Stata (Software)

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Stata is a statistics interactive proprietary software that provides tools for managing and representing quantitative data, enabling performance of a variety of statistical analyses. The program is suitable for processing time-series, panel, and cross-sectional data, and it is available for major operating systems, including versions for Linux/Unix, Windows, and Mac. In recent years, Stata's popularity has risen with social scientists, biostatisticians, psychologists, medical researchers, epidemiologists, and economists, among others (Pevalin & Robson, 2009). Stata was developed by StataCorp, a U.S. company based in College Station, Texas. Since 2001, StataCorp has also published *Stata Journal*, indexed in Current Contents/Social & Behavioral Sciences and the Social Sciences Citation Index.

The first version of the software was released in January 1985, and the latest version at the date of printing—version 14—was launched April 2015 (Gould, 2015). The standard version of the software is Stata/IC (Intercooled Stata), which can perform statistical tasks using up to 2,047 variables. Other versions include Stata/SE, more appropriate for large datasets; Stata/MP, a faster parallel-processor equivalent of Stata/SE; and Small Stata, a more basic variant for students.

The interface of the software is composed of five main docked windows, whose configuration can be altered and saved according to the user's preferences. *Results* is the main window, which displays all entered commands as well as the results of any operation performed. *Review* serves as a commands and operations history, displaying information about what has been run in the current session. *Variables* shows all variables contained in the data file. When the user clicks on any variable in this window, the *Properties* window displays specific information about that variable, in particular its name, type, format, and assigned label. Through the *Command* window, users enter commands to perform all statistical analyses. The ensemble of commands makes up the syntax or code.

Stata is easy to use, and it is also a relatively powerful and efficient statistical tool. It has a wide array of commands that allow users to easily perform most common statistical analyses. The program is particularly well suited for regression-based analysis (e.g., multivariate regression or logistic regression), an area in which Stata outperforms most competing software in terms of time efficiency and ease of interpretation of the results. Stata also excels in managing survey and time series data, which makes it very popular in social sciences. Besides these advantages, Stata is adaptable to more specific

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requirements through so-called ado-files. These software files are developed by an active community of users and also published—and tested—by the *The Stata Journal*.

Despite these advantages, State is not without its disadvantages. For example, Stata is neither free nor open source—unlike other packages such as R or PSPP. Also, Stata is more analytical than programming-oriented, which makes it hardly suited for developing and coding new mathematical algorithms or nonstandard analyses. Stata is also inappropriate for very large datasets that do not fit into main memory, for which other options such as SAS are better suited.

SEE ALSO: AcqKnowledge (Software); Amos (Software); MATLAB; Mplus; R (Software); SAS (Software); SPSS (Software); Stata (Software)

References

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Further reading

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