

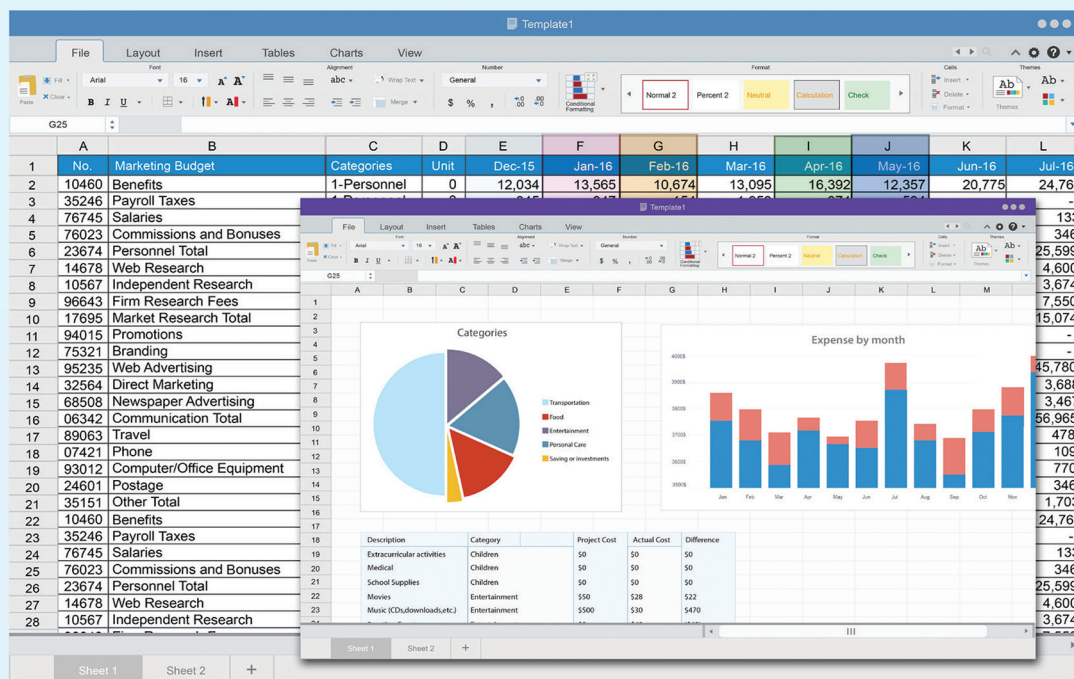


Statistics for Managers

Using Microsoft® Excel®

NINTH EDITION

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A ROADMAP FOR SELECTING A STATISTICAL METHOD

Data Analysis Task	For Numerical Variables	For Categorical Variables
Describing a group or several groups	<p>Ordered array, stem-and-leaf display, frequency distribution, relative frequency distribution, percentage distribution, cumulative percentage distribution, histogram, polygon, cumulative percentage polygon (Sections 2.2, 2.4)</p> <p>Mean, median, mode, geometric mean, quartiles, range, interquartile range, standard deviation, variance, coefficient of variation, skewness, kurtosis, boxplot, normal probability plot (Sections 3.1, 3.2, 3.3, 6.3)</p> <p>Index numbers (online Section 16.7)</p> <p>Dashboards (Section 17.2)</p>	<p>Summary table, bar chart, pie chart, doughnut chart, Pareto chart (Sections 2.1 and 2.3)</p>
Inference about one group	<p>Confidence interval estimate of the mean (Sections 8.1 and 8.2)</p> <p>t test for the mean (Section 9.2)</p> <p>Chi-square test for a variance or standard deviation (online Section 12.7)</p>	<p>Confidence interval estimate of the proportion (Section 8.3)</p> <p>Z test for the proportion (Section 9.4)</p>
Comparing two groups	<p>Tests for the difference in the means of two independent populations (Section 10.1)</p> <p>Wilcoxon rank sum test (Section 12.4)</p> <p>Paired t test (Section 10.2)</p> <p>F test for the difference between two variances (Section 10.4)</p> <p>Wilcoxon signed ranks test (online Section 12.8)</p>	<p>Z test for the difference between two proportions (Section 10.3)</p> <p>Chi-square test for the difference between two proportions (Section 12.1)</p> <p>McNemar test for two related samples (online Section 12.6)</p>
Comparing more than two groups	<p>One-way analysis of variance for comparing several means (Section 11.1)</p> <p>Kruskal-Wallis test (Section 12.5)</p> <p>Randomized block design (online Section 11.3)</p> <p>Two-way analysis of variance (Section 11.2)</p>	<p>Chi-square test for differences among more than two proportions (Section 12.2)</p>
Analyzing the relationship between two variables	<p>Scatter plot, time series plot (Section 2.5)</p> <p>Covariance, coefficient of correlation (Section 3.5)</p> <p>Simple linear regression (Chapter 13)</p> <p>t test of correlation (Section 13.7)</p> <p>Time-series forecasting (Chapter 16)</p> <p>Sparklines (Section 2.7)</p>	<p>Contingency table, side-by-side bar chart, PivotTables (Sections 2.1, 2.3, 2.6)</p> <p>Chi-square test of independence (Section 12.3)</p>
Analyzing the relationship between two or more variables	<p>Colored scatter plots, bubble chart, treemap (Section 2.7)</p> <p>Multiple regression (Chapters 14 and 15)</p> <p>Dynamic bubble charts (Section 17.2)</p> <p>Regression trees (Section 17.3)</p> <p>Cluster analysis (Section 17.4)</p>	<p>Multidimensional contingency tables (Section 2.6)</p> <p>Drilldown and slicers (Section 2.7)</p> <p>Logistic regression (Section 14.7)</p> <p>Classification trees (Section 17.3)</p> <p>Multiple correspondence analysis (Section 17.5)</p>

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