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# STATA

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# THE STATA JOURNAL

The *Stata Journal* is a quarterly publication containing articles about statistics, data science, teaching methods, and the effective use of Stata's language. Whether you are a Stata rookie or a seasoned veteran, each issue of the *Stata Journal* is sure to have helpful information for you.

## ABOUT THE STATA JOURNAL

The *Stata Journal* has served as a hub for the collected wisdom of countless Stata users since 2001, continuing a tradition started with the publication of the first issue of the *Stata Technical Bulletin* in 1991. The *Stata Journal* includes peer-reviewed articles together with shorter notes and comments, regular columns, book reviews, and other material of interest for Stata users.

## PEER-REVIEWED ARTICLES

- Articles that help readers comprehend and apply cutting-edge statistical methods to their research.

- Articles on the statistical properties of new or existing estimators, tests, and features of Stata that broaden the understanding of intermediate and advanced Stata users.

- Articles that are interesting and useful, covering topics that are of practical importance to researchers yet are not often written about elsewhere. An example topic could be managing large datasets, with advice from Stata users with hard-won experience.

- Articles of interest to those teaching with Stata. Topics include examples of techniques with interpretation of results, simulations of statistical concepts, and overviews of subject areas.

## STATISTICAL TECHNIQUES AND STATA FEATURES

The *Stata Journal* includes articles that cover a broad spectrum of statistical techniques. Whether you are a biostatistician, economist, social scientist, behavioral scientist, survey analyst, or just interested in rigorous applied statistical methods, you will find useful and insightful articles in the *Stata Journal*. Examples of topics discussed in past articles include the following:

### Survival analysis

Cure models • Competing-risks models • Parametric frailty models • Life-table estimation of relative survival • Censored data regression with pseudovalues • Flexible parametric models • Model comparison with Harrell's *C* and Somers's *D* • Joint longitudinal and survival data • Threshold regression • G-estimation • Data simulation • Aalen's linear hazards model

### Meta-analysis

Multivariate random effects • Nonparametric trim-and-fill analysis • Missing data • Tests for bias and small-study effects • Simulation-based sample-size calculations • GLM dose-response function estimation • Diagnostic accuracy with hierarchical logistic regression • Contour-enhanced funnel plots • Forest plots

### Advanced methods

Maximum simulated likelihood • Multivalued treatment effects • Propensity-score and nearest-neighbor matching • Multiple imputation • Principal coordinate analysis • Power and sample size • GLM measurement error and calibration • Instrumental variables and GMM • Semiparametric regression • Demand system estimation • Nonparametric bootstrap with shrinkage • Multivariate outlier detection • Kernel density • Bayesian model averaging • Blinder-Oaxaca decompositions • Quasi-least squares • Multivariate decomposition for nonlinear response

### Graphics

Manhattan plots • Marginal model plots • Quantile plots • Confidence ellipses • Distribution plots • Inverse response plots • Smile plots • Spine plots • Thematic maps • Link plots • Bland-Altman plots • Contour-enhanced funnel plots • Forest plots • Trellis plots • Venn diagrams • Chernoff faces

### Panel data and multilevel models

Generalized linear mixed models • Dynamic panel-data models • Nonstationary panel-data models • Correlated random effects • Unbalanced panel-data estimation • Panel-data stochastic frontier models • Fixed-effects panel threshold models

### Interactive applications

Stata and Google maps • Stata and Dropbox • Stata and LaTeX • Stata and Google keyhole markup • Stata and HTML • Importing financial data • Stata and Microsoft Office • Stata and web-based information systems • Multilingual datasets

### Time series

Simulations of ARIMA models • Long-run covariance and cointegration • X-12-ARIMA seasonal adjustment • Financial portfolio selection • Seasonal unit-root tests • Tests for serial correlation • Interrupted time-series analysis

## SPEAKING STATA

"Speaking Stata" by Nicholas J. Cox, geographer at Durham University and long-time Stata user, concentrates on the effective and fluent use of Stata as a language. Advice and detailed examples cover the commands, devices, habits, tricks, tactics, and strategies that make problem solving easier for the Stata user.

## TIPS

Stata tips are very concise notes about Stata commands, features, or tricks that you may not yet have encountered. A tip draws attention to useful details about Stata or how to use Stata. Tips are brief—usually one or two printed pages. We welcome submissions of tips from readers, as well as suggestions for the kinds of tips you would like to see.

## INDEXING

The *Stata Journal* has been added to four of Thomson Scientific's citation indexes—Science Citation Index Expanded, CompuMath Citation Index, Social Sciences Citation Index, and Current Contents/Social and Behavioral Sciences. The *Stata Journal* joins over 6,000 science, technical, mathematical, and statistical journals in these indexes and appears in cited reference search results. You can find out more about the indexes at [stata-journal.com/indexed](http://stata-journal.com/indexed).