

Intro to Statistical Packages: Background and Utility



Tulane Team
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Tools for *Data Entry* and *Data Analysis*

The following computer software programs are helpful for data entry and data analysis. Please note that although these tools have been listed under data entry or data analysis, many can be used for both. Each will be described further throughout the slides.

Data Entry

- **CSPro**
- **EpiInfo**
- **EpiData Entry**

Data Analysis

- **EpiData Analysis**
- **SPSS/PASW**
- **Microsoft Excel**
- **Stata**

Census and Survey Processing System

CSPro

- ***Who developed it?***

CSPro is developed by **MEASURE** partners, the **U.S. Bureau of the Census**, **ORC Macro's**, **MEASURE DHS+** project, and **SerPro S.A.**. Funding for the development is provided by **the Center for Population, Health, and Nutrition** of the **United States Agency for International Development**.

- ***What is it?***

CSPro is a public-domain software package for entering, processing, tabulating, and mapping census and survey data.

- ***What does it do?***

CSPro is designed to fulfill the census and survey data processing needs of data-producing organizations worldwide.

Access to CSPro

- ***Where can you get it?***

CSPro can be downloaded from the U.S. Census Bureau Web site (link: <http://census.gov/>). On the **Homepage**, refer to the left hand column, click on **Data Tools** and scroll down to the heading **Software to Download** (link: <http://www.census.gov/main/www/access.html>)

- ***What does it cost?***

It's free! But you must register to download the software.

- ***User assistance***

Link: <http://www.census.gov/ipc/www/cspro/download/cspro30.pdf>



Source: <http://measuredhs.com/cspro/start.cfm>

EpiInfo

- ***Who Developed it?***

EpiInfo was developed by the **Center for Disease Control and Prevention** (CDC) 20 years ago and is still developing enhanced programs for this software.

- ***What is it?***

EpiInfo is a public domain software which assists its users in for electronic survey creation, data entry, and analysis.

- ***What does it do?***

EpiInfo allows for electronic survey creation, data entry, and analysis including visualization of data through GIS. Within the analysis module, analytic routines include t-tests, ANOVA, nonparametric statistics, cross tabulations and stratification with estimates of odds ratios, risk ratios, and risk differences, logistic regression (conditional and unconditional), survival analysis (Kaplan Meier and Cox proportional hazard), and analysis of complex survey data.

Access to EpiInfo

- ***Where can you get it?***

Downloading **EpiInfo** can be found at: <http://www.cdc.gov/epiinfo/>

EpiInfo can be found in various languages including French, however there may have to purchase the translated version. (link to translations: <http://www.cdc.gov/epiinfo/epi6/ei6trans.htm>)

- ***What does it cost?***

EpiInfo is free!

- ***User assistance***

Link: http://www.glitc.org/epicenter/publications/tools/Epi_Info_Beginners_Manual.pdf



EpiData Entry/ EpiData Analysis

- ***Who developed it?***

EpiData Entry and **EpiData Analysis** were developed by the non-profit organization "The EpiData Association" from Odense, Denmark.

- ***What is it?***

EpiData Entry is a computer software used for simple or programmed data entry and data documentation.

EpiData Analysis is a computer software for statistical analysis.

- ***What does it do?***

EpiData Entry handles simple forms or related systems Optimised documentation and error detection features. **E.g.** double entry verification, list of ID numbers in several files, codebook overview of data, date added to backup and encryption procedures.

EpiData Analysis performs basic statistical analysis, graphs, and comprehensive data management. **E.g.** descriptive statistics, SPC Charts, Recoding data, label values and variables, and defining missing values.

Access To

EpiData Entry/ EpiData Analysis

- ***Where can you get it?***

You can download both **EpiData Entry** and **EpiData Analysis** from <http://www.epidata.dk/download.php>. Note: **EpiData Entry** is available in several languages including English and French. **EpiData Analysis** also provides user manuals in English and French.

- ***What does it cost?***

Its Free!

- ***User assistance***

Refer to general flyer.

link: <http://www.epidata.dk/>



Statistical Package for Social Sciences

SPSS / PASW

- ***Who Developed it?***

SPSS/PASW was developed by IBM, as a company, and initially released in 1968.

- ***What is it?***

SPSS/PASW is among the most widely used programs for statistical analysis in social science. It is used by market researchers, health researchers, survey companies, government, education researchers, marketing organizations and others.

- ***What is PASW?***

PASW stands for Predictive Analytics SoftWare. PASW was the name in 2009 ([v. 18](#)). However, as of January 2010, it became "SPSS: An IBM Company".

- ***What does it do?***

Some of **SPSS/PASW** features include: statistical analysis, data management (case selection, file reshaping, creating derived data) and data documentation (a metadata dictionary is stored in the datafile).

- ***Available Software***

In addition, **SPSS/PASW** has four unique software for Data Collection, Statistics, Modeling and Deployment. Each software has various programs that enhance its ability to illustrate information.

Source: <http://en.wikipedia.org/wiki/SPSS> [p://www.epidata.dk/](http://www.epidata.dk/)
http://www.spss.com/?source=homepage&hpzone=nav_bar



Access to SPSS/PASW

- ***Where can you get it?***

You can purchase **SPSS/PASW** by finding institutions which sell computer software or by visiting their webpage at <http://www.spss.com/>. **SPSS/PASW** offers packages in various languages including, English, French, Spanish, German, Japanese, Italian, and Chinese. However, if the particular package you want is not offered in the appropriate language, translated user manuals can be found.

- ***What does it cost?***

SPSS/PASW has varying prices depending on version and available applications. The software generally runs between \$500-\$700.

However, there is a free 14-day trial of **SPSS/PASW** that can be found by visiting SPSS homepage at <http://www.spss.com/>

- ***User Assistance***

Assistance can be found at <http://www.ats.ucla.edu/stat/spss/> and technical support at <http://support.spss.com/>

Microsoft Excel

- ***Who developed it?***

Microsoft Excel was developed through Microsoft. Excel for the Mac was first released in 1985, and the first Windows version in November 1987.

Charles Simonyi (born September 10, 1948), a Hungarian-American computer software executive who, as head of Microsoft's application software group, oversaw the creation of Microsoft's flagship office applications including Word and Excel.

- ***What is it?***

Microsoft Excel is a spreadsheet application written and distributed by Microsoft for Microsoft Windows and Mac OS X.

- ***What does it do?***

Microsoft Excel features calculation, graphing tools, pivot tables and a macro programming language called VBA (Visual Basic for Application). Various Excel add-ins are available to enhance its statistical function.



Access to Microsoft Excel

- ***Where can you get it?***

Microsoft Excel can be purchased by download or shipment at this link: <http://store.microsoft.com/microsoft/Excel-2010/product/C7E5787D>

Microsoft Excel is offered in multiple languages including French (Link: <http://office.microsoft.com/en-au/suites/the-2007-microsoft-office-suites-localized-versions-HA010211370.aspx?CTT=5&origin=HA010316131>). Furthermore, there are proofing tools included for various other languages as well. If this is not enough, **Microsoft** offers a Language Interface Packs (LIP) which enables you to change the user interface (UI) language for Microsoft Office Excel, Outlook, PowerPoint and Word (Link: <http://office.microsoft.com/en-au/suites/microsoft-office-2007-language-interface-pack-overview-HA010316131.aspx?CTT=1>).

- ***What does it cost?***

Microsoft Excel 2010 costs \$139.99

- ***User Assistance***

Assistance for **Microsoft Excel** (2003-2007) can be found at <http://office.microsoft.com/en-us/excel-help/interactive-excel-2003-to-excel-2007-command-reference-guide-HA010149151.aspx>

Stata

- ***Who developed it?***

Stata was developed by StataCorp in 1985.

- ***What is it?***

Stata is a general-purpose statistical software package. It is used by many businesses and academic institutions around the world. Most of its users work in research, especially in the fields of economics, sociology, political science, and epidemiology.

- ***What does it do?***

Stata works in data management, statistical analysis, graphics, simulations, and custom programming.

- ***Available software***

- **Stata** offers five different softwares **Stata/MP**, **Stata/SE**, **Stata/IC**, **Small Stata**, and **Numerics by Stata**. Each vary in their capacity and focus.

Access to Stata

- ***Where can you get it?***

You can purchase **Stata** by visiting their homepage at <http://www.stata.com/>.

- ***What does it cost?***

Depending on the version of **Stata** purchase it may cost \$600-\$1000.

- ***User Assistance***

You may find assistance by purchasing the user guide while technical assistance can be found at <http://www.stata.com/support/tech-support/>

