table twoway — Two-way tabulation

Description

In this entry, we discuss how to use `table` to create a two-way tabulation, including frequencies, percentages, and proportions.

Quick start

Table of frequencies, with rows defined by categories of `a1` and columns defined by categories of `a2`

```
table a1 a2
```

Same as above, but treat missing values like other values

```
table a1 a2, missing
```

Table with the percentage of observations in each cell

```
table a1 a2, statistic(percent)
```

For each category of `a1`, report the percentage of observations across levels of `a2`

```
table a1 a2, statistic(percent, across(a2))
```

Report frequencies and the proportion of observations across categories of `a1`, enclosed within parentheses

```
table a1 a2, statistic(frequency) ///
  statistic(proportion, across(a1)) sformat("(%s)" proportion)
```

Menu

Statistics > Summaries, tables, and tests > Tables of frequencies, summaries, and command results

Syntax

Basic two-way tabulation

table *rowvar colvar* [*if*] [*in*] [*weight*] [, *options*]

Customized two-way tabulation

table [(*rowspec*)] [(*colspec*)] [*if*] [*in*] [*weight*] [, *options*]

rowspec may be empty or may include *rowvar*, result, or *rowvar* and result, where result refers to the requested statistics.

colspec may be empty or may include *colvar*, result, or *colvar* and result, where result refers to the requested statistics.

options	Description
Main	
totals(*totals*)	report only the specified totals
nototals	suppress the marginal totals
Statistics	
statistic(*stat*[, *statopts*])	statistic to be reported; default is statistic(frequency) when no weights are specified and statistic(sumw) otherwise
Formats	
nformat(%*fmt* [*results*][, basestyle])	specify numeric format
sformat(*sfmt* [*results*])	specify string format
Title	
title(*string*)	add table title
titlestyles(*text_styles*)	change table title styles
Notes	
note(*string*)	add table note
notestyles(*text_styles*)	change table note styles
Export	
export(*filename*.*suffix*[, *export_opts*])	export table
Options	
missing	treat numeric missing values of *rowvar* and *colvar* like other values
zerocounts	report 0 for empty cell counts
name(*cname*)	collect results into a collection named *cname*
append	append results to an existing collection
replace	replace results of an existing collection
label(*filename*)	specify the collection labels
style(*filename* [, override])	specify the collection style
markvar(*newvar*)	create *newvar* that identifies observations used in the tabulation

fweights, aweights, iweights, and pweights are allowed; see [U] 11.1.6 weight.

strL variables are not allowed; see [U] 12.4.8 strL.

markvar() does not appear in the dialog box.

text_styles	Description
font([*fontfamily*] [, *font_opts*])	specify font style
smcl(*smcl*)	specify formatting for SMCL files
latex(*latex*)	specify LaTeX macro
shading(*sspec*)	set background color, foreground color, and fill pattern

font_opts	Description
size(# [*unit*])	specify font size
color(*color*)	specify font color
variant(*variant*)	specify font variant and capitalization
[no]bold	specify whether to format text as bold
[no]italic	specify whether to format text as italic
[no]strikeout	specify whether to strike out text
[no]underline	specify whether to underline text

suffix	*fileformat*	Output format
docx	as(docx)	Microsoft Word
html	as(html)	HTML 5 with CSS
pdf	as(pdf)	PDF
xlsx	as(xlsx)	Microsoft Excel 2007/2010 or newer
xls	as(xls)	Microsoft Excel 1997/2003
tex	as(tex)	LaTeX
smcl	as(smcl)	SMCL
txt	as(txt)	plain text
markdown	as(markdown)	Markdown
md	as(md)	Markdown

export_opts	Description
as(*fileformat*)	specify document type
replace	overwrite existing file
docx_options	available when exporting to .docx files
html_options	available when exporting to .html files
pdf_options	available when exporting to .pdf files
excel_options	available when exporting to .xls and .xlsx files
tex_options	available when exporting to .tex files
smcl_option	available when exporting to .smcl files
txt_option	available when exporting to .txt files
md_option	available when exporting to .markdown and .md files

docx_options	Description
`noisily`	show the `putdocx` commands used to export to the Microsoft Word file
`dofile(`*filename*[`, replace`]`)`	save the `putdocx` commands used for exporting to the named do-file

html_options	Description
`append`	append to an existing file
`tableonly`	export only the table to the specified file
`cssfile(`*cssfile*`)`	define the styles in *cssfile* instead of *filename*
`prefix(`*prefix*`)`	use *prefix* to identify style classes

pdf_options	Description
`noisily`	show the `putpdf` commands used to export to the PDF file
`dofile(`*filename*[`, replace`]`)`	save the `putpdf` commands used for exporting to the named do-file

excel_options	Description
`noisily`	show the `putexcel` commands used to export to the Excel file
`dofile(`*filename*[`, replace`]`)`	save the `putexcel` commands used for exporting to the named do-file
`sheet(`*sheetname*[`, replace`]`)`	specify the worksheet to use; the default sheet name is `Sheet1`
`cell(`*cell*`)`	specify the Excel upper-left cell as the starting position to export the table; the default is `cell(A1)`
`modify`	modify Excel file
`noopen`	do not open Excel file in memory

`noopen` does not appear in the dialog box.

tex_options	Description
`append`	append to an existing file
`tableonly`	export only the table to the specified file

smcl_option	Description
`append`	append to an existing file

txt_option	Description
`append`	append to an existing file

md_option	Description
`append`	append to an existing file

fontfamily specifies a valid font family.

unit may be `in` (inch), `pt` (point), or `cm` (centimeter). An inch is equivalent to 72 points and 2.54 centimeters. The default is `pt`.

variant may be `allcaps`, `smallcaps`, or `normal`.

`variant(allcaps)` changes the text to all uppercase letters; applicable when publishing items from a collection to Microsoft Word, PDF, LaTeX, and HTML files.

`variant(smallcaps)` changes the text to use large capitals for uppercase letters and smaller capitals for lowercase letters; applicable when publishing items from a collection to Microsoft Word, LaTeX, and HTML files.

`variant(normal)` changes the font variant back to normal and leaves the capitalization unchanged from the original text; applicable when publishing items from a collection to Microsoft Word, PDF, LaTeX, and HTML files.

smcl specifies the name of the SMCL directive to render text for SMCL output. The supported SMCL directives are `input`, `error`, `result`, and `text`.

latex specifies the name of a LaTeX macro to render text for LaTeX output. Example LaTeX macro names are `textbf`, `textsf`, `textrm`, and `texttt`. Custom LaTeX macros are also allowed. If *text* is to be rendered in a cell, title, or note, then *latex* is translated to the following when you export to LaTeX:

\latex{*text*}

sspec is

[`background(`*bgcolor*`)` `foreground(`*fgcolor*`)` `pattern(`*fpattern*`)`]

bgcolor specifies the background color.

fgcolor specifies the foreground color.

fpattern specifies the fill pattern. A complete list of fill patterns is shown in the *Appendix*.

bgcolor, *fgcolor*, and *color* may be one of the colors listed in the *Appendix*; a valid RGB value in the form ### ### ###, for example, `171 248 103`; or a valid RRGGBB hex value in the form ######, for example, `ABF867`.

Options

Main

`totals(`*totals*`)` and `nototals` control which totals are to be displayed in the table. By default, all totals are reported.

`totals(`*totals*`)` specifies which margin totals to display in the reported table. *totals* can contain *rowvar*, *colvar*, and their interaction. Interactions can be specified by using the # operator.

`nototals` prevents `table` from displaying any totals.

Statistics

`statistic(`*stat*[, *statopts*]`)` specifies the statistic to be displayed. `statistic()` may be repeated to request multiple statistics.

Available statistics are

stat	Definition
`frequency`	frequency
`sumw`	sum of weights
`proportion`	proportion
`percent`	percentage
`rawproportion`	proportion ignoring optionally specified weights
`rawpercent`	percentage ignoring optionally specified weights

The following options may be specified in combination with statistics `proportion`, `percent`, `rawproportion`, and `rawpercent`:

statopts	Definition
`across(`*rowvar*`)`	percentages or proportions across rows
`across(`*colvar*`)`	percentages or proportions across columns
`total`	compute overall percentages or proportions

Formats

`nformat(`*%fmt* [*results*] [`, basestyle`]`)` changes the numeric format, such as the number of decimal places, for specified results. If *results* are not specified, the numeric format is changed for all results.

results may be any statistic named in option `statistic()` (that is, any *stat*).

This option is repeatable, and when multiple formats apply to one result, the rightmost specification is applied.

This option does not affect the format of numeric layout variables (*rowspec* and *colspec*). The default format of these variables is taken from the dataset.

`basestyle` indicates that the format be applied to results that do not already have their own format instead of overriding the format for all results.

`sformat(`*sfmt* [*results*]`)` changes the string format for specified results. You can, for instance, add symbols or text to the values reported in the table by modifying the string format.

sfmt may contain a mix of text and `%s`. Here `%s` refers to the numeric value that is formatted as specified using `nformat()`. The text will be placed around the numeric values in your table as it is placed around `%s` in this option. For instance, to place parentheses around the percent statistics, you can specify `sformat("(%s)" percent)`.

results may be any statistic named in option `statistic()` (that is, any *stat*).

Two text characters must be specified using a special character sequence if you want them to be displayed in your table. To include `%`, type `%%`. To include `\`, type `\\`. For instance, to place a percent sign following percent statistics, you can specify `sformat("%s%%" percent)`.

This option is repeatable, and when multiple formats apply to one result, the rightmost specification is applied.

Title

`title(`*string*`)` adds the text *string* as a title to the table.

`titlestyles(`*text_styles*`)` changes the style for the table title. *text_styles* are the following:

`font(`[*fontfamily*] [`,` `size(`# [*unit*]`)` `color(`*color*`)` `variant(`*variant*`)` [`no`]`bold` [`no`]`italic` [`no`]`strikeout` [`no`]`underline`]`)` specifies the font style. These font style properties are applicable when exporting the table to Microsoft Word, Microsoft Excel, PDF, HTML, and LaTeX files, unless otherwise specified.

fontfamily specifies a valid font family. This font style property is applicable when publishing items from a collection to Microsoft Word, Microsoft Excel, PDF, and HTML files.

`size(`# [*unit*]`)` specifies the font size as a number optionally followed by units. This font style property is applicable when publishing items from a collection to Microsoft Word, Microsoft Excel, PDF, and HTML files.

`color(`*color*`)` specifies the text color.

`variant(`*variant*`)` specifies the font variant and capitalization.

`bold` and `nobold` specify the font weight. `bold` changes the font weight to bold; `nobold` changes the font weight back to normal.

`italic` and `noitalic` specify the font style. `italic` changes the font style to italic; `noitalic` changes the font style back to normal.

`strikeout` and `nostrikeout` specify whether to add a strikeout mark to the title. `strikeout` adds a strikeout mark to the title; `nostrikeout` changes the title back to normal.

`underline` and `nounderline` specify whether to underline the table title. `underline` adds a single line under the title; `nounderline` removes the underline.

Only one of `strikeout` or `underline` is allowed when publishing to HTML files.

`smcl(`*smcl*`)` specifies how to render the table title for SMCL output. This style property is applicable only when publishing items from a collection to a SMCL file.

`latex(`*latex*`)` specifies how to render the table title for LaTeX output. This style property is applicable only when publishing items from a collection to a LaTeX file.

`shading(`*sspec*`)` sets the background color, foreground color, and fill pattern. The background color is applicable when exporting the table to Microsoft Word, Microsoft Excel, PDF, HTML, and LaTeX files. The foreground color and fill pattern are applicable when exporting the table to Microsoft Word and Microsoft Excel.

Notes

`note(`*string*`)` adds the text *string* as a note to the table. `note()` may be specified multiple times to add multiple notes. Each note is placed on a new line.

`notestyles(`*text_styles*`)` changes the style for the table notes. *text_styles* are the following:

`font(`[*fontfamily*] [`, size(`# [*unit*]`) color(`*color*`) variant(`*variant*`)` [`no`]`bold` [`no`]`italic` [`no`]`strikeout` [`no`]`underline`]`)` specifies the font style. These font style properties are applicable when exporting the table to Microsoft Word, Microsoft Excel, PDF, HTML, and LaTeX files, unless otherwise specified.

fontfamily specifies a valid font family. This font style property is applicable when publishing items from a collection to Microsoft Word, Microsoft Excel, PDF, and HTML files.

`size(`# [*unit*]`)` specifies the font size as a number optionally followed by units. This font style property is applicable when publishing items from a collection to Microsoft Word, Microsoft Excel, PDF, and HTML files.

`color(`*color*`)` specifies the text color.

`variant(`*variant*`)` specifies the font variant and capitalization.

`bold` and `nobold` specify the font weight. `bold` changes the font weight to bold; `nobold` changes the font weight back to normal.

`italic` and `noitalic` specify the font style. `italic` changes the font style to italic; `noitalic` changes the font style back to normal.

`strikeout` and `nostrikeout` specify whether to add a strikeout mark to the notes. `strikeout` adds a strikeout mark to the note; `nostrikeout` changes the note back to normal.

`underline` and `nounderline` specify whether to underline the table notes. `underline` adds a single line under the notes; `nounderline` removes the underline.

Only one of `strikeout` or `underline` is allowed when publishing to HTML files.

`smcl(`*smcl*`)` specifies how to render the table notes for SMCL output. This style property is applicable only when publishing items from a collection to a SMCL file.

`latex(`*latex*`)` specifies how to render the table notes for LaTeX output. This style property is applicable only when publishing items from a collection to a LaTeX file.

`shading(`*sspec*`)` sets the background color, foreground color, and fill pattern. The background color is applicable when exporting the table to Microsoft Word, Microsoft Excel, PDF, HTML, and LaTeX files. The foreground color and fill pattern are applicable when exporting the table to Microsoft Word and Microsoft Excel.

Export

`export(`*filename*`.`*suffix*[`,` *export_opts*]`)` exports the table to the specified file. *export_opts* are the following:

`as(`*fileformat*`)` specifies the file format to which the table is to be exported. This option is rarely specified because, by default, `table` determines the format from the suffix of the file being created.

`replace` permits `table` to overwrite an existing file.

`noisily` specifies that `table` show the commands used to export the table to Microsoft Word, Microsoft Excel, and PDF files. The `putdocx`, `putexcel`, or `putpdf` command used to export the table will be displayed.

`dofile(`*filename*[`, replace`]`)` specifies that `table` save to *filename* the commands used to export the table to Microsoft Word, Microsoft Excel, and PDF files.

If *filename* already exists, it can be overwritten by specifying `replace`. If *filename* is specified without an extension, `.do` is assumed.

`append` specifies that `table` append the table to an existing file.

This option is applicable when you export the table to an HTML, a LaTeX, a SMCL, a `txt`, or a Markdown file. When you export to HTML and LaTeX files, the `append` option implies the `tableonly` option. Furthermore, when you export to HTML files, if the target CSS file already exists, `table` will also append to it.

`tableonly` specifies that only the table be exported to the specified HTML or LaTeX document. By default, `table` produces complete HTML and LaTeX documents.

When you export to an HTML file, if the `cssfile()` option is not specified, a CSS filename is constructed from *filename*, with the extension replaced with `.css`.

`cssfile(`*cssfile*`)` specifies that `table` define the styles in *cssfile* instead of *filename* when you export to HTML.

`prefix(`*prefix*`)` specifies that `table` use *prefix* to identify style classes when you export to HTML.

`sheet(`*sheetname* [`, replace`]`)` saves to the worksheet named *sheetname*. For more information about this option, see [RPT] **putexcel**.

`cell(`*cell*`)` specifies an Excel upper-left cell as the starting position to publish the table. The default is `cell(A1)`.

`modify` permits `putexcel set` to modify an Excel file. For more information about this option, see [RPT] **putexcel**.

`noopen` prevents `putexcel` from opening the Excel file in memory for modification. It does not appear in the dialog box. For more information about this option, see [RPT] **putexcel**.

Options

`missing` specifies that numeric missing values of *rowvar* or *colvar* be treated as valid categories. By default, observations with a numeric missing value in *rowvar* or *colvar* are omitted.

`zerocounts` specifies that `table` report a 0 in empty cells for the `frequency` statistic.

`name(`*cname*`)` specifies that a collection named *cname* be associated with the collected statistics and results. The default is `name(Table)`.

`append` specifies that `table` append its collection information into the collection named in `name()`.

`replace` permits `table` to overwrite an existing collection. This option is implied for `name(Table)` when `append` is not specified.

`label(`*filename*`)` specifies the *filename* containing the collection labels to use for your table. Labels in *filename* will be loaded for the table, and any labels not specified in *filename* will be taken from the labels defined in `c(collect_label)`. The default is to use only the collection labels set in `c(collect_label)`; see [TABLES] **set collect_label**.

`style(`*filename* [`, override`]`)` specifies the *filename* containing the collection styles to use for your table. The default collection styles will be discarded, and only the collection styles in *filename* will be applied.

If you prefer the default collection styles but also want to apply any styles in *filename*, specify `override`. If there are conflicts between the default collection styles and those in *filename*, the ones in *filename* will take precedence.

The default is to use only the collection styles set in `c(table_style)`; see [TABLES] **set table_style**.

The following option is available with `table` but is not shown in the dialog box:

`markvar(`*newvar*`)` generates an indicator variable that identifies the observations used in the tabulation.

Remarks and examples

Remarks are presented under the following headings:

Tabulation of two variables

To obtain a two-way tabulation that reports the number of observations across the levels of two categorical variables, we need to specify only the names of the categorical variables following `table`.

To demonstrate, we use data from the Second National Health and Nutrition Examination Survey (NHANES II) (McDowell et al. 1981) and create a two-way tabulation of self-reported health status (`hlthstat`) by region of the USA (`region`).

```
. use https://www.stata-press.com/data/r19/nhanes2l
(Second National Health and Nutrition Examination Survey)

. table hlthstat region

-------------------------------------------------------
              |                 Region
              |     NE      MW       S       W    Total
--------------+----------------------------------------
Health status |
  Excellent   |    562     730     546     569    2,407
  Very good   |    558     721     651     661    2,591
  Good        |    631     735     807     765    2,938
  Fair        |    257     419     532     462    1,670
  Poor        |     77     167     317     168      729
  Total       |  2,085   2,772   2,853   2,625   10,335
-------------------------------------------------------
```

We can examine the missing values as well by adding the `missing` option.

```
. table hlthstat region, missing

--------------------------------------------------------------
                     |                 Region
                     |     NE      MW       S       W    Total
---------------------+----------------------------------------
Health status        |
  Excellent          |    562     730     546     569    2,407
  Very good          |    558     721     651     661    2,591
  Good               |    631     735     807     765    2,938
  Fair               |    257     419     532     462    1,670
  Poor               |     77     167     317     168      729
  .                  |      1       1                        2
  Blank but applicable|    10       1               3       14
  Total              |  2,096   2,774   2,853   2,628   10,351
--------------------------------------------------------------
```

We find that 16 individuals have a missing health status, and the majority of these are from individuals in the Northeast. The empty cells correspond to regions in which all the individuals have a nonmissing health status; we can fill in these empty cells with 0s:

```
. table hlthstat region, missing zerocounts

-----------------------------------------------------------------
                       |                   Region
                       |      NE      MW       S       W    Total
-----------------------+-----------------------------------------
Health status          |
  Excellent            |     562     730     546     569    2,407
  Very good            |     558     721     651     661    2,591
  Good                 |     631     735     807     765    2,938
  Fair                 |     257     419     532     462    1,670
  Poor                 |      77     167     317     168      729
  .                    |       1       1       0       0        2
  Blank but applicable |      10       1       0       3       14
  Total                |   2,096   2,774   2,853   2,628   10,351
-----------------------------------------------------------------
```

Tabulation, including percentages

Instead of frequencies, we can request that `table` report the percentage of observations in each cell of the table by specifying the `statistic(percent)` option.

```
. table hlthstat region, statistic(percent)

--------------------------------------------------------
              |                   Region
              |      NE      MW       S       W    Total
--------------+-----------------------------------------
Health status |
  Excellent   |    5.44    7.06    5.28    5.51    23.29
  Very good   |    5.40    6.98    6.30    6.40    25.07
  Good        |    6.11    7.11    7.81    7.40    28.43
  Fair        |    2.49    4.05    5.15    4.47    16.16
  Poor        |    0.75    1.62    3.07    1.63     7.05
  Total       |   20.17   26.82   27.61   25.40   100.00
--------------------------------------------------------
```

We see that 5.44% of all observations correspond to individuals in excellent health who live in the Northeast.

Rather than looking at overall percentages, we might want to examine the distribution of observations within each health status level across the four regions. To do this, we can add the `across(region)` option.

```
. table hlthstat region, statistic(percent, across(region))

--------------------------------------------------------
              |                   Region
              |      NE      MW       S       W    Total
--------------+-----------------------------------------
Health status |
  Excellent   |   23.35   30.33   22.68   23.64   100.00
  Very good   |   21.54   27.83   25.13   25.51   100.00
  Good        |   21.48   25.02   27.47   26.04   100.00
  Fair        |   15.39   25.09   31.86   27.66   100.00
  Poor        |   10.56   22.91   43.48   23.05   100.00
  Total       |   20.17   26.82   27.61   25.40   100.00
--------------------------------------------------------
```

Of individuals reporting excellent health, 23.35% live in the Northeast, while 30.33% live in the Midwest, 22.68% live in the South, and 23.64% live in the West.

We can also look at the distribution of observations across health status categories within each region.

```
. table hlthstat region, statistic(percent, across(hlthstat))

-----------------------------------------------------------
              |                     Region
              |       NE        MW         S         W     Total
--------------+--------------------------------------------
Health status |
  Excellent   |    26.95     26.33     19.14     21.68     23.29
  Very good   |    26.76     26.01     22.82     25.18     25.07
  Good        |    30.26     26.52     28.29     29.14     28.43
  Fair        |    12.33     15.12     18.65     17.60     16.16
  Poor        |     3.69      6.02     11.11      6.40      7.05
  Total       |   100.00    100.00    100.00    100.00    100.00
-----------------------------------------------------------
```

Of individuals living in the South, 11.11% report having poor health. This is notably higher than the percentage of individuals reporting poor health in the other regions.

It is often helpful to see both frequencies and percentages in the same table. To do this, we can add the `statistic(frequency)` option to our command.

```
. table hlthstat region, statistic(frequency)
> statistic(percent, across(hlthstat))

-----------------------------------------------------------
              |                     Region
              |       NE        MW         S         W     Total
--------------+--------------------------------------------
Health status |
  Excellent   |
    Frequency |      562       730       546       569     2,407
    Percent   |    26.95     26.33     19.14     21.68     23.29
  Very good   |
    Frequency |      558       721       651       661     2,591
    Percent   |    26.76     26.01     22.82     25.18     25.07
  Good        |
    Frequency |      631       735       807       765     2,938
    Percent   |    30.26     26.52     28.29     29.14     28.43
  Fair        |
    Frequency |      257       419       532       462     1,670
    Percent   |    12.33     15.12     18.65     17.60     16.16
  Poor        |
    Frequency |       77       167       317       168       729
    Percent   |     3.69      6.02     11.11      6.40      7.05
  Total       |
    Frequency |    2,085     2,772     2,853     2,625    10,335
    Percent   |   100.00    100.00    100.00    100.00    100.00
-----------------------------------------------------------
```

Customizing results

There are several ways that we can customize the results of our two-way tabulation.

For instance, in some cases, we may prefer to omit the row and column totals. We can specify the `nototals` option to suppress these totals.

```
. table hlthstat region, statistic(frequency)
> statistic(percent, across(hlthstat)) nototals
```

```
-----------------------------------------------
                |            Region
                |     NE      MW       S      W
----------------+------------------------------
Health status   |
  Excellent     |
    Frequency   |    562     730     546    569
    Percent     |  26.95   26.33   19.14  21.68
  Very good     |
    Frequency   |    558     721     651    661
    Percent     |  26.76   26.01   22.82  25.18
  Good          |
    Frequency   |    631     735     807    765
    Percent     |  30.26   26.52   28.29  29.14
  Fair          |
    Frequency   |    257     419     532    462
    Percent     |  12.33   15.12   18.65  17.60
  Poor          |
    Frequency   |     77     167     317    168
    Percent     |   3.69    6.02   11.11   6.40
-----------------------------------------------
```

Or perhaps we want to see row totals or column totals but not both. We can include the `totals(region)` option to display only the `region` totals.

```
. table hlthstat region, statistic(frequency)
> statistic(percent, across(hlthstat)) totals(region)
```

```
---------------------------------------------------
                |              Region
                |     NE       MW        S        W
----------------+----------------------------------
Health status   |
  Excellent     |
    Frequency   |    562      730      546      569
    Percent     |  26.95    26.33    19.14    21.68
  Very good     |
    Frequency   |    558      721      651      661
    Percent     |  26.76    26.01    22.82    25.18
  Good          |
    Frequency   |    631      735      807      765
    Percent     |  30.26    26.52    28.29    29.14
  Fair          |
    Frequency   |    257      419      532      462
    Percent     |  12.33    15.12    18.65    17.60
  Poor          |
    Frequency   |     77      167      317      168
    Percent     |   3.69     6.02    11.11     6.40
  Total         |
    Frequency   |  2,085    2,772    2,853    2,625
    Percent     | 100.00   100.00   100.00   100.00
---------------------------------------------------
```

Once we have the statistics we want in our table, we can format the way that they appear. If, for instance, we want to add a percent sign to each of our percentages, we can specify the sformat("%s%%" percent) option. The sformat() option specifies that we want to add string characters to the numbers in the table. Within it, we refer to the numeric values as %s and place any string characters we want around this. The percent sign is unique because it already has special meaning in this context. Therefore, we must type two percent signs, %%, to display one. Finally, by adding percent within the sformat() option, we specify that we want to apply this format only to the percent statistics.

```
. table hlthstat region, statistic(frequency)
> statistic(percent, across(hlthstat)) totals(region)
> sformat("%s%%" percent)

-----------------------------------------------------
              |                 Region
              |        NE        MW         S         W
--------------+--------------------------------------
Health status |
  Excellent   |
    Frequency |       562       730       546       569
    Percent   |    26.95%    26.33%    19.14%    21.68%
  Very good   |
    Frequency |       558       721       651       661
    Percent   |    26.76%    26.01%    22.82%    25.18%
  Good        |
    Frequency |       631       735       807       765
    Percent   |    30.26%    26.52%    28.29%    29.14%
  Fair        |
    Frequency |       257       419       532       462
    Percent   |    12.33%    15.12%    18.65%    17.60%
  Poor        |
    Frequency |        77       167       317       168
    Percent   |     3.69%     6.02%    11.11%     6.40%
  Total       |
    Frequency |     2,085     2,772     2,853     2,625
    Percent   |   100.00%   100.00%   100.00%   100.00%
-----------------------------------------------------
```

Now that we have added the percent sign, we could argue that the labels Frequency and Percent are unnecessary. If we remove these statistic names from the row labels, we might also want to right-align the remaining labels in row headers. Finally, for readability, we could insert blank lines between levels of hlthstat. We could use the collect suite of commands to make these style changes. Fortunately, however, one of our predefined styles, table-tab2, includes these style changes, and we can select it using the style() option.

```
. table hlthstat region, statistic(frequency)
> statistic(percent, across(hlthstat)) totals(region)
> sformat("%s%%" percent) style(table-tab2)

-------------------------------------------------------
              |                  Region
              |        NE        MW         S         W
--------------+----------------------------------------
Health status |
  Excellent   |       562       730       546       569
              |    26.95%    26.33%    19.14%    21.68%
              |
  Very good   |       558       721       651       661
              |    26.76%    26.01%    22.82%    25.18%
              |
       Good   |       631       735       807       765
              |    30.26%    26.52%    28.29%    29.14%
              |
       Fair   |       257       419       532       462
              |    12.33%    15.12%    18.65%    17.60%
              |
       Poor   |        77       167       317       168
              |     3.69%     6.02%    11.11%     6.40%
              |
      Total   |     2,085     2,772     2,853     2,625
              |   100.00%   100.00%   100.00%   100.00%
-------------------------------------------------------
```

You can learn more about the predefined styles described at [TABLES] **Predefined styles**. If none of these provide the exact style you want for your table, you can further customize the results by using the `collect` suite of commands. To learn more, see [TABLES] **Intro**.

If you wish to include this table in a paper, on a webpage, or in another format, you can easily export it in LaTeX, Word, Excel, HTML, and a variety of other formats by using the `export()` option.

Stored results

`table` stores the following in `r()`:

Scalars

`r(N)`	number of observations

References

Huber, C. 2021. Customizable tables in Stata 17, part 1: The new table command. *The Stata Blog: Not Elsewhere Classified*. https://blog.stata.com/2021/06/07/customizable-tables-in-stata-17-part-1-the-new-table-command/.

McDowell, A., A. Engel, J. T. Massey, and K. Maurer. 1981. “Plan and operation of the Second National Health and Nutrition Examination Survey, 1976–1980”. In *Vital and Health Statistics*, ser. 1, no. 15. Hyattsville, MD: National Center for Health Statistics.

Also see

[R] **table** — Table of frequencies, summaries, and command results

[R] **table intro** — Introduction to tables of frequencies, summaries, and command results

[R] **table multiway** — Multiway tables

[R] **table oneway** — One-way tabulation

[R] **tabulate twoway** — Two-way table of frequencies

[TABLES] **Intro** — Introduction

For suggested citations, see the FAQ on citing Stata documentation.