#### Stata FAQ NJC Stata Plots

This page presents examples of graphics programs written by Nicholas J. Cox (Durham University). You can obtain these programs by typing, findit *command\_name*, into the Stata command line and following the instructions (see <a href="How can I use the findit command to search for programs and get additional help?">How can I use the findit command to search for programs and get additional help?</a> for more information about using <a href="findit">findit</a>). This page is not an exhaustive list of all of the graphics commands written by Nick Cox but merely a collection of the ones that we use most frequently. The command <a href="section-

This page contains only the commands and the plots themselves, there is no further explanation. We envision that users will look through the plots and when they find one that appears to do what they want, they will download the program and carefully read the help files.

Most of these examples use the **hsb2** dataset which can be downloaded from within Stata using the following command:

use http://www.ats.ucla.edu/stat/stata/notes3/hsb2, clear

Note: Most of the graphs were produced using the scheme lean1. Whenever a different scheme is used, it is given in the command.

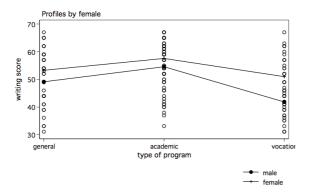
#### asciiplot-- graph ASCII character set in current graph font

#### asciiplot

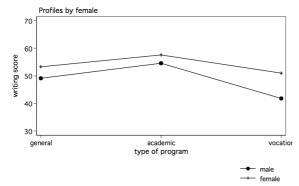


anovaplot-- plot cell means following anova

anova write female prog female\*prog anovaplot prog female

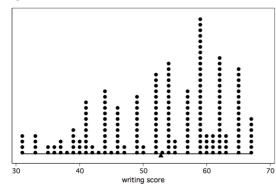


#### anovaplot prog female, scatter(msym(i))

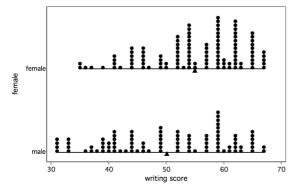


# beamplot -- horizontal dotplots using beams

#### beamplot write

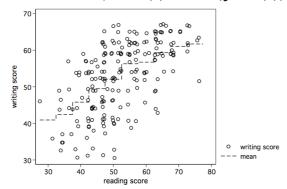


#### beamplotplot write, over(female)



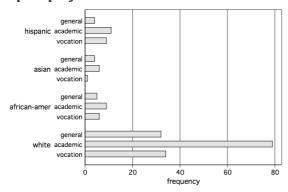
binsm -- bin smoothing and summary on scatter plots

binsm write read, width(5) scatter(jitter(2))

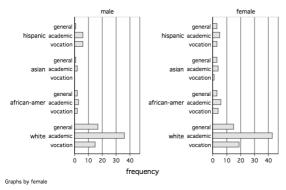


catplot -- plots of categorical data

catplot prog race

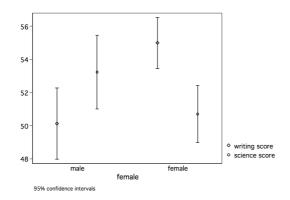


catplot prog race, by(female)



ciplot -- plots of confidence intervals

ciplot write science, by (female)



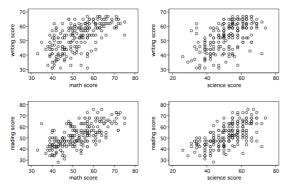
# corrtable -- correlation matrix as graphical table

#### corrtable read write math science

reading score	0.597	0.662	0.630
0.597	writing score	0.617	0.570
0.662	0.617	math score	0.631
0.630	0.570	0.631	science score

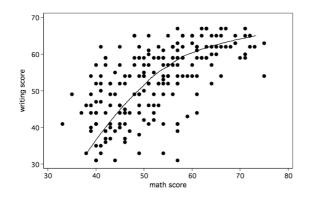
#### cpyxplot -- two way plots for each y vs each ${\bf x}$

# cpyxplot write read \ math science



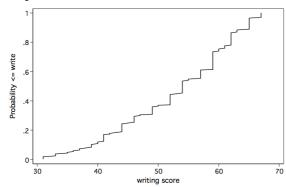
diagsm -- diagonal smoothing

diagsm write math

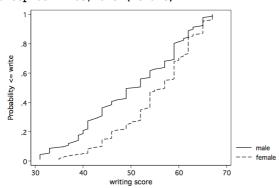


# distplot -- distribution function plots

# distplot write

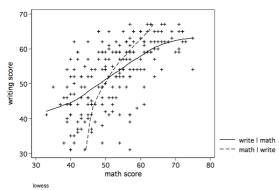


# distplot write, over(female)



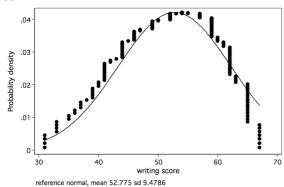
# doublesm -- double smoothing

# doublesm write math



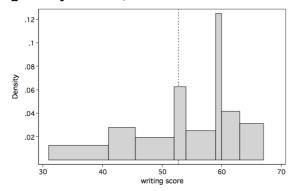
# dpplot -- density probability plots

#### dpplot write



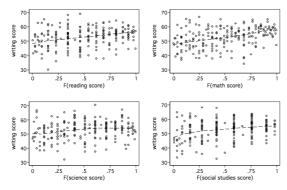
#### eqprhistogram -- equal probability histograms

#### eqprhistogram write, mean



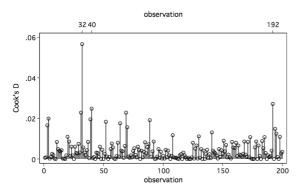
# fractileplot -- smoothing with distribution function predictors

#### fractileplot write read math science socst

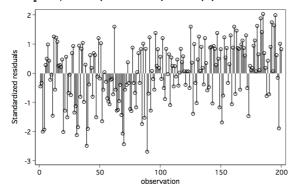


# $indexplot -- index \ plots \ following \ estimation$

regress write read
indexplot, show(cooksd) hi(3)

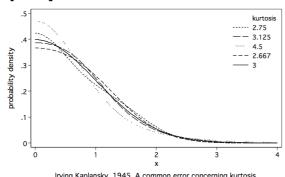


indexplot, show(rstandard) base(0)



kaplansky -- graph examples of distributions of varying kurtosis

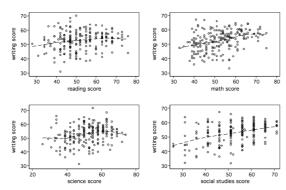
kaplansky



Irving Kaplansky. 1945. A common error concerning kurtosis Journal, American Statistical Association 40: 259

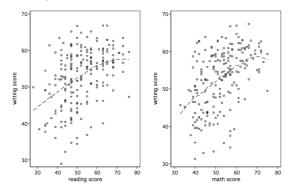
# mlowess -- lowess smoothing with multiple predictors

mlowess write read math science socst



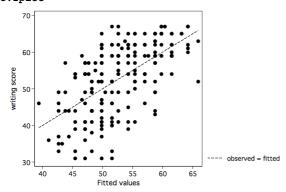
# mrunning -- running line smoother (multivariable version)

#### mrunning write read math

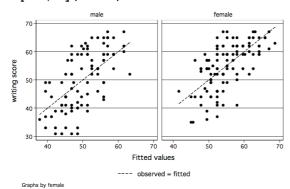


#### ovfplot

# regress write read ovfplot

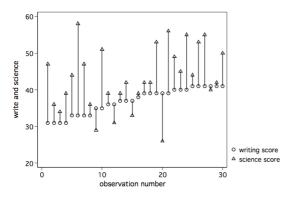


# regress write read female ovfplot, by(female)

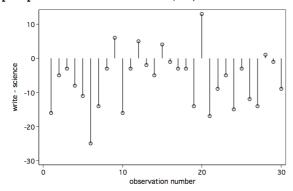


# pairplot -- plots of paired observations

pairplot write science in 1/30

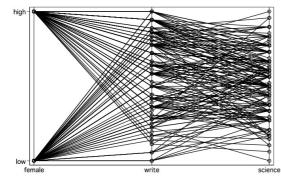


pairplot write science in 1/30, diff



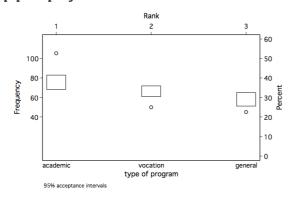
# parplot -- parallel coordinates plots

parplot female write science



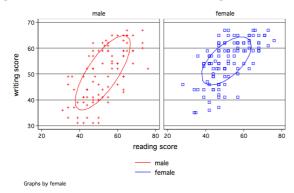
pdplot -- Pareto dot plots

pdplot prog



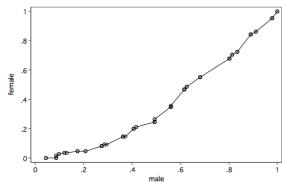
# polarsm -- polar smoothing

polarsm write read, over(female) by(female)

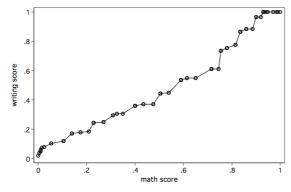


# ppplot -- P-P plots

ppplot connected write, by(female) ref(0)

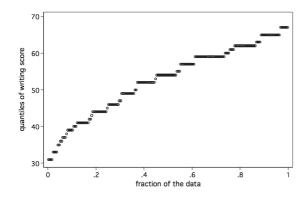


ppplot connected write math



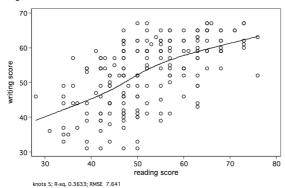
**qplot** -- **quantile plots** 

qplot write



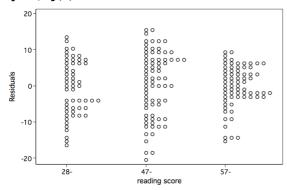
# respline -- restricted cubic spline smoothing

#### rcspline write read



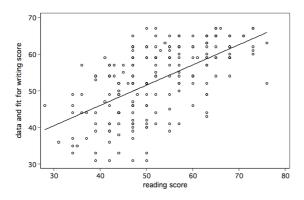
# rdplot

# regress write read rdplot, g(3)

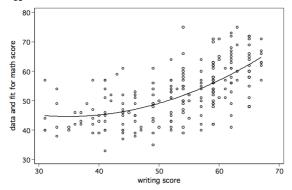


# regplot

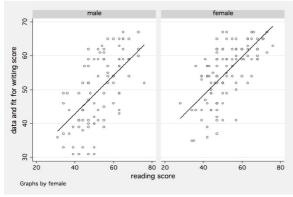
regress write read regplot



generate write2 = write^2
regress math write write2
regplot

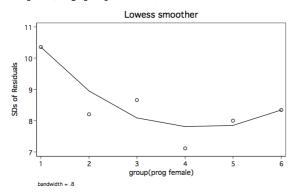


regress write read female regplot, by(female) scheme(s2mono)



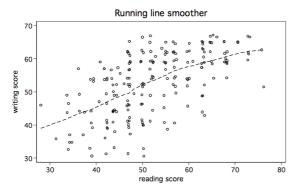
# rhetplot

# regress write read rhetplot, by(prog female)



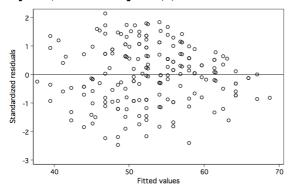
# running -- symmetric nearest neighbour smoothing

running write read, scatter(jitter(2))



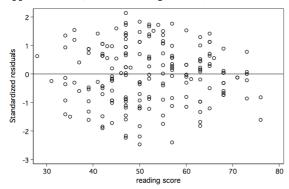
#### rvfplot2

regress write read female
rvfplot2, rstandard yline(0)



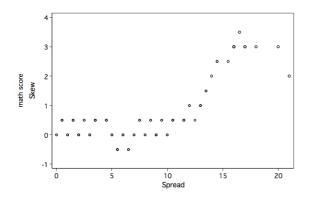
#### rvpplot2

regress write read female
rvpplot2 read, rstandard yline(0)



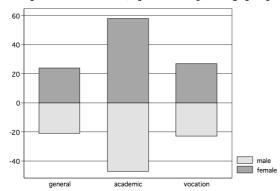
# skewplot -- skewness plots

skewplot math



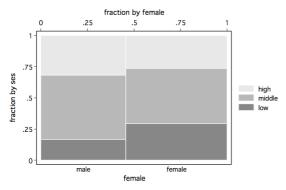
# slideplot -- sliding bar plots

slideplot bar female, pos(1) neg(0) by (prog)

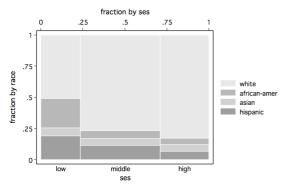


# spineplot -- spine plots for two-way categorical data

 $spineplot\ ses\ femalespineplot\ ses\ female,\ bar1(color(gs14))\ bar2(color(gs10))\ bar3(color(gs6))$ 



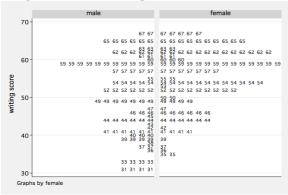
#### spineplot race ses



#### stemplotplot -- stem-and-leaf plots

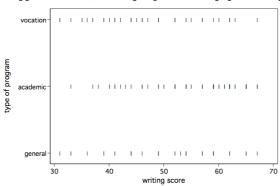
#### stemplot ses female

# stemplot write, d(2) by(female) back scheme(s2mono)



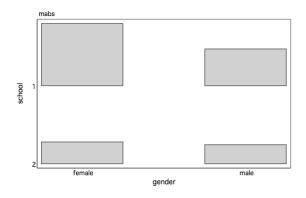
#### stripplot -- strip plots

```
generate pipe = "|"
stripplot write, over(prog) mlabel(pipe) mlabpos(0) msymbol(i)
```



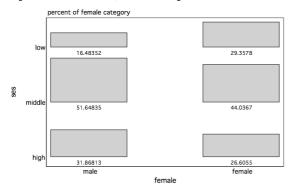
#### tableplot -- graphical display in two-way table format

use http://www.ats.ucla.edu/stat/stata/notes/lahigh
egen mabs = mean(daysabs), by(school gender)
tableplot rbar mabs school gender



#### tabplot -- two-way table shown as table of bars

#### tabplot ses female, showval percent (female)



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