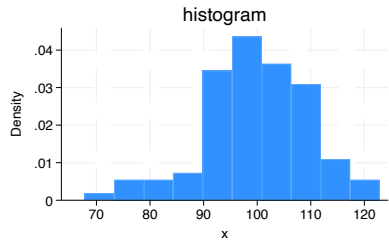
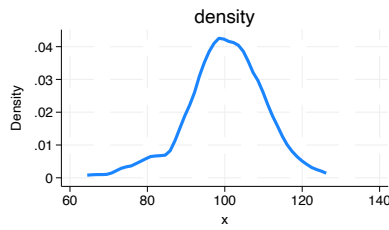


# How To Choose A Chart - A Statistically Informed Visual Guide With Stata Commands

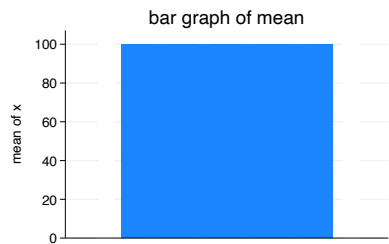
## Continuous



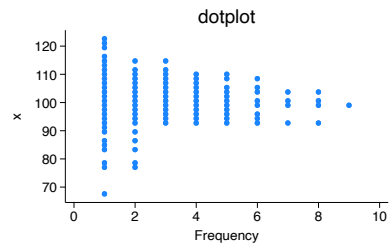
histogram x



kdensity x

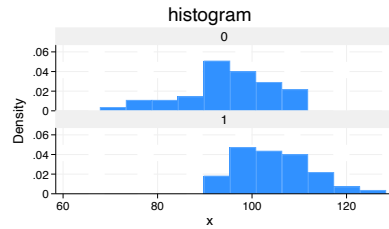


graph bar x

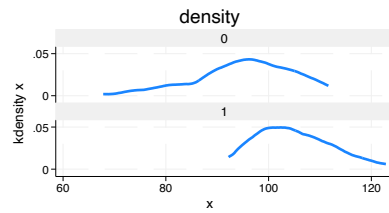


dotplot x

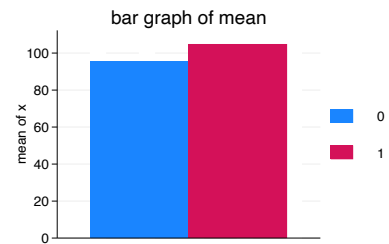
## Continuous by Categorical



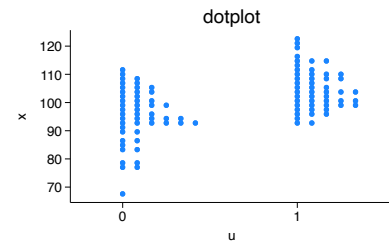
histogram x, by(u) rows(2)



twoway (kdensity x), by(u) /// rows(2)

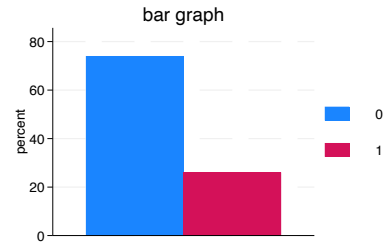


graph bar x, over(u) asyvars

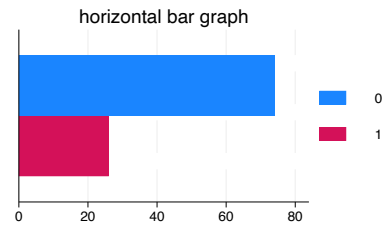


dotplot x, over(u)

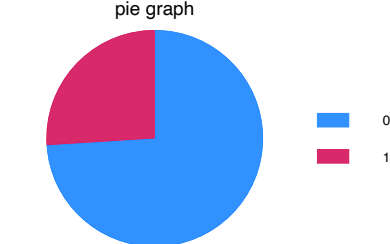
## Categorical



graph bar, over(w) asyvars

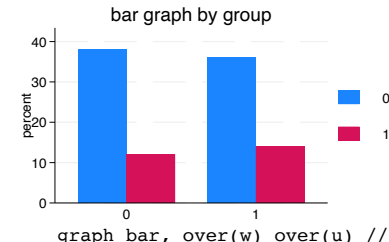


graph hbar, over(w) asyvars

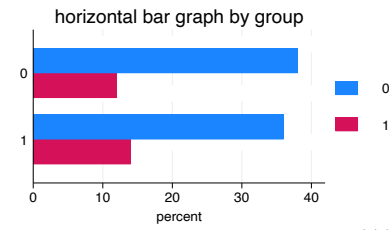


graph pie, over(w)

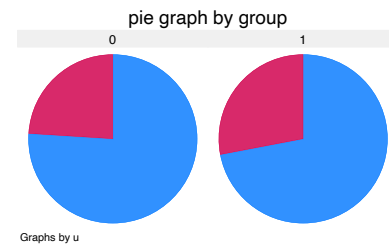
## Categorical by Categorical



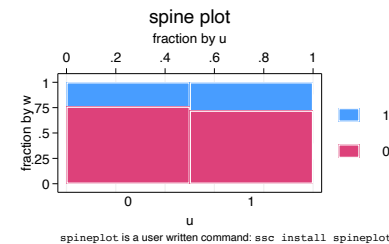
graph bar, over(w) over(u) /// asyvars



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

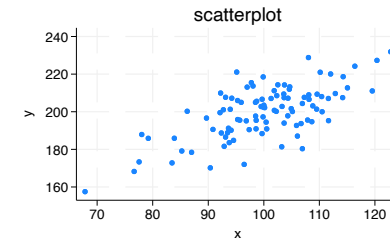


graphs by u  
graph pie, over(w) by(u)

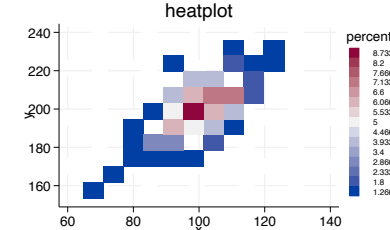


spineplot is a user written command: ssc install spineplot  
spineplot w u

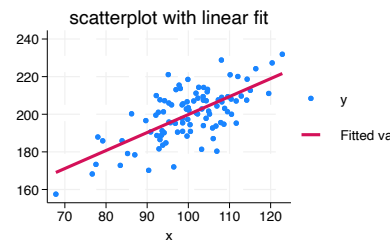
## Continuous by Continuous



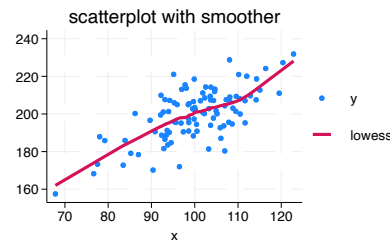
twoway scatter y x



heatplot is a user written command: ssc install heatplot  
heatplot y x, colors(hcl bluered)



twoway (scatter y x) (lfit y x)



twoway (scatter y x) (lowess y x)

Stata is often incredibly 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 this handout occasionally makes use of the option `lwidth(thick)` to tweak the line width. I use `imargin(zero)` to tweak the placement of the pie graph. I use the `stcolor` graph scheme, available in the newest version of Stata. `set scheme slcolor` 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.