over 4,500 postings and responses each month. Statalist is run and moderated by Stata users and maintained by StataCorp.

STATA JOURNAL

The Stata Journal is a quarterly publication containing articles about statistics, data analysis, teaching methods, and effective use of Stata's language.

TATA TECHNICAL SERVICES

Stata offers free and unlimited technical support for registered users using the current release edition.

#### Widely used

Stata has been used by researchers across the globe for more than 35 years. Stata users come from a wide variety of disciplines, including

BEHAVIORAL SCIENCES • BIOSTATISTICS • BUSINESS • DATA SCIENCE • ECONOMICS

EDUCATION • EPIDEMIOLOGY • FINANCE • INSTITUTIONAL RESEARCH • MARKETING • MEDICINE

POLITICAL SCIENCE • PSYCHOLOGY • PUBLIC HEALTH • PUBLIC POLICY • SOCIOLOGY

I've been a Stata user since the early 2000s and am impressed with how the product has evolved over the years while remaining so intuitive to use. **Stata is clearly in tune with its users.** I've not yet been faced with an analytical task that Stata couldn't deliver on.

**NEVILLE ARJANI** 

Lead payments, Payments Canada

## stata.com/whystata