Many software packages are available for statistical analysis on desktop computers. The most commonly used at Cornell are SAS, SPSS, SYSTAT, Minitab, Data Desk, and STATA. They differ in their intended audiences and approaches, and have different strengths and weaknesses. Each is available for both Windows and Macintosh operating systems. This newsletter provides information on choosing and obtaining statistical software for desktop computers. Menu- and command-driven software are considered separately.

Menu-Driven Software.

These packages are generally user-friendly and easy to learn. They are especially useful in data exploration and creating graphs. Although most users prefer to use pull-down menus, these programs also allow the user to write and run programs using command syntax. SPSS and SYSTAT are general-purpose statistical packages that offer a variety of data manipulation, statistical analysis, and graphing tools. Cornell has a site license for SPSS and SYSTAT, which is managed by the Cornell Institute for Social and Economic Research (CISER) See their web page (http://www.ciser.cornell.edu) for more information. In addition, students may purchase SPSS and SYSTAT at the campus store for a special price. The SPSS website (http://www.spss.com) gives more information about the capabilities of these packages. Minitab is a basic statistics and graphics package that is used in several introductory statistics classes.

Minitab is available free of charge to Cornell-owned computers. More information is available on the web at http://www.cit.cornell.edu/site-licenses/minitab.html. The Minitab home page is located at http://www.minitab.com. Data Desk is used in several introductory statistics classes, and is especially strong in exploratory data analysis. It was originally written for the Macintosh but is now available for Windows 95. It is available from the Campus Store. The Data Description, Inc. home page at http://www.datadesk.com has more information. There are a number of other menu-driven statistical software packages that are less widely used at Cornell. Two examples are JMP and Statistica. JMP was developed by SAS institute, but unlike SAS, has a graphical user interface. It can be purchased at the Campus Store. Statistica is available directly from StatSoft, Inc. The StatSoft web page is located at http://www.statsoftinc.com.

Command-Driven Software

These packages require the use of programming statements and therefore take longer to learn. They tend to have extensive capabilities for advanced statistical analyses. SAS offers the widest range of data processing and analysis capabilities, and is considered an industry standard. The SAS site license at Cornell is administered by CISER; check their web page for how to obtain SAS for your computer. The SAS Institute home page is located at http://www.sas.com.

STATA provides many of the programming and analysis features of SAS. It offers straightforward implementations of complex analyses including event history analysis and econometric models. Features and ordering information are available on the Stata home page at http://www stata.com.
Many other command-driven software programs, such as S-plus, Matlab, and Gauss, offer statistical analysis features. These programs tend to be used by statisticians rather than by researchers in other fields. A comparative review of the Macintosh versions of Data Desk, JMP, Minitab, Statistica, and SYSTAT appeared in a recent issue of the American Statistician. For a copy, contact anyone in the Statistical Consulting office. We are not aware of a current, similar review of statistical software for the Windows operating system.

Your choice of software should be determined by your individual needs. We have experience with most of the packages listed here, and would be happy to meet with you to discuss the relative merits of the software, and let you try out the software before you decide which to buy.


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