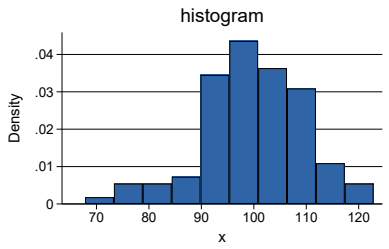
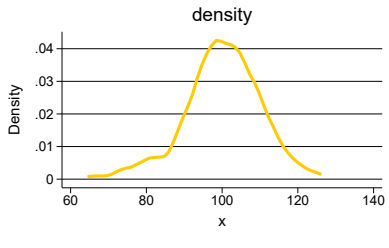
How To Choose A Chart - A Statistically Informed Visual Guide With Stata Commands

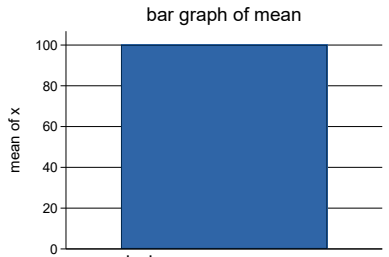
Continuous



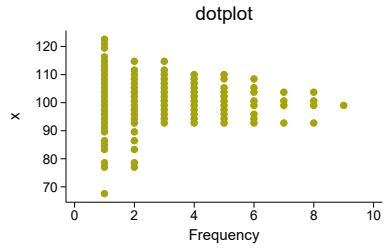

```
histogram x
```




```
kdensity x
```

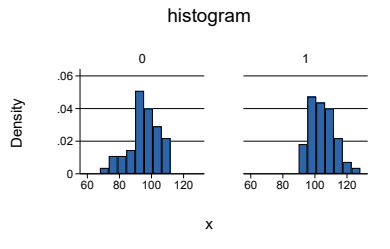



```
graph bar x
```

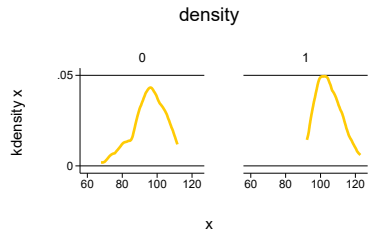



```
dotplot x
```

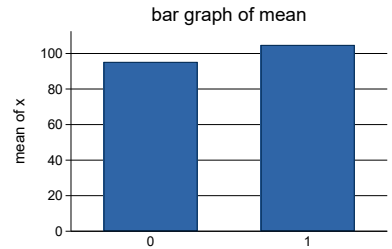
Continuous by Categorical



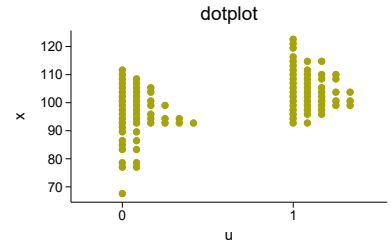

```
histogram x, by(u)
```




```
twoway (kdensity x), by(u)
```

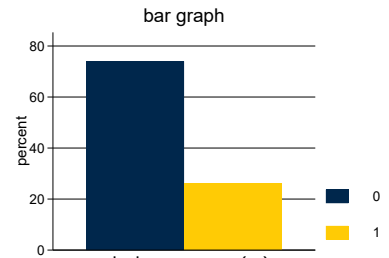



```
graph bar x, over(u)
```

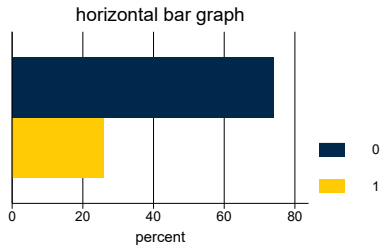



```
dotplot x, over(u)
```

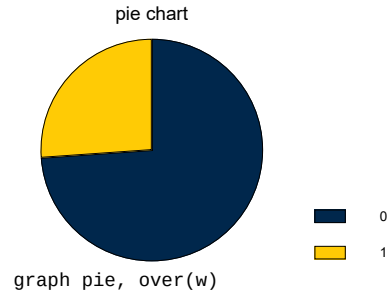
Categorical




```
graph bar, over(w) asyvars
```

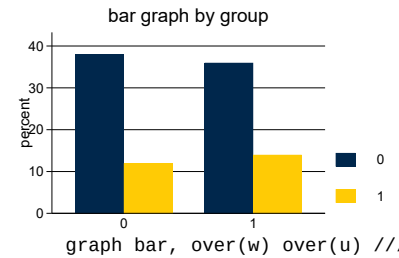



```
graph hbar, over(w) asyvars
```

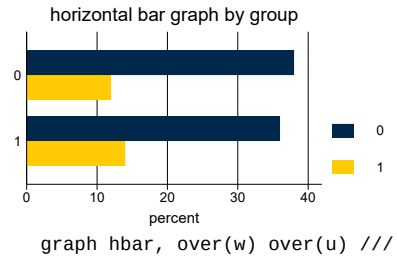



```
graph pie, over(w)
```

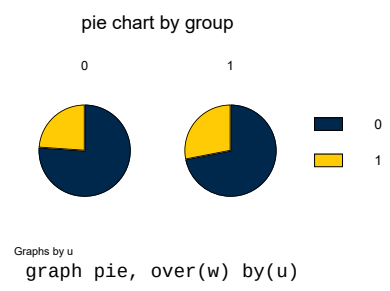
Categorical by Categorical



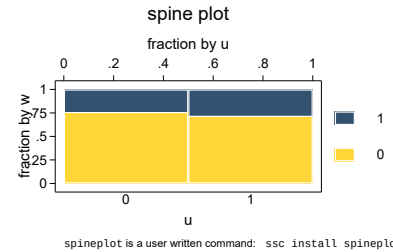

```
graph bar, over(w) over(u) ///
asyvars
```




```
graph hbar, over(w) over(u) ///
asyvars
```



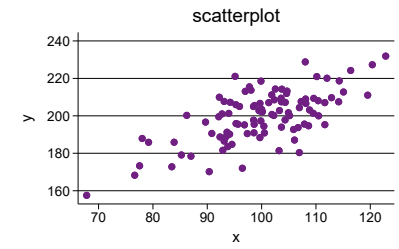

```
graph pie, over(w) by(u)
```



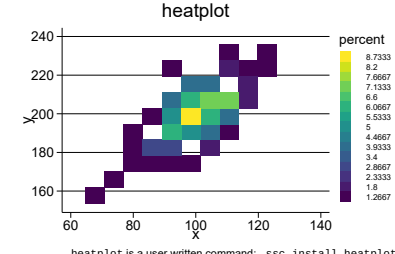
spineplot is a user written command: `ssc install spineplot`

```
spineplot w u
```

Continuous by Continuous

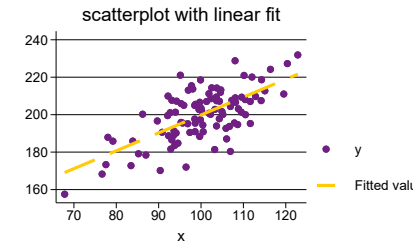



```
twoway scatter y x
```

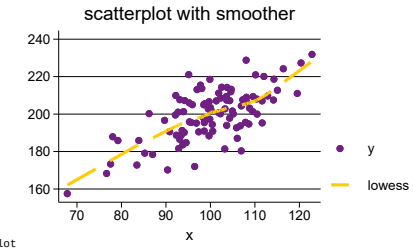


heatplot is a user written command: `ssc install heatplot`

```
heatplot y x
```




```
twoway (scatter y x) (lfit y x)
```




```
twoway (scatter y x) (lowess y x)
```

Stata is usually very intuitive. The general idea of most Stata commands is `command variable(s), options`.
Often it is not necessary to use any options since the authors of Stata have done such a good job of thinking about the defaults.
Stata commands are in `monospaced font`.
I try to present the simplest version of a command, but to make this handout made use of options like `fcolor`, `mcolor`, and `lcolor` to tweak the color and appearance of graphs. I also use the `michigan` graph scheme, linked to below. `set scheme(s1color)` would also work well.
Option `asyvars` is not strictly necessary, but means that bar graphs will have bars of different colors.
`///` represents a line break. On the command line, do not use `///` and type the command on a single line.

2 Jun 2022, https://agrogan1.github.io/, agrogan@umich.edu, https://agrogan1.github.io/Stata/michigan-graph-scheme/