

```

/*****
/*** Executing: tables_examples.do.do on 15 May 2024 at 09:09:26 ***
/*****/

.
. /* tables_examples.do
>
> The tables command was changed substantially in Stata Version 17.
> The new version can do almost anything, but it takes time
> to master. These examples should help you get started with it.
>
> There is also a table editor, which can be used to prepare tables
> for publication (changing margins, fonts, separator lines, etc). This
> do-file just illustrates how to get the table outline and content.
> For more information, you can find videos on YouTube from StataCorp
> and other users.
>
> Paul Jargowsky, August 2022
> Revised October 2022
> Revised April 2023
>
> */
.
. version 17

. cls

. clear

.
. webuse nhanes21
(Second National Health and Nutrition Examination Survey)

. label var highbp "Blood Pressure"

. label define highbp 0 "Normal" 1 "High"

. label values highbp highbp

.
. * General structure:
. * table (row stuff) (column stuff) (subtables), statistic(...)
. * Note: (subtables) repeats the row_x_column table for each
. * level of the variables specified
.

```

```
. * 1. Frequencies (counts) -- the default
. * race by sex, then table is repeated by region and total
. table (race) (sex) (region)
```

Region = NE

```
-----
      |           Sex
      |   Male   Female   Total
-----+-----
Race  |
White |     962     1,017     1,979
Black |      51         55       106
Other |       5         6         11
Total |    1,018     1,078     2,096
-----
```

Region = MW

```
-----
      |           Sex
      |   Male   Female   Total
-----+-----
Race  |
White |    1,170     1,292     2,462
Black |     133         162       295
Other |       7         10         17
Total |    1,310     1,464     2,774
-----
```

Region = S

```
-----
      |           Sex
      |   Male   Female   Total
-----+-----
Race  |
White |    1,076     1,208     2,284
Black |     247         301       548
Other |       9         12         21
Total |    1,332     1,521     2,853
-----
```

Region = W

```
-----
      |           Sex
      |   Male   Female   Total
-----+-----
Race  |
White |    1,104     1,236     2,340
Black |       69         68       137
Other |       82         69       151
Total |    1,255     1,373     2,628
-----
```

Region = Total

```

-----
      |           Sex
      |   Male   Female   Total
-----+-----
Race  |
  White |  4,312   4,753   9,065
  Black |    500    586   1,086
  Other |    103     97    200
  Total |  4,915   5,436  10,351
-----

```

. \* same variables, but in one table with region on rows  
. table (region) (race sex), nototals

```

-----
      |           Race
      |   White   Black   Other
      |   Sex     Sex     Sex
      |   Male   Female Male   Female Male   Female
-----+-----
Region |
  NE   |    962   1,017   51    55    5     6
  MW   |   1,170   1,292  133   162    7    10
  S    |   1,076   1,208  247   301    9    12
  W    |   1,104   1,236   69    68   82    69
-----

```

. \* same variables, but in one table with region on columns  
. table (race sex) (region), nototals

```

-----
      |           Region
      |   NE     MW     S     W
-----+-----
Race  |
  White |
  Sex   |
  Male  |    962   1,170   1,076   1,104
  Female |   1,017   1,292   1,208   1,236
  Black |
  Sex   |
  Male  |    51    133    247    69
  Female |    55    162    301    68
  Other |
  Sex   |
  Male  |     5     7     9     82
  Female |     6    10    12    69
-----

```

.  
.

```

. * 2. Percentages: stat(percent, across(variables))
. * In the table specification, "var" represents variables
. * and "result" represents different statistics
.
. * a) Cell percents across the entire table
. * Adds to 100 at extreme lower right (last subtable)
. table (race) (sex) (region), ///
>     statistic(percent) ///
>     nformat(%9.1f percent ) sformat(%s%% percent )

```

Region = NE

```

-----
          |           Sex
          |   Male   Female   Total
-----+-----
Race      |
  White  |   9.3%    9.8%    19.1%
  Black  |   0.5%    0.5%    1.0%
  Other  |   0.0%    0.1%    0.1%
  Total  |   9.8%   10.4%   20.2%
-----

```

Region = MW

```

-----
          |           Sex
          |   Male   Female   Total
-----+-----
Race      |
  White  |  11.3%   12.5%   23.8%
  Black  |   1.3%   1.6%    2.8%
  Other  |   0.1%   0.1%    0.2%
  Total  |  12.7%  14.1%  26.8%
-----

```

Region = S

```

-----
          |           Sex
          |   Male   Female   Total
-----+-----
Race      |
  White  |  10.4%   11.7%   22.1%
  Black  |   2.4%   2.9%    5.3%
  Other  |   0.1%   0.1%    0.2%
  Total  |  12.9%  14.7%  27.6%
-----

```

Region = W

```
-----  
      |           Sex  
      |   Male   Female   Total  
-----+-----  
Race  |  
  White |  10.7%   11.9%   22.6%  
  Black |   0.7%    0.7%    1.3%  
  Other |   0.8%    0.7%    1.5%  
  Total |  12.1%   13.3%   25.4%  
-----
```

Region = Total

```
-----  
      |           Sex  
      |   Male   Female   Total  
-----+-----  
Race  |  
  White |  41.7%   45.9%   87.6%  
  Black |   4.8%    5.7%   10.5%  
  Other |   1.0%    0.9%    1.9%  
  Total |  47.5%   52.5%  100.0%  
-----
```

```
.  
. * Cell percents within the table/subtables  
. * Adds to 100 at lower right of each subtable  
. table (race) (sex) (), ///  
>     statistic(percent) /// <-- is default  
>     nformat(%9.1f percent ) sformat(%s%% percent )
```

```
-----  
      |           Sex  
      |   Male   Female   Total  
-----+-----  
Race  |  
  White |  41.7%   45.9%   87.6%  
  Black |   4.8%    5.7%   10.5%  
  Other |   1.0%    0.9%    1.9%  
  Total |  47.5%   52.5%  100.0%  
-----
```

```
. /* same as:  
> table (race) (sex) (region), ///  
>     statistic(percent, across(race#sex))  
>     nformat(%9.1f percent ) sformat(%s%% percent )  
> */  
.
```

```

. * b) Row percents (over the columns)
. * Adds to 100 at right of every row
. table (race) (sex) (region), ///
>     statistic(percent, across(sex)) ///
>     nformat(%9.1f percent ) sformat(%s%% percent )

```

Region = NE

	Sex		Total
	Male	Female	
Race			
White	48.6%	51.4%	100.0%
Black	48.1%	51.9%	100.0%
Other	45.5%	54.5%	100.0%
Total	48.6%	51.4%	100.0%

Region = MW

	Sex		Total
	Male	Female	
Race			
White	47.5%	52.5%	100.0%
Black	45.1%	54.9%	100.0%
Other	41.2%	58.8%	100.0%
Total	47.2%	52.8%	100.0%

Region = S

	Sex		Total
	Male	Female	
Race			
White	47.1%	52.9%	100.0%
Black	45.1%	54.9%	100.0%
Other	42.9%	57.1%	100.0%
Total	46.7%	53.3%	100.0%

Region = W

	Sex		Total
	Male	Female	
Race			
White	47.2%	52.8%	100.0%
Black	50.4%	49.6%	100.0%
Other	54.3%	45.7%	100.0%
Total	47.8%	52.2%	100.0%

Region = Total

```
-----  
      |           Sex  
      |   Male   Female   Total  
-----+-----  
Race  |  
  White |  47.6%   52.4%  100.0%  
  Black |  46.0%   54.0%  100.0%  
  Other |  51.5%   48.5%  100.0%  
  Total |  47.5%   52.5%  100.0%  
-----
```

```
.  
. * c) Column percents (over all rows)  
. * Adds to 100 at bottom of every column  
. * i) When there is one table  
. table (race) (sex) (), ///  
>     statistic(percent, across(race)) ///  
>     nformat(%9.1f percent ) sformat(%s%% percent )
```

```
-----  
      |           Sex  
      |   Male   Female   Total  
-----+-----  
Race  |  
  White |  87.7%   87.4%   87.6%  
  Black |  10.2%   10.8%   10.5%  
  Other |   2.1%    1.8%    1.9%  
  Total | 100.0%  100.0%  100.0%  
-----
```

```
.  
. * ii) when there are subtables:  
. * Columns percents over all subtables  
. * Adds to 100 in total row of total subtable  
. table (race) (sex) (region), ///  
>     statistic(percent, across(race#region)) ///  
>     nformat(%9.1f percent ) sformat(%s%% percent )
```

Region = NE

```
-----  
      |           Sex  
      |   Male   Female   Total  
-----+-----  
Race  |  
  White |  19.6%   18.7%   19.1%  
  Black |   1.0%    1.0%    1.0%  
  Other |   0.1%    0.1%    0.1%  
  Total |  20.7%   19.8%   20.2%  
-----
```

Region = MW

		Sex		
		Male	Female	Total
Race				
White		23.8%	23.8%	23.8%
Black		2.7%	3.0%	2.8%
Other		0.1%	0.2%	0.2%
Total		26.7%	26.9%	26.8%

Region = S

		Sex		
		Male	Female	Total
Race				
White		21.9%	22.2%	22.1%
Black		5.0%	5.5%	5.3%
Other		0.2%	0.2%	0.2%
Total		27.1%	28.0%	27.6%

Region = W

		Sex		
		Male	Female	Total
Race				
White		22.5%	22.7%	22.6%
Black		1.4%	1.3%	1.3%
Other		1.7%	1.3%	1.5%
Total		25.5%	25.3%	25.4%

Region = Total

		Sex		
		Male	Female	Total
Race				
White		87.7%	87.4%	87.6%
Black		10.2%	10.8%	10.5%
Other		2.1%	1.8%	1.9%
Total		100.0%	100.0%	100.0%

.



```

. *   iii) Column percents over the rows w/in subtables
. *   Adds to 100 in total row of all subtables
. table (race) (sex) (region), ///
>     statistic(percent, across(race)) ///
>     nformat(%9.1f percent ) sformat(%s%% percent )

```

Region = NE

```

-----
      |           Sex
      |   Male   Female   Total
-----+-----
Race  |
  White |   94.5%   94.3%   94.4%
  Black |    5.0%    5.1%    5.1%
  Other |    0.5%    0.6%    0.5%
  Total |  100.0%  100.0%  100.0%
-----

```

Region = MW

```

-----
      |           Sex
      |   Male   Female   Total
-----+-----
Race  |
  White |   89.3%   88.3%   88.8%
  Black |   10.2%   11.1%   10.6%
  Other |    0.5%    0.7%    0.6%
  Total |  100.0%  100.0%  100.0%
-----

```

Region = S

```

-----
      |           Sex
      |   Male   Female   Total
-----+-----
Race  |
  White |   80.8%   79.4%   80.1%
  Black |   18.5%   19.8%   19.2%
  Other |    0.7%    0.8%    0.7%
  Total |  100.0%  100.0%  100.0%
-----

```

Region = W

```

-----
      |           Sex
      |   Male   Female   Total
-----+-----
Race  |
  White |   88.0%   90.0%   89.0%
  Black |    5.5%    5.0%    5.2%
  Other |    6.5%    5.0%    5.7%
  Total |  100.0%  100.0%  100.0%
-----

```

Region = Total

```
-----
```

	Sex		Total
	Male	Female	
Race			
White	87.7%	87.4%	87.6%
Black	10.2%	10.8%	10.5%
Other	2.1%	1.8%	1.9%
Total	100.0%	100.0%	100.0%

```
-----
```

```
.
. * Note: If multiple vars on a row or column, can specify
. * row or column percents over one or both
. * Row percentages over race only
. table (region) (sex race) (), ///
>     statistic(percent, across(race)) ///
>     nformat(%9.1f percent ) sformat(%s%% percent )
```

```
-----
```

	Male Race				Sex Female Race				Total Race			
	White	Black	Other	Total	White	Black	Other	Total	White	Black	Other	Total
Region												
NE	94.5%	5.0%	0.5%	100.0%	94.3%	5.1%	0.6%	100.0%	94.4%	5.1%	0.5%	100.0%
MW	89.3%	10.2%	0.5%	100.0%	88.3%	11.1%	0.7%	100.0%	88.8%	10.6%	0.6%	100.0%
S	80.8%	18.5%	0.7%	100.0%	79.4%	19.8%	0.8%	100.0%	80.1%	19.2%	0.7%	100.0%
W	88.0%	5.5%	6.5%	100.0%	90.0%	5.0%	5.0%	100.0%	89.0%	5.2%	5.7%	100.0%
Total	87.7%	10.2%	2.1%	100.0%	87.4%	10.8%	1.8%	100.0%	87.6%	10.5%	1.9%	100.0%

```
-----
```

```
. * Row percentages over sex only
. table (region) (race sex) (), ///
>     statistic(percent, across(sex)) ///
>     nformat(%9.1f percent ) sformat(%s%% percent )
```

```
-----
```

	White Sex			Black Sex			Other Sex			Total Sex		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Region												
NE	48.6%	51.4%	100.0%	48.1%	51.9%	100.0%	45.5%	54.5%	100.0%	48.6%	51.4%	100.0%
MW	47.5%	52.5%	100.0%	45.1%	54.9%	100.0%	41.2%	58.8%	100.0%	47.2%	52.8%	100.0%
S	47.1%	52.9%	100.0%	45.1%	54.9%	100.0%	42.9%	57.1%	100.0%	46.7%	53.3%	100.0%
W	47.2%	52.8%	100.0%	50.4%	49.6%	100.0%	54.3%	45.7%	100.0%	47.8%	52.2%	100.0%
Total	47.6%	52.4%	100.0%	46.0%	54.0%	100.0%	51.5%	48.5%	100.0%	47.5%	52.5%	100.0%

```
-----
```

```

. * Row percentages over both race and sex
. table (region) (race sex) (), ///
>     statistic(percent, across(race#sex)) ///
>     nformat(%9.1f percent ) sformat(%s%% percent )

```

Region	Race									Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
NE	45.9%	48.5%	94.4%	2.4%	2.6%	5.1%	0.2%	0.3%	0.5%	48.6%	51.4%	100.0%
MW	42.2%	46.6%	88.8%	4.8%	5.8%	10.6%	0.3%	0.4%	0.6%	47.2%	52.8%	100.0%
S	37.7%	42.3%	80.1%	8.7%	10.6%	19.2%	0.3%	0.4%	0.7%	46.7%	53.3%	100.0%
W	42.0%	47.0%	89.0%	2.6%	2.6%	5.2%	3.1%	2.6%	5.7%	47.8%	52.2%	100.0%
Total	41.7%	45.9%	87.6%	4.8%	5.7%	10.5%	1.0%	0.9%	1.9%	47.5%	52.5%	100.0%

```

. * 3. Descriptive Statistics on variables
. * In the table specification, "var" represents variables
. * and "result" represents different statistics
. * Statistics on rows , organized by vars in columns
. table (race) (result var) (), ///
>     statistic(mean age height weight) ///
>     statistic(sd age height weight) ///
>     nformat(%9.1f mean) nformat(%9.2f sd)

```

Race	Mean			Standard deviation		
	Age (years)	Height (cm)	Weight (kg)	Age (years)	Height (cm)	Weight (kg)
White	47.9	167.8	71.7	17.17	9.65	15.10
Black	46.0	167.8	75.1	17.45	9.55	16.93
Other	44.1	161.8	63.2	17.33	8.83	13.75
Total	47.6	167.7	71.9	17.21	9.66	15.36

```

. * Stats on variables (vars over results in columns )
. table (race) (var result) (), ///
>     statistic(mean age height weight) ///
>     statistic(sd age height weight) ///
>     nformat(%9.1f mean) nformat(%9.2f sd)

```

Race	Age (years)		Height (cm)		Weight (kg)	
	Mean	Standard deviation	Mean	Standard deviation	Mean	Standard deviation
White	47.9	17.17	167.8	9.65	71.7	15.10
Black	46.0	17.45	167.8	9.55	75.1	16.93
Other	44.1	17.33	161.8	8.83	63.2	13.75
Total	47.6	17.21	167.7	9.66	71.9	15.36

```

. * Stats on variables (on rows, organized by stat)
. table (result var) (sex) (), ///
>     statistic(mean age height weight) ///
>     statistic(sd  age height weight) ///
>     nformat(%9.1f mean) nformat(%9.2f sd)

```

```

-----

```

	Sex		
	Male	Female	Total
-----	-----	-----	-----
Mean			
Age (years)	47.4	47.7	47.6
Height (cm)	174.7	161.2	167.7
Weight (kg)	78.0	66.4	71.9
Standard deviation			
Age (years)	17.17	17.26	17.21
Height (cm)	7.20	6.64	9.66
Weight (kg)	13.64	14.73	15.36

```

-----

```

```

.
. * Stats on variables (on rows, organized by var)
. table (var result) (sex) (), ///
>     statistic(mean age height weight) ///
>     statistic(sd  age height weight) ///
>     nformat(%9.1f mean) nformat(%9.2f sd)

```

```

-----

```

	Sex		
	Male	Female	Total
-----	-----	-----	-----
Age (years)			
Mean	47.4	47.7	47.6
Standard deviation	17.17	17.26	17.21
Height (cm)			
Mean	174.7	161.2	167.7
Standard deviation	7.20	6.64	9.66
Weight (kg)			
Mean	78.0	66.4	71.9
Standard deviation	13.64	14.73	15.36

```

-----

```

.



```

. * Stats on variables, vars by table
. table (result) (sex) (var), ///
>     statistic(mean age height weight) ///
>     statistic(sd age height weight) ///
>     nformat(%9.1f mean) nformat(%9.2f sd)

```

Age (years)

	Sex		
	Male	Female	Total
Mean	47.4	47.7	47.6
Standard deviation	17.17	17.26	17.21

Height (cm)

	Sex		
	Male	Female	Total
Mean	174.7	161.2	167.7
Standard deviation	7.20	6.64	9.66

Weight (kg)

	Sex		
	Male	Female	Total
Mean	78.0	66.4	71.9
Standard deviation	13.64	14.73	15.36

```

. * results moved to column
. table (race) (sex result) (), ///
>     statistic(mean age height weight) ///
>     statistic(sd age height weight) ///
>     nformat(%9.1f mean) nformat(%9.2f sd)

```

Race	Male		Sex Female		Total	
	Mean	Standard deviation	Mean	Standard deviation	Mean	Standard deviation
White						
Age (years)	47.6	17.09	48.0	17.24	47.9	17.17
Height (cm)	174.9	7.10	161.3	6.59	167.8	9.65
Weight (kg)	78.3	13.22	65.7	14.14	71.7	15.10
Black						
Age (years)	46.1	17.77	45.9	17.18	46.0	17.45
Height (cm)	174.9	7.19	161.8	6.80	167.8	9.55
Weight (kg)	77.3	15.89	73.2	17.56	75.1	16.93
Other						
Age (years)	44.6	17.31	43.5	17.42	44.1	17.33
Height (cm)	167.4	7.29	155.9	6.08	161.8	8.83
Weight (kg)	66.6	14.03	59.5	12.53	63.2	13.75
Total						
Age (years)	47.4	17.17	47.7	17.26	47.6	17.21
Height (cm)	174.7	7.20	161.2	6.64	167.7	9.66
Weight (kg)	78.0	13.64	66.4	14.73	71.9	15.36

```

. * variables moved to columns
. table (race sex) (var result) (), ///
>     statistic(mean age height weight) ///
>     statistic(sd age height weight) ///
>     nformat(%9.1f mean) nformat(%9.2f sd)

```

	Age (years)		Height (cm)		Weight (kg)	
	Mean	Standard deviation	Mean	Standard deviation	Mean	Standard deviation
Race						
White						
Sex						
Male	47.6	17.09	174.9	7.10	78.3	13.22
Female	48.0	17.24	161.3	6.59	65.7	14.14
Total	47.9	17.17	167.8	9.65	71.7	15.10
Black						
Sex						
Male	46.1	17.77	174.9	7.19	77.3	15.89
Female	45.9	17.18	161.8	6.80	73.2	17.56
Total	46.0	17.45	167.8	9.55	75.1	16.93
Other						
Sex						
Male	44.6	17.31	167.4	7.29	66.6	14.03
Female	43.5	17.42	155.9	6.08	59.5	12.53
Total	44.1	17.33	161.8	8.83	63.2	13.75
Total						
Sex						
Male	47.4	17.17	174.7	7.20	78.0	13.64
Female	47.7	17.26	161.2	6.64	66.4	14.73
Total	47.6	17.21	167.7	9.66	71.9	15.36

```

. * 4. Combine frequencies, percentages, stats
. * Percents = % with & without HBP by Sex
. * Uses a built in "style". There are others.
. table (var result) (sex highbp) (), totals(sex) ///
>     statistic(frequency) ///
>     statistic(percent, across(highbp)) ///
>     statistic(mean age height weight) ///
>     statistic(sd age height weight) ///
>     nformat(%9.1f percent ) sformat(%s% percent ) ///
>     nformat(%9.1f mean) nformat(%9.1f sd) style(Table-1)

```

	Sex					
	Male			Female		
	Blood Pressure					
	Normal	High	Total	Normal	High	Total
	2,611	2,304	4,915	3,364	2,072	5,436
	53.1%	46.9%	100.0%	61.9%	38.1%	100.0%
Age (years)	42.9	52.6	47.4	41.6	57.6	47.7
	17.0	15.9	17.2	16.6	13.3	17.3
Height (cm)	175.2	174.3	174.7	161.9	160.1	161.2
	7.1	7.3	7.2	6.6	6.5	6.6
Weight (kg)	75.2	81.1	78.0	62.9	72.1	66.4
	11.9	14.8	13.6	12.3	16.5	14.7

```

.
. * Just those with high blood pressure, by specifying
. * highbp[1] shows only those with highbp==1
. table (var result) ( highbp[1] sex ) ( ), totals(sex) ///
>     statistic(frequency) ///
>     statistic(percent, across(highbp)) ///
>     statistic(mean age height weight) ///
>     statistic(sd age height weight) ///
>     nformat(%9.1f percent ) sformat(%s%% percent ) ///
>     nformat(%9.1f mean) nformat(%9.1f sd)

```

```

-----

```

	Blood Pressure	
	High	
	Sex	
	Male	Female
Frequency	2,304	2,072
Percent	46.9%	38.1%
Age (years)		
Mean	52.6	57.6
Standard deviation	15.9	13.3
Height (cm)		
Mean	174.3	160.1
Standard deviation	7.3	6.5
Weight (kg)		
Mean	81.1	72.1
Standard deviation	14.8	16.5

```

-----

```

```

.
. * Note: in this table, the percents are
. * percent of males and females *with* high
. * blood pressure (compare to previous table).
. * It doesn't add to 100 in any direction.
. * You implicitly know that the percent w/out
. * HBP is 1-p, but they are not shown.
. * This table can't be done using "if highbp==1", because
. * then base is not included (all males, all females)
. * and the percentages would not be correctly calculated
.

```



```

. * Use "if" to limit to people with HBP only
. table (var result) (sex) ( ) if highbp == 1, totals(sex) ///
>     statistic(frequency) ///
>     /* statistic(percent, across(highbp)) */ /// <- causes error
>     statistic(mean age height weight) ///
>     statistic(sd age height weight) ///
>     nformat(%9.1f percent) sformat(%s%% percent ) ///
>     nformat(%9.1f mean) nformat(%9.1f sd)

```

```

-----

```

	Sex	
	Male	Female
Frequency	2,304	2,072
Age (years)		
Mean	52.6	57.6
Standard deviation	15.9	13.3
Height (cm)		
Mean	174.3	160.1
Standard deviation	7.3	6.5
Weight (kg)		
Mean	81.1	72.1
Standard deviation	14.8	16.5

```

-----

```

```

.     * You can't get the incidence of HBP, but the
.     * statistics are correct. (Compare to above.)
.
.

```

. \* 5. (More advanced) Table of Hypothesis Tests

```

. table (command) (result), ///
>     command(Males=r(P1) Females=r(P2) Difference=r(P_diff) r(p): ///
>     prtest diabetes, by(sex)) ///
>         command(Males=r(P1) Females=r(P2) Difference=r(P_diff) r(p): ///
>     prtest heartatk, by(sex)) ///
>         command(Males=r(P1) Females=r(P2) Difference=r(P_diff) r(p): ///
>     prtest highbp, by(sex)) ///
>     nformat(%5.3f) style(table-right)

```

```

-----

```

	Males	Females	Difference	Two-sided p-value
prtest diabetes, by(sex)	0.044	0.052	-0.008	0.066
prtest heartatk, by(sex)	0.065	0.029	0.036	0.000
prtest highbp, by(sex)	0.469	0.381	0.088	0.000

```

-----

```

```

.

```

```

. * Fix up labels.
. * "collect" command used to change labels,
. * appearance, titles, etc.
. collect label levels command 1 "Diabetes" 2 "Heart attack" 3 "High BP",
modify

. collect label levels result p "p-value", modify

. collect title "T-Tests by Gender"

. collect preview

```

T-Tests by Gender

```

-----
          | Males   Females   Difference   p-value
-----+-----
Diabetes | 0.044   0.052     -0.008     0.066
Heart attack | 0.065   0.029     0.036     0.000
High BP | 0.469   0.381     0.088     0.000
-----

```

```

.
. * 6. More about totals
.
. * a) No totals
. table race (sex highbp) (), nototals

```

```

-----
          |                Sex
          |      Male      Female
          | Blood Pressure Blood Pressure
          | Normal   High   Normal   High
-----+-----
Race |
White | 2,311   2,001   3,006   1,747
Black | 244     256     301     285
Other | 56      47      57      40
-----

```

```

. * b) Row totals (mention row variable)
. *      i) just one row total
. table race (sex highbp) (), totals(race)

```

```

-----
          |                Sex                Total
          |      Male      Female      Blood Pressure
          | Blood Pressure Blood Pressure Blood Pressure
          | Normal   High   Normal   High   Total
-----+-----
Race |
White | 2,311   2,001   3,006   1,747   9,065
Black | 244     256     301     285     1,086
Other | 56      47      57      40      200
-----

```

```

. *      ii) separate row totals by highbp combining male + female
. table race (sex highbp) (), ///
>      totals(race#highbp )

```

```

-----
|                                     Sex
|                                     Male       Female       Total
|      Blood Pressure   Blood Pressure   Blood Pressure
|      Normal    High   Normal    High   Normal    High
-----+-----
Race |
White |      2,311    2,001    3,006    1,747    5,317    3,748
Black |         244     256     301     285     545     541
Other |          56      47      57      40     113      87
-----

```

```

. *      iii) separate row totals for highbp w/in male and female
. table race (sex highbp) (), ///
>      totals(race#sex )

```

```

-----
|                                     Sex
|                                     Male       Female
|      Blood Pressure   Blood Pressure
|      Normal    High   Total   Normal    High   Total
-----+-----
Race |
White |      2,311    2,001    4,312    3,006    1,747    4,753
Black |         244     256     500     301     285     586
Other |          56      47     103     57      40      97
-----

```

```

. *      iv) combining the above
. table race (sex highbp) (), ///
>      totals(race#sex race#highbp race)

```

```

-----
|                                     Sex
|                                     Male       Female       Total
|      Blood Pressure   Blood Pressure   Blood Pressure
|      Normal    High   Total   Normal    High   Total   Normal    High   Total
-----+-----
Race |
White |      2,311    2,001    4,312    3,006    1,747    4,753    5,317    3,748    9,065
Black |         244     256     500     301     285     586     545     541    1,086
Other |          56      47     103     57      40      97     113      87     200
-----

```

```
. * Column totals (intersection of column vars)
. table race (sex highbp) (), totals(sex#highbp)
```

```
-----
```

	Sex			
	Male		Female	
	Blood Pressure Normal	Blood Pressure High	Blood Pressure Normal	Blood Pressure High
Race				
White	2,311	2,001	3,006	1,747
Black	244	256	301	285
Other	56	47	57	40
Total	2,611	2,304	3,364	2,072

```
-----
```

```
. * Both row and column totals
. table race (sex highbp) (), ///
> totals(race race#sex#highbp sex#highbp)
```

```
-----
```

	Sex				Total
	Male		Female		
	Blood Pressure Normal	Blood Pressure High	Blood Pressure Normal	Blood Pressure High	
Race					
White	2,311	2,001	3,006	1,747	9,065
Black	244	256	301	285	1,086
Other	56	47	57	40	200
Total	2,611	2,304	3,364	2,072	

```
-----
```

```
. * Note the hole where the grand total should be!
. * How to fix that shown below.
.
```

```

. * Four-way table
. * Table with no totals
. table ( sex race ) ( highbp diabetes ) ( ), ///
> nototals

```

		Blood Pressure			
		Normal		High	
		Diabetes status		Diabetes status	
		Not diabetic	Diabetic	Not diabetic	Diabetic
Sex					
	Male				
	Race				
	White	2,253	58	1,885	116
	Black	226	18	236	20
	Other	54	2	44	3
	Female				
	Race				
	White	2,916	88	1,605	142
	Black	290	11	248	37
	Other	56	1	37	3

```

. * Row total across both race and sex
. table ( sex race ) ( highbp diabetes ) ( ), ///
> totals(sex#race)

```

		Blood Pressure				Total
		Normal		High		Diabetes status
		Diabetes status		Diabetes status		Total
		Not diabetic	Diabetic	Not diabetic	Diabetic	Total
Sex						
	Male					
	Race					
	White	2,253	58	1,885	116	4,312
	Black	226	18	236	20	500
	Other	54	2	44	3	103
	Female					
	Race					
	White	2,916	88	1,605	142	4,751
	Black	290	11	248	37	586
	Other	56	1	37	3	97

```

. * Column total across both highbp and diabetes
. table ( sex race ) ( highbp diabetes ) ( ), ///
> totals(highbp#diabetes)

```

		Blood Pressure			
		Normal		High	
		Diabetes status		Diabetes status	
		Not diabetic	Diabetic	Not diabetic	Diabetic
Sex					
Male					
	Race				
	White	2,253	58	1,885	116
	Black	226	18	236	20
	Other	54	2	44	3
Female					
	Race				
	White	2,916	88	1,605	142
	Black	290	11	248	37
	Other	56	1	37	3
Total					
	Race				
	Total	5,795	178	4,055	321

```

. * Both row and column totals
. table ( sex race ) ( highbp diabetes ) ( ), ///
> totals(sex#race highbp#diabetes )

```

		Blood Pressure				Total
		Normal		High		Diabetes status
		Diabetes status		Diabetes status		Total
		Not diabetic	Diabetic	Not diabetic	Diabetic	Total
Sex						
Male						
	Race					
	White	2,253	58	1,885	116	4,312
	Black	226	18	236	20	500
	Other	54	2	44	3	103
Female						
	Race					
	White	2,916	88	1,605	142	4,751
	Black	290	11	248	37	586
	Other	56	1	37	3	97
Total						
	Race					
	Total	5,795	178	4,055	321	

```

. * But again there is a whole where the grand total should be!
. * "_cons" is secret code for the grand total in multi-way tables.
. table ( sex race ) ( highbp diabetes ) ( ), ///
> totals(sex#race highbp#diabetes _cons)

```

	Blood Pressure				Total Total
	Normal Diabetes status		High Diabetes status		
	Not diabetic	Diabetic	Not diabetic	Diabetic	
Sex					
Male					
Race					
White	2,253	58	1,885	116	4,312
Black	226	18	236	20	500
Other	54	2	44	3	103
Female					
Race					
White	2,916	88	1,605	142	4,751
Black	290	11	248	37	586
Other	56	1	37	3	97
Total					
Race					
Total	5,795	178	4,055	321	10,349

```

. * I say secret, because it's undocumented, though
. * Stata tech says they will document it "soon"
. * (see email from Stata tech support below!)
.
. * You can also use this code to get percents
. * or statistics for the total sample
. table ( sex race ) ( highbp diabetes ) ( ), ///
> totals(sex#race highbp#diabetes _cons) ///
> stat(mean age) nformat(%9.1f mean)

```

	Blood Pressure				Total Total
	Normal Diabetes status		High Diabetes status		
	Not diabetic	Diabetic	Not diabetic	Diabetic	
Sex					
Male					
Race					
White	42.9	60.4	51.9	63.1	47.6
Black	38.2	60.8	51.2	62.0	46.1
Other	34.2	63.0	54.9	68.3	44.6
Female					
Race					
White	41.7	55.2	57.8	63.2	48.0
Black	37.2	51.0	53.9	58.2	45.9
Other	36.2	68.0	52.8	59.0	43.5
Total					
Race					
Total	41.7	57.4	54.4	62.5	47.6

```
. table ( sex race ) ( highbp diabetes ) ( ), ///
> totals(sex#race highbp#diabetes _cons) ///
> stat(percent)
```

	Blood Pressure				Total Diabetes status Total
	Normal Diabetes status		High Diabetes status		
	Not diabetic	Diabetic	Not diabetic	Diabetic	
Sex					
Male					
Race					
White	21.77	0.56	18.21	1.12	41.67
Black	2.18	0.17	2.28	0.19	4.83
Other	0.52	0.02	0.43	0.03	1.00
Female					
Race					
White	28.18	0.85	15.51	1.37	45.91
Black	2.80	0.11	2.40	0.36	5.66
Other	0.54	0.01	0.36	0.03	0.94
Total					
Race					
Total	56.00	1.72	39.18	3.10	100.00

```
.
.
. /*
>
> Stata Technical Support <tech-support@stata.com>
> Paul Jargowsky
> Dear Paul,
>
> We would like to thank you for bringing this issue to our attention.
Our
> editorial staff will include the -_cons- suboption with the -totals()-
> in the PDF manual entry for -table-.
>
> Again, we appreciate you bring this issue to our attention. Please let
> us know if you have further questions.
>
>
>
> Best regards,
>
> Pei-Chun
>
> *****
> Pei-Chun Lai, Ph.D.
> Staff Statistician I
> tech-support@stata.com
> StataCorp LLC
> *****
>
```