

The SPSS logo is a red square with the letters "SPSS" in white, bold, sans-serif font. It is positioned at the top of a white vertical bar that runs down the right side of the page.

**SPSS**

## WHO WE ARE

SPS is an Italian center of statistical data analysis with more than 20 years of experience.

SPS was born in 1994 as SPSS Italia and it was the only reseller in Italy for SPSS software suite, authorised by SPSS inc.

Today SPS is an IBM Gold Business Partner, Software Support Provider and Expert Level in Data Science & Business Analytics.

## CONTACTS

Registered office:  
Via Antonio Zanolini, 36 A/B  
40126 Bologna (BO)

Operational headquarters:  
Via Isonzo, 55/2  
40033 Casalecchio di Reno (BO)  
P.I. 04222630370  
Tel. 051-252573  
[www.spss.it](http://www.spss.it)

## STATISTICS FOR DATA ANALYSIS

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**Statistics Tables**  
Datasheet

# Statistics for Data Analysis

Organizations can solve a wide array of business and research problems with the solution [Statistics for Data Analysis](#).

Compared to other statistical software, the solution is easier to use, has a lower total cost of ownership and more comprehensively addresses the entire analytical process, from planning to data collection to analysis, reporting and deployment.

Organizations of all types rely on Statistics for Data Analysis to help increase revenue, outmaneuver competitors, conduct research and make better decisions. With decades of built-in expertise and innovation, it's a leading choice for reliable statistical analysis.

Statistics Base is part of the solution Statistics for Data Analysis, which consists of:

- Software license
- Add-On
- SPS Service Program

This comprehensive, easy-to-use solution includes many different procedures and tests to help users solve complex business and research challenges.

## Highlights Statistics for Data Analysis

- Get support through every step of the analytical process
- Carry out essential analyses from an intuitive graphical interface
- Select from more than a dozen integrated products to make specialized analyses faster and easier

# Statistics for Data Analysis

The solution analytical capabilities to meet the analysis requirements of any type of organization, from basic tools for solving common problems to advanced analytical techniques that enable all type of organization to address complex challenges.

Statistics for Data Analysis can help you:

- Support business decisions with data-based analytics for improved outcomes
  - Be more confident in your results by incorporating data from many different sources, including geospatial information, in your analysis and using proven, tested techniques to perform your analysis
  - Save time and effort with capabilities that enable experienced analysts to develop procedures or dialogs that others can use to speed through repetitive tasks
  - Give results greater impact by using visualization capabilities that clearly show others the significance of your findings
- Analyze your data with new and advanced statistics, including a variety of new features within UNIANOVA methods
  - Integrate better with third-party applications, including stronger integration with Microsoft Office
  - Save time and effort with productivity enhancements:
    - More attractive and modern-looking charts in Chartbuilder
    - New groundbreaking features in Statistics Amos 25
    - Data and syntax editor enhancements
    - Accessibility improvements for the visually impaired
    - Updated merge user interface
    - Simplified toolbars

Statistics for Data Analysis can access quickly, manage and analyze any kind of dataset, including survey data, corporate databases or data downloaded from the web.

In addition, the software can process Unicode data. This eliminates variability in data due to language-specific encoding and enables your organization to view, analyze and share data written in multiple languages.

# Statistics Tables

## Datasheet

### Highlights

- Build tables quickly and easily using drag-and-drop functionality
- Preview tables as you build them and make changes in real time
- Exclude specific categories, display missing value cells, add subtotals to your table, and more
- Easily export tables to Microsoft Word, Microsoft Excel or Microsoft PowerPoint for use in reports
- Automate the reports you use frequently

You often report the results of your analyses to decision makers, colleagues, clients, grant committees or others. Building tabular reports, however, can be a time-consuming, trial-and-error process. Statistics Tables enables you to view your tables as you build them, so you can create polished, accurate tables in less time.

Statistics Tables makes it easy for you to summarize your Statistics data in different styles for different audiences. Its build-as-you-go interface updates in real time, so you always know what your tables will look like. You can add descriptive and inferential test statistics, for example, and then customize the table so your audience can easily understand the information. When your tables are complete, you can export them to Word, Excel and PowerPoint, as well as HTML.

This software is ideal for anyone who creates and updates reports on a regular basis, including people who work in survey or market research, the social sciences, database or direct marketing and institutional research.

# Statistics Tables

## Datasheet

Statistics Tables offers features that make it easier than ever to deliver information your colleagues can act on without further processing. These capabilities include:

- Calculated output fields - Save time and effort by creating new fields directly in your Statistics Tables output, and using them to perform calculations (e.g., sum, difference, percentage difference) on output categories.
- Significance test results in the output - The results of significance tests are shown directly in Statistics Tables output instead of in a separate table, removing the need to combine findings manually.
- An interactive table builder - Preview your tables as you create them.
- Category management - Exclude specific categories, display missing value cells and add subtotals to your table
- Significance tests - Chi-square test of independence, comparison of column means ( $t$  test) or comparison of column proportions ( $z$  test).
- Easy export of tables to Word, Excel or PowerPoint for use in reports.

### Preview tables as you build them

The Statistics Tables intuitive graphical user interface takes the guesswork out of building tables. Its drag-and drop capabilities and preview pane enable you to see what your tables will look like before you click “OK.”

Create your own dictionary information for variables with Custom Attributes. For example, create a custom attribute that represents the full text of a survey question when a code name such as “demo01” is used as the variable name. You can also create custom attributes describing transformations for a derived variable with information explaining how you transformed the variable.

To create a table, just drag your desired variables into the table preview builder. You don’t have to write complicated syntax or work with dialog boxes. And you can move variables easily from row to column for precise positioning. The table preview builder updates after every change you make, so you can see the formatting effect immediately. You can also add, swap and nest variables, or hide variable labels, directly from within the table preview builder. And you can collapse large, complex tables for a more concise view, and still see your variables.

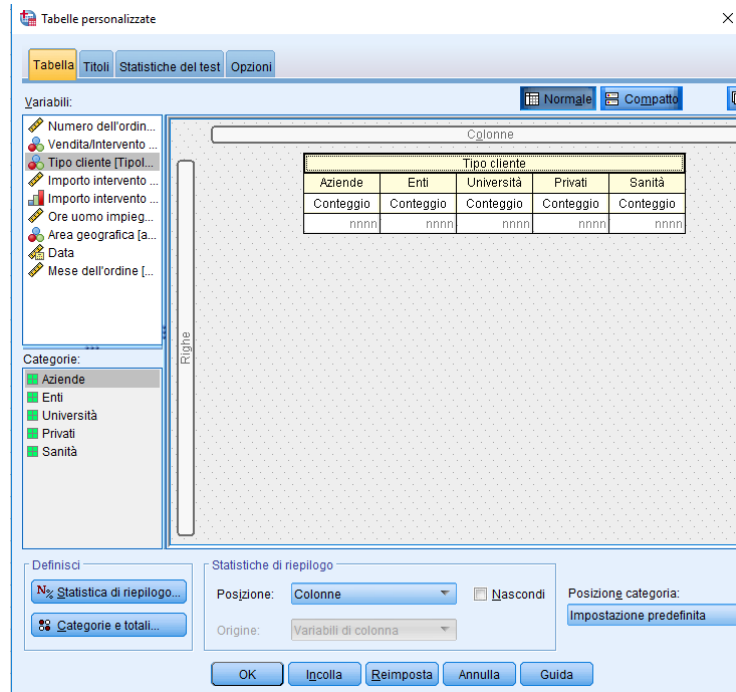


Figure 1: Statistics Tables has an intuitive graphical user interface that takes the guesswork out of building tables. Drag your desired variables to the table builder. As shown in this screen, you can preview the category list (lower left corner) before dragging the desired categories to the table.

### Customize your tables

Display information the way you want to with the category management features in Statistics Tables. Create totals and subtotals without changing your data file. You can combine several categories into a single category, for example, for frequent top- and bottom-box analyses. You can also sort categories within your table without affecting the subtotal calculation.

Make your tables more precise, as you create them, by changing variable types or excluding categories. You can display or exclude categories with no counts for clearer and more concise output. Or sort and rank categories based on cell values for a neater, more informative table.

### Get in-depth analyses

You can use Statistics Tables as an analytical tool to understand your data better and create tables that present your results most effectively. Give your readers reports that enable them to delve into the information and make well-informed decisions.

Highlight opportunities or problem areas in your results when you include inferential statistics. Using inferential test statistics enables you to compare means or proportions for demographic groups, customer segments, time periods or other categorical variables. You can also identify trends, changes or major differences in your data.

You can also select summary statistics, which include everything from simple counts for categorical variables to measures of dispersion. Summary statistics for categorical variables and multiple response sets include counts and a wide variety of percentage calculations, including row, column, subtable, table and valid N percentages. Summary statistics for scale variables and custom total summaries for categorical variables include mean, median, percentiles, sum, standard deviation, range and minimum and maximum values. To focus on specific results, you can sort categories by any summary statistic you used.

### Control your table output

Many time-saving features in Statistics Tables help you create tables with just the look you want. You can:

- Add titles and captions.
- Use table expressions in titles.
- Specify minimum and maximum column widths for individual tables during table creation.

And, when used Statistics Base, you can access additional features such as TableLook and scripts, which allow you to automate formatting and other repetitive tasks.

		Area geografica	
		Europa	Resto del mondo
		Conteggio	Conteggio
Tipo cliente	Aziende	86	58
	Enti	53	42
	Università	97	75
	Privati	9	3
	Sanità	36	27

*Figure 2:*Two-dimensional crosstabulation: This example shows the relationship between two categorical variables, Geographic area and Customer. Using Geographic area as the row variable and Customer as the column variable, you can create a two-dimensional crosstab that shows the number of Customer in each Geographic area category.

### Share results more easily with others

Once you have results, you need to put them in the hands of those who need them. Statistics Tables enables you to create results as interactive pivot tables for export to Word or Excel. This not only improves your workflow, it saves time because you don't have to reconfigure your tables. No editing is required after you export your tables. You can, however, insert descriptive content if you choose to.

### Save time and effort by automating frequent reports

Do you regularly create reports that have the same structure? Do you spend a lot of time updating reports? Use syntax and automation in Statistics Tables to run frequently needed reports in production mode.

When you create a table, Statistics Tables records every click you make and saves your actions as syntax. To run an automated report, you simply paste the relevant syntax into a syntax window, then just click and go. With syntax and automation, your report is ready quickly and easily.



# Statistics Tables Features

## Graphical user interface

- Simple, drag-and-drop table builder interface enables you to preview tables as you select variables and options
- Single, unified table builder, instead of multiple menu choices and dialog boxes for different table types, makes building tables easier

## Control contents

- Create tables with up to three display dimensions: Rows (stub), columns (banner), and layers
- Nest variables to any level in all dimensions
- Crosstabulate multiple independent variables in the same table
- Display frequencies for multiple variables side by side with tables of frequencies
- Display all categories when multiple variables are included in a table, even if a variable has a category without responses
- Display multiple statistics in rows, columns or layers • Place totals in any row, column or layer
- Create subtotals for subsets of categories of a categorical variable
- Perform calculations (e.g., sum, difference, percentage difference) on output categories, and display the results in new fields created directly in SPSS Custom Tables output
  - No limit on the number of calculated fields
- Show significance test results directly in the output instead of in a separate table
  - No need to combine findings in a Word document
  - Complies with APA guidelines
- Customize your control over category display order and selectively show or hide categories
- Better control how you display your data using expanded category options:
  - Sort categories by any summary statistic in your table
  - Hide the categories that comprise subtotals - you can remove a category from the table without removing it from the subtotal calculation

## Test statistics

- Select from these significance tests:
  - Chi-square test of independence
  - Comparison of column means (*t* test)
  - Comparison of column proportions (*z* test)
- Select from these summary statistics: Count, count row %, count column %, count table %, count subtable %, layer %, count table row %, count table column %, valid N row %, valid N column %, valid N table %, valid N subtable %, valid N layer %, valid N table row %, valid N table column %, total N row %, total N column %, total N table %, total N subtable %, total N layer %, total N table row %, total N table column %, maximum, mean, median, minimum, missing, mode, percentile, percentile 05, percentile 25, percentile 75, percentile 95, percentile 99, range, standard error (SE) mean, standard deviation (SD), sum, total N, valid N, variance, sum row %, sum column %, sum table %, sum subtable %, sum layer %, sum table row % and sum table column %
- Calculate statistics for each cell, subgroup or table
- Calculate percentages at any or all levels for nested variables
- Calculate counts and percentages for multiple response variables based on the number of responses or the number of cases
- Select percentage bases for missing values to include or exclude missing responses
- Exclude subtotal categories from significance tests
- Run significance tests on multiple response variables

## Formatting controls

- Directly edit any table element, including formatting and labels
- Sort tables by cell contents in ascending or descending order
- Automatically display labels instead of coded values
- Specify minimum and maximum width of table columns (overrides TableLooks)
- Show a name, label or both for each table variable
- Display missing data as blank, zero, “.”, or any other user-defined term, such as “missing”
- • Set titles for pages and tables to be multiple lines with left, right or center justification

- Add captions for pages or tables
- Specify corner labels
- Customize labels for statistics
- Display the entire label for variables, values and statistics
- Format numerical results: Commas, date/time, dollars, F (standard numeric), negative parentheses, “N=,” parentheses (around numbers of percentages), percentages and customized formats
- Apply preformatted TableLooks to results
- Define the set of variables that is related to multiple response data and save it with your data definition for subsequent analysis
- Accepts both long- and short-string elementary variables
- Imposes no limit on the number of sets that can be defined or the number of variables that can exist in a set
- All results are produced as Statistics pivot tables so you can explore your results more easily with the pivot feature
  - Rearrange columns, rows, and layers by dragging icons for easier ad hoc analysis
  - Toggle between layers by clicking on an icon for easier comparison between subgroups
  - Reset a table to its original organization with a simple menu choice
  - Rotate even the outermost nests in the stub, banner and layer to uncover information that can be easily hidden in large reports

### Syntax

- Syntax converter translates syntax created in versions earlier than SPSS Tables 11.5 into CTABLES syntax

### Printing formats

- Print more than one table per page
- Specify page layout: Top, bottom, left and right margins; page length
- Use the global break command to produce a table for each value of a variable when the variable is used in a series of tables

### Two-stage least squares (2SLS)

Helps control for correlations between predictor variables and error terms

- Use structural equations and instrumental variables
- Set control for correlations between predictor variables and error terms
- Display output in pivot tables

### Probit

Evaluates the value of stimuli using a logit or probit transformation of the proportion responding

- Transform predictors: Base 10, natural or user-specified base (including none)
- Allow for natural response rate estimates or specify them yourself
- Use algorithm control parameters: Convergence, iteration limit and heterogeneity criterion probability
- Select from the following statistics: Frequencies, fiducial confidence intervals, relative median potency, test of parallelism, plots of observed probits or logits
- Display output in pivot tables

### Statistics for Data Analysis solution

Add more analytical power, as you need it, with optional modules and stand-alone software from the Statistics for Data Analysis family.

#### Statistics Base

Statistics Base includes the core capabilities to take the analytical process from start to finish. It is easy to use and includes a broad range of procedures and techniques to increase revenue, outperform competitors, conduct research and make better decisions.

#### Statistics Advanced

Statistics Advanced includes these powerful multivariate techniques: generalized linear models (GENLIN), generalized estimating equations (GEE), mixed level models, general linear mixed models (GLMM), variance component estimation, MANOVA, Kaplan-Meier estimation, Cox regression, hiloglinear, loglinear and survival analysis.

#### Statistics Bootstrapping

Statistics Bootstrapping enables researchers and analysts to use bootstrapping techniques on a number of tests contained in Statistics for Data Analysis modules. This provides an efficient way to ensure that your models are stable and reliable. With Statistics Bootstrapping, you can reliably estimate the standard errors and confidence intervals of a population parameter like a mean, median, proportion, odds ratio, correlation coefficient, regression coefficient and numerous.

#### Statistics Categories

Unleash the full potential of your categorical data through perceptual maps with optimal scaling and dimension reduction techniques. This add-on module provides you with everything you need to analyze and interpret multivariate data and their relationships more completely.

#### Statistics Complex Samples

Incorporate complex sample designs into data analysis for more accurate analysis of complex sample data. Statistics Complex Samples, with specialized planning tools and statistics, reduces the risk of reaching incorrect or misleading inferences for stratified, clustered or multistage sampling.

#### Statistics Conjoint

Statistics Conjoint helps market researchers develop successful products. By performing conjoint analysis, you learn what product attributes are important in the consumer's mind and what the most preferred attribute levels are, and can perform pricing studies and brand equity studies.

#### Statistics Tables

Use Statistics Tables to present survey, customer satisfaction, polling and compliance reporting results. Features such as a table builder preview, included inferential statistics and data management capabilities make it easy to clearly communicate your results.

### Statistics Preparation

With Statistics Preparation, you gain several procedures that facilitate the data preparation process. This add-on module enables you to easily identify suspicious and invalid cases, variables and data values; view patterns of missing data; summarize variable distributions to get your data ready for analysis; and more accurately work with algorithms designed for nominal attributes.

### Statistics Decision Trees

Create highly visual classification and decision trees directly within Statistics for Data Analysis for segmentation, stratification, prediction, data reduction and variable screening, interaction identification, category merging and discretizing continuous variables. Highly visual trees enable you to present results in an intuitive manner.

### Statistics Direct Marketing

Statistics Direct Marketing helps marketers perform various kinds of analyses easily and confidently, without requiring a detailed understanding of statistics. They can conduct recency, frequency and monetary value (RFM) analysis, cluster analysis, and prospect profiling. They can also improve marketing campaigns through postal code analysis, propensity scoring, and control package testing. And they can easily score new customer data and access pre-built models.

### Statistics Exact Tests

Statistics Exact Tests always provides you with correct p values, regardless of your data structure, even if you have a

small number of cases, have subset your data into fine breakdowns or have variables where 80 percent or more of the responses are in one category.

### Statistics Forecasting

Improve forecasting with complete time-series analyses, including multiple curve-fitting, smoothing models, methods for estimating autoregressive functions and temporal causal modelling. Use the Expert Modeler to automatically determine

which ARIMA (autoregressive integrated moving average) process or exponential smoothing model best fits your time-series and independent variables, eliminating selection through trial and error.

### Statistics Missing Values

If values are missing from your data, this module may find some relationships between the missing values and other variables. In addition, the missing values module can estimate what the value would be if data weren't missing.

### Statistics Neural Networks

Use the Statistics Neural Networks module to model complex relationships between inputs and outputs or to discover patterns in your data. Choose from algorithms that can be used for classification (categorical outcomes) and prediction (numerical outcomes). The two available algorithms are Multilayer Perceptron and Radial Basis Function.

### **Statistics Regression**

Predict behavior or events when your data go beyond the assumptions of linear regression techniques. Perform multinomial or binary logistic regression and nonlinear regression, weighted least squares, two-stage least squares and probit analysis.

### **Complementary product**

Use these products with Statistics for Data Analysis to enhance your analytical results.

### **Statistics Amos**

Support your research and theories by extending standard multivariate analysis methods when using this stand-alone software package for structural equation modeling (SEM). Build attitudinal and behavioral models that more realistically reflect complex relationships, because any numeric variable, whether observed or latent, can be used to predict any other numeric variable. The latest release includes a new nongraphical method of model specification that improves accessibility for users who need scripting capabilities and enables large, complicated models to be run more quickly.