How can I get descriptive statistics and the five number summary on one line?

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One can obtain descriptive statistics and the five number summary on a single line by using a statistical software or tool that offers this feature. This allows for a quick and concise overview of the data, including measures such as the mean, median, mode, range, and quartiles. Additionally, this format makes it easier to compare and analyze multiple sets of data. By utilizing this method, individuals can efficiently obtain a comprehensive understanding of the data in a clear and organized manner.

How can I get descriptive statistics and the five number summary on one line? | Stata FAQ

Stata provides the summarize command which allows you to see the mean and the standard deviation, but it does not provide the five number summary (min, q25, median, q75, max). You can use the detail option, but then you get a page of output for every variable. If you want to get the mean, standard deviation, and five number summary on one line, then you want to get the univar command. The univar command was written by John R. Gleason and appears in the Stata Technical Bulletin #51. You can download univar from within Stata by typing search univar (see How can I used the search command to search for

programs and get additional
help? for more information about using search).

Let's illustrate use of the
univar
command using the high school and beyond data file we use in our Stata Classes.

use https://stats.idre.ucla.edu/stat/stata/notes/hsb1, clear
(highschool and beyond (200 cases))

Here you see the output you get from summarize.

summarize read write math science socst

Variable | Obs Mean Std. Dev. Min Max
---------+--
read | 200 52.23 10.25294 28 76
write | 200 52.775 9.478586 31 67
math | 200 52.645 9.368448 33 75
science | 195 51.66154 9.866026 26 74
socst | 200 52.405 10.73579 26 71

Here is the output you can get from univar.

```
univar read write math science socst

---------- Quantiles ----------
Variable n Mean S.D. Min .25 Mdn .75 Max
------------------------------------------------------------------------------
read 200 52.23 10.25 28.00 44.00 50.00 60.00 76.00
write 200 52.78 9.48 31.00 45.50 54.00 60.00 67.00
math 200 52.64 9.37 33.00 45.00 52.00 59.00 75.00
science 195 51.66 9.87 26.00 44.00 53.00 58.00 74.00
socst 200 52.40 10.74 26.00 46.00 52.00 61.00 71.00
------------------------------------------------------------------------------
```

If you include the vlabel option, it also includes the variable labels in the table.

```
univar read write math science socst, vlabel

---------- Quantiles ----------
Variable n Mean S.D. Min .25 Mdn .75 Max
------------------------------------------------------------------------------
read reading score
read 200 52.23 10.25 28.00 44.00 50.00 60.00 76.00

write writing score
write 200 52.78 9.48 31.00 45.50 54.00 60.00 67.00
```

math math score

math 200 52.64 9.37 33.00 45.00 52.00 59.00 75.00

science science score

science 195 51.66 9.87 26.00 44.00 53.00 58.00 74.00

socst social studies score

socst 200 52.40 10.74 26.00 46.00 52.00 61.00 71.00

The boxplot option displays

a mini boxplot above each variable.

univar read write math science socst, boxplot

----------:::::::::|:::::::::----------

Variable n Mean S.D. Min .25 Mdn .75 Max

----

read ----------:::::::::|:::::::::::::::----------

read 200 52.23 10.25 28.00 44.00 50.00 60.00 76.00

write ----------:::::::::::::::::|::::::::::::----------

write 200 52.78 9.48 31.00 45.50 54.00 60.00 67.00

math ----------::::::::::::|::::::::::::----------

math 200 52.64 9.37 33.00 45.00 52.00 59.00 75.00

science ----------:::::::::::|:::::::----------

-

science 195 51.66 9.87 26.00 44.00 53.00 58.00 74.00

socst ----------:::::::::|:::::::::::::----------

socst 200 52.40 10.74 26.00 46.00 52.00 61.00 71.00

Here we use the by(female) option
to display tables separately for males and females.

univar read write math science socst, by(female)

-> female=male

---------- Quantiles ----------

Variable n Mean S.D. Min .25 Mdn .75 Max

---

read 91 52.82 10.51 31.00 44.00 52.00 63.00 76.00

write 91 50.12 10.31 31.00 41.00 52.00 59.00 67.00

math 91 52.95 9.66 35.00 45.00 52.00 60.00 75.00

science 86 52.88 10.75 26.00 44.00 55.00 61.00 74.00

socst 91 51.79 11.33 26.00 46.00 51.00 61.00 71.00

-> female=female

---------- Quantiles ----------

Variable n Mean S.D. Min .25 Mdn .75 Max

---

read 109 51.73 10.06 28.00 44.00 50.00 57.00 76.00

write 109 54.99 8.13 35.00 50.00 57.00 62.00 67.00

math 109 52.39 9.15 33.00 45.00 53.00 58.00 72.00

science 109 50.70 9.04 29.00 44.00 50.00 58.00 69.00

socst 109 52.92 10.23 26.00 46.00 56.00 61.00 71.00

We can use the by(female)

and onehdr options to get a table with one header that can be a bit easier to read.

univar read write math science socst, by(female) onehdr

---------- Quantiles ----------

Variable n Mean S.D. Min .25 Mdn .75 Max

-> female=male

read 91 52.82 10.51 31.00 44.00 52.00 63.00 76.00

write 91 50.12 10.31 31.00 41.00 52.00 59.00 67.00

math 91 52.95 9.66 35.00 45.00 52.00 60.00 75.00

science 86 52.88 10.75 26.00 44.00 55.00 61.00 74.00
socst 91 51.79 11.33 26.00 46.00 51.00 61.00 71.00

-> female=female
read 109 51.73 10.06 28.00 44.00 50.00 57.00 76.00
write 109 54.99 8.13 35.00 50.00 57.00 62.00 67.00
math 109 52.39 9.15 33.00 45.00 53.00 58.00 72.00
science 109 50.70 9.04 29.00 44.00 50.00 58.00 69.00
socst 109 52.92 10.23 26.00 46.00 56.00 61.00 71.00

Here we ask for a boxplot
for the variable write and ask that the boxplots be plotted using the
same scale (via onescal) so we could meaningfully compare the boxplot
of the males and females. You can see that the median of the boxplot is
higher for the females. (If we had omitted the onescal option,
each boxplot would be on its own scale).

univar write , by(female) onehdr boxplot onescal

----------:::::::::|:::::::::----------

Variable n Mean S.D. Min .25 Mdn .75 Max

-> female=male

write ----------:::::::::::::::::::::|:::::::::::::----------

write 91 50.12 10.31 31.00 41.00 52.00 59.00 67.00

-> female=female

write ----------:::::::::::::|:::::::::::---------

write 109 54.99 8.13 35.00 50.00 57.00 62.00 67.00

For More Information

For more information, see the help or reference manual about

summarize.