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This is the complete contents for all manuals. Every estimation command has a postestimation entry; however, not all postestimation entries are listed here.

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  Programming

Programming
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  Parsing and program arguments
  Console output
  Commonly used programming commands
  Debugging

Customizable tables and collections
Automated document and report creation
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[GSU]  Getting Started with Stata for Unix ......................................................
[GSW]  Getting Started with Stata for Windows ..................................................
[U]    Chapter 3 ................................................. Resources for learning and using Stata
[U]    Chapter 4 .................................................. Stata’s help and search facilities
[R]    help ......................................................... Display help in Stata
[R]    search .................................................... Search Stata documentation and other resources

Data manipulation and management

Basic data commands

[D]    Intro ................................................. Introduction to data management reference manual
[D]    Data management .............................. Introduction to data management commands
[D]    codebook ............................................. Describe data contents
[D]    Data types ............................................. Quick reference for data types
[D]    Datetime ............................................. Date and time values and variables
[D]    Datetime durations ............................. Obtaining and working with durations
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[D]    Datetime values from other software  Date and time conversion from other software
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[D]    edit ................................................... Browse or edit data with Data Editor
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- clear: Clear memory
- compress: Compress data in memory
- drop: Drop variables or observations
- dyngen: Dynamically generate new values of variables
- egen: Extensions to generate
- frame copy: Make a copy of a frame
- frame drop: Drop frame from memory
- frame put: Copy selected variables or observations to a new frame
- frames reset: Drop all frames from memory
- generate: Create or change contents of variable

Functions and expressions

- Section 12.4.2.1: Unicode string functions
- Chapter 13: Functions and expressions
- Date and time functions
- egen: Extensions to generate
- Mathematical functions
- Matrix functions
- Programming functions
- Random-number functions
- Selecting time-span functions
- Statistical functions
- String functions
- Trigonometric functions

Missing values

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- generate: Create or change contents of variable
- orthog: Orthogonalize variables and compute orthogonal polynomials
- format: Set variables’ output format
- frames: Data frames
- frames intro: Introduction to frames
- insobs: Add or insert observations
- list: List values of variables
- Missing values: Quick reference for missing values
- rename: Rename variable
- save: Save Stata dataset
- sort: Sort data
- use: Load Stata dataset
- varmanage: Manage variable labels, formats, and other properties

Date and time functions

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Mathematical functions

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Matrix functions

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Mathematical functions

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Date and time functions

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Random-number functions

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- compress: Compress data in memory
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- dyngen: Dynamically generate new values of variables
- egen: Extensions to generate
- frame copy: Make a copy of a frame
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- generate: Create or change contents of variable
- orthog: Orthogonalize variables and compute orthogonal polynomials
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- list: List values of variables
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- rename: Rename variable
- save: Save Stata dataset
- sort: Sort data
- use: Load Stata dataset
- varmanage: Manage variable labels, formats, and other properties

Selecting time-span functions

- clear: Clear memory
- compress: Compress data in memory
- drop: Drop variables or observations
- dyngen: Dynamically generate new values of variables
- egen: Extensions to generate
- frame copy: Make a copy of a frame
- frame drop: Drop frame from memory
- frame put: Copy selected variables or observations to a new frame
- frames reset: Drop all frames from memory
- generate: Create or change contents of variable
- orthog: Orthogonalize variables and compute orthogonal polynomials
- format: Set variables’ output format
- frames: Data frames
- frames intro: Introduction to frames
- insobs: Add or insert observations
- list: List values of variables
- Missing values: Quick reference for missing values
- rename: Rename variable
- save: Save Stata dataset
- sort: Sort data
- use: Load Stata dataset
- varmanage: Manage variable labels, formats, and other properties

Statistical functions

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- dyngen: Dynamically generate new values of variables
- egen: Extensions to generate
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- generate: Create or change contents of variable
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- egen: Extensions to generate
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- generate: Create or change contents of variable
- orthog: Orthogonalize variables and compute orthogonal polynomials
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- varmanage: Manage variable labels, formats, and other properties

Trigonometric functions

- clear: Clear memory
- compress: Compress data in memory
- drop: Drop variables or observations
- dyngen: Dynamically generate new values of variables
- egen: Extensions to generate
- frame copy: Make a copy of a frame
- frame drop: Drop frame from memory
- frame put: Copy selected variables or observations to a new frame
- frames reset: Drop all frames from memory
- generate: Create or change contents of variable
- orthog: Orthogonalize variables and compute orthogonal polynomials
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- Missing values: Quick reference for missing values
- rename: Rename variable
- save: Save Stata dataset
- sort: Sort data
- use: Load Stata dataset
- varmanage: Manage variable labels, formats, and other properties
Strings

[U] Section 12.4 .................................................. Strings
[U] Section 12.4.2 ..................................... Handling Unicode strings
[U] Chapter 24 ........................................... Working with strings
[D] Data types ........................................ Quick reference for data types
[FN] String functions ...................................... Unicode utilities

Dates and times

[U] Section 12.5.3 ........................................... Date and time formats
[U] Chapter 25 ........................................ Business calendar file manipulation
[D] bcal .......................................................... Business calendars
[D] Datetime ............................................... Date and time values and variables
[D] Datetime business calendars ...................... Business calendars creation
[D] Datetime business calendars creation .......... Business calendars creation
[D] Datetime conversion ................................ Converting strings to Stata dates
[D] Datetime display formats ......................... Display formats for dates and times
[D] Datetime durations ................................ Obtaining and working with durations
[D] Datetime relative dates ......................... Obtaining dates and date information from other dates
[D] Datetime values from other software .......... Date and time conversion from other software

Loading, saving, importing, and exporting data

[GS] Chapter 6 (GSM, GSU, GSW) ................. Using the Data Editor
[U] Chapter 22 ........................................ Entering and importing data
[D] edit ...................................................... Browse or edit data with Data Editor
[D] export .................................................. Overview of exporting data from Stata
[D] import .................................................. Overview of importing data into Stata
[D] import dbase ........................................ Import and export dBase files
[D] import delimited .................................. Import and export delimited text data
[D] import excel ......................................... Import and export Excel files
[D] import fred .......................................... Import data from Federal Reserve Economic Data
[D] import haver ........................................ Import data from Haver Analytics databases
[D] import sas ............................................ Import SAS files
[D] import sasxport5 ................................. Import and export data in SAS XPORT Version 5 format
[D] import sasxport8 ................................. Import and export data in SAS XPORT Version 8 format
[D] import spss .......................................... Import SPSS files
[D] infile (fixed format) ............................ Import text data in fixed format with a dictionary
[D] infile (free format) .............................. Import unformatted text data
[D] infix (fixed format) ............................... Import text data in fixed format
[D] input .................................................. Enter data from keyboard
[D] jdbc ..................................................... Load, write, or view data from a database with a Java API
[D] odbc ..................................................... Load, write, or view data from ODBC sources
[D] outfile ............................................... Export dataset in text format
[D] save ..................................................... Save Stata dataset
[D] sysuse ............................................... Use shipped dataset
[D] use ...................................................... Load Stata dataset
[D] webuse ............................................... Use dataset from Stata website
Combining data

[D] append ............................................. Append datasets
[MI] mi append ....................................... Append mi data
[D] cross ................................................. Form every pairwise combination of two datasets
[D] frget ................................................ Copy variables from linked frame
[D] frlink ................................................. Link frames
[D] joinby ............................................... Form all pairwise combinations within groups
[D] merge ................................................ Merge datasets
[MI] mi merge .......................................... Merge mi data

Certifying data

[D] assert ................................................ Verify truth of claim
[D] assertnested ...................................... Verify variables nested
[D] checksum ......................................... Calculate checksum of file
[P] _datasignature ...................................... Determine whether data have changed
[D] datasync ........................................... Determine whether data have changed
[D] notes ................................................ Place notes in data
[P] signestimationsample ......................... Determine whether the estimation sample has changed

Reshaping datasets

[D] collapse ........................................ Make dataset of summary statistics
[D] contract .......................................... Make dataset of frequencies and percentages
[D] expand ............................................. Duplicate observations
[D] expandcl .......................................... Duplicate clustered observations
[D] fillin ................................................ Rectangularize dataset
[D] obs .................................................... Increase the number of observations in a dataset
[D] reshape ......................................... Convert data from wide to long form and vice versa
[MI] mi reshape ...................................... Reshape mi data
[TS] rolling ............................................. Rolling-window and recursive estimation
[D] separate ........................................... Create separate variables
[SEM] ssd ................................................ Making summary statistics data (sem only)
[D] stack ................................................ Stack data
[D] statsby ........................................... Collect statistics for a command across a by list
[D] xpose ............................................. Interchange observations and variables

Labeling, display formats, and notes

[GS] Chapter 7 (GSM, GSU, GSW) ..................... Using the Variables Manager
[U] Section 12.5 ...................................... Formats: Controlling how data are displayed
[U] Section 12.6 ...................................... Dataset, variable, and value labels
[D] format .............................................. Set variables’ output format
[D] label ................................................ Manipulate labels
[D] label language .................................. Labels for variables and values in multiple languages
[D] labelbook .......................................... Label utilities
[D] notes ................................................ Place notes in data
[D] varmanage ....................................... Manage variable labels, formats, and other properties
### Changing and renaming variables

- **[GS]** Chapter 7 (GSM, GSU, GSW) - Using the Variables Manager
- **[U]** Chapter 26 - Working with categorical data and factor variables
- [D] **clonevar** - Clone existing variable
- [D] **destring** - Convert string variables to numeric variables and vice versa
- [D] **dyngen** - Dynamically generate new values of variables
- [D] **encode** - Encode string into numeric and vice versa
- [D] **generate** - Create or change contents of variable
- [D] **mvencode** - Change missing values to numeric values and vice versa
- [D] **order** - Reorder variables in dataset
- [D] **recode** - Recode categorical variables
- [D] **rename** - Rename variable
- [D] **rename group** - Rename groups of variables
- [D] **split** - Split string variables into parts
- [D] **varmanage** - Manage variable labels, formats, and other properties

### Examining data

- **[GS]** Chapter 6 (GSM, GSU, GSW) - Using the Data Editor
- [D] **cf** - Compare two datasets
- [CM] **cmsummarize** - Summarize variables by chosen alternatives
- [D] **codebook** - Describe data contents
- [D] **compare** - Compare two variables
- [D] **count** - Count observations satisfying specified conditions
- [D] **describe** - Describe data in memory or in file
- [D] **ds** - Compactly list variables with specified properties
- [D] **duplicates** - Report, tag, or drop duplicate observations
- [D] **edit** - Browse or edit data with Data Editor
- [D] **gsort** - Ascending and descending sort
- [D] **inspect** - Display simple summary of data’s attributes
- [D] **isid** - Check for unique identifiers
- [D] **lookfor** - Search for string in variable names and labels
- [R] **lv** - Letter-value displays
- [R] **misstable** - Tabulate missing values
- [MI] **mi describe** - Describe mi data
- [MI] **mi misstable** - Tabulate pattern of missing values
- [D] **ptile** - Create variable containing percentiles
- [ST] **stdescribe** - Describe survival-time data
- [R] **summarize** - Summary statistics
- [SVY] **svy: tabulate oneway** - One-way tables for survey data
- [SVY] **svy: tabulate twoway** - Two-way tables for survey data
- [P] **tabdisp** - Display tables
- [R] **table intro** - Introduction to tables of frequencies, summaries, and command results
- [R] **table** - Table of frequencies, summaries, and command results
- [R] **table multiway** - Multiway tables
- [R] **table oneway** - One-way tabulation
- [R] **table summary** - Table of summary statistics
- [R] **table twoway** - Two-way tabulation
- [R] **tabstat** - Compact table of summary statistics
- [R] **tabulate oneway** - One-way table of frequencies
- [R] **tabulate twoway** - Two-way table of frequencies
- [R] **tabulate, summarize()** - One- and two-way tables of summary statistics
Multiple datasets in memory

File manipulation

[D] cd .................................................. Change directory
[D] cf .................................................. Compare two datasets
[D] changeeol .................................. Convert end-of-line characters of text file
[D] checksum ........................................ Copy checksum of file
[D] copy ............................................. Display filenames
[D] dir .................................................. Display filenames
[D] erase ................................................. Erase a disk file
[D] filefilter ........................................ Copy ASCII or binary patterns in a file
[D] mkdir ........................................... Create directory
[D] rmdir .................................................. Remove directory
[D] type .................................................. Display contents of a file
[D] unicode convertfile ...................... Low-level file conversion between encodings
[D] unicode translate ......................... Translate files to Unicode
[D] zipfile ......................................... Compress and uncompress files and directories in zip archive format

Miscellaneous data commands

[D] corr2data ....................................... Create dataset with specified correlation structure
[D] drawnorm ..................................... Draw sample from multivariate normal distribution
[R] dydx ............................................. Calculate numeric derivatives and integrals
[D] frame change .................................. Change identity of current (working) frame
[D] frame create ................................ Create a new frame
[D] frame prefix .................................. The frame prefix command
[D] frame pwf ................................ Display name of current (working) frame
[D] frame rename ................................ Rename existing frame
[D] frames dir ...................................... Display names of all frames in memory
[D] icd ............................................... Introduction to ICD commands
[D] icd10 .......................................... ICD-10 diagnosis codes
[D] icd10cm ................................... ICD-10-CM diagnosis codes
[D] icd10pcs ................................... ICD-10-PCS procedure codes
[D] icd9 ............................................. ICD-9-CM diagnosis codes
[D] icd9p ........................................... ICD-9-CM procedure codes
[D] ipolate ........................................ Linearly interpolate (extrapolate) values
[D] range ............................................. Generate numerical range
[D] sample ......................................... Draw random sample
[D] splitsample ................................... Split data into random samples

Multiple datasets in memory

[D] frame change .................................. Change identity of current (working) frame
[D] frame copy ................................... Make a copy of a frame
[D] frame create ................................ Create a new frame
[D] frame drop .................................. Drop frame from memory
[D] frame prefix .................................. The frame prefix command
[D] frame put ....................................... Copy selected variables or observations to a new frame
[D] frame pwf ................................ Display name of current (working) frame
[D] frame rename ................................ Rename existing frame
[D] frames .......................................... Data frames
[D] frames dir ...................................... Display names of all frames in memory
[D] frames intro ................................ Introduction to frames
frames reset ............................................ Drop all frames from memory
frget .................................................. Copy variables from linked frame
frlink .................................................. Link frames

Multiple imputation
mi add ................................................. Add imputations from another mi dataset
mi append ............................................... Append mi data
mi convert ............................................... Change style of mi data
mi copy .................................................. Copy mi flongsep data
mi describe .............................................. Describe mi data
mi erase .................................................. Erase mi datasets
mi expand ............................................... Expand mi data
mi export ............................................... Export mi data
mi export ice .......................................... Export mi data to ice format
mi export nhanes1 ..................................... Export mi data to NHANES format
mi extract ............................................... Extract original or imputed data from mi data
mi import ................................................ Import data into mi
mi import flong ........................................ Import flong-like data into mi
mi import flongsep .................................... Import flongsep-like data into mi
mi import ice ............................................ Import ice-format data into mi
mi import nhanes1 ..................................... Import NHANES-format data into mi
mi import wide ......................................... Import wide-like data into mi
mi merge ................................................ Merge mi data
mi misstable ........................................... Tabulate pattern of missing values
mi passive .............................................. Generate/replace and register passive variables
mi ptrace ............................................... Load parameter-trace file into Stata
mi rename ............................................... Rename variable
mi replace0 ............................................. Replace original data
mi reset .................................................. Reset imputed or passive variables
mi reshape .............................................. Reshape mi data
mi set .................................................... Declare multiple-imputation data
mi stsplit ............................................... Split and join time-span records for mi data
mi update ............................................... Ensure that mi data are consistent
mi varying ............................................. Identify variables that vary across imputations
mi xeq ................................................... Execute command(s) on individual imputations
mi XXXset ............................................. Declare mi data to be svy, st, ts, xt, etc.
noupdate option ........................................ The noupdate option
Styles .................................................... Dataset styles
Workflow ................................................ Suggested workflow

Utilities

Basic utilities
Chapter 13 (GSM, GSU, GSW) ........... Using the Do-file Editor—automating Stata
Chapter 4 ............................................... Stata’s help and search facilities
Chapter 15 ............................................... Saving and printing output—log files
Chapter 16 ............................................... Do-files
about ..................................................... Display information about your Stata
by ........................................................ Repeat Stata command on subsets of the data
cls ........................................................ Clear Results window
copyright .................................................. Display copyright information
do .......................................................... Execute commands from a file
dedit ....................................................... Edit do-files and other text files
exit .......................................................... Exit Stata
help .......................................................... Display help in Stata
level ........................................................ Set default confidence level
log .......................................................... Echo copy of session to file
obs .......................................................... Increase the number of observations in a dataset
postest ..................................................... Postestimation Selector
#review ................................................... Review previous commands
search ..................................................... Search Stata documentation and other resources
set clevel ................................................ Set default credible level
translate .................................................. Print and translate logs
unicode translate .................................... Translate files to Unicode
view ......................................................... View files and logs
zipfile .................................................... Compress and uncompress files and directories in zip archive format

Error messages

Chapter 8 ............................................... Error messages and return codes
error ....................................................... Display generic error message and exit
Error messages ........................................ Error messages and return codes
rmse ....................................................... Return messages

Stored results

Section 13.5 ........................................... Accessing coefficients and standard errors
Section 18.8 ........................................... Accessing results calculated by other programs
Section 18.9 ........................................... Accessing results calculated by estimation commands
Section 18.10 ......................................... Storing results
cret .......................................................... Return c-class values
eret .......................................................... Post the estimation results
estimates ................................................ Save and manipulate estimation results
estimates describe ..................................... Describe estimation results
estimates for ............................................ Repeat postestimation command across models
estimates notes ........................................ Add notes to estimation results
estimates replay ....................................... Redisplay estimation results
estimates save ........................................ Save and use estimation results
estimates selected ..................................... Show and use estimation results
estimates stats ......................................... Model-selection statistics
estimates store ....................................... Store and restore estimation results
estimates table ....................................... Compare estimation results
estimates title ......................................... Set title for estimation results
_return .................................................... Preserve stored results
return .................................................... Return stored results
Stored results .......................................... Stored results

Internet

Chapter 29 ............................................... Using the Internet to keep up to date
ado update ............................................. Update community-contributed packages
checksum ............................................... Calculate checksum of file
copy ........................................................ Copy file from disk or URL
net ........................................................ Install and manage community-contributed additions from the Internet
Data types and memory

Chapter 6: Managing memory
Section 12.2.2: Numeric storage types
Section 12.4: Strings
Section 12.4.2: Handling Unicode strings
Section 13.12: Precision and problems therein
Chapter 24: Working with strings

Advanced utilities

assert: Verify truth of claim
assertnested: Verify variables nested
cd: Change directory
changeeol: Convert end-of-line characters of text file
checksum: Calculate checksum of file
copy: Copy file from disk or URL
.datasignature: Determine whether data have changed
datasignature: Determine whether data have changed
db: Launch dialog
Dialog programming
dir: Display filenames
discard: Drop automatically loaded programs
erase: Erase a disk file
file: Read and write text and binary files
filefilter: Convert ASCII or binary patterns in a file
hexdump: Display hexadecimal report on file
mkdir: Create directory
more: The —more— message
query: Display system parameters
quietly: Quietly and noisily perform Stata command
rmdir: Remove directory
set: Overview of system parameters
set cformat: Format settings for coefficient tables
set_defaults: Reset system parameters to original Stata defaults
set emptycells: Set what to do with empty cells in interactions
set iter: Control iteration settings
set locale_functions: Specify default locale for functions
set locale_ui: Specify a localization package for the user interface
set rng: Set which random-number generator (RNG) to use
set rngstream: Specify the stream for the stream random-number generator
set seed .......................... Specify random-number seed and state
set showbaselevels ............. Display settings for coefficient tables
set sortmethod .................. Specify a sort method
set sortngstate ................ Set the state of sort’s randomizer
shell ................................ Temporarily invoke operating system
signestimationsample ........... Determine whether the estimation sample has changed
smcl .............................. Stata Markup and Control Language
sysdir ............................ Query and set system directories
smcl ................................ Stata Markup and Control Language
signestimationsample ........... Determine whether the estimation sample has changed
set sortmethod .................. Specify a sort method
set sortngstate ................ Set the state of sort’s randomizer
which ............................. Display location of an ado-file

Graphics

Common graphs

Graph intro ........................ Introduction to graphics
graph ................................ The graph command
graph bar .......................... Bar charts
graph box .......................... Box plots
graph close ........................ Close Graph windows
graph combine .................... Combine multiple graphs
graph copy ........................ Copy graph in memory
graph describe .................... Describe contents of graph in memory or on disk
graph dir .......................... List names of graphs in memory and on disk
graph display ..................... Display graph stored in memory
graph dot .......................... Dot charts (summary statistics)
graph drop ........................ Drop graphs from memory
graph export ...................... Export current graph
graph manipulation .............. Graph manipulation commands
graph matrix ..................... Matrix graphs
graph other ...................... Other graphics commands
graph pie ........................ Pie charts
graph play ........................ Apply edits from a recording on current graph
graph print ........................ Print a graph
graph query ....................... List available schemes and styles
graph rename ..................... Rename graph in memory
graph replay ..................... Replay multiple graphs
graph save ........................ Save graph to disk
graph set ........................ Set graphics options
graph twoway ..................... Twoway graphs
graph twoway area ............... Twoway line plot with area shading
[G-2]  graph twoway bar  ...........................................  Twoway bar plots
[G-2]  graph twoway connected  ..................................  Twoway connected plots
[G-2]  graph twoway contour  ....................................  Twoway contour plot with area shading
[G-2]  graph twoway contourline ...................................  Twoway contour-line plot
[G-2]  graph twoway dot ..............................................  Twoway dot plots
[G-2]  graph twoway dropline .......................................  Twoway dropped-line plots
[G-2]  graph twoway ffit .............................................  Twoway fractional-polynomial prediction plots
[G-2]  graph twoway ffitci ...........................................  Twoway fractional-polynomial prediction plots with CIs
[G-2]  graph twoway function ........................................  Twoway line plot of function
[G-2]  graph twoway histogram .....................................  Histogram plots
[G-2]  graph twoway kdensity ........................................ Kernel density plots
[G-2]  graph twoway lfit ..............................................  Twoway linear prediction plots
[G-2]  graph twoway lfitci ............................................  Twoway linear prediction plots with CIs
[G-2]  graph twoway line ..............................................  Twoway line plots
[G-2]  graph twoway lowess .......................................... Local linear smooth plots
[G-2]  graph twoway lpoly ............................................ Local polynomial smooth plots
[G-2]  graph twoway lpolyci ......................................... Local polynomial smooth plots with CIs
[G-2]  graph twoway mband .......................................... Twoway median-band plots
[G-2]  graph twoway mspline ........................................ Twoway median-spline plots
[G-2]  graph twoway pcarrow ......................................... Paired-coordinate plot with arrows
[G-2]  graph twoway pcarrowi ........................................ Twoway pcarrow with immediate arguments
[G-2]  graph twoway pccapsym ..................................... Paired-coordinate plot with spikes and marker symbols
[G-2]  graph twoway pci ............................................... Twoway paired-coordinate plot with immediate arguments
[G-2]  graph twoway pcsscatter ..................................... Paired-coordinate plot with markers
[G-2]  graph twoway pcspike ......................................... Paired-coordinate plot with spikes
[G-2]  graph twoway qfit .............................................. Twoway quadratic prediction plots
[G-2]  graph twoway qfitci ............................................ Twoway quadratic prediction plots with CIs
[G-2]  graph twoway rarea............................................ Range plot with area shading
[G-2]  graph twoway rbar .............................................. Range plot with bars
[G-2]  graph twoway rcap ............................................. Range plot with capped spikes
[G-2]  graph twoway rcapsym ....................................... Range plot with spikes capped with marker symbols
[G-2]  graph twoway rconnected .................................... Range plot with connected lines
[G-2]  graph twoway rline ............................................. Range plot with lines
[G-2]  graph twoway rsscatter ...................................... Range plot with markers
[G-2]  graph twoway rspike .......................................... Range plot with spikes
[G-2]  graph twoway scatter .......................................... Twoway scatterplots
[G-2]  graph twoway scatteri ....................................... Scatter with immediate arguments
[G-2]  graph twoway spike ........................................... Twoway spike plots
[G-2]  graph twoway tsline ........................................... Twoway line plots
[G-2]  graph use ....................................................... Display graph stored on disk
[R]    histogram ..................................................... Histograms for continuous and categorical variables
[R]    marginsplot .................................................. Graph results from margins (profile plots, etc.)
[G-2]    palette ....................................................... Display palettes of available selections

Distributional graphs

[R]    cumul ......................................................... Cumulative distribution
[R]    Diagnostic plots ............................................. Distributional diagnostic plots
[R]    dotplot ....................................................... Comparative distribution dotplots
[R]    histogram ..................................................... Histograms for continuous and categorical variables
[R]    ladder ......................................................... Ladder of powers
[R]    spikeplot ..................................................... Spike plots and rootograms
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Item response theory graphs

- [MV] biplot ...................................................... Biplots
- [IRT] irtgraph icc ............................................. Item characteristic curve plot
- [IRT] irtgraph iif ............................................. Item information function plot
- [IRT] irtgraph tcc ........................................... Test characteristic curve plot
- [IRT] irtgraph tif ........................................... Test information function plot

Lasso graphs

- [LASSO] bicplot .............................................. Plot Bayesian information criterion function after lasso
- [LASSO] coefpath ............................................. Plot path of coefficients after lasso
- [LASSO] cvplot .............................................. Plot cross-validation function after lasso

Meta-analysis graphs

- [META] estat bubbleplot ..................................... Bubble plots after meta regress
- [META] meta forestplot ...................................... Forest plots
- [META] meta funnelplot ...................................... Funnel plots
- [META] meta galbraithplot .................................. Galbraith plots
- [META] meta labbeplot ...................................... L’Abbé plots

Multivariate graphs

- [MV] biplot ...................................................... Biplots
- [MV] ca postestimation ...................................... Postestimation tools for ca and camat
- [MV] ca postestimation plots ................................ Postestimation plots for ca and camat
- [MV] cluster dendrogram .................................... Dendrograms for hierarchical cluster analysis
- [MV] mca postestimation ..................................... Postestimation tools for mca
- [MV] mca postestimation plots ................................ Postestimation plots for mca
- [MV] mds postestimation ..................................... Postestimation tools for mds, mdsmat, and mdslong
- [MV] mds postestimation plots ................................ Postestimation plots for mds, mdsmat, and mdslong
- [MV] procrustes postestimation ............................. Postestimation tools for procrustes
- [MV] scoreplot .................................................. Score and loading plots
- [MV] screeplot .................................................. Scree plot of eigenvalues

Quality control

- [R] QC .......................................................... Quality control charts
- [R] cusum ....................................................... Cusum plots and tests for binary variables
- [R] serrbar ....................................................... Graph standard error bar chart

Regression diagnostic plots

- [R] regress postestimation diagnostic plots ............ Postestimation plots for regress

ROC analysis

- [R] estat classification ........................................ Classification statistics and table
- [R] estat gof ................................................... Pearson or Hosmer–Lemeshow goodness-of-fit test
- [R] logistic postestimation .................................... Postestimation tools for logistic
- [R] lroc ......................................................... Compute area under ROC curve and graph the curve
- [R] lsens ......................................................... Graph sensitivity and specificity versus probability cutoff
- [R] roccomp ..................................................... Tests of equality of ROC areas
- [R] rocfit postestimation ...................................... Postestimation tools for rocfit
[R] rocregplot . . . . . . . . Plot marginal and covariate-specific ROC curves after rocreg
[R] roctab . . . . . . . . . . . . . . . . . . . . . . . Nonparametric ROC analysis

Smoothing and densities

[R] kdensity . . . . . . . . . . . . Univariate kernel density estimation
[R] lowess . . . . . . . . . . . . . . . . . . . . . . Lowess smoothing
[R] lpoly . . . . . . . . . . . . . . . . . . . . . . . Kernel-weighted local polynomial smoothing

Survival-analysis graphs

[ST] ltable . . . . . . . . . . . . . . . . . . . . . . . Life tables for survival data
[ST] stci . . . . . . . . . . . . . . . . . . . . . . . . Confidence intervals for means and percentiles of survival time
[ST] stcox PH-assumption tests . . . Tests of proportional-hazards assumption after stcox
[ST] stcurve . . . . . . . . . . . . Plot the survivor or related function after streg, stcox, and others
[ST] stintcox PH-assumption plots Plots of proportional-hazards assumption after stintcox
[ST] strate . . . . . . . . . . . . . . . . . . . . . . . Tabulate failure rates and rate ratios
[ST] sts graph . . . . . . . . . . . . . . . . Graph the survivor or related function

Time-series graphs

[BAYES] bayesirf graph Graphs of Bayesian IRFs, dynamic-multiplier functions, and FEVDs
[TS] corrgram . . . . . . . . Tabulate and graph autocorrelations
[TS] cumsp . . . . . . . . . . . . . . . . . Graph cumulative spectral distribution
[TS] estat acplot . . . . . . . Plot parametric autocorrelation and autocovariance functions
[TS] estat aroots . . . . . . Check the stability condition of ARIMA estimates
[TS] estat sbcusum . . . . . . Cumulative sum test for parameter stability
[TS] fcast graph . . . . . . . . . . . Graph forecasts after fcast compute
[TS] irf cgraph . . . . . . . . Combined graphs of IRFs, dynamic-multiplier functions, and FEVDs
[TS] irf graph . . . . . . . . . . . . . . Graphs of IRFs, dynamic-multiplier functions, and FEVDs
[TS] irf ograph . . . . . . . . Overlaid graphs of IRFs, dynamic-multiplier functions, and FEVDs
[TS] pergram . . . . . . . . . . . . . Periodogram
[TS] tsline . . . . . . . . . . . . . . . . . . . . . . . . . Time-series line plots
[TS] varstable . . . . . . . . . . . . . Check the stability condition of VAR or SVAR estimates
[TS] vecstable . . . . . . . . . . . . . Check the stability condition of VECM estimates
[TS] wntestb . . . . . . . . . . . . Bartlett’s periodogram-based test for white noise
[TS] xcorr . . . . . . . . . . . . . . . . . Cross-correlogram for bivariate time series

More statistical graphs

[BAYES] bayesgraph . . . . . . . . Graphical summaries and convergence diagnostics
[PSS-3] ciwidth, graph . . . . . . . . . Graph results from the ciwidth command
[R] Epitab . . . . . . . . . . . . . . . Tables for epidemiologists
[R] fp postestimation . . . . . . . Postestimation tools for fp
[R] grmeanby . . . . . . . . . . . . . . . Graph means and medians by categorical variables
[R] pexammine . . . . . . . . . . . . . Calculate pharmacokinetic measures
[R] pksumm . . . . . . . . . . . . . . . . Summarize pharmacokinetic data
[PSS-2] power, graph . . . . . . . . . . Graph results from the power command
[R] stem . . . . . . . . . . . . . . . . Stem-and-leaf displays
[TE] tebalance box . . . . . . . . . . . . . . . . . Covariate balance box
[TE] teoverlap . . . . . . . . . . . . . . . . . . . . . . . . . Overlap plots
[XT] xtline . . . . . . . . . . . . . . . . . . . . . . . . . Panel-data line plots
## Editing

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## Graph utilities

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<th>set graphics</th>
<th>Set whether graphs are displayed</th>
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<td>G-2</td>
<td>set printcolor</td>
<td>Set how colors are treated when graphs are printed</td>
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<tr>
<td>G-2</td>
<td>set scheme</td>
<td>Set default scheme</td>
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## Graph schemes

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<td>Scheme economist</td>
<td>Scheme description: economist</td>
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<td>G-4</td>
<td>Scheme s1</td>
<td>Scheme description: s1 family</td>
</tr>
<tr>
<td>G-4</td>
<td>Scheme s2</td>
<td>Scheme description: s2 family</td>
</tr>
<tr>
<td>G-4</td>
<td>Scheme sj</td>
<td>Scheme description: sj</td>
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## Graph concepts

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<th>Concept: gph files</th>
<th>Using gph files</th>
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<td>Concept: lines</td>
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<td>G-4</td>
<td>Concept: repeated options</td>
<td>Interpretation of repeated options</td>
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<td>G-4</td>
<td>text</td>
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## Statistics

### ANOVA and related

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<th>Overview of Stata estimation commands</th>
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<td>anova</td>
<td>Analysis of variance and covariance</td>
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<tr>
<td>R</td>
<td>contrast</td>
<td>Contrasts and linear hypothesis tests after estimation</td>
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<tr>
<td>R</td>
<td>icc</td>
<td>Intraclass correlation coefficients</td>
</tr>
<tr>
<td>R</td>
<td>loneway</td>
<td>Large one-way ANOVA, random effects, and reliability</td>
</tr>
<tr>
<td>MV</td>
<td>manova</td>
<td>Multivariate analysis of variance and covariance</td>
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<tr>
<td>ME</td>
<td>meglm</td>
<td>Multilevel mixed-effects generalized linear model</td>
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<tr>
<td>ME</td>
<td>mixed</td>
<td>Multilevel mixed-effects linear regression</td>
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<tr>
<td>R</td>
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<td>One-way analysis of variance</td>
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<td>R</td>
<td>pkcross</td>
<td>Analyze crossover experiments</td>
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<td>R</td>
<td>pkshape</td>
<td>Reshape (pharmacokinetic) Latin-square data</td>
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<td>R</td>
<td>pwcompare</td>
<td>Pairwise comparisons</td>
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<td>R</td>
<td>regress</td>
<td>Linear regression</td>
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<td>XT</td>
<td>xtregr</td>
<td>Fixed-, between-, and random-effects and population-averaged linear models</td>
</tr>
</tbody>
</table>

### Basic statistics

<table>
<thead>
<tr>
<th>R</th>
<th>anova</th>
<th>Analysis of variance and covariance</th>
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<tbody>
<tr>
<td>R</td>
<td>bitest</td>
<td>Binomial probability test</td>
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<tr>
<td>R</td>
<td>ci</td>
<td>Confidence intervals for means, proportions, and variances</td>
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<td>R</td>
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<td>D</td>
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<td>R</td>
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<td>R</td>
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<td>R</td>
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<td>Estimate means</td>
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<td>R</td>
<td>misstable</td>
<td>Tabulate missing values</td>
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Bayesian analysis

Section 27.33 Introduction to Bayesian analysis

Bayesian commands Introduction to commands for Bayesian analysis

Bayesian estimation Bayesian estimation commands

Bayesian postestimation Postestimation tools for bayesmh and the bayes prefix

Bayesian regression models using the bayes prefix

Bayesian beta regression

Bayesian generalized linear models: Extensions to the binomial family

Bayesian bivariate probit regression

Bayesian conditional logistic regression

Bayesian complementary log–log regression

Bayesian linear dynamic stochastic general equilibrium models

Postestimation tools for bayes: dsge and bayes: dsgenl

Bayesian nonlinear dynamic stochastic general equilibrium models

Bayesian fractional response regression

Bayesian generalized linear models

Bayesian generalized negative binomial regression

Bayesian Heckman selection model

Bayesian ordered probit model with sample selection

Bayesian probit model with sample selection

Bayesian heteroskedastic ordered probit regression

Bayesian heteroskedastic probit regression

Bayesian heteroskedastic linear regression
### Bayesian Regression Models

- `bayes: intreg` ........................................ Bayesian interval regression
- `bayes: logistic` ........................................... Bayesian logistic regression, reporting odds ratios
- `bayes: logit` ........................................... Bayesian logistic regression, reporting coefficients
- `bayes: mecloglog` ..................................... Bayesian multilevel complementary log–log regression
- `bayes: meglm` ............................................ Bayesian multilevel generalized linear model
- `bayes: meintreg` ............................................ Bayesian multilevel interval regression
- `bayes: melogit` ............................................ Bayesian multilevel logistic regression
- `bayes: menbreg` ........................................... Bayesian multilevel negative binomial regression
- `bayes: meologit` ........................................... Bayesian multilevel ordered logistic regression
- `bayes: meoprobit` ........................................... Bayesian multilevel ordered probit regression
- `bayes: mepoisson` ......................................... Bayesian multilevel Poisson regression
- `bayes: meprobit` ........................................... Bayesian multilevel probit regression
- `bayes: mestreg` ........................................... Bayesian multilevel parametric survival models
- `bayes: metobit` ........................................... Bayesian multilevel tobit regression
- `bayes: mixed` ............................................ Bayesian multilevel linear regression
- `bayes: mlogit` ............................................ Bayesian multinomial logistic regression
- `bayes: mprobit` ........................................... Bayesian multinomial probit regression
- `bayes: mvreg` ............................................ Bayesian multivariate regression
- `bayes: nbreg` ............................................ Bayesian negative binomial regression
- `bayes: ologit` ............................................. Bayesian ordered logistic regression
- `bayes: oprobit` ............................................. Bayesian ordered probit regression
- `bayes: poisson` ............................................ Bayesian Poisson regression
- `bayes: probit` ............................................ Bayesian probit regression
- `bayes: regress` ............................................ Bayesian linear regression
- `bayes: streg` ............................................. Bayesian parametric survival models
- `bayes: tbreg` ............................................. Bayesian truncated negative binomial regression
- `bayes: tobit` ............................................. Bayesian tobit regression
- `bayes: tpoisson` .......................................... Bayesian truncated Poisson regression
- `bayes: truncated` ........................................ Bayesian truncated regression
- `bayes: var` .............................................. Bayesian vector autoregressive models
- `bayes: var postestimation` .......................... Postestimation tools for bayes: var
- `bayes: xlogit` ............................................ Bayesian random-effects logit model
- `bayes: xtmlogit` ......................................... Bayesian random-effects multinomial logit model
- `bayes: xtnbreg` .......................................... Bayesian random-effects negative binomial regression
- `bayes: xtologit` .......................................... Bayesian random-effects ordered logistic model
- `bayes: xtoprobit` ......................................... Bayesian random-effects ordered probit model
- `bayes: xtpoisson` ........................................ Bayesian random-effects Poisson model
- `bayes: xtprobit` .......................................... Bayesian random-effects probit model
- `bayes: xtrege` ............................................ Bayesian random-effects linear model
- `bayes: zinb` .............................................. Bayesian zero-inflated negative binomial regression
- `bayes: zilogit` ........................................... Bayesian zero-inflated ordered logit regression
- `bayes: zioprobit` ......................................... Bayesian zero-inflated ordered probit regression
- `bayes: zero` .............................................. Bayesian zero-inflated Poisson regression
- `bayesfcast` ................................................ Bayesian dynamic forecasts
- `bayesfcast: compute` ................................... Compute Bayesian dynamic forecasts
- `bayesfcast: graph` ....................................... Graphs of Bayesian dynamic forecasts
- `bayesgraph` .............................................. Graphical summaries and convergence diagnostics
- `bayesirf` ................................................ Bayesian IRFs, dynamic-multiplier functions, and FEVDs
- `bayesirf: cgraph` ....................................... Combined graphs of Bayesian IRF results
- `bayesirf: create` ................................. Obtain Bayesian IRFs, dynamic-multiplier functions, and FEVDs
- `bayesirf: ctable` ...................................... Combined tables of Bayesian IRF results
# Binary outcomes

| [BAYES] bayesirf ograph | Overlaid graphs of Bayesian IRFs results |
| [BAYES] bayesirf table | Tables of Bayesian IRFs, dynamic-multiplier functions, and FEVDs |
| [BAYES] bayesmh | Bayesian models using Metropolis–Hastings algorithm |
| [BAYES] bayesmh evaluators | User-defined evaluators with bayesmh |
| [BAYES] bayespredict | Bayesian predictions |
| [BAYES] bayesstats | Bayesian statistics after Bayesian estimation |
| [BAYES] bayesstats ess | Effective sample sizes and related statistics |
| [BAYES] bayesstats grubin | Gelman–Rubin convergence diagnostics |
| [BAYES] bayesstats ic | Bayesian information criteria and Bayes factors |
| [BAYES] bayesstats ppvalues | Bayesian predictive p-values and other predictive summaries |
| [BAYES] bayesstats summary | Bayesian summary statistics |
| [BAYES] bayestest | Bayesian hypothesis testing |
| [BAYES] bayestest interval | Interval hypothesis testing |
| [BAYES] bayestest model | Hypothesis testing using model posterior probabilities |
| [BAYES] bayesvarstable | Check the stability condition of Bayesian VAR estimates |

## Chapter 20

- **Section** 27.4: Binary outcomes

---

### [U] Estimation and postestimation commands
- **Chapter** 20
- **Section** 27.4

### [BAYES] Bayesian estimation

#### [R] binreg
- Generalized linear models: Extensions to the binomial family

#### [R] biprobit
- Bivariate probit regression

#### [R] cloglog
- Complementary log–log regression

#### [LASSO] dslogit
- Double-selection lasso logistic regression

#### [ERM] eprobit
- Extended probit regression

#### [TE] etffects
- Endogenous treatment-effects estimation

#### [R] exlogistic
- Exact logistic regression

#### [FMM] fmm estimation
- Fitting finite mixture models

#### [R] glm
- Generalized linear models

#### [R] heckprobit
- Probit model with sample selection

#### [R] hetprobit
- Heteroskedastic probit model

#### [IRT] irt 1pl
- One-parameter logistic model

#### [IRT] irt 2pl
- Two-parameter logistic model

#### [IRT] irt 3pl
- Three-parameter logistic model

#### [IRT] irt hybrid
- Hybrid IRT models

#### [R] ivprobit
- Probit model with continuous endogenous covariates

#### [R] logistic
- Logistic regression, reporting odds ratios

#### [R] logit
- Logistic regression, reporting coefficients

#### [ME] mecloglog
- Multilevel mixed-effects complementary log–log regression

#### [ME] melogit
- Multilevel mixed-effects logistic regression

#### [ME] meprobit
- Multilevel mixed-effects probit regression

#### [LASSO] pologit
- Partialling-out lasso logistic regression

#### [R] probit
- Probit regression

#### [R] roctfit
- Parametric ROC models

#### [R] rocrreg
- Receiver operating characteristic (ROC) regression

#### [R] scobit
- Skewed logistic regression

#### [TE] tffects aipw
- Augmented inverse-probability weighting

#### [TE] tffects ipw
- Inverse-probability weighting

#### [TE] tffects ipwra
- Inverse-probability-weighted regression adjustment

#### [TE] tffects nnmatch
- Nearest-neighbor matching

#### [TE] tffects psmatch
- Propensity-score matching
Censored and truncated regression models

- teffects ra .......................... Regression adjustment
- telasso ................................ Treatment-effects estimation using lasso
- xpoilogit .......................... Cross-fit partialling-out lasso logistic regression
- xtcloglog .......................... Random-effects and population-averaged cloglog models
- xteprobit .......................... Extended random-effects probit regression
- xtlogit ............................. Fixed-effects, random-effects, and population-averaged logit models
- xtprobit ............................. Random-effects and population-averaged probit models

Categorical outcomes

- Chapter 20 .......................... Estimation and postestimation commands
- Section 27.6 .......................... Ordinal outcomes
- Section 27.7 .......................... Categorical outcomes
- Bayesian estimation ........................ Bayesian estimation commands
- clogit .......................... Conditional (fixed-effects) logistic regression
- cmcllogit .......................... Conditional logit (McFadden’s) choice model
- cmprobit .......................... Mixed logit choice model
- cmmprob .......................... Multinomial probit choice model
- cmxtmprobit ........................ Panel-data mixed logit choice model
- fmm estimation ........................ Fitting finite mixture models
- irt .......................... Nominal response model
- mlogit .......................... Multinomial (polytomous) logistic regression
- mprobit .......................... Multinomial probit regression
- nlogit .......................... Nested logit regression
- slogit .......................... Stereotype logistic regression
- xtmlogit .......................... Fixed-effects and random-effects multinomial logit models

Censored and truncated regression models

- churdle .......................... Cragg hurdle regression
- cpoisson .......................... Censored Poisson regression
- eintreg .......................... Extended interval regression
- heckman .......................... Heckman selection model
- heckoprobit ........................ Ordered probit model with sample selection
- heckprobit ........................ Probit model with sample selection
- intreg .......................... Interval regression
- meintreg .......................... Multilevel mixed-effects interval regression
- mestreg .......................... Multilevel mixed-effects parametric survival models
- metobit .......................... Multilevel mixed-effects tobit regression
- stintcox .......................... Cox proportional hazards model for interval-censored survival-time data
- stintreg .......................... Parametric models for interval-censored survival-time data
- streg .......................... Parametric survival models
- steffects .......................... Treatment-effects estimation for observational survival-time data
- tnreg .......................... Truncated negative binomial regression
- tobit .......................... Tobit regression
- tpoisson .......................... Truncated Poisson regression
- truncreg .......................... Truncated regression
- xteintreg ........................ Extended random-effects interval regression
- xtheckman ........................ Random-effects regression with sample selection
- xtitreg .......................... Random-effects interval-data regression models
- xttstreg .......................... Random-effects parametric survival models
- xttobit .......................... Random-effects tobit models
Choice models

- Section 27.10 Introduction
- Intro Interpretation of choice models
- Intro 2 Data layout
- Intro 3 Descriptive statistics
- Intro 4 Estimation commands
- Intro 5 Models for discrete choices
- Intro 6 Models for rank-ordered alternatives
- Intro 7 Models for panel data
- Intro 8 Random utility models, assumptions, and estimation
- cmchoiceset Tabulate choice sets
- cmclogit Conditional logit (McFadden’s) choice model
- cmmixlogit Mixed logit choice model
- cmprobit Multinomial probit choice model
- cmrologit Rank-ordered logit choice model
- cmroprobit Rank-ordered probit choice model
- cmsample Display reasons for sample exclusion
- cmset Declare data to be choice model data
- cmsummarize Summarize variables by chosen alternatives
- cmtab Tabulate chosen alternatives
- cmxtmixlogit Panel-data mixed logit choice model
- margins Adjusted predictions, predictive margins, and marginal effects
- nlogit Nested logit regression

Cluster analysis

- Section 27.22 Introduction to multivariate commands
- cluster Introduction to cluster-analysis commands
- cluster dendrogram Dendrograms for hierarchical cluster analysis
- cluster generate Generate grouping variables from a cluster analysis
- cluster kmeans and kmedians Kmeans and kmedians cluster analysis
- cluster linkage Hierarchical cluster analysis
- cluster notes Cluster analysis notes
- cluster programming subroutines Add cluster-analysis routines
- cluster programming utilities Cluster-analysis programming utilities
- cluster stop Cluster-analysis stopping rules
- cluster utility List, rename, use, and drop cluster analyses
- clustermat Introduction to clustermat commands
- matrix dissimilarity Compute similarity or dissimilarity measures
- measure_option Option for similarity and dissimilarity measures

Correspondence analysis

- ca Simple correspondence analysis
- mca Multiple and joint correspondence analysis

Count outcomes

- Chapter 20 Estimation and postestimation commands
- Section 27.8 Count outcomes
- Section 27.15.3 Discrete outcomes with panel data
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<th>Subject</th>
<th>Description</th>
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<td><strong>Censored Poisson regression</strong></td>
<td>Censored Poisson regression</td>
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<td><strong>Double-selection lasso Poisson regression</strong></td>
<td>Double-selection lasso Poisson regression</td>
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<td><strong>Endogenous treatment-effects estimation</strong></td>
<td>Endogenous treatment-effects estimation</td>
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<tr>
<td><strong>Poisson regression with endogenous treatment effects</strong></td>
<td>Poisson regression with endogenous treatment effects</td>
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<tr>
<td><strong>Exact Poisson regression</strong></td>
<td>Exact Poisson regression</td>
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<td><strong>Fitting finite mixture models</strong></td>
<td>Fitting finite mixture models</td>
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<tr>
<td><strong>Poisson regression with sample selection</strong></td>
<td>Poisson regression with sample selection</td>
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<td><strong>Negative binomial regression</strong></td>
<td>Negative binomial regression</td>
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<td><strong>Poisson regression</strong></td>
<td>Poisson regression</td>
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<td><strong>Partialing-out lasso Poisson regression</strong></td>
<td>Partialing-out lasso Poisson regression</td>
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<td><strong>Augmented inverse-probability weighting</strong></td>
<td>Augmented inverse-probability weighting</td>
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<td><strong>Inverse-probability-weighted regression</strong></td>
<td>Inverse-probability-weighted regression</td>
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<td><strong>Nearest-neighbor matching</strong></td>
<td>Nearest-neighbor matching</td>
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<td><strong>Propensity-score matching</strong></td>
<td>Propensity-score matching</td>
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<td><strong>Regression adjustment</strong></td>
<td>Regression adjustment</td>
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<td><strong>Truncated Poisson regression</strong></td>
<td>Truncated Poisson regression</td>
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<td><strong>Cross-fit partialing-out lasso Poisson regression</strong></td>
<td>Cross-fit partialing-out lasso Poisson regression</td>
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<td><strong>Fixed-effects, random-effects, &amp; population-averaged negative binomial models</strong></td>
<td>Fixed-effects, random-effects, &amp; population-averaged negative binomial models</td>
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<tr>
<td><strong>Fixed-effects, random-effects, and population-averaged Poisson models</strong></td>
<td>Fixed-effects, random-effects, and population-averaged Poisson models</td>
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<td><strong>Zero-inflated negative binomial regression</strong></td>
<td>Zero-inflated negative binomial regression</td>
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<td><strong>Zero-inflated Poisson regression</strong></td>
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**Discriminant analysis**

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<td><strong>Discriminant analysis</strong></td>
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<td>Postestimation tools for discrim</td>
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<td><strong>kth-nearest-neighbor discriminant analysis</strong></td>
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<td><strong>Logistic discriminant analysis</strong></td>
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<td><strong>Quadratic discriminant analysis</strong></td>
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<td><strong>Score and loading plots</strong></td>
<td>Score and loading plots</td>
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<td><strong>Scree plot of eigenvalues</strong></td>
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**Do-it-yourself generalized method of moments**

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<tr>
<td><strong>Generalized method of moments (GMM)</strong></td>
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<td><strong>Introduction to matrix commands</strong></td>
<td>Introduction to matrix commands</td>
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**Do-it-yourself maximum likelihood estimation**

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<td><strong>Maximum likelihood estimation of user-specified expressions</strong></td>
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### Dynamic stochastic general equilibrium models

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<th>Dynamic stochastic general equilibrium (DSGE) models</th>
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<tr>
<td>[DSGE]</td>
<td>Intro 1</td>
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<td>Learning the syntax</td>
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<td>Intro 3a</td>
<td>New Keynesian model</td>
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<td>Intro 3b</td>
<td>New Classical model</td>
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<td>Intro 3c</td>
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<td>Intro 3d</td>
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<td>Intro 3e</td>
<td>Nonlinear New Classical model</td>
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<td>Intro 3f</td>
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<td>Writing a DSGE in a solvable form</td>
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<td>Intro 4a</td>
<td>Specifying a shock on a control variable</td>
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<td>Including a lag of a control variable</td>
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<td>Intro 4c</td>
<td>Including a lag of a state variable</td>
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<td>Intro 4d</td>
<td>Including an expectation dated by more than one period ahead</td>
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<td>Nonlinear dynamic stochastic general equilibrium models</td>
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<td>Display estimated covariances of model variables</td>
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<td>estat policy</td>
<td>Display policy matrix</td>
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<td>estat stable</td>
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<td>estat steady</td>
<td>Display steady state of nonlinear DSGE model</td>
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<td>estat transition</td>
<td>Display state transition matrix</td>
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### Endogenous covariates

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<th>Overview of Stata estimation commands</th>
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<td>Estimation and postestimation commands</td>
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<tr>
<td>[ERM]</td>
<td>eintreg</td>
<td>Extended interval regression</td>
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<td>[ERM]</td>
<td>eoprobit</td>
<td>Extended ordered probit regression</td>
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<td>eregress</td>
<td>Extended linear regression</td>
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<tr>
<td>[E]</td>
<td>eteffects</td>
<td>Endogenous treatment-effects estimation</td>
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<tr>
<td>[E]</td>
<td>etpoisson</td>
<td>Poisson regression with endogenous treatment effects</td>
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<td>[E]</td>
<td>etregress</td>
<td>Linear regression with endogenous treatment effects</td>
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<td>[TS]</td>
<td>forecast</td>
<td>Econometric model forecasting</td>
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<tr>
<td>[R]</td>
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<td>Generalized method of moments estimation</td>
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<tr>
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<td>ivpoisson</td>
<td>Poisson model with continuous endogenous covariates</td>
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<tr>
<td>[R]</td>
<td>ivprobit</td>
<td>Probit model with continuous endogenous covariates</td>
</tr>
</tbody>
</table>
Also see Multilevel mixed-effects models, Survival analysis, Structural equation modeling, and Treatment effects.
Estimation related

- BIC note: Calculating and interpreting BIC
- constraint: Define and list constraints
- eform_option: Displaying exponentiated coefficients
- Estimation options: Estimation options
- fp: Fractional polynomial regression
- Maximize: Details of iterative maximization
- mfp: Multivariable fractional polynomial models
- mk spline: Linear and restricted cubic spline construction
- stepwise: Stepwise estimation
- vce_option: Variance estimators
- vce_options: Variance estimators

Exact statistics

- Section 27.8: Count outcomes
- Section 27.11: Exact estimators
- bitest: Binomial probability test
- centile: Report centile and confidence interval
- ci: Confidence intervals for means, proportions, and variances
- dstdize: Direct and indirect standardization
- Epitab: Tables for epidemiologists
- exlogistic: Exact logistic regression
- expoisson: Exact Poisson regression
- ksmirnov: Kolmogorov–Smirnov equality-of-distributions test
- loneway: Large one-way ANOVA, random effects, and reliability
- power oneproportion: Power analysis for a one-sample proportion test
- ranksum: Equality tests on unmatched data
- roctab: Nonparametric ROC analysis
- symmetry: Symmetry and marginal homogeneity tests
- tabulate twoway: Two-way table of frequencies
- tetrachoric: Tetrachoric correlations for binary variables

Extended regression models

- ERM options: Extended regression model options
- Intro 1: An introduction to the ERM commands
- Intro 2: The models that ERMs fit
- Intro 3: Endogenous covariates features
- Intro 4: Endogenous sample-selection features
- Intro 5: Treatment assignment features
- Intro 6: Panel data and grouped data model features
- Intro 7: Model interpretation
- Intro 8: A Rosetta stone for extended regression commands
- Intro 9: Conceptual introduction via worked example
- eintreg: Extended interval regression
- eintreg postestimation: Postestimation tools for eintreg and xeintreg
- eintreg predict: predict after eintreg and xeintreg
- eoprobit: Extended ordered probit regression
- eoprobit postestimation: Postestimation tools for eoprobit and xteoprobit
- eoprobit predict: predict after eoprobit and xteoprobit
- eprobit: Extended probit regression
- eprobit postestimation: Postestimation tools for eprobit and xteoprobit
Factor analysis and principal components

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<th>Description</th>
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<td>alpha</td>
<td>Compute interitem correlations (covariances) and Cronbach’s alpha</td>
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<tr>
<td>canon</td>
<td>Canonical correlations</td>
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<td>factor</td>
<td>Factor analysis</td>
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<td>pca</td>
<td>Principal component analysis</td>
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<td>rotate</td>
<td>Orthogonal and oblique rotations after factor and pca</td>
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<td>tetrachoric</td>
<td>Tetrachoric correlations for binary variables</td>
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Finite mixture models

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<td>estat lcmean</td>
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[R] cnsreg ..................................................... Constrained linear regression
[R] constraint ................................................. Define and list constraints
[TE] didregress ............................................... Difference-in-differences estimation
[LASSO] dsregress ............................................... Double-selection lasso linear regression
[R] eivreg ..................................................... Errors-in-variables regression
[ERM] eregress ................................................ Extended linear regression
[TE] etpoisson ............................................... Poisson regression with endogenous treatment effects
[TE] etregress ............................................... Linear regression with endogenous treatment effects
[FMM] fmm estimation .......................................... Fitting finite mixture models
[R] fp ........................................................ Fractional polynomial regression
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Logistic and probit regression

- **Prais–Winsten and Cochrane–Orcutt regression**
- **Quantile regression**
- **Three-stage estimation for systems of simultaneous equations**
- **Linear regression**
- **Parametric ROC models**
- **Robust regression**
- **Cox proportional hazards model**
- **Competing-risks regression**
- **Stepwise estimation**
- **Cox proportional hazards model for interval-censored survival-time data**
- **Parametric models for interval-censored survival-time data**
- **Parametric survival models**
- **Truncated negative binomial regression**
- **Variance-weighted least squares**
- **Cross-fit partialing-out lasso instrumental-variables regression**
- **Cross-fit partialing-out lasso linear regression**
- **Arellano–Bond linear dynamic panel-data estimation**
- **Fixed-effects difference-in-differences estimation**
- **Linear dynamic panel-data estimation**
- **Arellano–Bover/Blundell–Bond linear dynamic panel-data estimation**
- **Extended random-effects linear regression**
- **Fit population-averaged panel-data models by using GEE**
- **Fit panel-data models by using GLS**
- **Random-effects regression with sample selection**
- **Hausman–Taylor estimator for error-components models**
- **Instrumental variables and two-stage least squares for panel-data models**
- **Linear regression with panel-corrected standard errors**
- **Random-coefficients model**
- **Fixed-, between-, and random-effects linear models with an AR(1) disturbance**
- **Random-effects parametric survival models**

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  - reg3 .................................................. Three-stage estimation for systems of simultaneous equations
  - regress ............................................. Linear regression
  - rocfit ................................................ Parametric ROC models
  - reg .................................................... Robust regression
  - stcox .................................................. Cox proportional hazards model
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  - streg ................................................ Parametric survival models
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  - nbreg .................................................. Truncated negative binomial regression
  - vwls .................................................. Variance-weighted least squares
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Meta-analysis

Section 27.18

Meta-analysis

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Introduction to meta-analysis

Bubble plots after meta regress

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Compute multivariate heterogeneity statistics

estat recovariance

Display estimated random-effects covariance matrices

estat sd

Display variance components as standard deviations and correlations

meta

Introduction to meta

meta bias

Tests for small-study effects in meta-analysis

meta data

Declare meta-analysis data
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<td>[ME] estat icc</td>
<td>Estimate intraclass correlations</td>
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<td>Display estimated random-effects covariance matrices</td>
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<td>[ME] estat sd</td>
<td>Display variance components as standard deviations and correlations</td>
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<td>[R] icc</td>
<td>Intraclass correlation coefficients</td>
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<td>[MV] manova</td>
<td>Multivariate analysis of variance and covariance</td>
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<td>[ME] me</td>
<td>Introduction to multilevel mixed-effects models</td>
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<td>[ME] mecloglog</td>
<td>Multilevel mixed-effects complementary log–log regression</td>
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<tr>
<td>[ME] meglm</td>
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<td>[ME] meintreg</td>
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<td>[ME] melogit</td>
<td>Multilevel mixed-effects logistic regression</td>
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<tr>
<td>[ME] menbreg</td>
<td>Multilevel mixed-effects negative binomial regression</td>
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<tr>
<td>[ME] menl</td>
<td>Nonlinear mixed-effects regression</td>
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<tr>
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<td>Multilevel mixed-effects ordered logistic regression</td>
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<td>Multilevel mixed-effects ordered probit regression</td>
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<td>[ME] meprobit</td>
<td>Multilevel mixed-effects probit regression</td>
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<td>[ME] mestreg</td>
<td>Multilevel mixed-effects parametric survival models</td>
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<td>[ME] metobit</td>
<td>Multilevel mixed-effects tobit regression</td>
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<td>[ME] mixed</td>
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<td>[XT] xtcloglog</td>
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<td>[XT] xtintreg</td>
<td>Random-effects interval-data regression models</td>
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<td>[XT] xttobit</td>
<td>Fixed-, between-, and random-effects tobit models</td>
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### Multidimensional scaling and biplots

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### Multilevel mixed-effects models

- [U] Section 27.16 ................................................. Multilevel mixed-effects models
- [BAYES] Bayesian estimation ........................................ Bayesian estimation commands
- [ME] me .......................................................... Introduction to multilevel mixed-effects models
- [ME] meclong .................................................. Multilevel mixed-effects complementary log–log regression
- [ME] meglm ..................................................... Multilevel mixed-effects generalized linear model
- [ME] mewithreg .................................................. Multilevel mixed-effects interval regression
- [ME] meologit ..................................................... Multilevel mixed-effects ordered logistic regression
- [ME] meoprobit .................................................. Multilevel mixed-effects ordered probit regression
- [ME] mepoisson ................................................ Multilevel mixed-effects Poisson regression
- [ME] menbreg .................................................. Multilevel mixed-effects negative binomial regression
- [ME] menl .......................................................... Nonlinear mixed-effects regression
- [ME] melogit ...................................................... Multilevel mixed-effects logistic regression
- [ME] mestreg ..................................................... Multilevel mixed-effects parametric survival models
- [ME] metobit ..................................................... Multilevel mixed-effects tobit regression
- [ME] mixed ....................................................... Multilevel mixed-effects linear regression
- [ME] meintreg ................................................ Multilevel mixed-effects interval regression
- [ME] melprobit ................................................ Multilevel mixed-effects probit regression
- [ME] melogit ..................................................... Multilevel mixed-effects logistic regression

### Multiple imputation

- [U] Section 27.31 ................................................. Multiple imputation
- [MI] Intro ......................................................... Introduction to mi
- [MI] Intro substantive ........................................... Introduction to multiple-imputation analysis
- [MI] Estimation .................................................... Estimation commands for use with mi estimate
- [MI] mi estimate .................................................... Estimation using multiple imputations
- [MI] mi estimate using ........................................... Estimation using previously saved estimation results
- [MI] mi estimate postestimation ............................... Postestimation tools for mi estimate
- [MI] mi impute ......................................................... Impute missing values
- [MI] mi impute chained ........................................ Impute missing values using chained equations
- [MI] mi impute intreg ........................................... Impute using interval regression
- [MI] mi impute logit ............................................. Impute using logistic regression
- [MI] mi impute mlogit ........................................... Impute using multinomial logistic regression
- [MI] mi impute monotone ...................................... Impute missing values in monotone data
- [MI] mi impute mvr ............................................... Impute using multivariate normal regression
- [MI] mi impute nbreg .......................................... Impute using negative binomial regression
- [MI] mi impute ologit .......................................... Impute using ordered logistic regression
- [MI] mi impute pmm ............................................. Impute using predictive mean matching
- [MI] mi impute poisson ........................................ Impute using Poisson regression
- [MI] mi impute regress ......................................... Impute using linear regression
- [MI] mi impute truncreg ....................................... Impute using truncated regression
- [MI] mi impute usermethod .................................. User-defined imputation methods
- [MI] mi predict .................................................... Obtain multiple-imputation predictions
- [MI] mi test ......................................................... Test hypotheses after mi estimate

### Multivariate analysis of variance and related techniques

- [U] Section 27.22 ................................................. Multivariate analysis
- [MV] canon ....................................................... Canonical correlations
- [MV] hotelling .................................................. Hotelling’s $T^2$ generalized means test
**Combined subject table of contents**

**Ordinal outcomes**

- [U] Chapter 20

**Nonparametric statistics**

- [R] bitest
- [R] bootstrap
- [R] bsample
- [R] bstat
- [R] centile
- [R] csum
- [R] kdensity
- [R] ksmirnov
- [R] kwallis
- [R] lowess
- [R] lpoly
- [R] npregress intro
- [R] npregress kernel
- [R] npregress series
- [R] npregress covariates
- [R] nptest
- [R] qreg
- [R] ranksum
- [R] roccomp
- [R] rocreg
- [R] roctabplot
- [R] roctab
- [R] runtest
- [R] signrank
- [R] simulate
- [R] smooth
- [R] spearman
- [R] symmetry
- [R] tabulate twoway

**Nonlinear regression**

- [R] boxcox
- [ME] menl
- [R] nl
- [R] nlseur

**Bayesian estimation**

- [BAYES] Bayesian estimation
- [CM] cmrologit
- [CM] cmprobit
- [ERM] eoprobit
- [FMM] fmm estimation
- [R] heckoprobit

**Estimation and postestimation commands**

- [MV] manova
- [MV] mvreg
- [MV] mvtest covariances
- [MV] mvtest means

**Multivariate analysis of variance and covariance**

- [MV] Multivariate regression
- [MV] Multivariate tests of covariances
- [MV] Multivariate tests of means

**Box–Cox regression models**

- [ME] Nonlinear mixed-effects regression
- [ME] Nonlinear least-squares estimation

**Estimation of nonlinear systems of equations**

- [ME] Fitting finite mixture models
- [CM] Rank-ordered logit choice model
- [CM] Rank-ordered probit choice model
- [CM] Extended ordered probit regression
- [FMM] Fitting finite mixture models
- [R] Ordered probit model with sample selection
hetoprobit ........................................ Heteroskedastic ordered probit regression
irt grm ........................................... Graded response model
irt pcm ........................................... Partial credit model
irt rsm ........................................... Rating scale model
meologit ........................................ Multilevel mixed-effects ordered logistic regression
meoprobit ........................................ Multilevel mixed-effects ordered probit regression
ologit ............................................. Ordered logistic regression
oprobit ........................................... Ordered probit regression
xteoprobit ...................................... Extended random-effects ordered probit regression
xtologit ......................................... Random-effects ordered logistic models
xtoprobit ......................................... Random-effects ordered probit models
ziologit ......................................... Zero-inflated ordered logit regression
zioprobit ......................................... Zero-inflated ordered probit regression

Other statistics
alpha ............................................ Compute interitem correlations (covariances) and Cronbach’s alpha
ameans ........................................... Arithmetic, geometric, and harmonic means
brier ............................................. Brier score decomposition
centile ........................................... Report centile and confidence interval
centile ........................................... Interrater agreement
mvtest correlations .............................. Multivariate tests of correlations
bcorr ............................................. Partial and semipartial correlation coefficients
pcorr ............................................. Create variable containing percentiles
range ............................................. Generate numerical range

Pharmacokinetic statistics
pk .................................................. Pharmacokinetic (biopharmaceutical) data
pkcollapse ...................................... Generate pharmacokinetic measurement dataset
pkcross .......................................... Analyze crossover experiments
pkequiv .......................................... Perform bioequivalence tests
pkexamine ...................................... Calculate pharmacokinetic measures
pkshape ......................................... Reshape (pharmacokinetic) Latin-square data
pksumm .......................................... Summarize pharmacokinetic data

Power, precision, and sample size
Intro ............................................ Introduction to power, precision, and sample-size analysis
Intro (ciwidth) ................................. Introduction to precision and sample-size analysis for confidence intervals
Intro (power) .................................... Introduction to power and sample-size analysis for hypothesis tests
width ............................................. Precision analysis for a one-mean CI
width onemean .................................. Precision analysis for a one-mean CI
width onevariance ............................. Precision analysis for a one-variance CI
width pairedmeans ............................ Precision analysis for a paired-means-difference CI
width twomeans ............................... Precision analysis for a two-means-difference CI
width usermethod ............................. Add your own methods to the width command
width, graph .................................... Graph results from the width command
width, table ..................................... Produce table of results from the width command
GUI (ciwidth) ................................ Graphical user interface for precision and sample-size analysis
GUI (power) .................................... Graphical user interface for power and sample-size analysis
power ............................................ Power and sample-size analysis for hypothesis tests
Combined subject table of contents

Power

- power cmh: Power and sample size for the Cochran–Mantel–Haenszel test
- power cox: Power analysis for the Cox proportional hazards model
- power exponential: Power analysis for a two-sample exponential test
- power logrank: Power analysis for the log-rank test
- power logrank, cluster: Power analysis for the log-rank test, CRD
- power mcc: Power analysis for matched case–control studies
- power onecorrelation: Power analysis for a one-sample correlation test
- power onemean: Power analysis for a one-sample mean test
- power onemean, cluster: Power analysis for a one-sample mean test, CRD
- power one proportion: Power analysis for a one-sample proportion test
- power one proportion, cluster: Power analysis for a one-sample proportion test, CRD
- power oneslope: Power analysis for a slope test in a simple linear regression
- power onevariance: Power analysis for a one-sample variance test
- power oneway: Power analysis for one-way analysis of variance
- power pairedmeans: Power analysis for a two-sample paired-means test
- power paired proportions: Power analysis for a two-sample paired-proportions test
- power pcorr: Power analysis for a partial-correlation test in a multiple linear regression
- power repeated: Power analysis for repeated-measures analysis of variance
- power rsquared: Power analysis for an R^2 test in a multiple linear regression
- power trend: Power analysis for the Cochran–Armitage trend test
- power twocorrelations: Power analysis for a two-sample correlations test
- power twomeans: Power analysis for a two-sample means test
- power twomeans, cluster: Power analysis for a two-sample means test, CRD
- power twoproportions: Power analysis for a two-sample proportions test
- power twoproportions, cluster: Power analysis for a two-sample proportions test, CRD
- power twovariances: Power analysis for a two-sample variances test
- power twoway: Power analysis for two-way analysis of variance
- power usermethod: Add your own methods to the power command
- power, graph: Graph results from the power command
- power, table: Produce table of results from the power command

Quality control

- QC: Quality control charts
- cusum: Cusum plots and tests for binary variables
- serrbar: Graph standard error bar chart

ROC analysis

- Section 27.4.3: ROC analysis
- roc: Receiver operating characteristic (ROC) analysis
- roccomp: Tests of equality of ROC areas
- rocfit: Parametric ROC models
- roccomp postestimation: Postestimation tools for roccomp
- rocreg: Receiver operating characteristic (ROC) regression
- rocreg postestimation: Postestimation tools for rocreg
- rocregplot: Plot marginal and covariate-specific ROC curves after rocreg
- roctab: Nonparametric ROC analysis
### Rotation

[MV] procrustes ........................................ Procrustes transformation
[MV] rotate ........................................... Orthogonal and oblique rotations after factor and pca
[MV] rotatemat ....................................... Orthogonal and oblique rotations of a Stata matrix

### Sample selection models

[U] Chapter 20 ........................................... Estimation and postestimation commands
[U] Section 27.13 ..................................... Models with endogenous sample selection
[BAYES] Bayesian estimation ............................ Bayesian estimation commands
[ERM] eintreg .......................................... Extended interval regression
[ERM] eoprobit ......................................... Extended ordered probit regression
[ERM] eprobit .......................................... Extended probit regression
[ERM] eregress .......................................... Extended linear regression
[TE] etpoisson ........................................ Poisson regression with endogenous treatment effects
[TE] etregress ......................................... Linear regression with endogenous treatment effects
[R] heckman ............................................ Heckman selection model
[R] heckoprobit ....................................... Ordered probit model with sample selection
[R] heckpoisson ...................................... Poisson regression with sample selection
[R] heckprobit ........................................ Probit model with sample selection
[XT] xteintreg .......................................... Extended random-effects interval regression
[XT] xteoprobit ....................................... Extended random-effects ordered probit regression
[XT] xteprobit .......................................... Extended random-effects probit regression
[XT] xtregress .......................................... Extended random-effects linear regression
[XT] xtheckman ....................................... Random-effects regression with sample selection

### Simulation/resampling

[R] bootstrap .......................................... Bootstrap sampling and estimation
[R] bsample ............................................ Sampling with replacement
[R] jackknife .......................................... Jackknife estimation
[R] permute ............................................ Monte Carlo permutation tests
[R] simulate .......................................... Monte Carlo simulations

### Spatial autoregressive models

[U] Section 27.19 ....................................... Spatial autoregressive models
[SP] Intro ................................................ Introduction to spatial data and SAR models
[SP] Intro 1 ............................................. A brief introduction to SAR models
[SP] Intro 2 ............................................. The W matrix
[SP] Intro 3 ............................................. Preparing data for analysis
[SP] Intro 4 ............................................. Preparing data: Data with shapefiles
[SP] Intro 5 ............................................. Preparing data: Data containing locations (no shapefiles)
[SP] Intro 6 ............................................. Preparing data: Data without shapefiles or locations
[SP] Intro 7 ............................................. Example from start to finish
[SP] Intro 8 ............................................. The Sp estimation commands
[SP] estat moran ...................................... Moran’s test of residual correlation with nearby residuals
[SP] grmap .............................................. Graph choropleth maps
[SP] spbalance ........................................ Make panel data strongly balanced
[SP] spcompress ....................................... Compress Stata-format shapefile
[SP] spdistance ........................................ Calculator for distance between places
[SP] spgenerate ...................................... Generate variables containing spatial lags
[SP] spivregress ....................................... Spatial autoregressive models with endogenous covariates
Standard postestimation tests, tables, and other analyses

[SP] spmatrix ........................................... Categorical guide to the spmatrix command
[SP] spmatrix copy ................................. Copy spatial weighting matrix stored in memory
[SP] spmatrix create ................................. Create standard weighting matrices
[SP] spmatrix drop ................................. List and delete weighting matrices stored in memory
[SP] spmatrix export ......................... Export weighting matrix to text file
[SP] spmatrix fromdata ..................... Create custom weighting matrix from data
[SP] spmatrix import ..................... Import weighting matrix from text file
[SP] spmatrix matafromsp .................. Copy weighting matrix to Mata
[SP] spmatrix normalize ................. Normalize weighting matrix
[SP] spmatrix note ......................... Put note on weighting matrix, or display it
[SP] spmatrix save .......................... Save spatial weighting matrix to file
[SP] spmatrix spfrommata .............. Copy Mata matrix to Sp
[SP] spmatrix summarize ............... Summarize spatial weighting matrix in memory
[SP] spmatrix use ....................... Load spatial weighting matrix from file
[SP] spmatrix usedefined ................. Create custom weighting matrix
[SP] spregress .......................................... Spatial autoregressive models
[SP] spset .............................................. Declare data to be Sp spatial data
[SP] spshape2dta ......................... Translate shapefile to Stata format
[SP] spregress ................................... Spatial autoregressive models
[SP] spmatrix userdefined ................ Create custom weighting matrix

[TS] forecast ......................... List forecast commands composing current model
[TS] forecast adjust .................. Adjust variables to produce alternative forecasts
[TS] forecast clear ..................... Clear current model from memory
[TS] forecast coefvector ............... Specify an equation via a coefficient vector
[TS] forecast create ..................... Create a new forecast model
[TS] forecast describe .................. Describe features of the forecast model
[TS] forecast drop ..................... Drop forecast variables
[TS] forecast estimates ................ Add estimation results to a forecast model
[TS] forecast exogenous ................ Declare exogenous variables
[TS] forecast identity .................. Add an identity to a forecast model
[TS] forecast list ....................... List forecast commands composing current model

[U] Section 13.5 ........................ Accessing coefficients and standard errors
[U] Chapter 20 ............................... Estimation and postestimation commands
[R] contrast ........................................... Contrasts and linear hypothesis tests after estimation
[R] correlate ............................................. Correlations of variables
[R] estat ............................................. Postestimation statistics
[R] estat ic .............................................. Display information criteria
[R] estat summarize ....................... Summarize estimation sample
[R] estat vce ........................................... Display covariance matrix estimates
[R] estimates ....................................... Save and manipulate estimation results
[R] estimates describe .................. Describe estimation results
[R] estimates for ......................... Repeat postestimation command across models
[R] estimates notes ....................... Add notes to estimation results
[R] estimates replay ...................... Redisplay estimation results
[R] estimates selected .................. Show selected coefficients
[R] estimates stats ....................... Model-selection statistics
[R] estimates store ....................... Store and restore estimation results
[R] estimates title ........................ Set title for estimation results
[TS] forecast .................................... Econometric model forecasting
[TS] forecast clear ..................... Clear current model from memory
[TS] forecast coefvector ............... Specify an equation via a coefficient vector
[TS] forecast create ..................... Create a new forecast model
[TS] forecast describe .................. Describe features of the forecast model
[TS] forecast drop ..................... Drop forecast variables
[TS] forecast estimates ................ Add estimation results to a forecast model
[TS] forecast exogenous ................ Declare exogenous variables
[TS] forecast identity .................. Add an identity to a forecast model
[TS] forecast list ....................... List forecast commands composing current model
Structural equation modeling

[TS] forecast query Check whether a forecast model has been started
[TS] forecast solve Obtain static and dynamic forecasts
[R] hausman Hausman specification test
[R] lincom Linear combinations of parameters
[R] linktest Specification link test for single-equation models
[R] lrtest Likelihood-ratio test after estimation
[R] margins, contrast Contrasts of margins
[R] margins, pwcompare Pairwise comparisons of margins
[CM] margins Adjusted predictions, predictive margins, and marginal effects
[R] marginsplot Graph results from margins (profile plots, etc.)
[R] margins Marginal means, predictive margins, and marginal effects
[MV] mvtest Multivariate tests
[R] nlcom Nonlinear combinations of estimators
[R] postest Postestimation Selector
[R] predict Obtain predictions, residuals, etc., after estimation
[R] predictnl Obtain nonlinear predictions, standard errors, etc., after estimation
[R] pwcompare Pairwise comparisons
[R] suest Seemingly unrelated estimation
[R] test Test linear hypotheses after estimation
[R] testnl Test nonlinear hypotheses after estimation

Structural equation modeling

[U] Section 27.24 Structural equation modeling (SEM)
[SEM] Builder SEM Builder
[SEM] Builder, generalized SEM Builder for generalized models
[SEM] Intro 1 Introduction
[SEM] Intro 2 Learning the language: Path diagrams and command language
[SEM] Intro 3 Learning the language: Factor-variable notation (gsem only)
[SEM] Intro 4 Substantive concepts
[SEM] Intro 5 Tour of models
[SEM] Intro 6 Comparing groups
[SEM] Intro 7 Postestimation tests and predictions
[SEM] Intro 8 Robust and clustered standard errors
[SEM] Intro 9 Standard errors, the full story
[SEM] Intro 10 Fitting models with survey data
[SEM] Intro 11 Fitting models with summary statistics data (sem only)
[SEM] Intro 12 Convergence problems and how to solve them
[SEM] estat eform Display exponentiated coefficients
[SEM] estat eqgof Equation-level goodness-of-fit statistics
[SEM] estat eqtst Equation-level tests that all coefficients are zero
[SEM] estat framework Display estimation results in modeling framework
[SEM] estat ggof Group-level goodness-of-fit statistics
[SEM] estat ginvariant Tests for invariance of parameters across groups
[SEM] estat gof Goodness-of-fit statistics
[SEM] estat legof Latent class goodness-of-fit statistics
[SEM] estat lcmean Latent class marginal means
[SEM] estat lcpob Latent class marginal probabilities
[SEM] estat mindices Modification indices
[SEM] estat residuals Display mean and covariance residuals
[SEM] estat scoretests Score tests
[SEM] estat sd Display variance components as standard deviations and correlations
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<th>Example</th>
<th>Description</th>
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<td>Seemingly unrelated regression model</td>
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<td>Creating a dataset from published covariances</td>
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<td>Single-factor measurement model</td>
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<td>Nonrecursive structural model</td>
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<td>Testing that coefficients are equal, and constraining them</td>
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<td>Creating multiple-group summary statistics data</td>
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<td>Two-factor measurement model by group</td>
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<td>Single-factor measurement model (generalized response)</td>
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<td>Two-level measurement model (multilevel, generalized response)</td>
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<td>Two-factor measurement model (generalized response)</td>
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<td>Heckman selection model</td>
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<td>Endogenous treatment-effects model</td>
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Survey data

Chapter 20 Estimation and postestimation commands
Section 27.30 Survey data
Survey Introduction to survey commands

bootstrap_options More options for bootstrap variance estimation
brr_options More options for BRR variance estimation
Calibration Calibration for survey data
## Survival analysis

<table>
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<td>[ST] stcurve</td>
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## Variance estimation

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<td>Direct standardization of means, proportions, and ratios</td>
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<td>[SVY] estat</td>
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<td>[TABLES] Example 7</td>
<td>Table of regression results using survey data</td>
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<td>[SVY] jackknife_options</td>
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<td>[SVY] ml for svy</td>
<td>Maximum pseudolikelihood estimation for survey data</td>
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<td>[SVY] Poststratification</td>
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<td>[P] _robust</td>
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<td>[SVY] sdr_options</td>
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<td>[SVY] svy: tabulate oneway</td>
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<td>[SVY] svy: tabulate twoway</td>
<td>Two-way tables for survey data</td>
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<tr>
<td>[SVY] svysdescribe</td>
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<td>[SVY] svymarkout</td>
<td>Mark observations for exclusion on the basis of survey characteristics</td>
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<td>[SVY] svyset</td>
<td>Declare survey design for dataset</td>
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<td>[MI] mi XXXset</td>
<td>Declare mi data to be svy, st, ts, xt, etc.</td>
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<td>[SVY] Variance estimation</td>
<td>Variance estimation for survey data</td>
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</table>

## Survival-time data

- Adjust survivor and related functions for covariates at specific values
- Count-time data
- Declare data to be count-time data
- Convert count-time data to survival-time data
- Discrete-time survival analysis
- Finite mixtures of parametric survival models
- Life tables for survival data
- Multilevel mixed-effects parametric survival models
- Convert snapshot data to time-span data
- Survival-time data
- Survival analysis subroutines for programmers
- Form baseline dataset
- Confidence intervals for means and percentiles of survival time
- Cox proportional hazards model
- Tests of proportional-hazards assumption after stcox
- Competing-risks regression
- Plot the survivor or related function after streg, stcox, and others
- Describe survival-time data
- Stepwise estimation
stfill ................................. Fill in by carrying forward values of covariates
stgen ................................. Generate variables reflecting entire histories
stintcox . Cox proportional hazards model for interval-censored survival-time data
stintcox PH-assumption plots  Plots of proportional-hazards assumption after stintcox
stintcox . Parametric models for interval-censored survival-time data
stir ........................................ Report incidence-rate comparison
stptime ................................ Calculate person-time, incidence rates, and SMR
ststrat .................................. Test equality of survivor functions
stsplit ................................... Split and join time-span records
streg .................................... Parametric survival models
stsum ................................... Summarize survival-time data
sttocc .................................. Convert survival-time data to case–control data
sttocode . Convert survival-time data to count-time data
sttost .................................. Report variables that vary over time
streg . Parametric survival models
streg ......................... Parametric models for interval-censored survival-time data
strat ......................... Tabulate failure rates and rate ratios
stsplit ......................... Split and join time-span records
stsum ......................... Split and join time-span records for mi data
stteffects ipw ......................... Survival-time inverse-probability weighting
stteffects ipwra ................. Survival-time inverse-probability-weighted regression adjustment
stteffects ra ......................... Survival-time regression adjustment
stteffects wra ......................... Survival-time weighted regression adjustment
stset ................................... Declare data to be survival-time data
stsum ................................... Summarize survival-time data
strat ......................... Tabulate failure rates and rate ratios
stsplit ......................... Split and join time-span records
stsum ......................... Split and join time-span records for mi data
stteffects ipw ......................... Survival-time inverse-probability weighting
stteffects ipwra ................. Survival-time inverse-probability-weighted regression adjustment
stteffects ra ......................... Survival-time regression adjustment
stteffects wra ......................... Survival-time weighted regression adjustment
stvvar ................................ Report variables that vary over time
xttset ................................ Random-effects parametric survival models

Also see Power, precision, and sample size.

Time series, multivariate
[ST] Section 11.4.4 ................................. Time-series varlists
[ST] Section 13.10 ................................. Time-series operators
[ST] Chapter 20 ................................. Estimation and postestimation commands
[ST] Section 27.14 ................................. Time-series models
[TS] Time series ............................... Introduction to time-series commands
[BAYES] dfactor ................................ Dynamic-factor models
[TS] fccompute ................................ Compute dynamic forecasts after var, svar, or vec
[TS] fcgraph .................................... Graph forecasts after fccompute
[TS] forecast .................................... Econometric model forecasting
[TS] forecast adjust ......................... Adjust variables to produce alternative forecasts
[TS] forecast clear ......................... Clear current model from memory
[TS] forecast coefvector ................. Specify an equation via a coefficient vector
[TS] forecast create ......................... Create a new forecast model
[TS] forecast describe ........................ Describe features of the forecast model
[TS] forecast drop ......................... Drop forecast variables
[TS] forecast estimates ..................... Add estimation results to a forecast model
[TS] forecast exogenous ...................... Declare exogenous variables
[TS] forecast identity ....................... Add an identity to a forecast model
[TS] forecast list ......................... List forecast commands composing current model
[TS] forecast query ......................... Check whether a forecast model has been started
Combined subject table of contents

Time series, univariate

Section 11.4.4 ............................................. Time-series varlists
Section 13.10 ............................................. Time-series operators
Chapter 20 .............................................. Estimation and postestimation commands
Section 27.14 ............................................. Time-series models

TS arch ............................................. Autoregressive conditional heteroskedasticity (ARCH) family of estimators
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<td>arima</td>
<td>ARIMA, ARMAX, and other dynamic regression models</td>
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<td>corrgram</td>
<td>Tabulate and graph autocorrelations</td>
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<td>cump</td>
<td>Graph cumulative spectral distribution</td>
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<td>dfghs</td>
<td>DF-GLS unit-root test</td>
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<tr>
<td>dfghl</td>
<td>Augmented Dickey–Fuller unit-root test</td>
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<tr>
<td>estat acplot</td>
<td>Plot parametric autocorrelation and autocovariance functions</td>
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<td>estat aroots</td>
<td>Check the stability condition of ARIMA estimates</td>
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<td>estat sbcumum</td>
<td>Cumulative sum test for parameter stability</td>
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<td>estat sbkown</td>
<td>Test for a structural break with a known break date</td>
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<td>estat sbsingle</td>
<td>Test for a structural break with an unknown break date</td>
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<td>forecast adjust</td>
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<tr>
<td>forecast clear</td>
<td>Clear current model from memory</td>
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<td>forecast coefvector</td>
<td>Specify an equation via a coefficient vector</td>
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<td>forecast create</td>
<td>Create a new forecast model</td>
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<tr>
<td>forecast describe</td>
<td>Describe features of the forecast model</td>
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<td>forecast drop</td>
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<td>forecast estimates</td>
<td>Add estimation results to a forecast model</td>
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<td>forecast identity</td>
<td>Add an identity to a forecast model</td>
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<td>forecast list</td>
<td>List forecast commands composing current model</td>
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<td>Add observations to a time-series dataset</td>
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<td>Fill in gaps in time variable</td>
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<td>Filter a time series for cyclical components</td>
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<td>Baxter–King time-series filter</td>
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<td>tsfilter bw</td>
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<td>tsfilter cf</td>
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<td>tsfilter hp</td>
<td>Hodrick–Prescott time-series filter</td>
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<td>tslines</td>
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<td>tsreport</td>
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<td>Nonlinear filter</td>
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| TS | tssmooth shwinters | Holt–Winters seasonal smoothing
| TS | ucm | Unobserved-components model
| TS | wntestb | Bartlett’s periodogram-based test for white noise
| TS | wntestq | Portmanteau (Q) test for white noise
| TS | xcorr | Cross-correlogram for bivariate time series

**Transforms and normality tests**

| R | boxcox | Box–Cox regression models
| R | fp | Fractional polynomial regression
| R | ladder | Ladder of powers
| R | lnskew0 | Find zero-skewness log or Box–Cox transform
| MV | mvtest normality | Multivariate normality tests
| R | sktest | Skewness and kurtosis tests for normality
| R | swilk | Shapiro–Wilk and Shapiro–Francia tests for normality

**Treatment effects**

| U | Section 27.20 | Treatment-effects models
| TE | DID intro | Introduction to difference-in-differences estimation
| TE | Treatment effects | Introduction to treatment-effects commands
| TE | didregress | Difference-in-differences estimation
| ERM | eintreg | Extended interval regression
| ERM | eoprobit | Extended ordered probit regression
| ERM | eprobit | Extended probit regression
| ERM | eregress | Extended linear regression
| TE | eteffects | Endogenous treatment-effects estimation
| TE | etpoisson | Poisson regression with endogenous treatment effects
| TE | etregress | Linear regression with endogenous treatment effects
| TE | stteffects | Treatment-effects estimation for observational survival-time data
| TE | stteffects intro | Introduction to treatment effects for observational survival-time data
| TE | stteffects ipw | Survival-time inverse-probability weighting
| TE | stteffects ipwra | Survival-time inverse-probability-weighted regression adjustment
| TE | stteffects ra | Survival-time regression adjustment
| TE | stteffects wra | Survival-time weighted regression adjustment
| TE | tebalance | Check balance after teffects or stteffects estimation
| TE | tebalance box | Covariate balance box
| TE | tebalance density | Covariate balance density
| TE | tebalance overid | Test for covariate balance
| TE | tebalance summarize | Covariate-balance summary statistics
| TE | tteffects | Treatment-effects estimation for observational data
| TE | tteffects aipw | Augmented inverse-probability weighting
| TE | tteffects intro | Introduction to treatment effects for observational data
| TE | tteffects intro advanced | Advanced introduction to treatment effects for observational data
| TE | tteffects ipw | Inverse-probability weighting
| TE | tteffects ipwra | Inverse-probability-weighted regression adjustment
| TE | tteffects multivalued | Multivalued treatment effects
| TE | tteffects nnmatch | Nearest-neighbor matching
| TE | tteffects psmatch | Propensity-score matching
| TE | tteffects ra | Regression adjustment
| TE | telasso | Treatment-effects estimation using lasso
| TE | tooverlap | Overlap plots
Matrix commands

Basics

[U] Chapter 14 ................................................................. Matrix expressions
[P] matlist ...................................................... Display a matrix and control its format
[P] matrix .......................................................... Introduction to matrix commands
[P] matrix define ............................................. Matrix definition, operators, and functions
[P] matrix utility ............................................. List, rename, and drop matrices

Programming

[P] ereturn .............................................................. Post the estimation results
[P] matrix accum ................................................ Form cross-product matrices
[P] matrix rowjoinbyname ................................ Join rows while matching on column names
[P] matrix rownames ............................................ Name rows and columns
[P] matrix score .................................................... Score data from coefficient vectors
[R] ml ................................................................. Maximum likelihood estimation

Other

[P] makecns ............................................................. Constrained estimation
[P] matrix dissimilarity ...................................... Compute similarity or dissimilarity measures
[P] matrix eigenvalues .......................................... Eigenvalues of nonsymmetric matrices
[P] matrix get ........................................................ Access system matrices
[P] matrix mkmat .................................................. Convert variables to matrix and vice versa
[P] matrix svd ........................................................ Singular value decomposition
[P] matrix symeigen .............................................. Eigenvalues and eigenvectors of symmetric matrices

Mata

[D] putmata ......................................................... Put Stata variables into Mata and vice versa

Programming

Basics

[U] Chapter 18 ................................................................. Programming Stata
[U] Section 18.3 ............................................................... Macros
[U] Section 18.11 ............................................................. Ado-files
[P] comments .......................................................... Add comments to programs
[P] fvexpand .......................................................... Expand factor varlists
[P] macro ............................................................ Macro definition and manipulation
[P] program ........................................................... Define and manipulate programs
[P] return ............................................................. Return stored results
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<td>[P]</td>
<td>continue</td>
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<td>error</td>
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<td>forvalues</td>
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### Parsing and program arguments

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<td>Low-level parsing</td>
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<td>[P]</td>
<td>numlist</td>
<td>Parse numeric lists</td>
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<td>[P]</td>
<td>syntax</td>
<td>Parse Stata syntax</td>
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<td>tokenize</td>
<td>Divide strings into tokens</td>
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### Console output

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<td>Dialog programming</td>
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<td>Display strings and values of scalar expressions</td>
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### Commonly used programming commands

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<td>byable</td>
<td>Make programs byable</td>
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<td>[P]</td>
<td>#delimit</td>
<td>Change delimiter</td>
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<td>[P]</td>
<td>exit</td>
<td>Exit from a program or do-file</td>
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<tr>
<td>[R]</td>
<td>fvrevar</td>
<td>Factor-variables operator programming command</td>
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<td>mark</td>
<td>Mark observations for inclusion</td>
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<td>[P]</td>
<td>matrix</td>
<td>Introduction to matrix commands</td>
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<td>more</td>
<td>Pause until key is pressed</td>
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<td>nopreserve option</td>
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<td>Preserve and restore data</td>
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<td>quietly</td>
<td>Quietly and noisily perform Stata command</td>
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[P]  break  Suppress Break key
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[P]  class exit  Exit class-member program and return result
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[P]  _estimates  Manage estimation results
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[P]  file  Read and write text and binary files
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[P]  frame post  Post results to dataset in another frame
[P]  H2O intro  Introduction to integration with H2O
[RPT] html2docx  Convert an HTML file to a Word (.docx) document
[P]  include  Include commands from file
[P]  Java integration  Java integration for Stata
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[P]  Java utilities  Java utilities
[P]  javacall  Call a Java plugin
[M-5]  LinearProgram( )  Linear programming
[P]  macro  Macro definition and manipulation
[P]  macro lists  Manipulate lists
[RPT] markdown  Convert Markdown document to HTML file or Word (.docx) document
[R]  ml  Maximum likelihood estimation
[M-5]  moptimize( )  Model optimization
[M-5]  optimize( )  Function optimization
[M-5]  Pdf*( )  Create a PDF file
[P]  plugin  Load a plugin
[P]  postfile  Post results in Stata dataset
[P]  _predict  Obtain predictions, residuals, etc., after estimation programming command
[P]  program properties  Properties of user-defined programs
[RPT] putdocx begin  Create an Office Open XML (.docx) file
[RPT] putdocx collect  Add a table from a collection to an Office Open XML (.docx) file
[RPT] putdocx intro  Introduction to generating Office Open XML (.docx) files
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[M-5] Quadrature( ) .......................................... Numerical integration
[P] _return ..................................................... Preserve stored results
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[P] _robust ..................................................... Robust variance estimates
[P] serset ...................................................... Create and manipulate sersets
[D] snapshot .................................................. Save and restore data snapshots
[P] unab ....................................................... Unabbreviate variable list
[P] unabcmd .................................................. Unabbreviate command name
[D] unicode collator ....................................... Language-specific Unicode collators
[D] unicode convertfile ..................................... Low-level file conversion between encodings
[P] varabbrev ................................................ Control variable abbreviation
[P] viewsource ................................................ View source code
[M-5] xl( ) ...................................................... Excel file I/O class

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[MV] cluster programming subroutines ............... Add cluster-analysis routines
[MV] cluster programming utilities ..................... Cluster-analysis programming utilities
[R] fvrevar .................................................. Factor-variables operator programming command
[P] matrix dissimilarity .................................. Compute similarity or dissimilarity measures
[MII] mi select ............................................... Programmer’s alternative to mi extract
[ST] st_ ....................................................... Survival analysis subroutines for programmers
[SVY] svymarkout ........................................ Mark observations for exclusion on the basis of survey characteristics
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[TS] tsrevar ................................................ Time-series operator programming command

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[P] Project Manager ........................................ Organize Stata files

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[D] unicode convertfile ................................... Low-level file conversion between encodings
[D] unicode translate .................................. Translate files to Unicode

Mata


Customizable tables and collections

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collect recode ......................... Recode dimension levels in a collection
collect remap ........................ Remap tags in a collection
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collect title ......................... Collection styles for table titles
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dyndoc Convert dynamic Markdown document to HTML or Word (.docx) document
dyntext Process Stata dynamic tags in text file
html2docx Convert an HTML file to a Word (.docx) document
markdown Convert Markdown document to HTML file or Word (.docx) document
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putdocx collect Add a table from a collection to an Office Open XML (.docx) file
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putdocx pagebreak Add breaks to an Office Open XML (.docx) file
putdocx paragraph Add text or images to an Office Open XML (.docx) file
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[GS] Chapter 13 (GSM, GSU, GSW) ............. Using the Do-file Editor—automating Stata
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[P] Dialog programming .......................... Dialog programming
[R] doedit ............................................. Edit do-files and other text files
[D] edit ...................................................... Browse or edit data with Data Editor
[P] set locale_ui ...................................... Specify a localization package for the user interface
[P] sleep .................................................. Pause for a specified time
[P] smcl .................................................. Stata Markup and Control Language
[D] unicode locale ........................................ Unicode locale utilities
[D] varmanage ........................................ Manage variable labels, formats, and other properties
[P] viewsource ......................................... View source code
[P] window fopen ..................................... Display open/save dialog box
[P] window manage .................................... Manage window characteristics
[P] window menu ....................................... Create menus
[P] window programming ............................ Programming menus and windows
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[P] window stopbox ................................. Display message box