Stata数据可视化2

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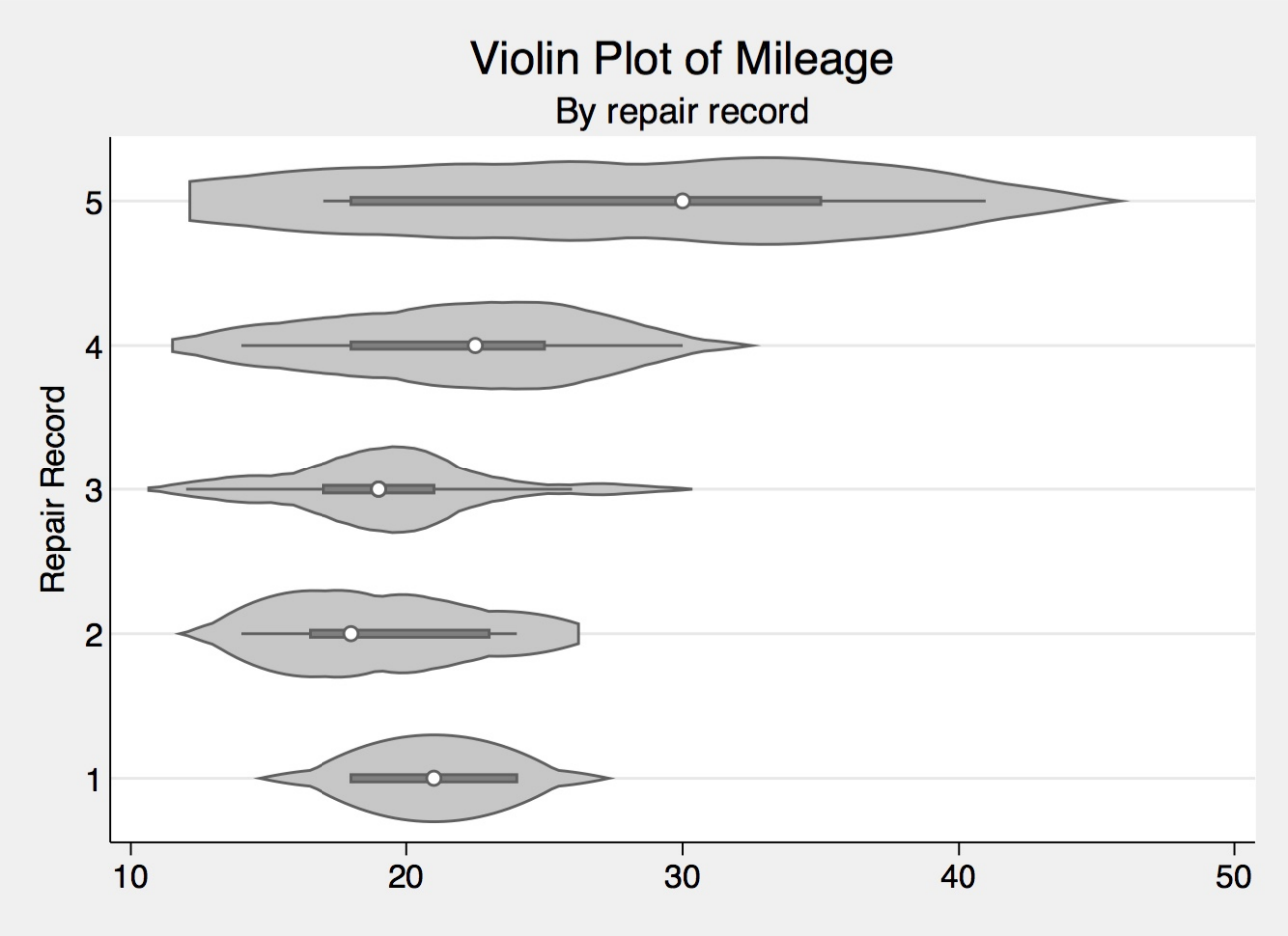
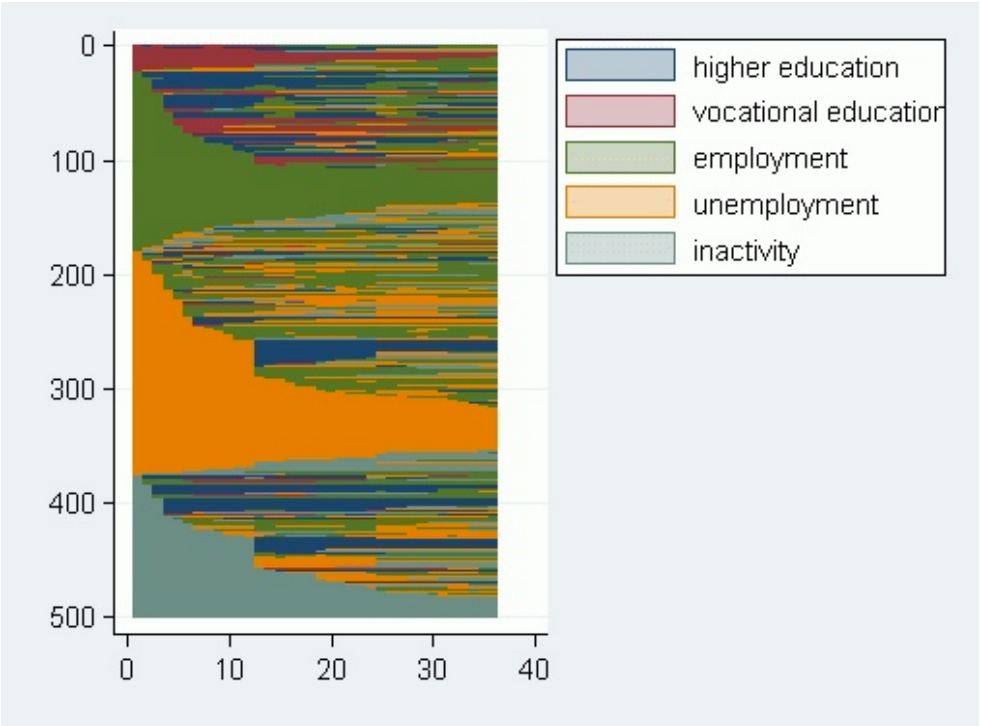
```
violin plot

Requires: vioplot
To download vioplot type the following on the Stata command line:
ssc install vioplot

To run the example: copy the following into a do file and run

sysuse auto, clear

vioplot mpg, over(rep78) horizontal name(myplot) ///
title("Violin Plot of Mileage") subtitle("By repair record") ///
ytitle(Repair Record) ylab(, angle(horiz)) scheme(s2mono)
```

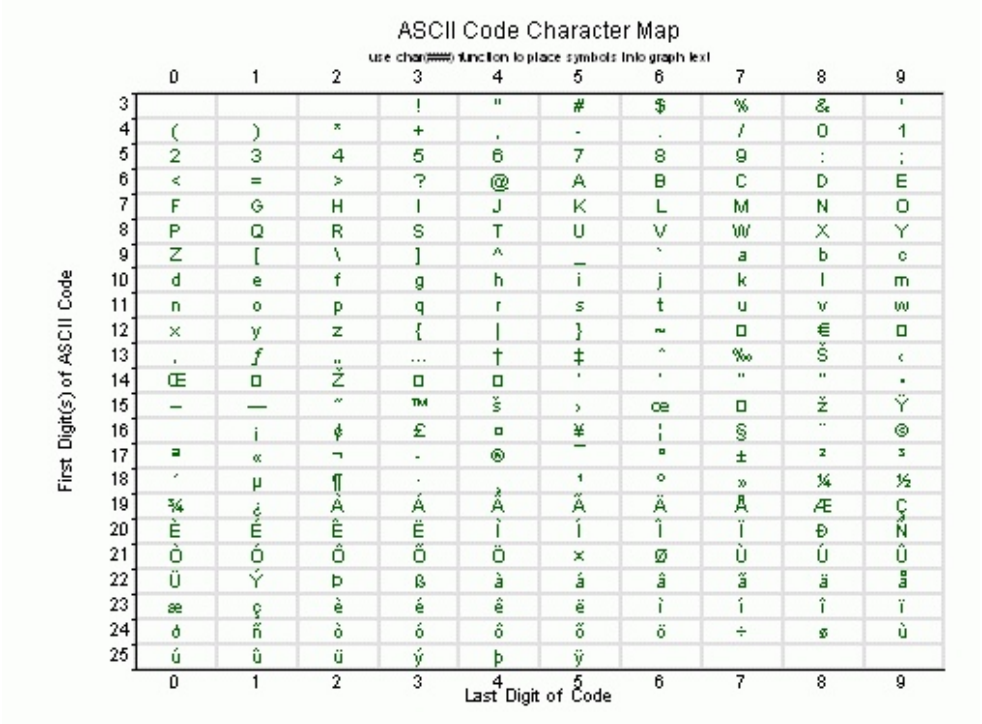



```
sequence plot
Requires: sq
To download sq type the following on the Stata command line:
ssc install sq
```

```

To run the example: copy the following into a do file and run


use http://www.wzb.eu/~kohler/ado/youthemp.dta, clear
reshape long st, i(id) j(order)
sqset st id order
sqindexplot, scheme(vg_palec)
```

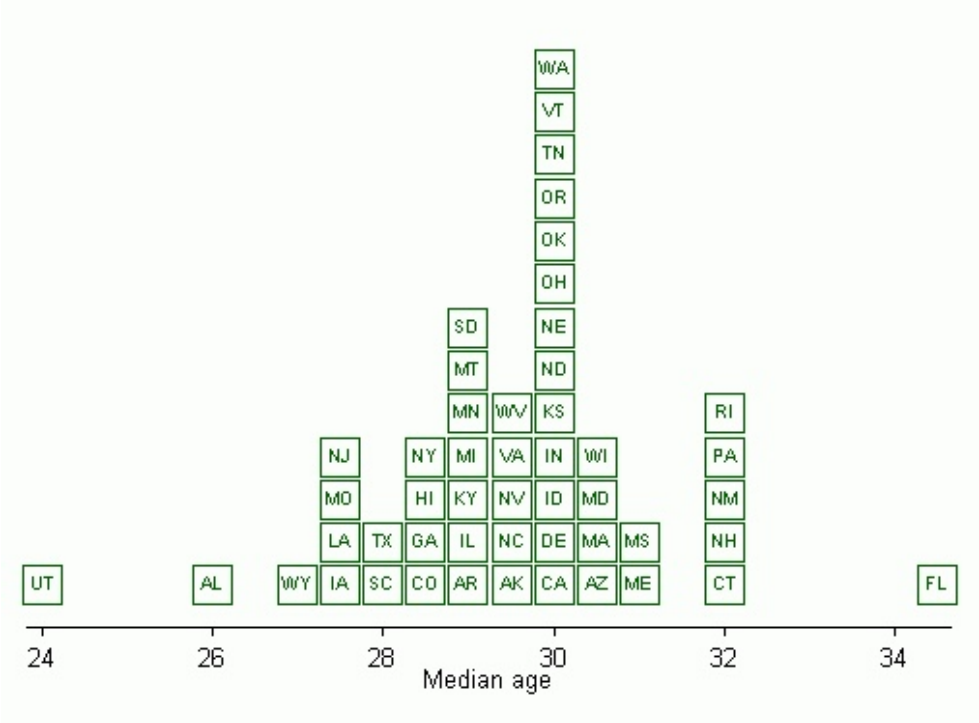



```
asciiplot


Requires: asciiplot

To download asciiplot type the following on the Stata command line:

ssc install asciiplot

To run the example: copy the following into a do file and run

asciiplot
```

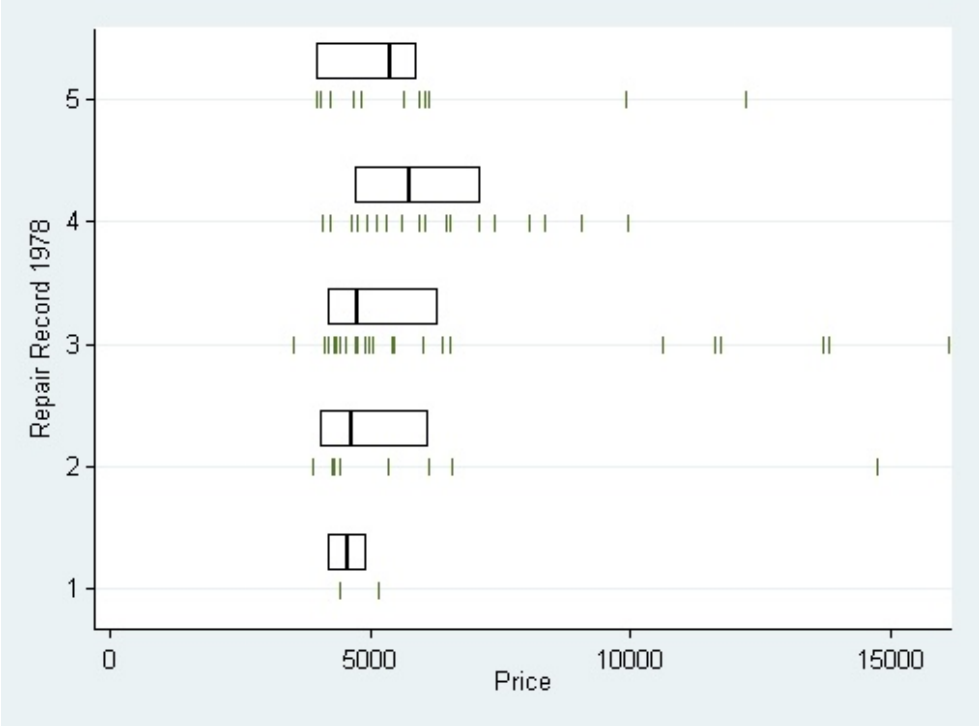



```
stripplot

Requires: stripplot

To download stripplot type the following on the Stata command line:

ssc install stripplot

To run the example: copy the following into a do file and run

sysuse census, clear

local abbrev ///

AK AL AR AZ CA CO CT DE FL GA HI IA ///

ID IL IN KS KY LA MA MD ME MI MN MO ///

MS MT NC ND NE NH NJ NM NV NY OH OK  ///

OR PA RI SC SD TN TX UT VA VT WA WI WV WY

gen abbrev = ""

tokenize "`abbrev'"

qui forval i = 1/50 {

replace abbrev = "``i'" in `i'

}

set scheme s1color

stripplot medage, stack ms(Sh) msize(*3.5) width(0.5) ///
```

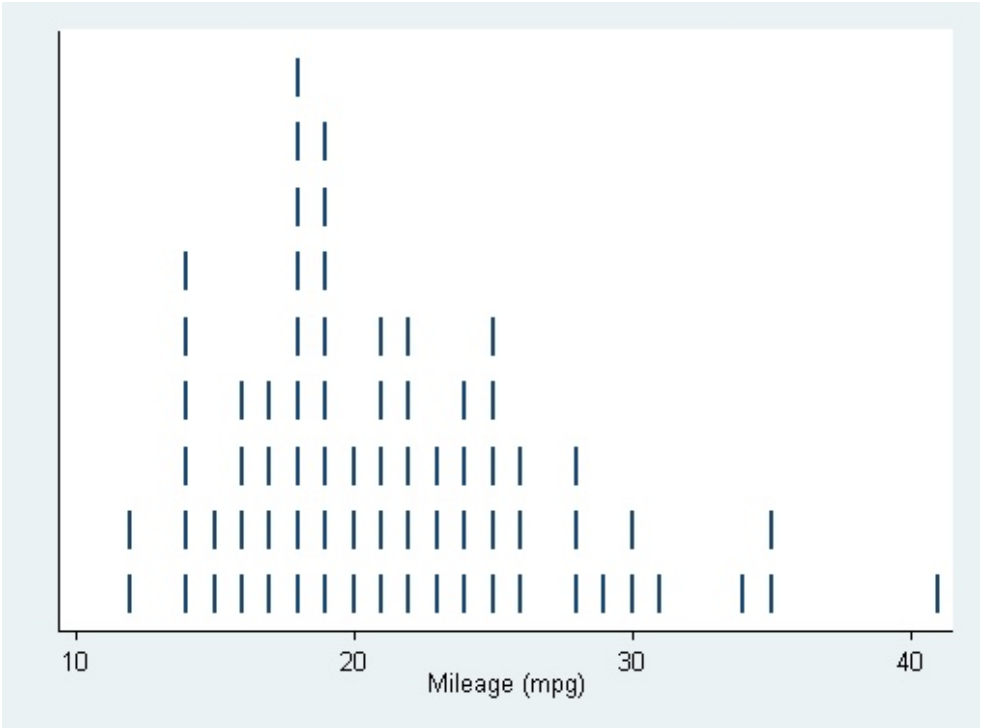
```
36
37 mla(abbrev) mlabpos(0) mlabsize(*.9) ysc(off) plotregion(lstyle(none))
```



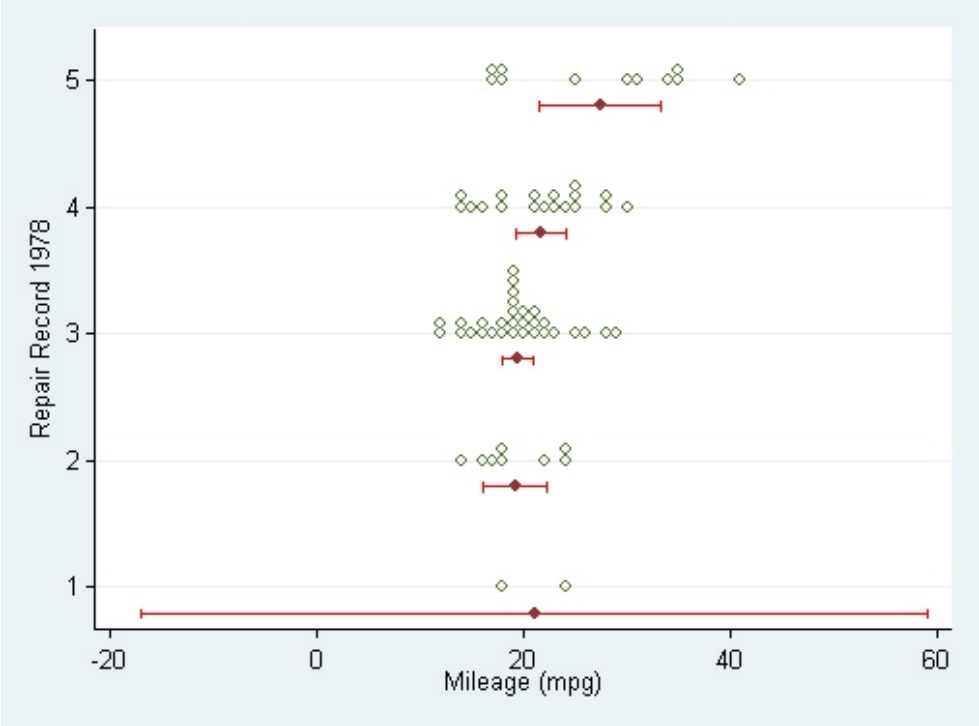

```
1 strippplot
2
3 Another example of the use of striplot.
4
5 Requires: stripplot
6 To download stripplot type the following on the Stata command line:
7 ssc install stripplot
8
9 To run the example: copy the following into a do file and run
10
11 sysuse auto, clear
12 gen pipe = "|"
13 stripplot price, over(rep78) box(barw(0.3)) ms(none) mla(pipe) boffset(0.3)
14
15 From the Statalist:
16 Nick cox
17 15/10/2010
```



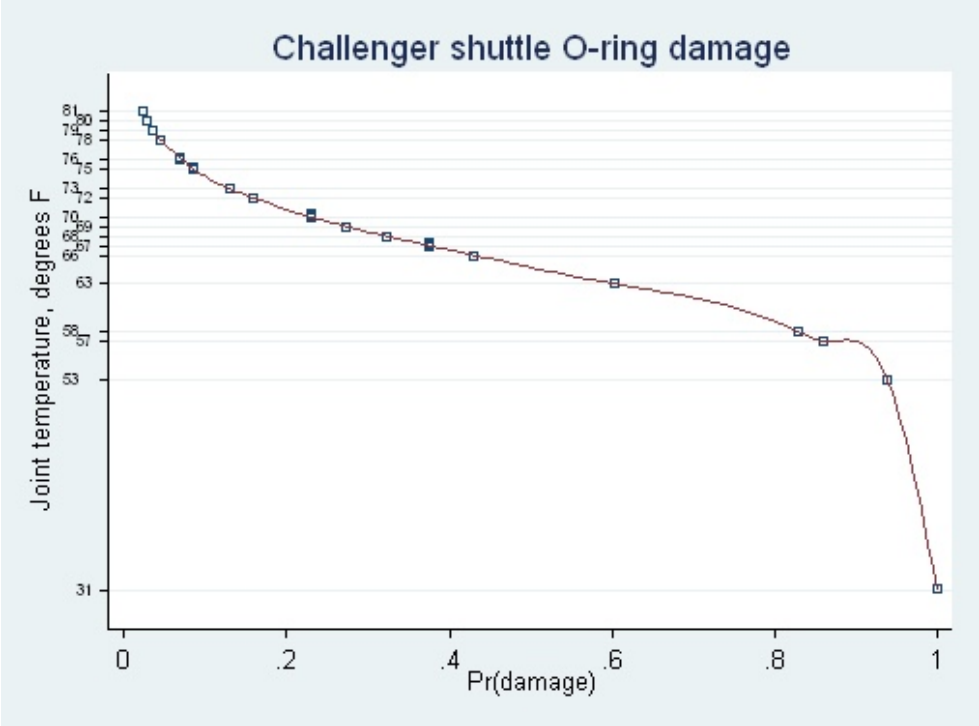

```
stripplot

Another example of the use of striplot.

Requires: stripplot
To download stripplot type the following on the Stata command line:
ssc install stripplot

To run the example: copy the following into a do file and run

sysuse auto, clear
gen pipe = "|"
stripplot mpg, ms(none) mlabpos(0) mlabel(pipe) mlabsize(*2) stack

From striplot help:
Nick cox
```



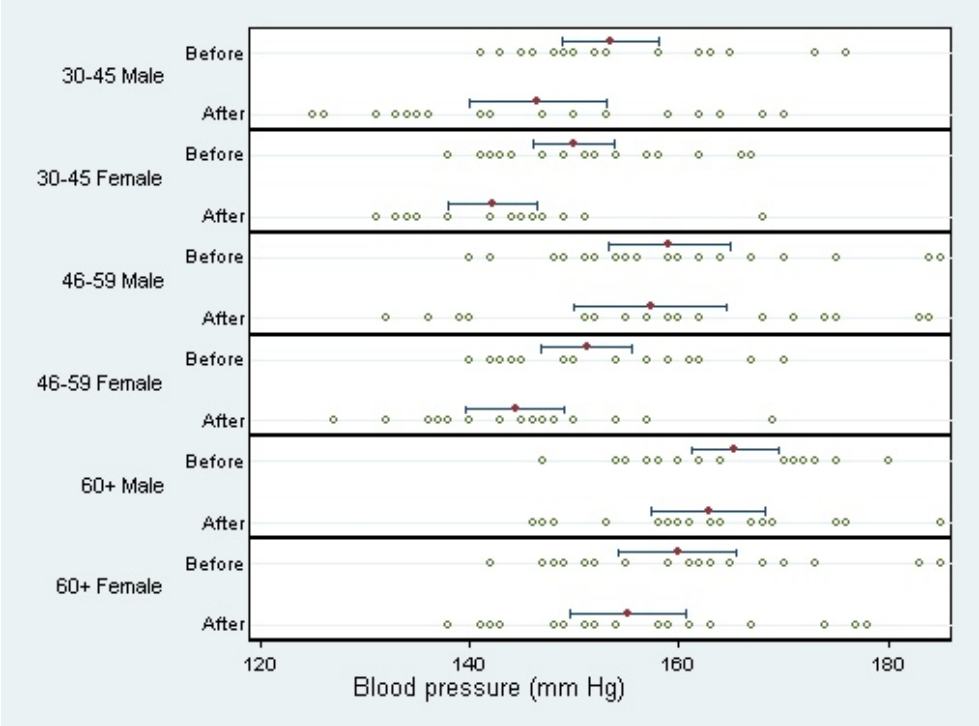

```
stripplot

Another example of the use of striplot.

Requires: stripplot
To download stripplot type the following on the Stata command line:
ssc install stripplot

To run the example: copy the following into a do file and run

sysuse auto, clear
stripplot mpg, over(rep78) stack h(0.5) bar(lcolor(red))

From striplot help:
Nick cox

```



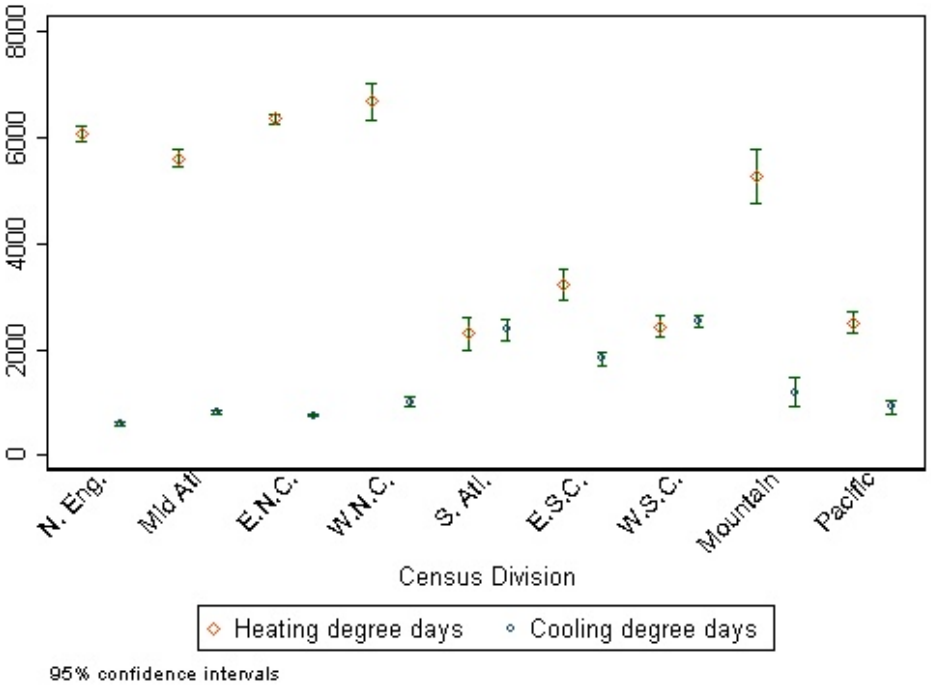

```
stripplot

Another example of the use of striplot.

Requires: stripplot
To download stripplot type the following on the Stata command line:
ssc install stripplot

The data (Challenger shuttle O-ring damage) can be obtained from:
http://www.stata.com/bookstore/swsdl.html

To run the example: copy the following into a do file and run

use shuttle.dta, clear

logit damage temp
predict pre

stripplot pre, over(temp) stack ms(sh) height(0.4) ///
title("Challenger shuttle O-ring damage")  ylabel(,alt  labsize(2)) ///
addplot(mspline  temp pre, bands(20))

From striplot help:
Nick cox
```



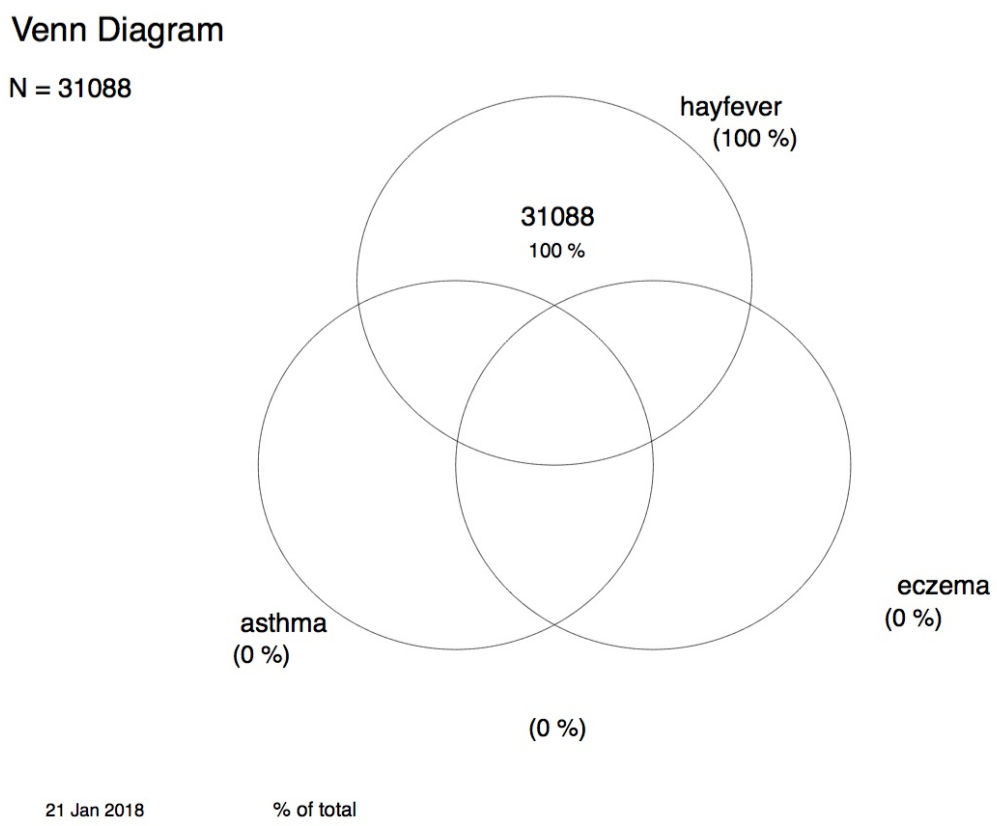

```
stripplot

Another example of the use of striplot.

Requires: stripplot
To download stripplot type the following on the Stata command line:
ssc install stripplot

To run the example: copy the following into a do file and run

sysuse bplong, clear

egen group = group(age sex), label

stripplot bp*, bar over(when) by(group, compact col(1) note("")) ///
ysc(reverse) subtitle(, pos(9) ring(1) nobexpand bcolor(none) ///
placement(e)) ytitle("") xtitle(Blood pressure (mm Hg))

From striplot help:
Nick cox

```




```
ciplot

Example of the use of ciplot.

Requires: cipplot
To download ciplot type the following on the Stata command line:
ssc install ciplot

To run the example: copy the following into a do file and run


webuse citytemp, clear

ciplot heatdd cooldd, by(division) xla(, ang(45))

From ciplot help:
Nick cox
```

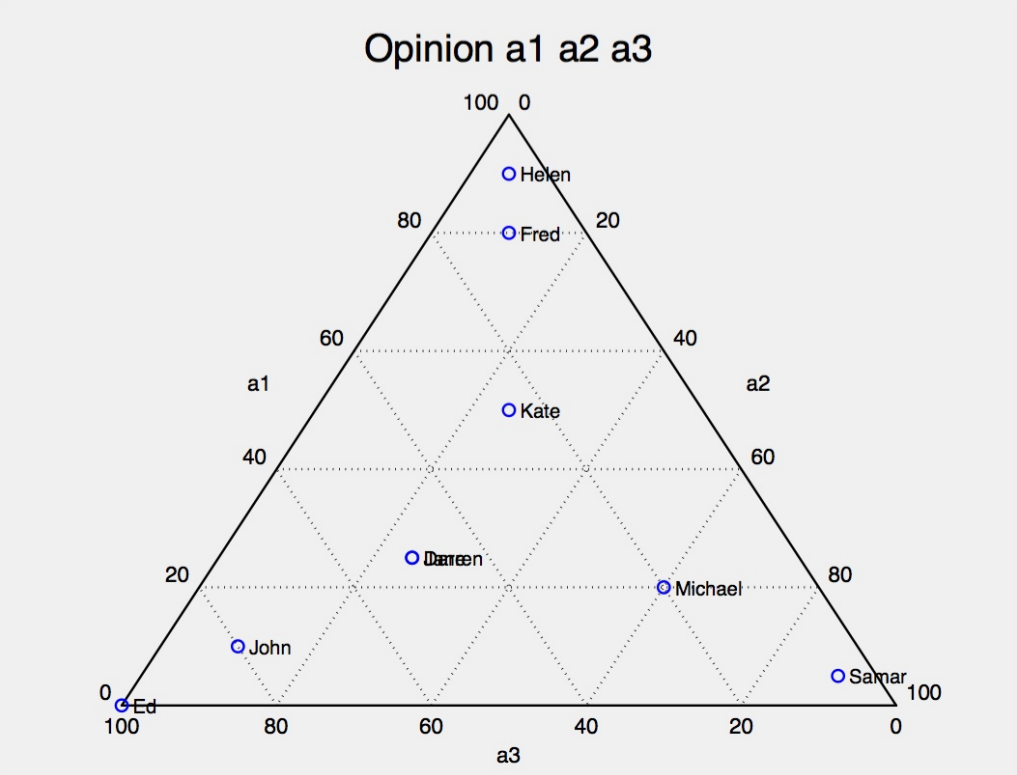



```
Venn diagram using venndiag

Requires: venndiag
To download venndiag type the following on the Stata command line:
ssc install venndiag

To run the example below copy the following into a do file and run

clear
input hayfever  eczema  asthma  freq
1   0   0   31088
1   1   0   9863
0   1   0   43522
0   1   1   9258
0   0   1   35299
1   0   1   11024
1   1   1   6200
0   0   0   345262
end

list

expand freq

venndiag asthma eczema hayfever
```

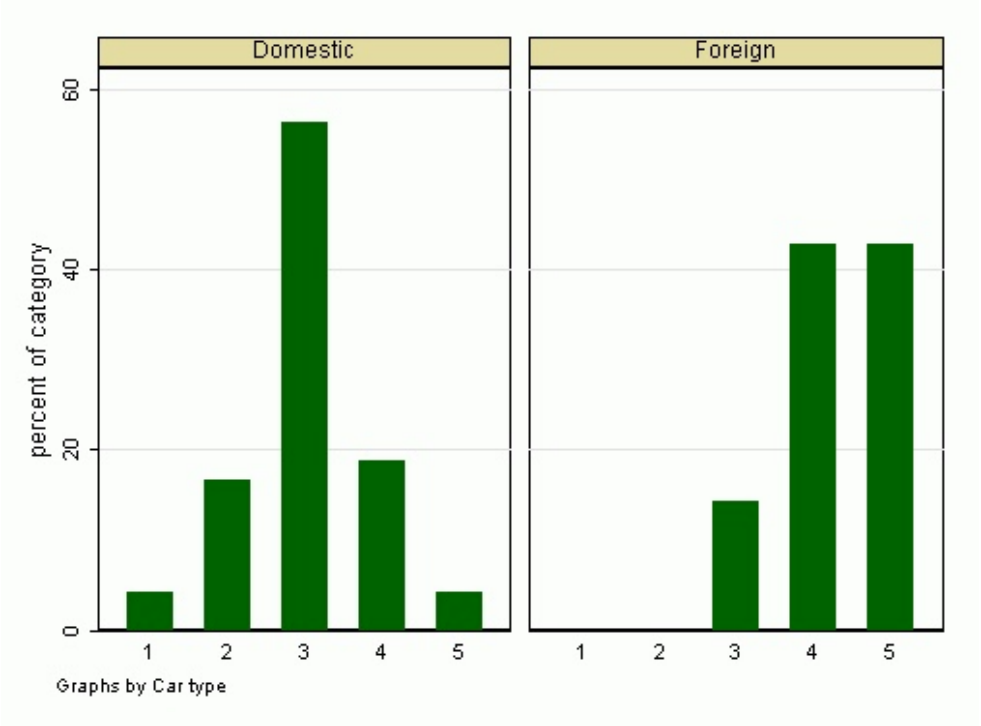



```
triplot

Plots 3 variables (proportions or percentages) the total of each to equal either 1 or 100

Requires: triplot

to download triplot type the following on the Stata command line:

ssc install triplot

To run the example below copy the following into a do file and run

clear

input a1 a2 a3 str10 name

10 10 80  John

80 10 10  Fred

25 25 50  Jane

90  5  5  Helen

 0  0 100  Ed

50  25  25  Kate

20 60 20  Michael

25 25 50  Darren

```

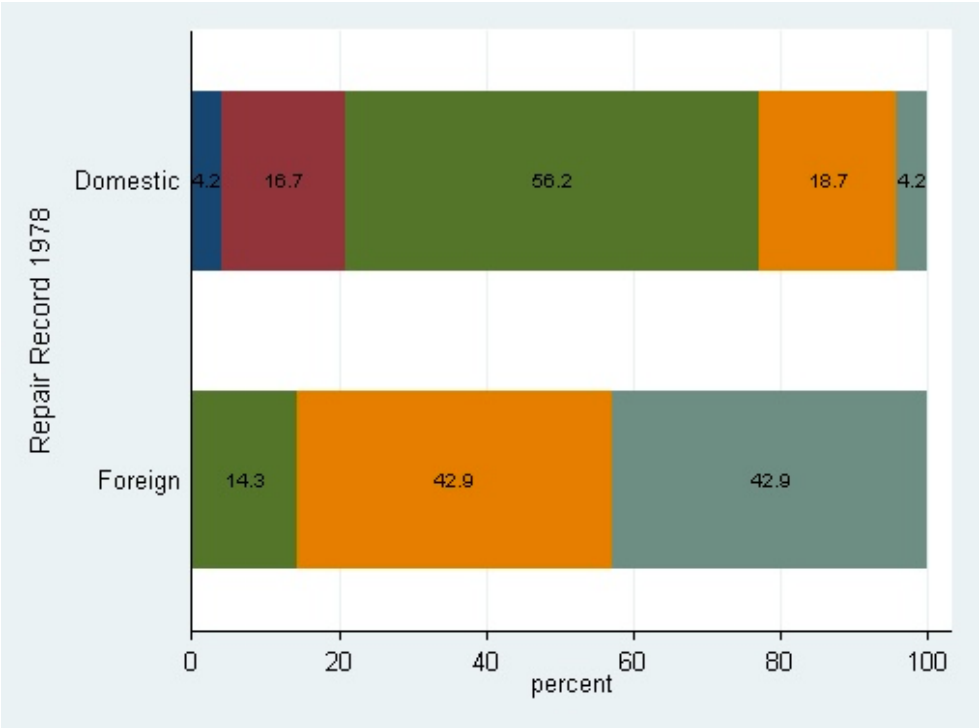
```
5  90  5  Samar

end

list

triplot a1  a2  a3 , mlab(name) mlabcolor(black) mcolor(blue) ///

mlabsize(*0.9) max(100) title("Opinion a1 a2 a3")

```




```
catplot


Plots categorical variables

Requires: catplot
Plot categorical variables
To download catplot type the following on the Stata command line:
ssc install catplot

To run the example below copy the following into a do file and run

sysuse auto, clear

catplot bar rep78, by(foreign) percent(foreign)
```

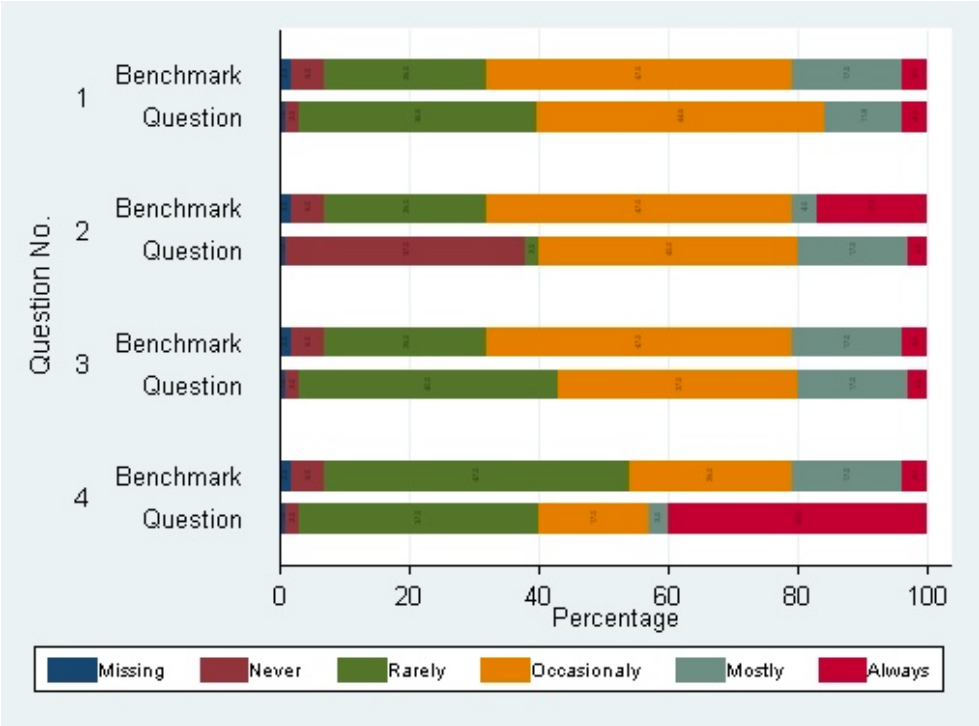



```
catplot
Plots categorical variables –

Requires: catplot
to download this program type the following on the Stata command
line (if not already loaded):
ssc install catplot

To run the example: copy the following into a do file and run

sysuse auto, clear

catplot  rep78, over(for) stack asyvars  perc(for)  ///
blabel(bar, position(center) format(%3.1f)) ///
legend(off)
```

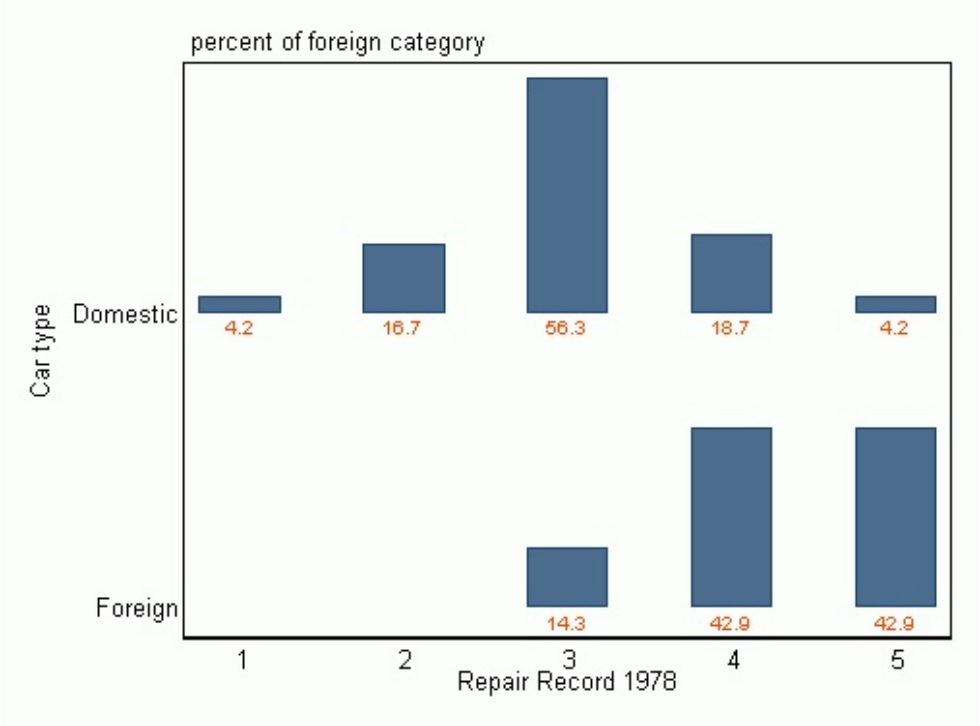



```
catplot
Plots categorical variables –

Requires: catplot
to download this program type the following on the Stata command
line (if not already loaded):
ssc install catplot

To run the example: copy the following into a do file and run


clear   all
set more off

input quest str25 q      a1 a2 a3 a4 a5 a6
1 "Question 1"           0  2  37 45 12 4
1 "Benchmark Q1"         2  5  25 47 17 4
2 "Question 2"           1  37  2 40 17 3
2 "Benchmark Q2"         2  5  25 47  4 17
3 "Question 3"           1  2  40 37 17 3
3 "Benchmark Q3"         2  5  25 47 17 4
4 "Question 4"           1  2  37  17 3 40
4 "Benchmark Q4"         2  5  47 25 17 4
end

sort quest q
gen q_sum=_n

label define kk 1 q1 2 b1 3 q2 4 b2 5 q3 6 b3 7 q4 8 b4
label value q_sum kk

reshape long a, i(quest q) j(data)
label var data "Question No."

expand a
```

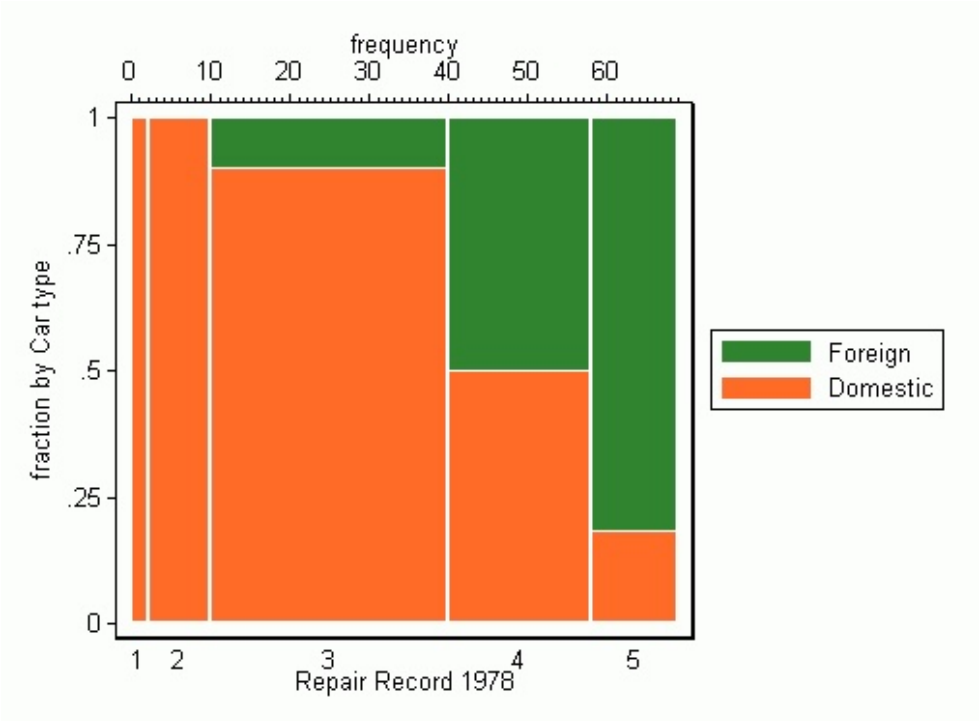
```
split q

replace q2=substr(q2,2,1) if length(q2)>1

catplot  data, over(q1, gap(40) label(labgap(5)))               ///
over(q2 )  stack asyvars perc(q)                                ///
blabel(bar, size(1) position(center)orient(vert) format(%4.1f)) ///
legend(                                                         ///
label(1 "Missing")                                              ///
label(2 "Never")                                                ///
label(3 "Rarely")                                               ///
label(4 "Occasionaly")                                          ///
label(5 "Mostly")                                               ///
label(6 "Always") rows(1) keygap(0) symxsize(7) bexpand         ///
span size(small))                                               ///
ytitle("Percentage")

exit
```




```
tabplot


Plots categorical variables in the from of a table


Requires: tabplot
to download catplot type the following on the Stata command line:
ssc install tabplot

To run the example below copy the following into a do file and run

sysuse auto, clear

tabplot for rep78, percent(foreign) showval(offset(0.05) format(%2.1f))
```

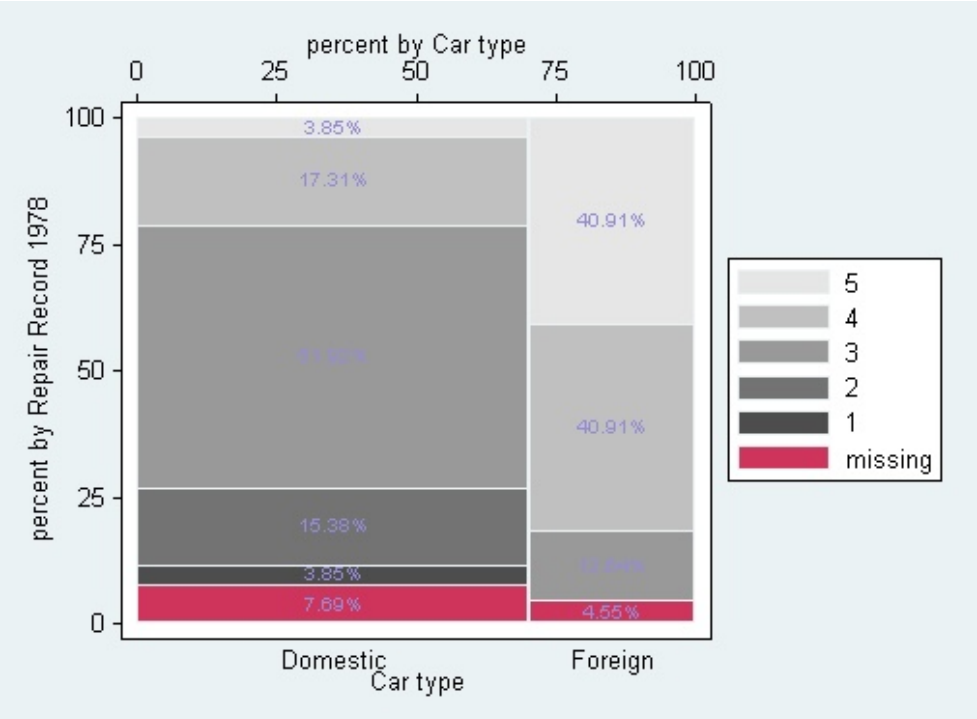



```
Plots width proportional to frequency

Requires: spineplot
to download spineplot type the following on the Stata command line:
ssc install spineplot

To run the example below copy the following into a do file and run

sysuse auto, clear
spineplot foreign rep78, xti(frequency, axis(1)) ///
xla(0(10)60, axis(1)) xmti(1/69, axis(1))
```



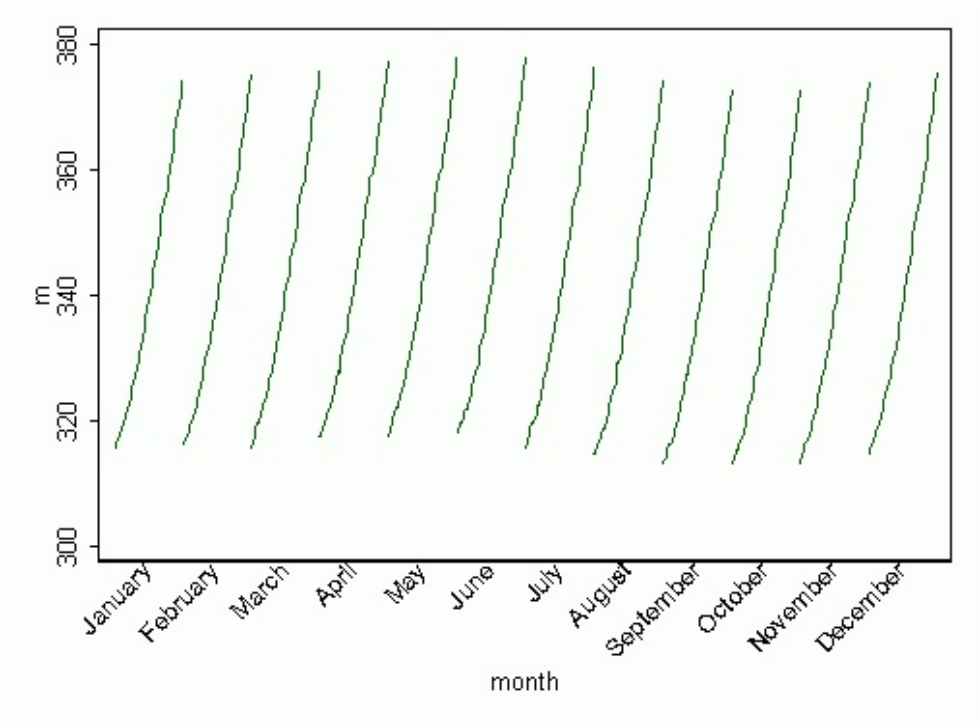

```
Plots width proportional to frequency

Requires: spineplot
```

```
to download spineplot type the following on
the Stata command line:
ssc install spineplot


To run the example below copy the following into a do file and run

sysuse auto, clear

replace rep78=0 if missing(rep78)

bysort foreign rep78 : gen N   = _N
bysort foreign       : gen Na1 = (N/_N)*100

by foreign : gen N1 = string(Na1,"%5.2f") +"%"

label define kk 0 "missing",
label values rep78 kk

spineplot rep78 foreign, bar1(bcolor(gs14)) ///
percent missing                             ///
bar2(bcolor(gs11))                          ///
bar3(bcolor(gs8))                           ///
bar4(bcolor(gs5))                           ///
bar5(bcolor(gs2))                           ///
bar6(bcolor(red)) text(N1)
```

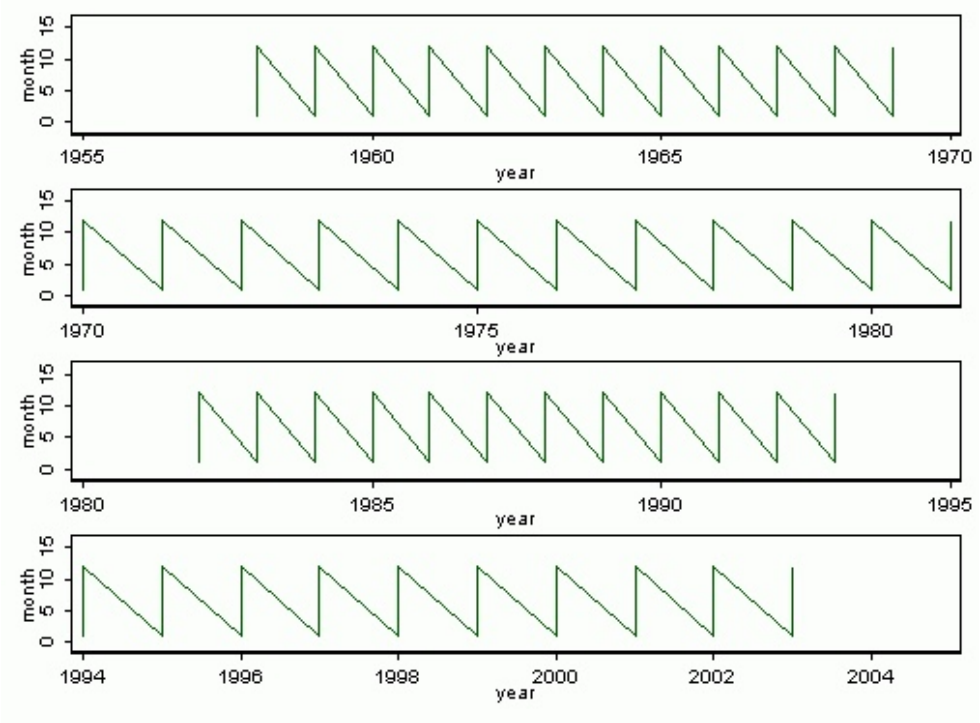



```
cycleplot

Plots the values for each period vertically

Requires: cycleplot
to download cycleplot type the following on the Stata command line:
ssc install cycleplot

For the example below get the data (Co2 data) from:
```

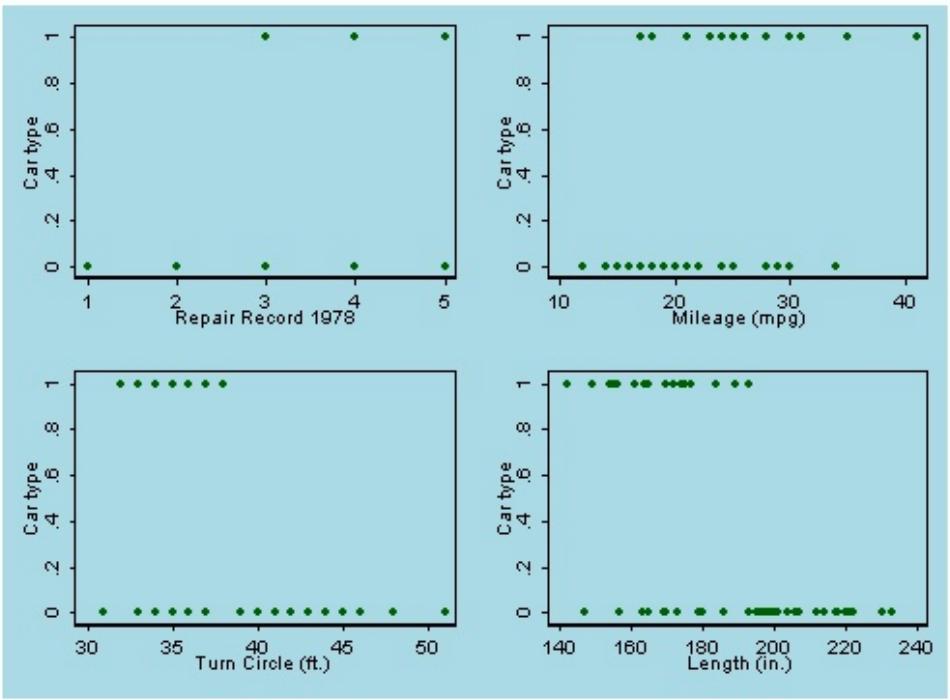
```
http://cdiac.ornl.gov/ftp/ndp001/maunaloa.co2

To run the example below copy the following into a do file and run

mvdecode m1-m12 , mv(-99.99=.)
reshape long m, i(year) j(month)
cycleplot m month year, mylabels(`c(Months)') xlabel(, angle(45))
```




```
sliceplot

Spreads out the graph over a number of rows; to aid reading the graph

Requires: sliceplot
to download sliceplot type the following on the Stata command line:
ssc install sliceplot

For the example below get the data (Co2 data) from:
http://cdiac.ornl.gov/ftp/ndp001/maunaloa.co2

To run the example: copy the following into a do file and run

mvdecode m1-m12 , mv(-99.99=.)
reshape long m, i(year) j(month)
sliceplot line month year, slices(4)
```

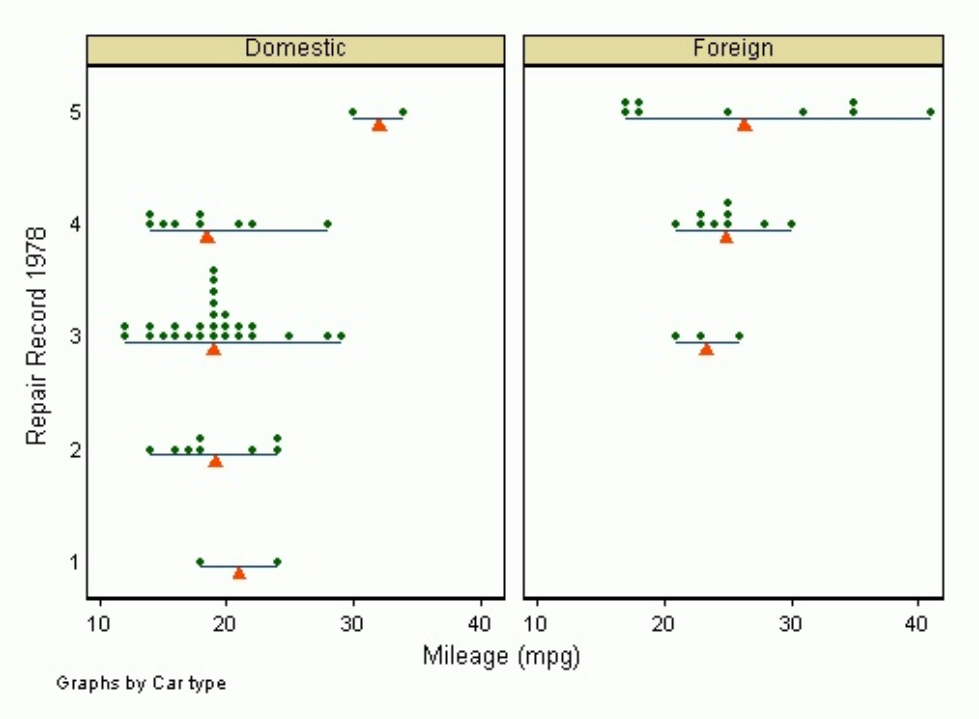



```
cpyxplot

Plots the cross product of the variables indicted in command

Requires: cpyxplot
to download cpyxplot type the following on the Stata command line:
ssc install cpyxplot

To run the example: copy the following into a do file and run

sysuse auto, clear
cpyxplot for \rep78 mpg turn length, graphregion(color(ltblue))
```

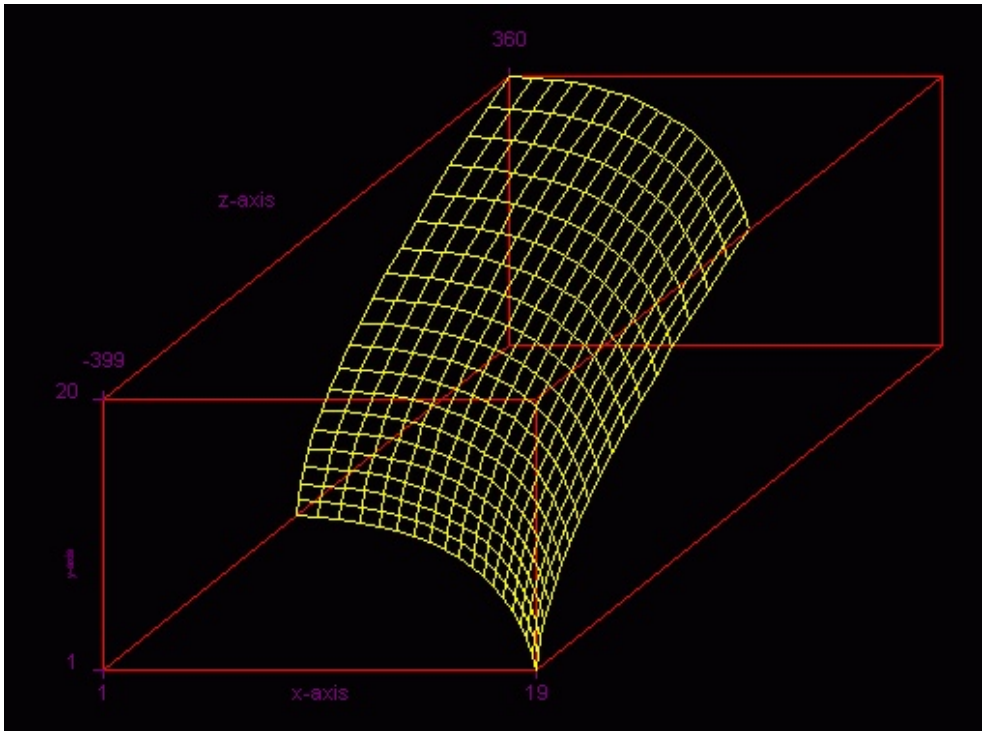



```
beamplot

```

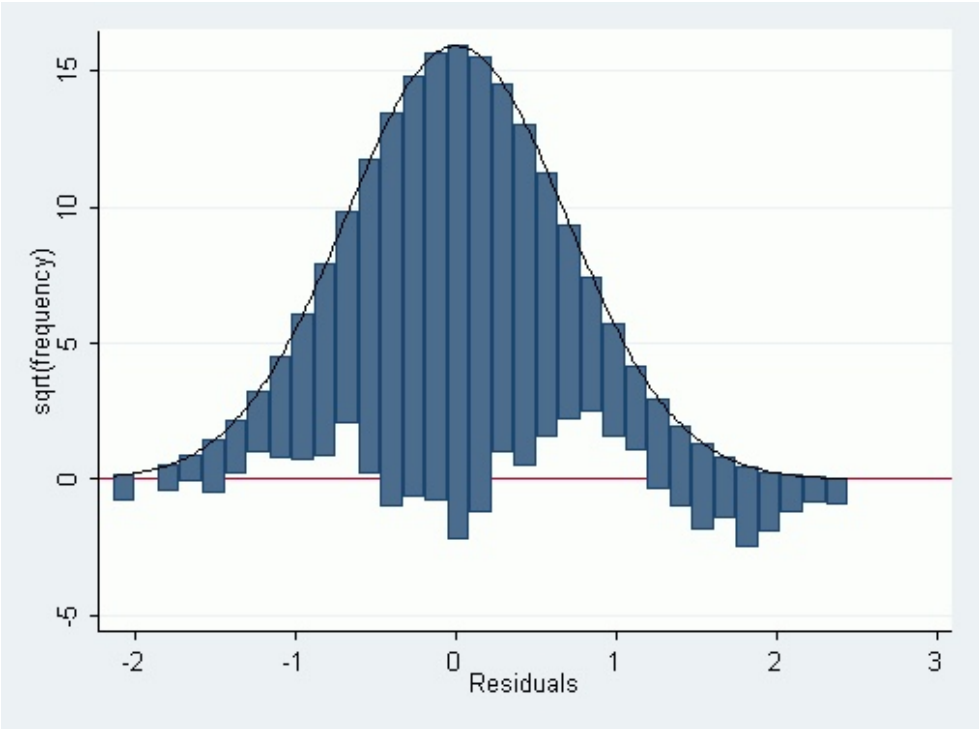
```
The seasaw way of looking at the data

Requires: beamplot
to download beamplot type the following on the Stata command line:
ssc install beamplot

To run the example: copy the following into a do file and run

sysuse auto, clear
beamplot mpg, by(foreign) over(rep78)
```



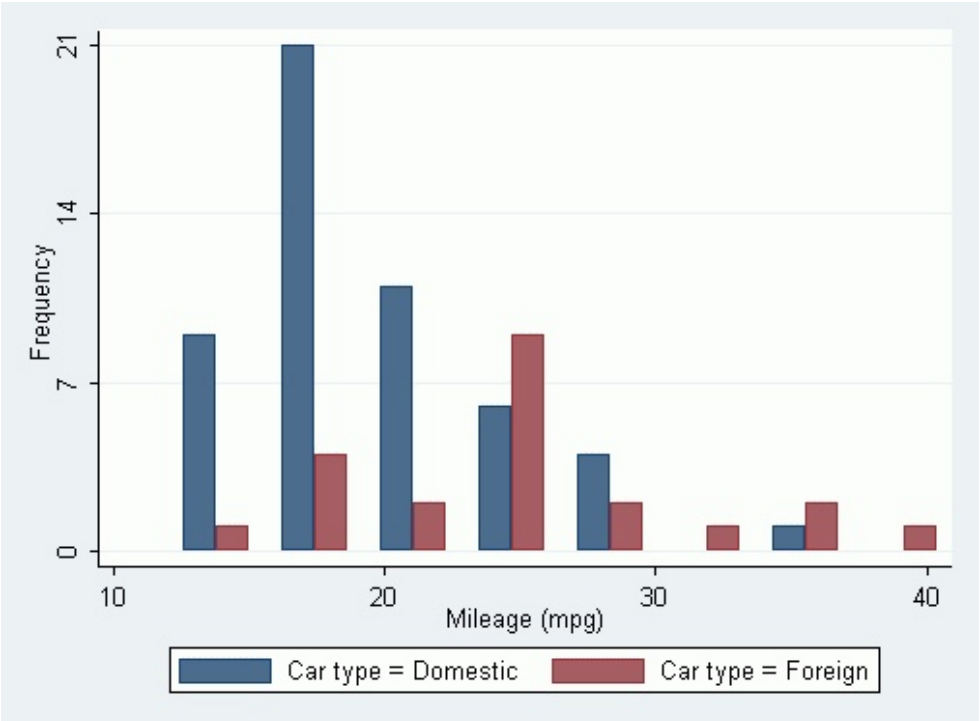

```
surface

3d plot

Requires: surface
to download surfacet type the following on the Stata command line:
ssc install surface

To run the example: copy the following into a do file and run

use surf3,clear
set more off
surface x y z, orient(xzy) saving(s3d)
```




```
hangroot

Distribution checking graph

Requires: hangroot
to download hangroot type the following on the Stata command line:
ssc install hangroot

To run the example: copy the following into a do file and run

sysuse nlsw88, clear
gen ln_w = ln(wage)
reg ln_w grade age ttl_exp tenure
predict resid, resid
hangroot resid, bar
```

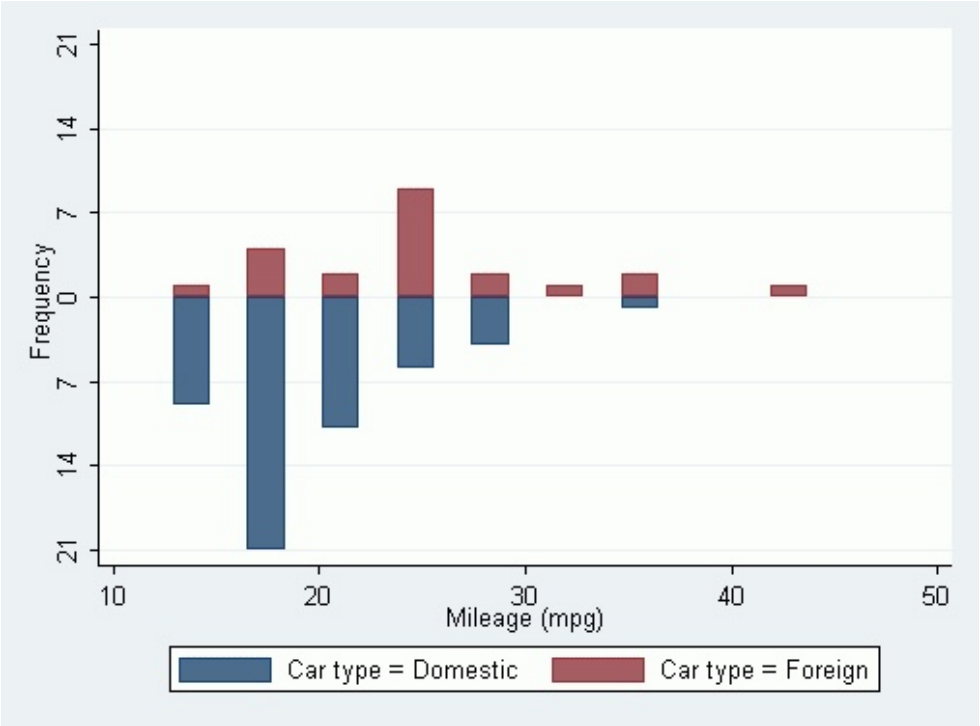



```
byhist

Draws a binary variable next to each other for each bin width

Requires: byhist
to download byhist type the following on the Stata command line:
ssc install byhist

To run the example: copy the following into a do file and run

sysuse auto, clear
byhist mpg, by(foreign)
```

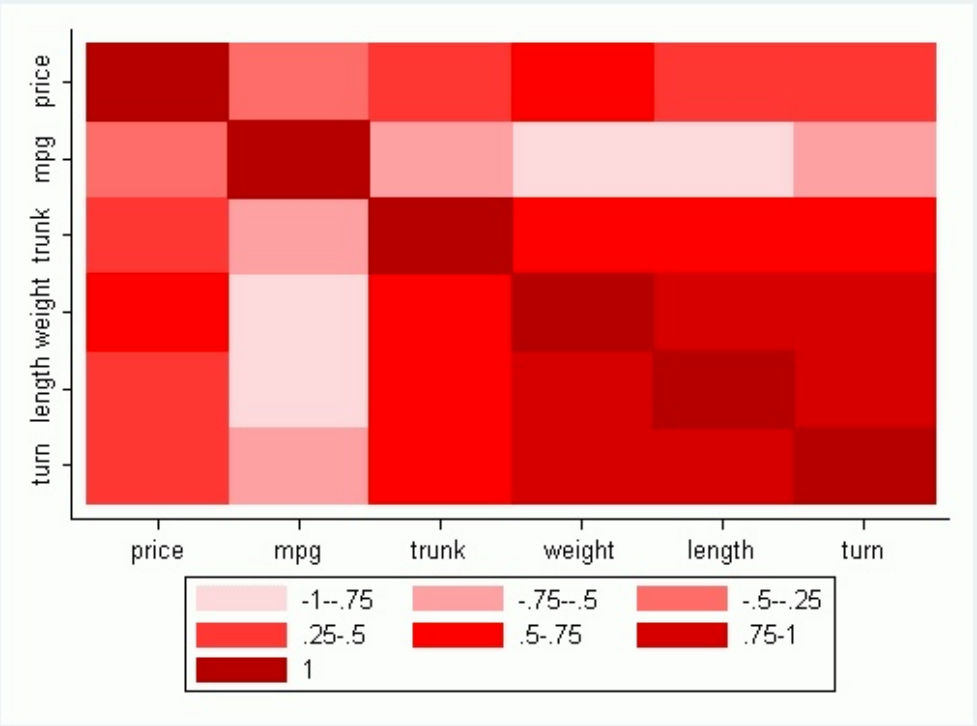



```
bihist

```

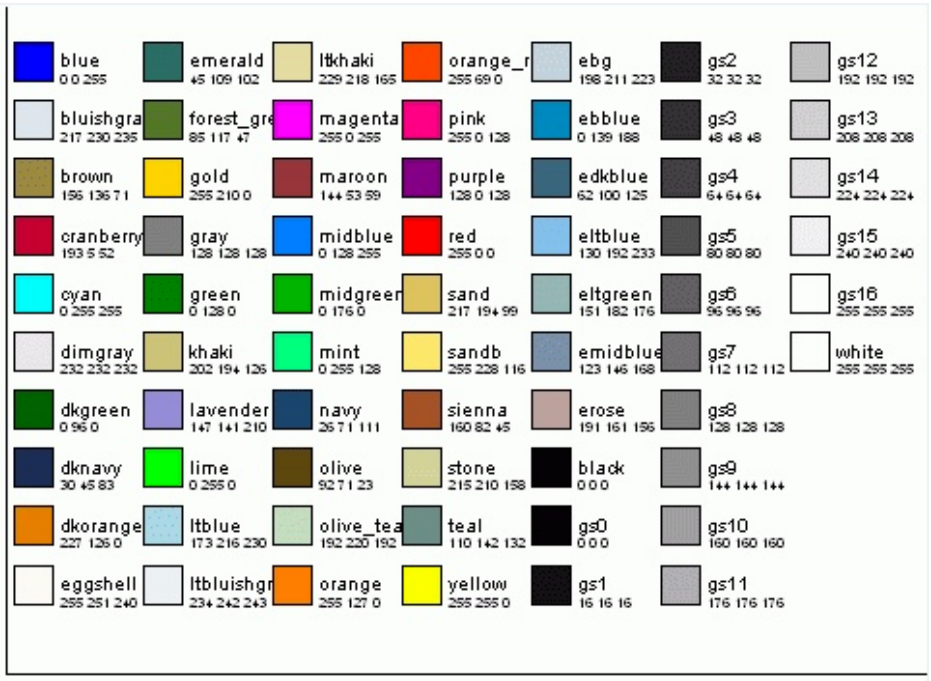
```
Draws a binary variable; one going up and the other going down, for each bin width

Requires: byhist
to download bihist type the following on the Stata command line:
ssc install bihist

To run the example: copy the following into a do file and run

sysuse auto, clear
byhist mpg, by(foreign)
```




```
plotmatrix

Display the values of a matrix using twoway area

Requires: plotmatrix
to download plotmatrix type the following on the Stata command line:
ssc install plotmatrix

To run the example: copy the following into a do file and run

sysuse auto
reg price mpg trunk weight length turn, nocons
mat regmat = e(V)
plotmatrix, m(regmat) c(red) ylabel(,angle(0))
```

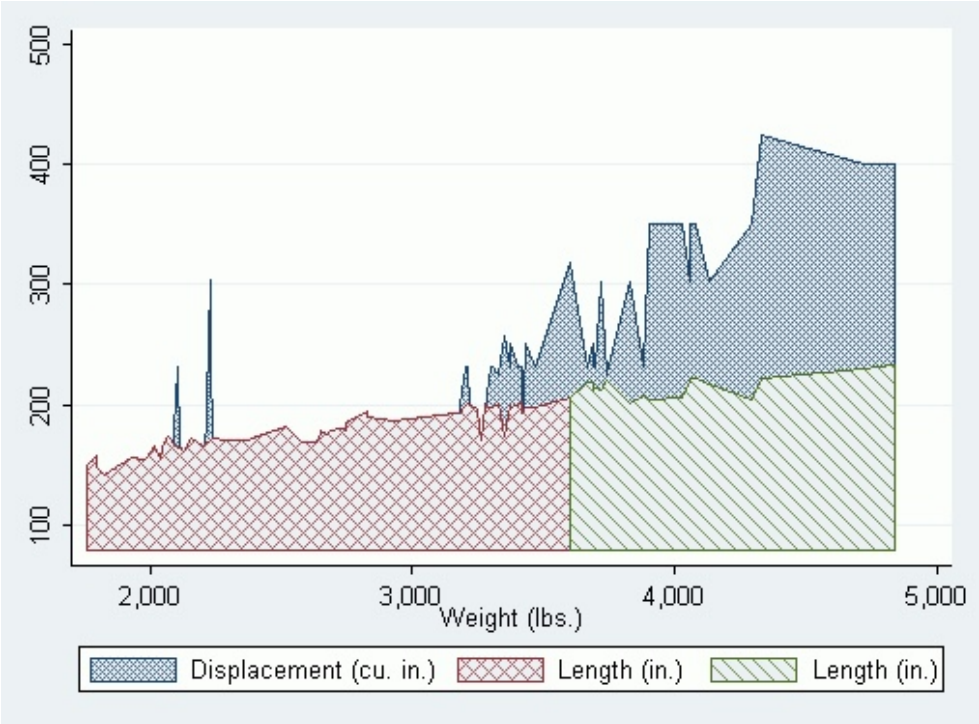



```
full_palette

Displays a palette of Stata's graph colors, along with their names and RGB numbers

Requires: full_palette
to download full_palette type the following on the Stata command line:
ssc install full_palette

To run the example: copy the following into a do file and run

full_palette
```



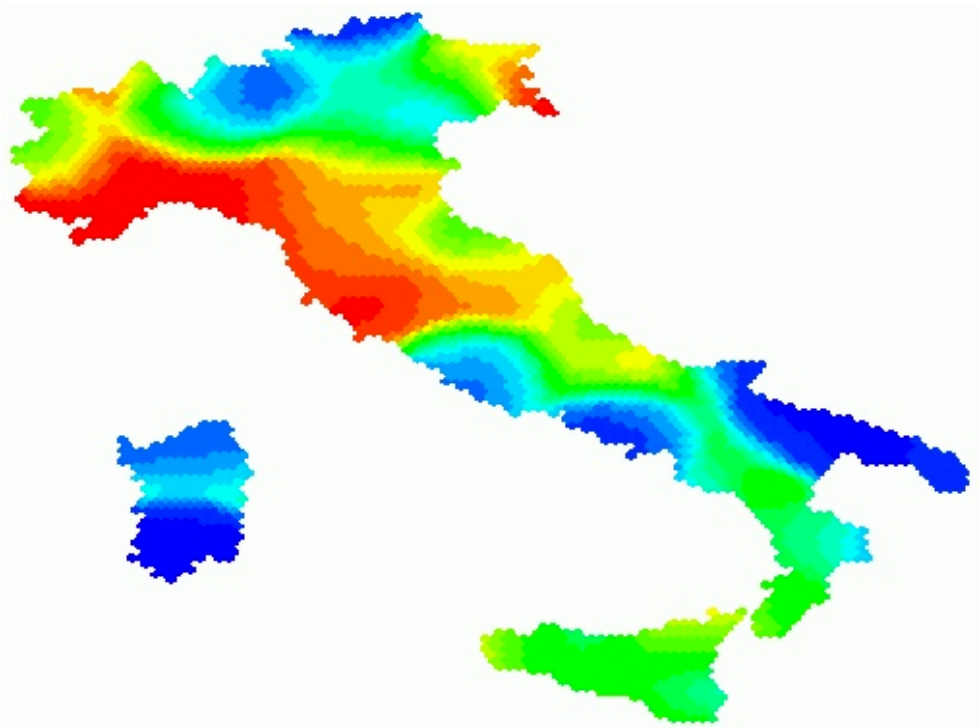

```
parea

(Windows only) Allows the use of patterns to fill in areas under graphs

```

```
Requires: parea
to download parea type the following on the Stata command line:
ssc install parea

To run the example: copy the following into a do file and run

sysuse auto, clear
twoway parea d w, sort pattern(pattern9) || ///
parea l w if w<=3600, sort pattern(pattern6) || ///
parea l w if w>=3600, sort pattern(pattern4) ,legend(rows(1))
```



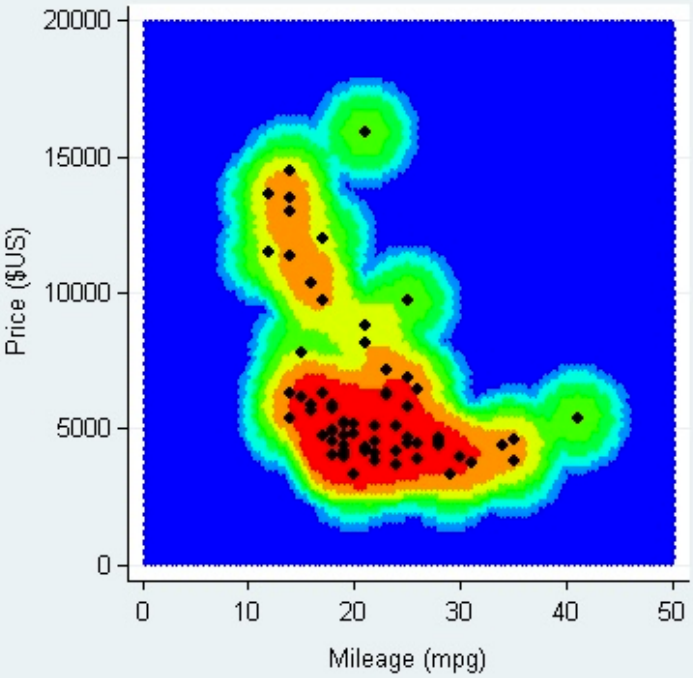

```
spkde

Requires: spgrid, spkde & spmap
to download these programs type the following on the Stata command line (if not already
loaded):
ssc install spgrid
and then
ssc install spkde
and then
ssc install spmap

Also remember to download the following dataset:
Italy-OutlineCoordinates.dta
(from where spmap is downloaded) or use the following
net get spmap.pkg


Italy-DataPoints.dta
(from where spkde is downloaded) or use the following
net get spkde.pkg


To run the example: copy the following into a do file and run

set more off
```

```
spgrid using "Italy-OutlineCoordinates.dta", resolution(w10) unit(kilometers)
cells("GridCells.dta") points("GridPoints.dta") replace
compress dots
use "Italy-DataPoints.dta", clear
spkde dcvd95 pop95 using "GridPoints.dta", xcoord(xcoord) ycoord(ycoord) bandwidth(fbw)
fbw(100) dots saving("Kde.dta", replace)
use "Kde.dta", clear
generate ratio = dcvd95_lambda / pop95_lambda * 1000
spmap ratio using "GridCells.dta", id(spgrid_id) clnum(20) fcolor(Rainbow) ocolor(none ..)
legend(off)
```

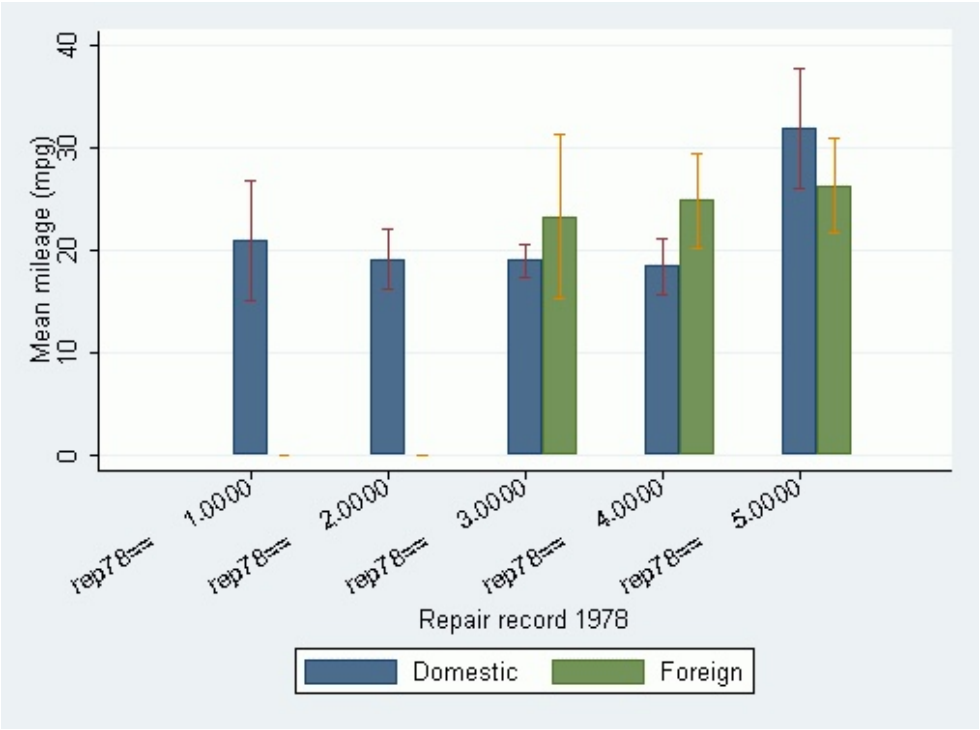


```
Density Plot

Requires: spgrid, spkde, spmap & mylabels
to download these programs type the following
on the Stata command line (if not already loaded):

ssc install spgrid
and then
ssc install spkde
and then
ssc install spmap
and then
ssc install mylabels

*-------------------------------------------------

* 1. Normalize variables in the range [0,1]

sysuse "auto.dta", clear
set more off

summarize price mpg
clonevar x = mpg
clonevar y = price
replace x = (x-0) / (50-0)
```

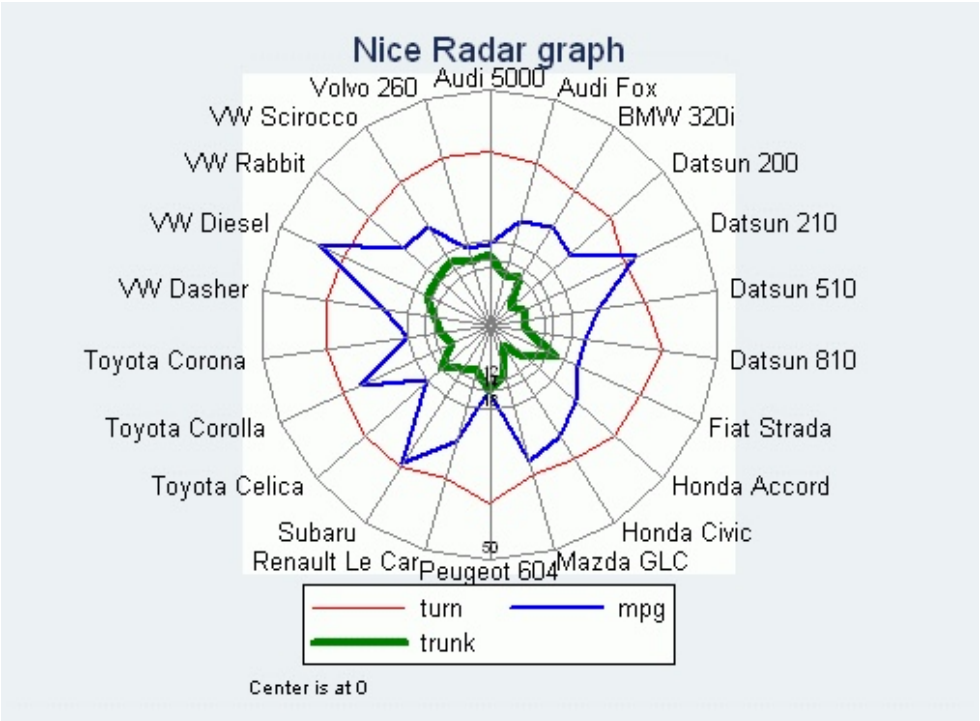
```
replace y = (y-0) / (20000-0)
mylabels 0(10)50, myscale((@-0) / (50-0)) local(XLAB)
mylabels 0(5000)20000, myscale((@-0) / (20000-0)) local(YLAB)

keep x y
save "xy.dta", replace

* 2. Generate a 100x100 grid

spgrid, shape(hexagonal) xdim(100) ///
xrange(0 1) yrange(0 1)               ///
dots replace                          ///
cells("2D-GridCells.dta")             ///
points("2D-GridPoints.dta")

* 3. Estimate the bivariate probability density function

spkde using "2D-GridPoints.dta", ///
xcoord(x) ycoord(y)                 ///
bandwidth(fbw) fbw(0.1) dots        ///
saving("2D-Kde.dta", replace)

* 4. Draw the density plot

use "2D-Kde.dta", clear
recode lambda (.=0)
spmap lambda using "2D-GridCells.dta",  ///
id(spgrid_id) clnum(20) fcolor(Rainbow) ///
ocolor(none ..) legend(off)             ///
point(data("xy.dta") x(x) y(y))         ///
freestyle aspectratio(1)                ///
xtitle(" " "Mileage (mpg)")             ///
xlab( `XLAB')                           ///
ytitle(" " "Price ({c S|}US)")          ///
ylab(`YLAB', angle(0))

exit
```




```
eclplot
Plot estimates with confidence limits
Requires: eclplot, parmby & sencode
to download these programs type the following on the Stata command line (if not already loaded):
ssc install eclplot
and then
ssc install parmby
and then
ssc install sencode

To run the example: copy the following into a do file and run

sysuse auto, clear

tabulate rep78, gene(rep78_)

parmby "regress mpg rep78_*, noconst", by(foreign) label norestore

sencode label if parm!="_cons", gene(parmlab)
label var parmlab "Repair record 1978"

label var estimate "Mean mileage (mpg)"
eclplot estimate min95 max95 parmlab, eplot(bar) estopts(barwidth(0.25)) ///
supby(foreign, ///
spaceby(0.25)) xscale(range(0 6)) xlabel(1(1)5, angle(30))
```

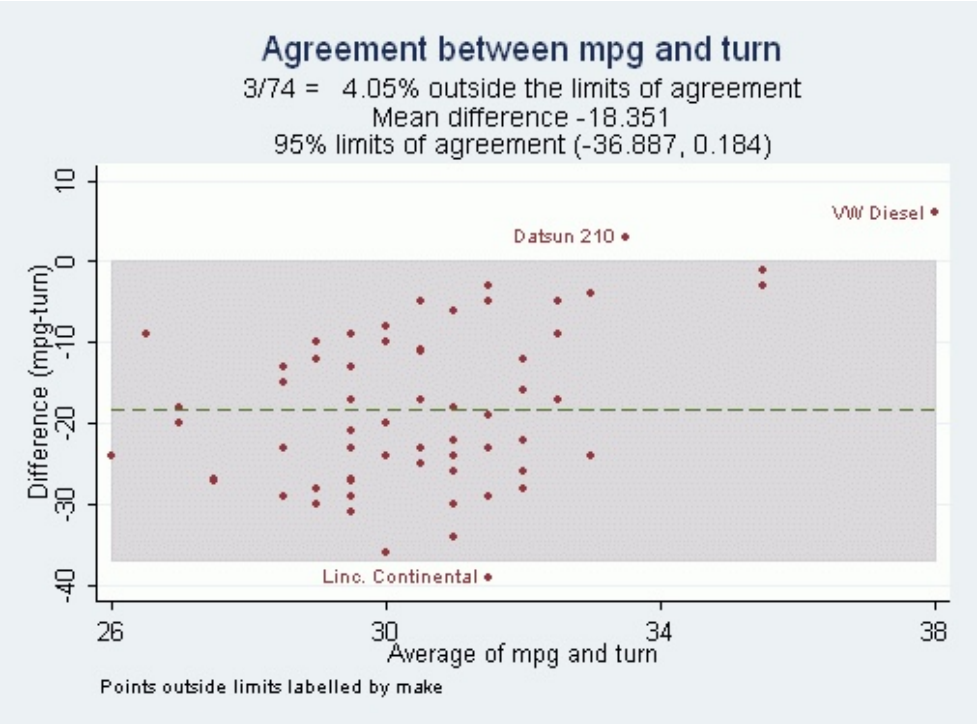



```
Radar Plot

Requires: radar
to download this program type the following on the Stata command line (if not already loaded):
ssc install radar

To run the example: copy the following into a do file and run

sysuse auto, clear

radar make turn mpg trunk if foreign, title(Nice Radar graph) ///
lc(red blue green) lw(*1 *2 *4) r(0 12 14 18 50)
```



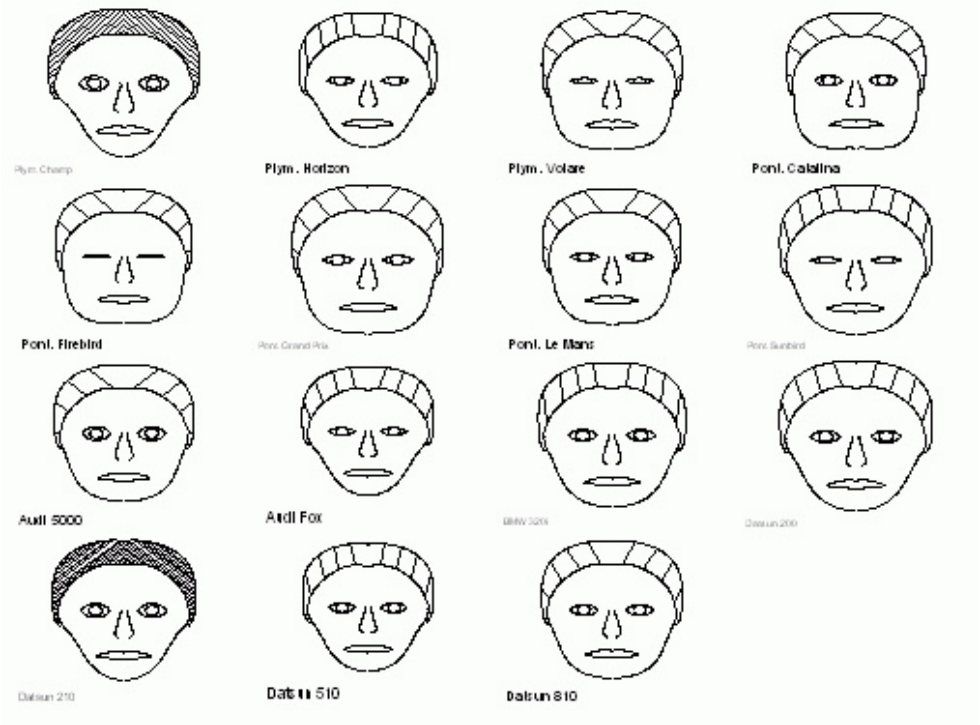

```
Batplot
```

```
Produces a Bland-Altman plot when there is a relationship between paired differences and
their average

Requires: batplot
to download this program type the following on the Stata command line (if not already
loaded):
ssc install batplot

To run the example: copy the following into a do file and run

sysuse auto, clear

batplot mpg turn, title(Agreement between mpg and turn) ///
info valabel(make) notrend xlab(26(4)38) moptions(mlabp(9))
```

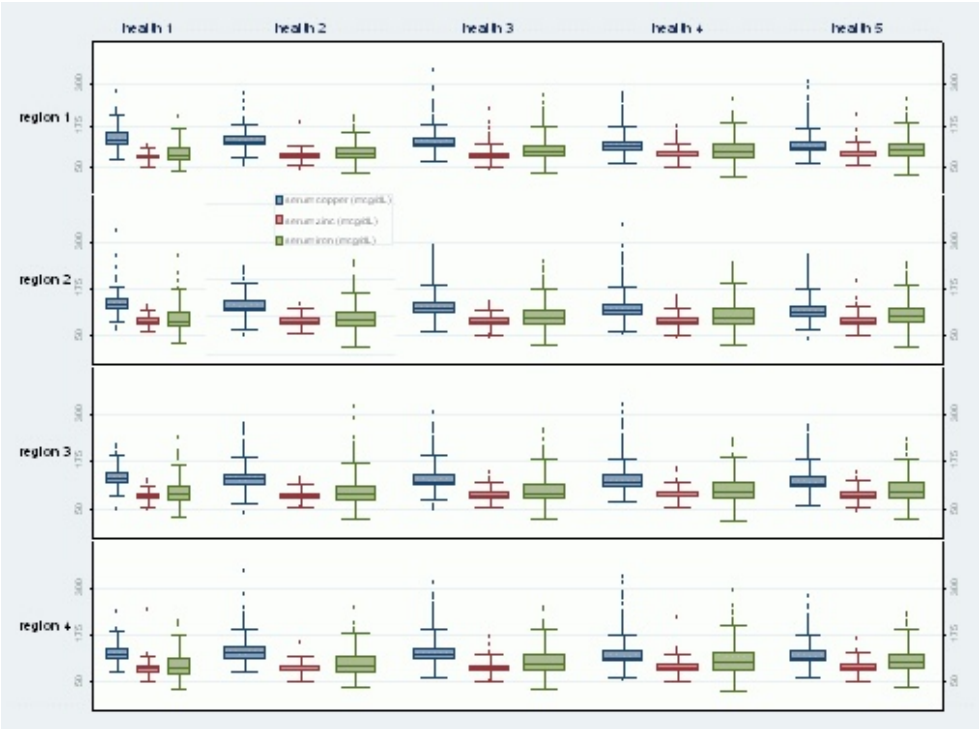



```
Chernoff faces

Requires: chernoff
to download this program type the following on the Stata command line (if not already
loaded):
net install gr0038

To run the example: copy the following into a do file and run

sysuse auto, clear
drop if rep78==.

keep in 41/55

chernoff, isize(rep78) hdark(mpg) hslant(mpg) fline(weight) ///
order(foreign price) saving(c:/face1)

chernoff, isize(rep78,0) hdark(mpg) hslant(mpg) fline(weight) ///
nose(price) legend(2 nolabel) cols(3) rhalf saving(c:/face2)

generate s = 1+runiform()
```

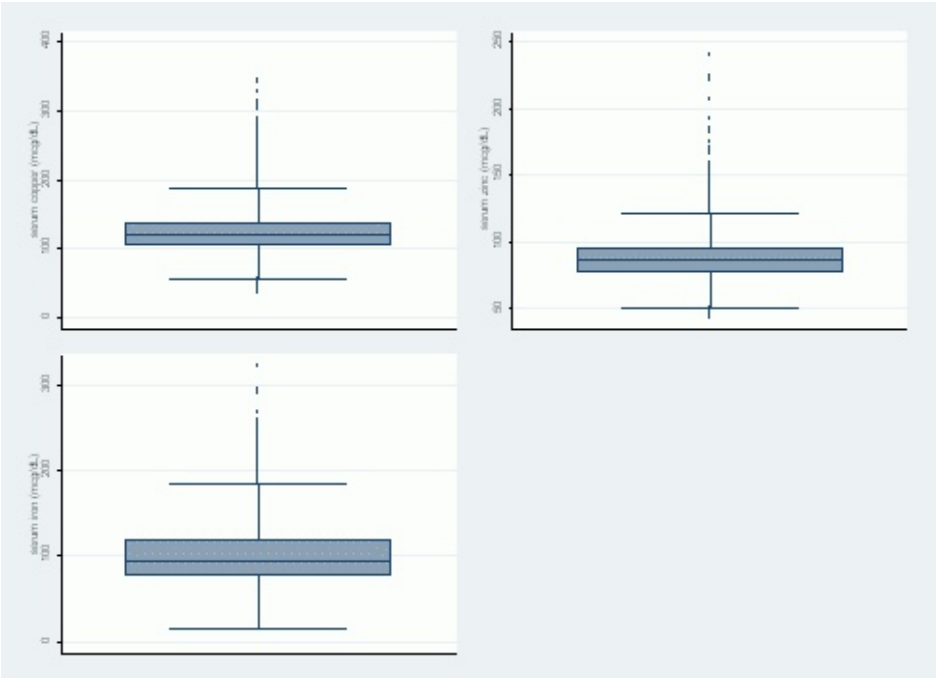
```
chernoff, isize(rep78,. 6) hdark(mpg) hslant(mpg) fline(weight) ///
bvert(_null_) inote(make) iscale(s) saving(mygraph, replace)
```




```
Trellis plot

Requires: trellis
to download this program type the following on the Stata command line (if not already loaded):
ssc install trellis

To run the example: copy the following into a do file and run

webuse nhanes2f, clear

trellis,by(health region) f(graph box copper zinc iron) fopt(legend(off) ///
ylab(50 175 300) yscale(r(50,310))) sr(2) sc(2) ///
singleopt(legend(on ring(0) pos(1) col(1) bm(tiny) ///
symx(*0.2) keyg(*0.2) region(m(zero) lw(none))) ///
yscale(r(50,310))) name(trellis)
```

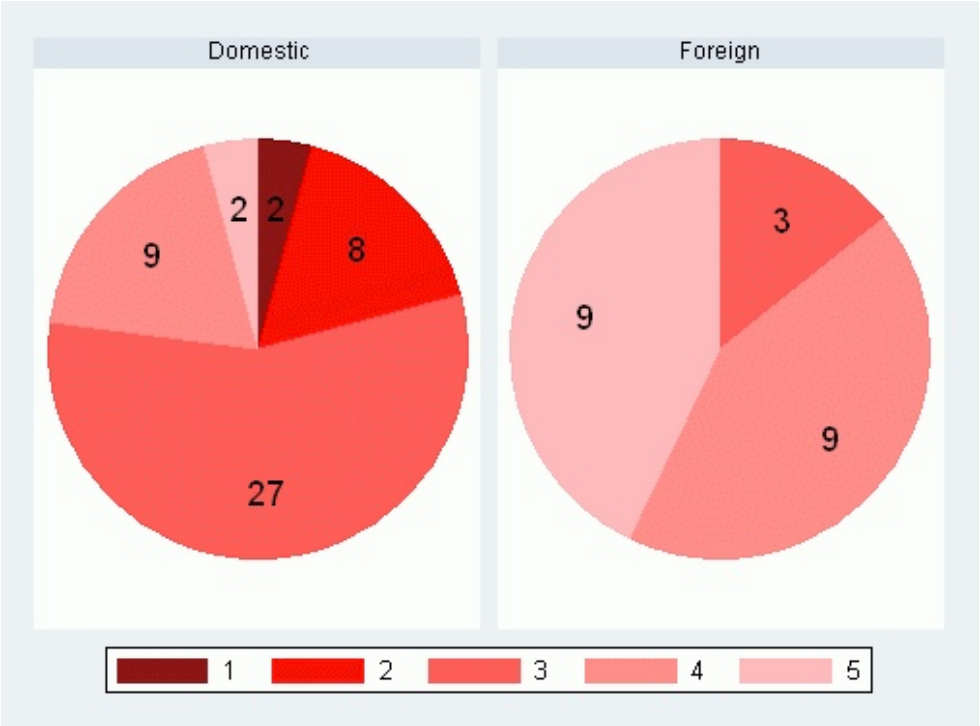



```
grcomb
Combines graphs

Requires: grcomb
to download this program type the following on the Stata command line (if not already loaded):
ssc install grcomb

To run the example: copy the following into a do file and run

webuse nhanes2f, clear

grcomb graph box copper zinc iron , v(1)
```

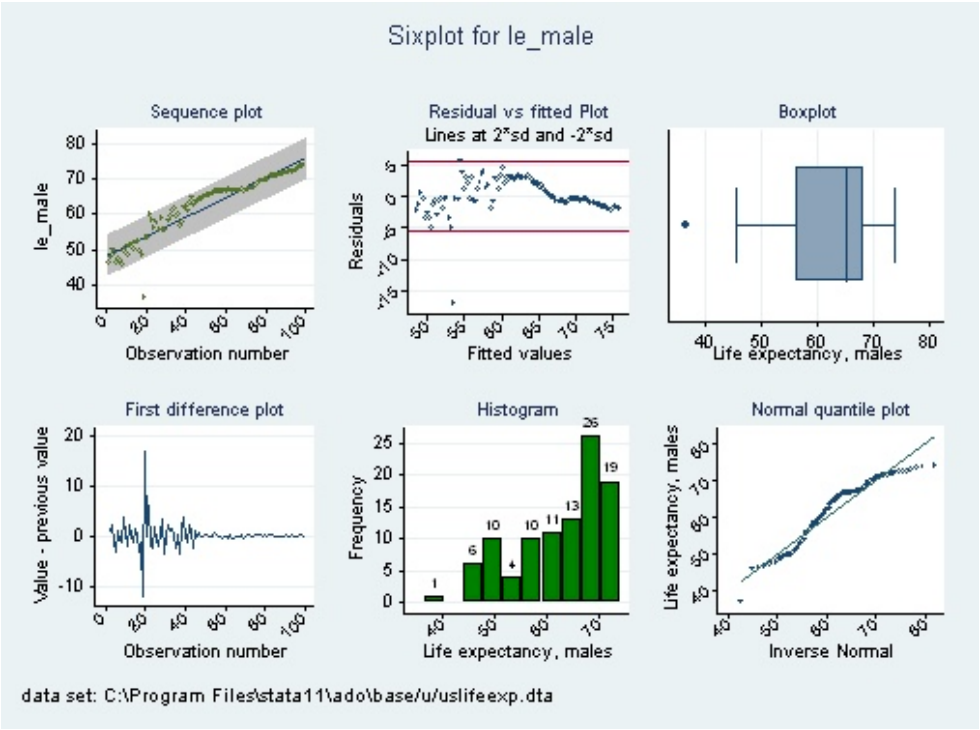


```
pieplot
Makes it easier to draw pie charts of categorical frequencies
```

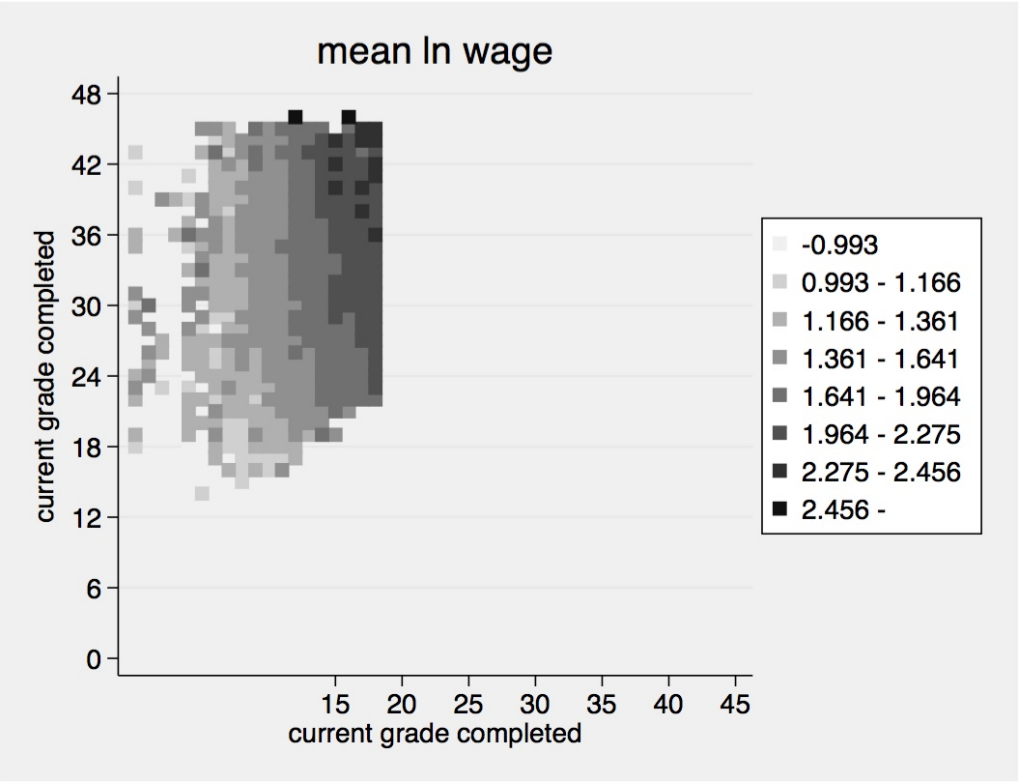
```
Requires: plieplot
to download this program type the following on the Stata command line (if not already loaded):
ssc install pieplot

To run the example: copy the following into a do file and run

sysuse auto, clear

pieplot rep78 foreign, sum plabelsubopts(size(*2)) ///
pie(1, color(red*2)) pie(2, color(red)) ///
pie(3, color(red*0.7)) pie(4, color(red*0.5)) ///
pie(5, color(red*0.3)) legend(row(1)) name(pieplot)
```




```
sixplot

Displays six diagnostic and descriptive graphs for a single variable

Requires: sixplot
to download this program type the following on the Stata command line
(if not already loaded):
ssc install sixplot

To run the example: copy the following into a do file and run

sysuse uslifeexp.dta

sixplot le_male
```

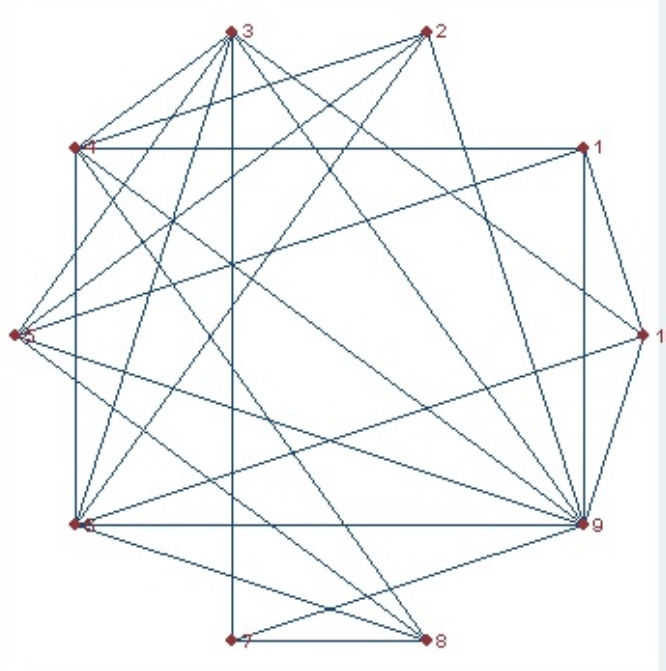



```
zmap

zmap graphs (or maps) binned values of a variable z with respect to two
variables x and y treated as Cartesian coordinates.

Requires: zmap
to download this program type the following on the Stata
command line (if not already loaded):
ssc install zmap

To run the example: copy the following into a do file and run

webuse nlswork, clear

egen mean = mean(ln_wage), by(age grade)

egen tag = tag(age grade)

label variable mean "mean ln wage"

summarize ln_wage if !missing(age, grade), detail

zmap mean age grade if tag, breaks(.993 1.166 1.361 1.641       ///
1.964 2.275 2.456) ms(S ..) ysc(on) xsc(on) yla(0/18, ang(h))   ///
ytitle(`: var label grade') mxla(15(5)45) note("")              ///
color(blue blue*0.5 orange*0.5 orange)
```

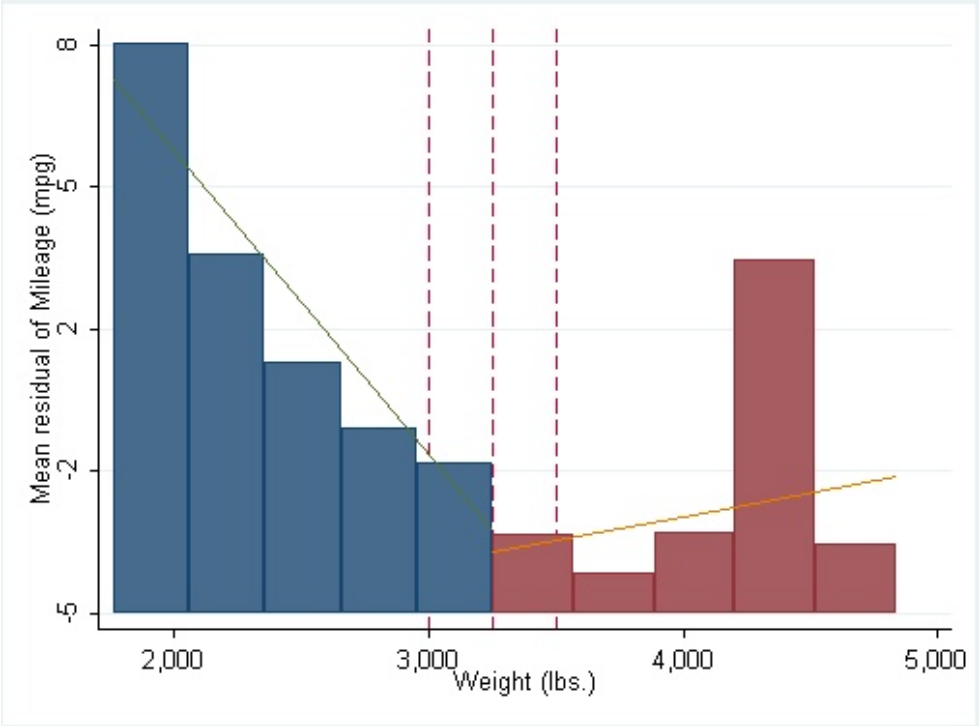



```
netplot

An important part of what makes social network analysis so fascinating
to broad audiences is the possibility of visualization of networks.
netplot produces a network plot

Requires: netplot
to download this program type the following on the Stata command line
(if not already loaded):
ssc install netplot

To run the example: copy the following into a do file and run

//create a random network with 10 nodes
///(code adopted from the helpfile of stata2pajek)


clear

set obs 200

gen i=int(uniform()*10)+1

gen j=int(uniform()*10)+1

contract i j, freq(strength)

drop if i==j

sort i j

drop if strength <3 // --> keep only the "stronger" links

// Draw the network
```

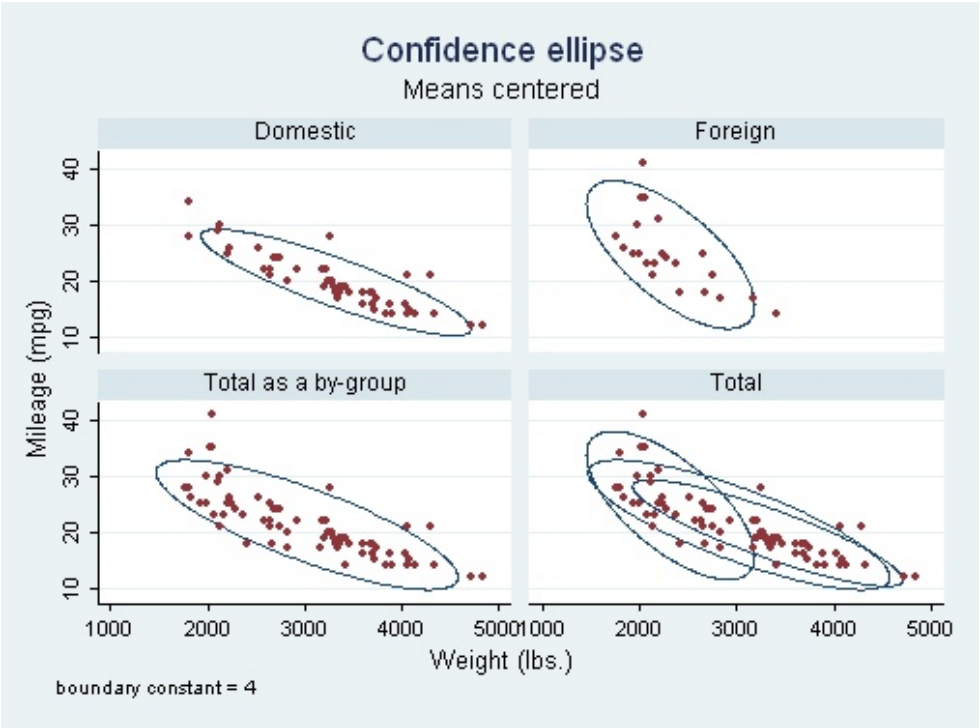
```

netplot i j, type(circle) label
```



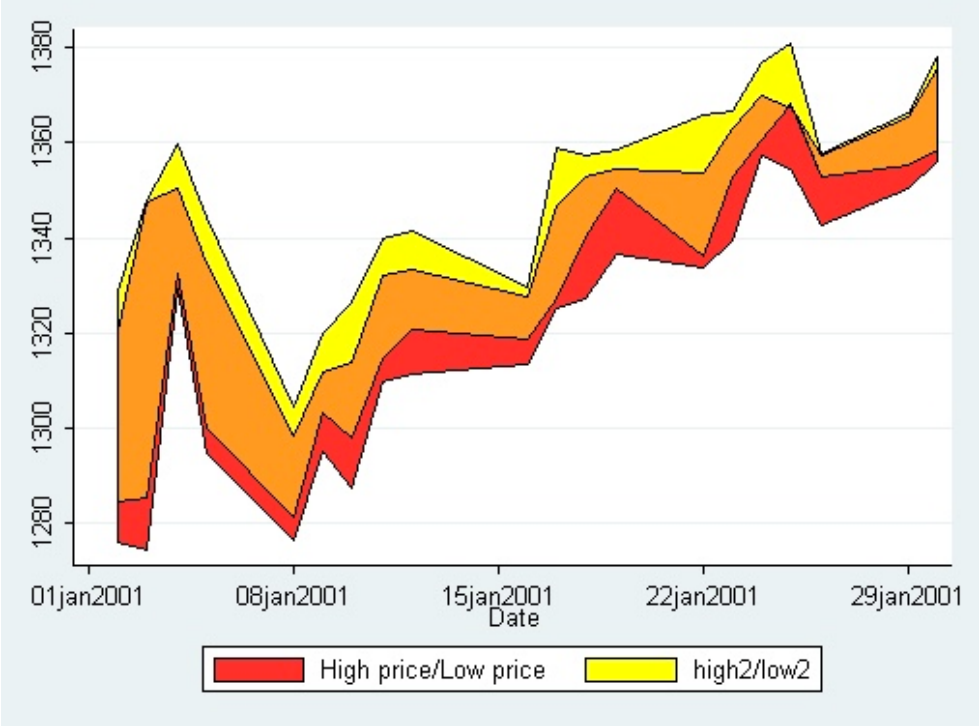

```
cmogram
cmogram graphs the means, medians, frequencies, or proportions
of yvar, conditional on xvar.

Requires: cmogram
to download this program type the following on the Stata command
line (if not already loaded):
ssc install cmogram

To run the example: copy the following into a do file and run

sysuse auto, clear

cmogram mpg weight, histopts(bin(5)) lfit cutpoint(3250) ///
lineat(3000 3250 3500) controls(price)

```




```
ellip
ellip calculates a confidence ellipse from the elliptically
distributed variables yvar and xvar, and then graphs the
confidence ellipse using graph twoway line.

Requires: ellip
to download this program type the following on the Stata command
line (if not already loaded):
ssc install ellip

To run the example: copy the following into a do file and run

sysuse auto, clear

ellip mpg weight, by(foreign, total legend(off)) ///
total tlabel(Total as a by-group) plot(scatter mpg weight)

```

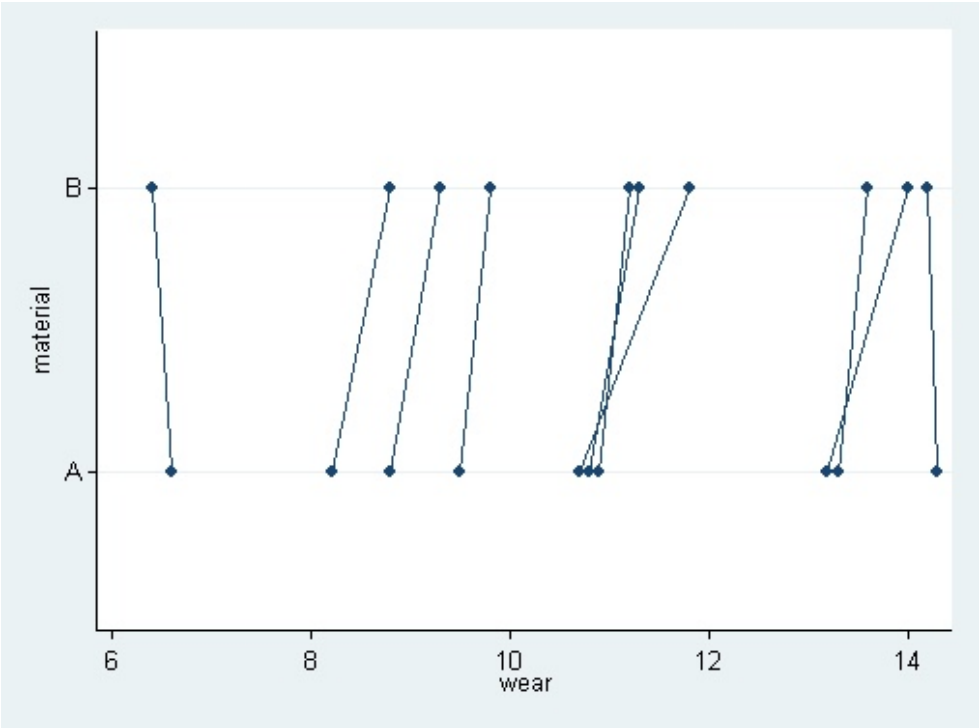



```
drarea
Multiple graphics are produced in Stata by the rule "last drawn
first seen". So the objects that are drawn last are the ones
that are observed. The implication of this principle is that
when overlapping two rarea graphs the overlapping area is hidden
by the second rarea graph.  This command drarea overlays two
range area plots by merging the two colours and hence highlighting
the true overlap.

Requires: drarea
to download this program type the following on the Stata command
line (if not already loaded):
ssc install drarea

To run the example: copy the following into a do file and run


sysuse sp500, clear

generate high2 = high+15*uniform()

generate low2 = low+15*uniform()

drarea high low high2 low2 date in 1/20
```

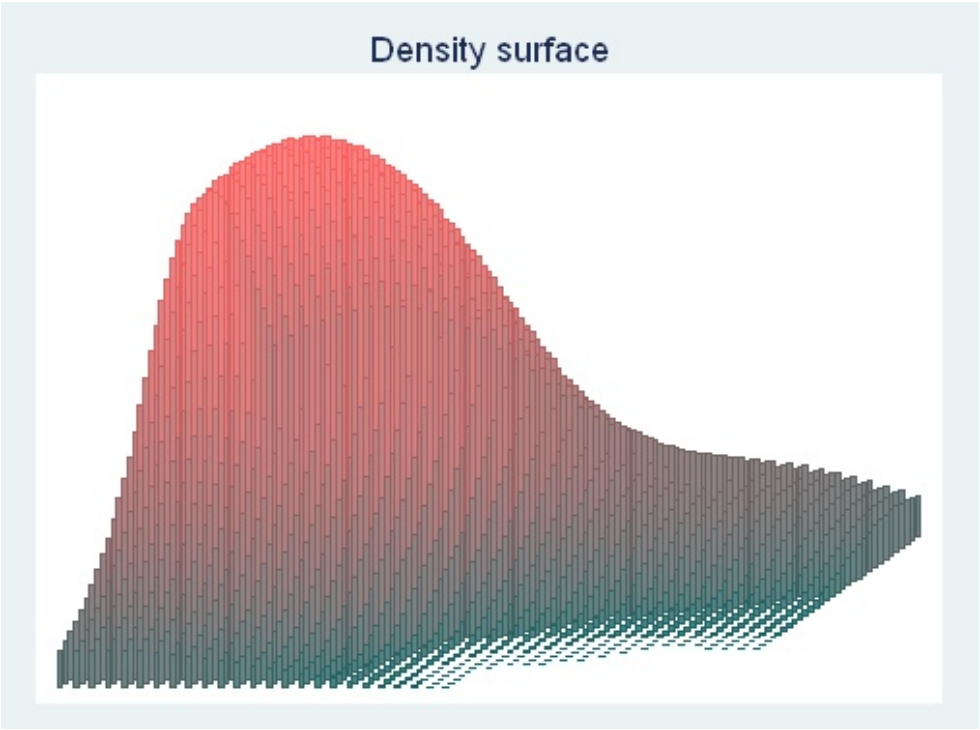



```
linkplot
linkplot plots yvarlist versus xvar such that data points are
linked (i.e. connected) within groups defined by distinct values of
linkvar. For example, with paired data it might be desired to
link each pair, or with panel data it might be desired to link
observations within each panel.

Requires: linkplot
to download this program type the following on the Stata command
line (if not already loaded):
ssc install linkplot

To run the example: copy the following into a do file and run


clear
input ///
      A          B         id
    13.2       14.0          1
     8.2        8.8          2
    10.9       11.2          3
    14.3       14.2          4
    10.7       11.8          5
     6.6        6.4          6
     9.5        9.8          7
    10.8       11.3          8
     8.8        9.3          9
    13.3       13.6         10
end

rename A wearA
rename B wearB
reshape long wear, string i(id) j(j)
encode j, gen(material)

```

```
linkplot material wear, link(id) yla(1 2, valuelabel) ///
ysc(r(0.5 2.5)) yla(, ang(h))
```

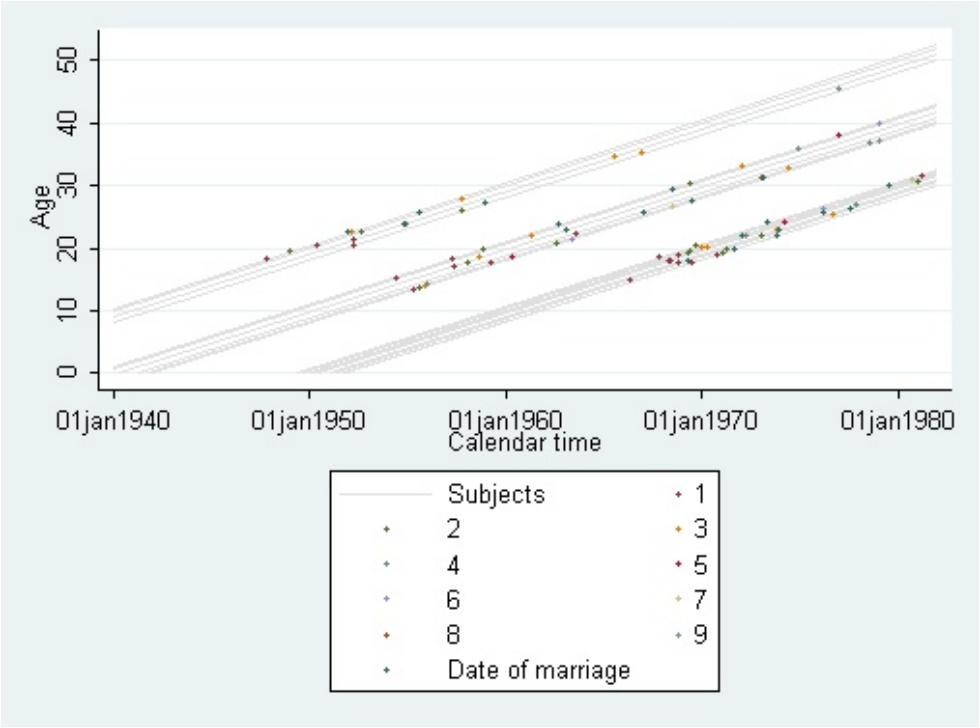



```
tddens
Bivariate kernel density graphs over a grid

Requires: tddens
to download this program type the following on the Stata command
line (if not already loaded):
ssc install tddens

To run the example: copy the following into a do file and run

sysuse auto, clear

tddens price mpg, s b
```

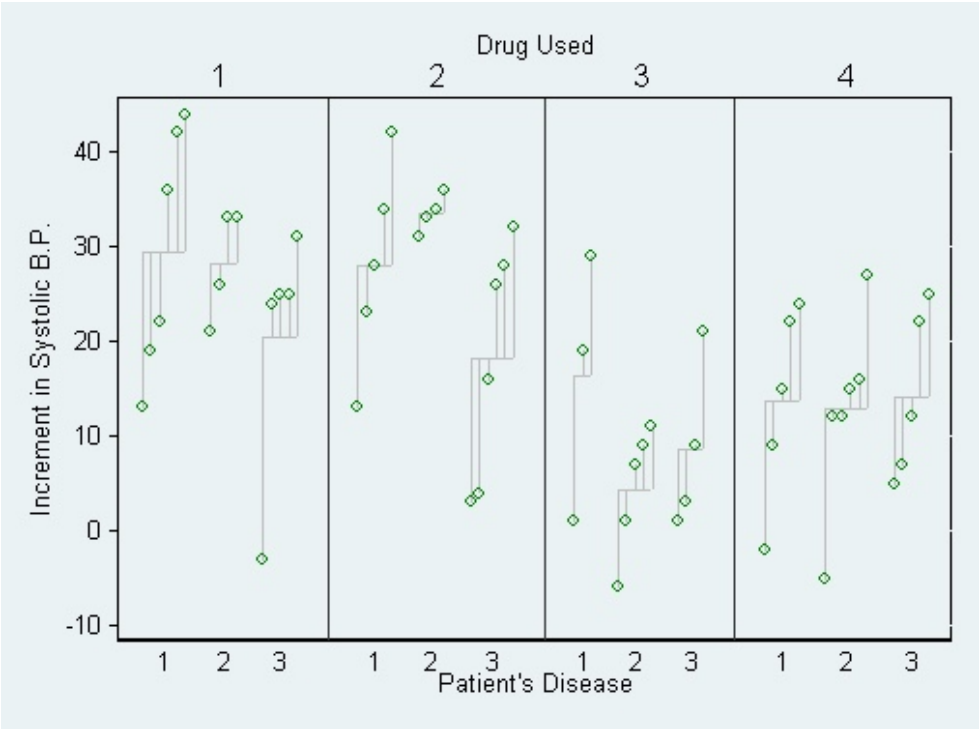



```
Lexis diagram
Two dimensional diagram that is used to represent events
(such as births or deaths) that occur to individuals belonging
to different cohorts.

Requires: evhistplot
to download this program type the following on the Stata command
line (if not already loaded):
ssc install evhistplot

To run the example: copy the following into a do file and run


clear
webuse set ///
"http://oldsite.soziologie-blossfeld.de/eha/stata/do_files/Data/"

webuse rrdat1.dta

* Convert event times to dates. Are arbitrarily set to fifteenth
day of month.

foreach var of varlist tstart tb te tmar ti tfin {
  gen `var'date = mdy(mod(`var' - 1, 12) + 1, 15, (`var' - 1) / 12 + 1900)
  local labvar : variable label `var'
  la var `var'date "`labvar'"
  format %d `var'date
}

* replace with missing where observation is actually right censored
replace tmardate = . if tmar == 0
la var tmardate "Date of marriage"
replace tfindate = . if tfin == ti

* Lexis plot with date of marriage and job starts labelled
```

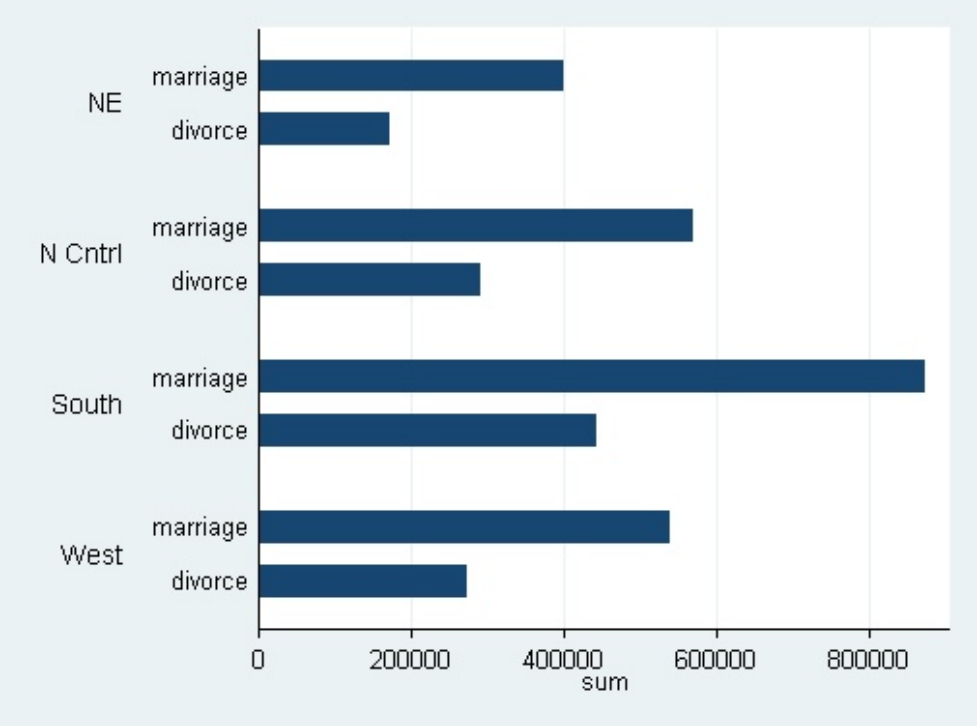
```
* according to rank

evhistplot tstartdate tmardate, id(id) start(1jan1940) ///
end(31dec1981) birth(tbdate) evtype(noj) nsub(20) xtitle(Calendar time)
```



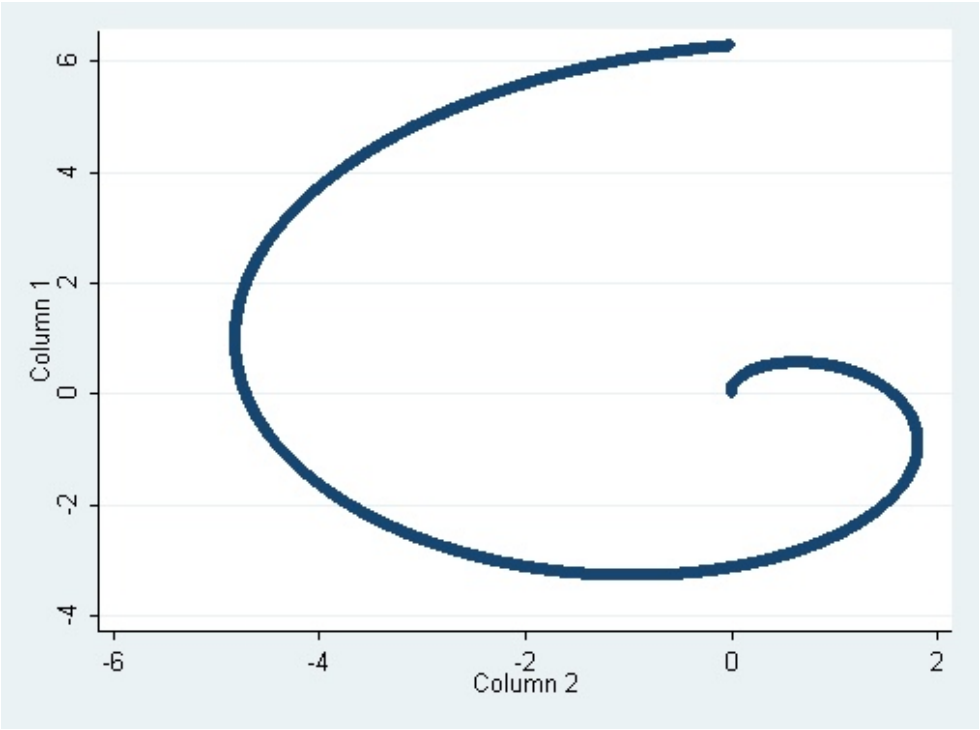

```
Deviation plots
Plots each data point relative to some appropriate mean with a marker
symbol and a spike connecting marker and mean.

Requires: devnplot
to download this program type the following on the Stata command
line (if not already loaded):
ssc install devnplot

To run the example: copy the following into a do file and run


webuse systolic, clear

version 9: anova systolic drug disease drug*disease
predict predict
predict residual, residual

devnplot systolic drug disease, level(predict) superplines
```



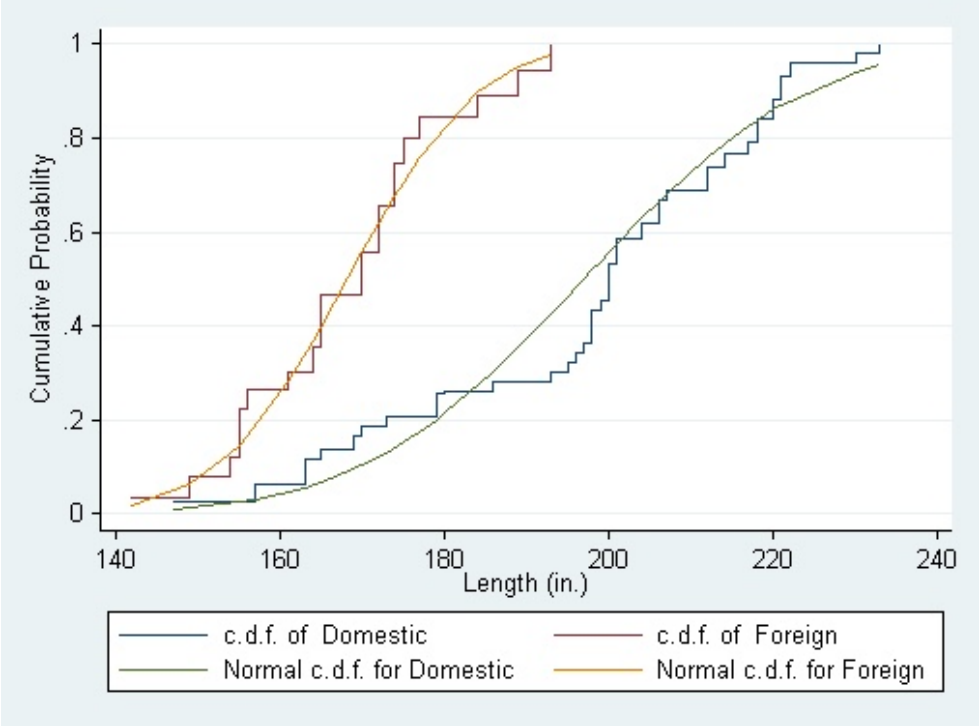

```
Statplot
Statplot is an alternative to graph hplot, graph hbar and graph dot.
It allows grouping on the axis and other options.

Requires: statplot
to download this program type the following on the Stata command
line (if not already loaded):
ssc install statplot

To run the example: copy the following into a do file and run


webuse systolic, clear

sysuse census, clear
statplot marriage divorce, over(region) s(sum) xpose varnames
```



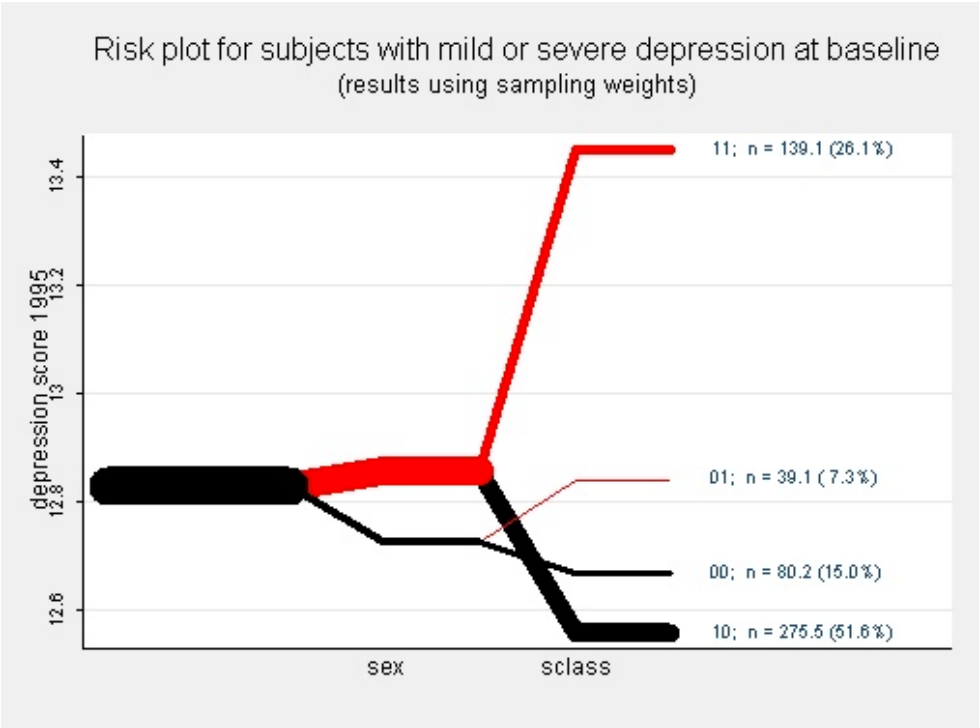

```
mm_plot
mm_plot is a user written Mata graph command that allow you
to plot a Mata matrix.

Requires: moremata
to download this program type the following on the Stata command
line (if not already loaded):
ssc install moremata

To run the example: copy the following into a do file and run


set more off
mata:

for(i=0;i<=2*pi()*1000; i++) {

  a=(i/1000)*cos(i/1000)
  a1=(i/1000)*sin(i/1000)

if(i==0) {
  za=a
  za1=a1
}
else {
  za=za\a
  za1=za1\a1
}
  c=za,za1
}

mata: mm_plot(c)

end
```



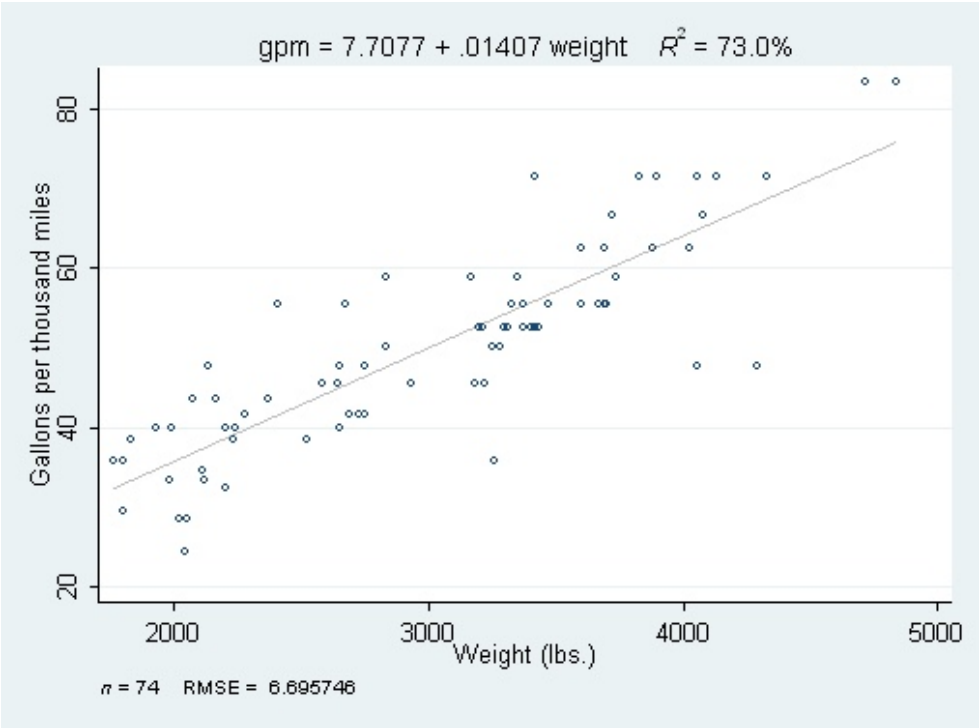

```
cdfplot
cdfplot plots the sample cumulative distribution function.
Distributions can be compared within subgroups defined by
a second variable. The best fitting normal (Gaussian)
model may be superimposed over the sample c.d.f.

Requires: cdfplot
to download this program type the following on the Stata command
line (if not already loaded):
ssc install cdfplot

To run the example: copy the following into a do file and run


sysuse auto,replace
cdfplot length [fw=rep78], by(foreign) norm saving(mygraph,replace)
```



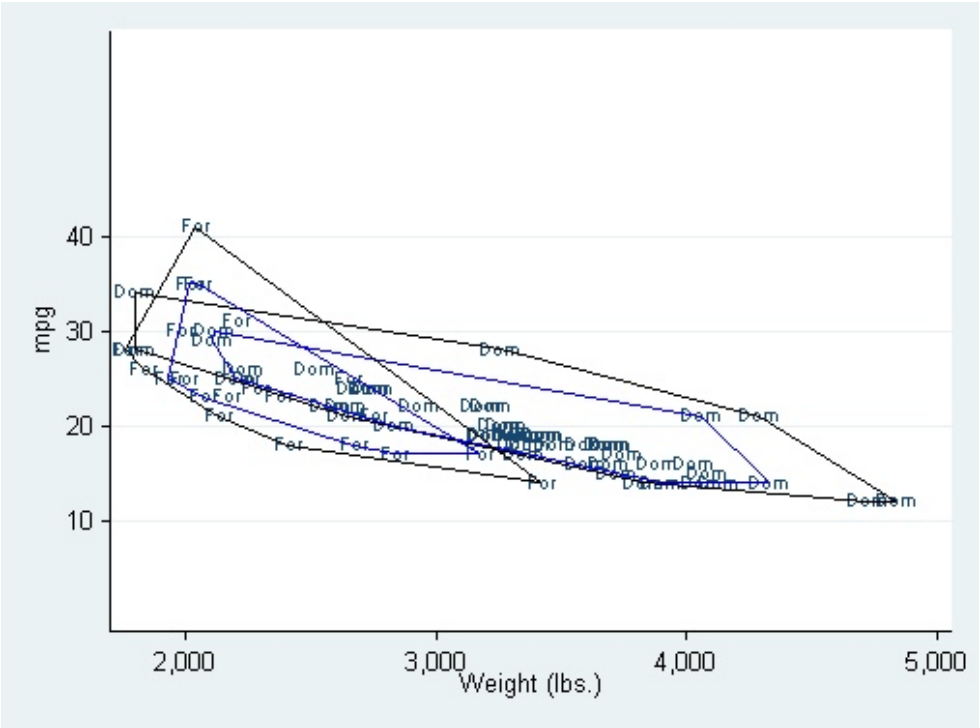

```
riskplot
The riskplot is a graphical aid to the investigation
of the contributions of risk factors on outcomes of interest.
(see SJ Vol 10 No 1)

Requires: riskplot
to download this program type the following on the Stata command
line (if not already loaded):
ssc install risk,all
(The all option ensures that the data (data_riskplot.dta)
will also be downloaded)

To run the example: copy the following into a do file and run


use c:/data/data_riskplot.dta, clear  //path may need to be changed
set scheme sj

riskplot depr1995 sex sclass if Idep91==1 [pw=wg], path obs        /*
   */ thick(20) c(. red)  title(Risk plot for subjects with mild   /*
   */ or severe depression at baseline) subtitle((results using    /*
   */ sampling weights), margin(b+5)) scale(0.9) ytitle(depression /*
   */ score 1995) saving(riskplotWG, replace)
```



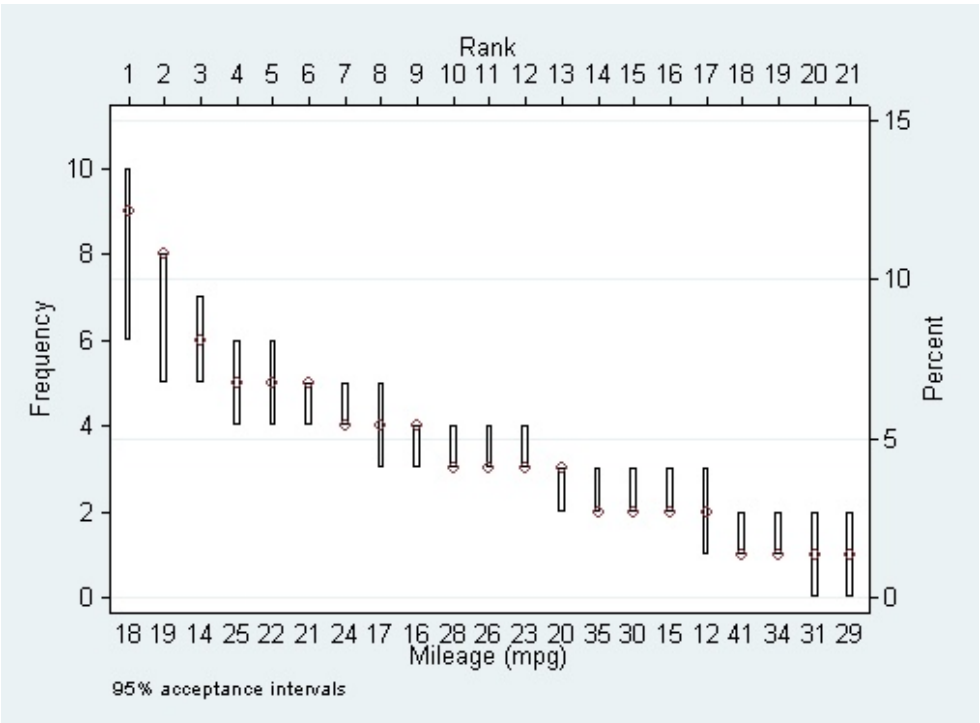

```
aaplot
aaplot graphs a scatter plot for yvar versus xvar with linear
and/or quadratic fit superimposed.  The equation(s) and
R-square statistics of the fits shown are also shown at the
top of the graph.

Requires: aaplot
to download this program type the following on the Stata command
line (if not already loaded):
ssc install aaplot

To run the example: copy the following into a do file and run

sysuse auto, clear
gen gpm = 1000 / mpg
label var gpm "Gallons per thousand miles"

aaplot gpm weight, name(g1)
```




```
hull plot
cvxplot makes a scatterplot and draw convex hulls of a group of
points in two-dimensional space. Each hull is defined by two lines
joining the bottom-left point to the top-right point.

Requires: cvxplot
to download this program type the following on the Stata command
line (if not already loaded):
ssc install cvxhull

To run the example: copy the following into a do file and run

sysuse auto, clear

 gen foreign1=foreign
 label define for 1 For 0 Dom
 label values  foreign1 for

 cvxhull  mpg weight, group(foreign) hulls(2) ///
            scat(mlab(foreign1) mlabpos(c) msym(i) ysc(r(0,60)))
```

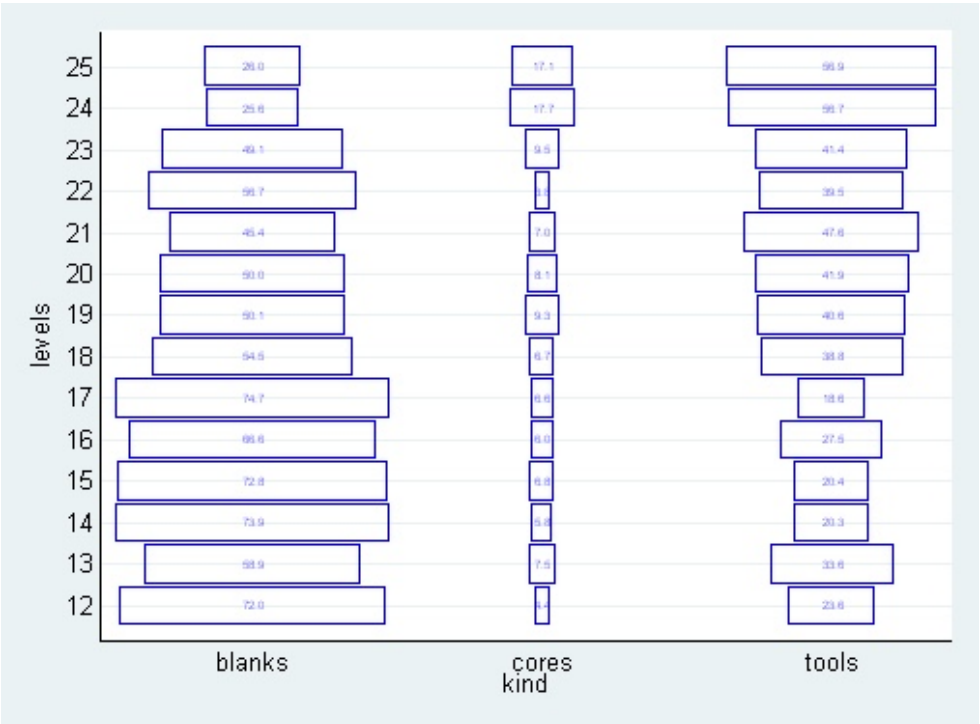



```
Pareto plot
pdplot produces a Pareto dot plot

Requires: pdplot
to download this program type the following on the Stata command
line (if not already loaded):
ssc install pdplot

To run the example: copy the following into a do file and run

sysuse auto, clear
pdplot mpg
```

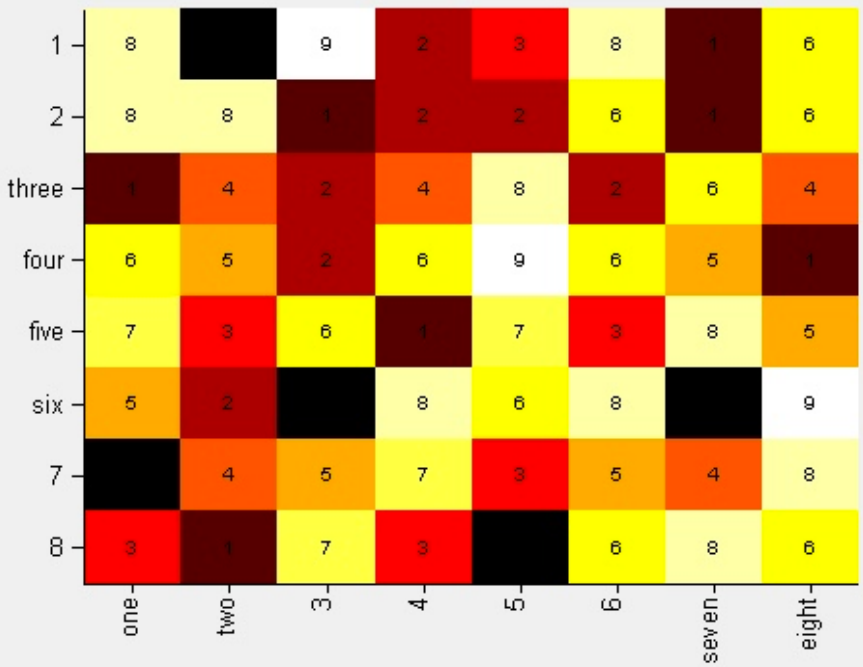



```
Centred bar plots
Centred bar plots shows absolute or relative frequencies of
```

```
yvar as centred bar plots.

Centred bar plots are often used in archaeology to show
frequencies of different kinds of artefact at different
levels or ages, sometimes under the title of battleship
curves or battleship diagrams.

Requires: cbarplot
to download this program type the following on the Stata
command line (if not already loaded):
ssc install cbarplot

To run the example: copy the following into a do file and run


clear
input levels freqcores freqblanks freqtools
    25 21 32 70
    24 36 52 115
    23 126 650 549
    22 159 2342 1633
    21 75 487 511
    20 176 1090 912
    19 132 713 578
    18 46 374 266
    17 550 6182 1541
    16 76 846 349
    15 17 182 51
    14 4 51 14
    13 29 228 130
    12 135 2227 729
 end
reshape long freq, i(levels) j(kind) string

cbarplot levels kind [fw=freq], percent(levels) mlabsize(*.6)
```

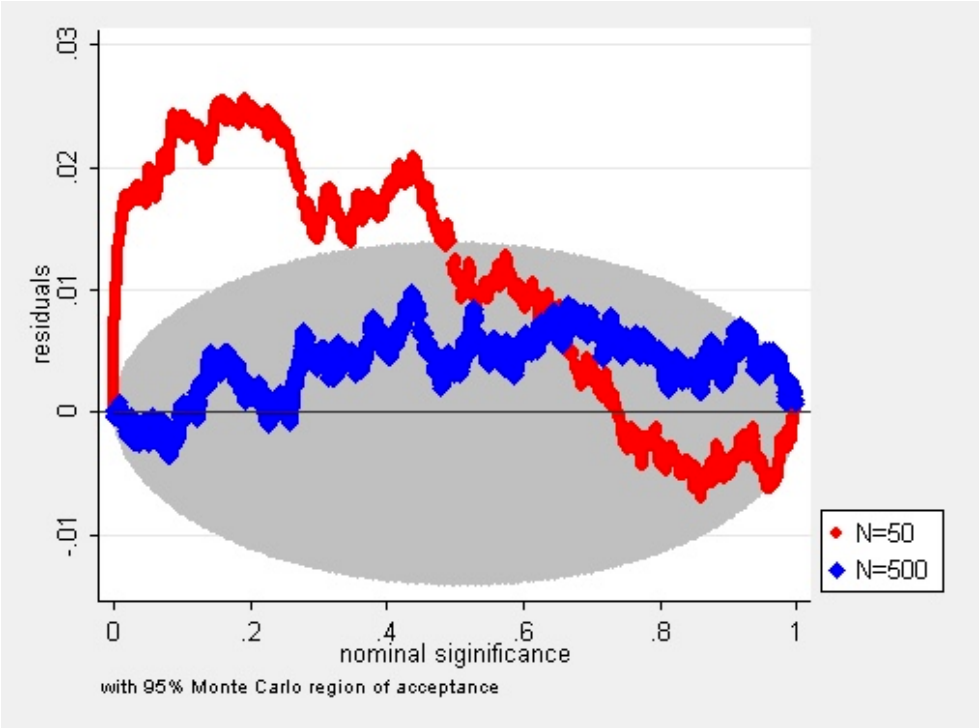


```
heatmap
Graphs a heatmap.

Requires: cbarplot
to download this program type the following on the Stata
command line (if not already loaded):
ssc install hmap

To run the example: copy the following into a do file and run


   // producing the data
      clear all
      set obs 64
      generate n=int(uniform()*10)
      generate x=1+int((_n-1)/8)
      generate y=1+mod((_n-1),8)
      label define xlab 1 "one" 2 "two" 7 "seven" 8 "eight"
      label define ylab 3 "three" 4 "four" 5 "five" 6 "six"
      label value x xlab
      label value y ylab
      table y x [fw=n]

   hmap x y n
```

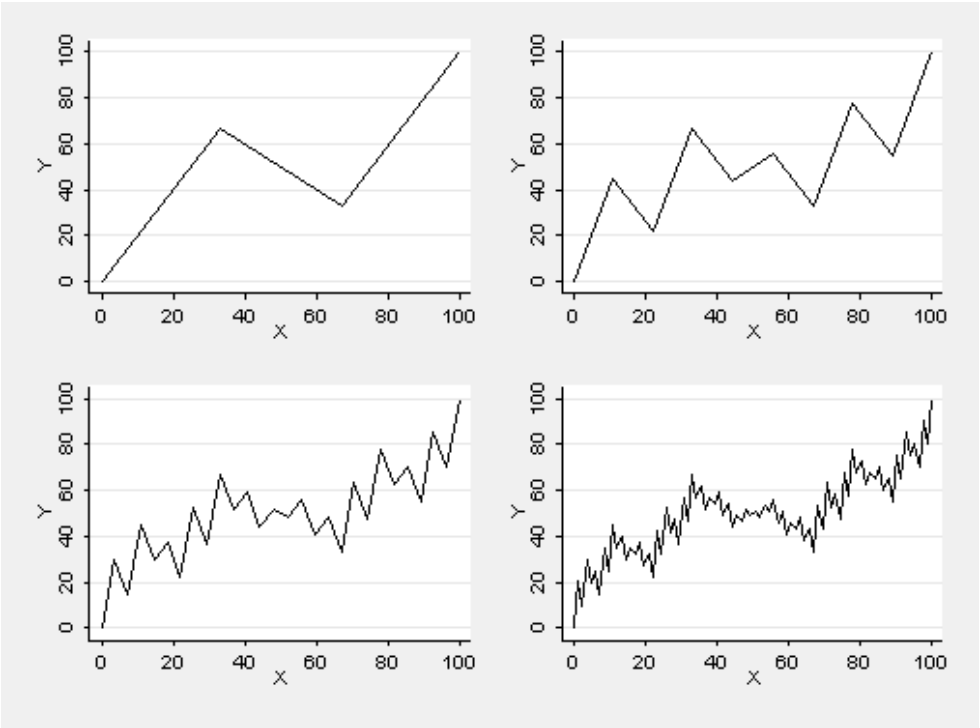



```
simpplot
// Plot describing p-values from a simulation by comparing
//nominal significance levels with the coverages

Requires: simpplot
to download this program type the following on the Stata
command line (if not already loaded):
ssc install simpplot

program drop _all
    program define sim, rclas
```

```
        drop _all
        set obs 500
        gen x = rchi2(2)

        ttest x=2 in 1/50
        return scalar p50 = r(p)

        ttest x=2
        return scalar p500 = r(p)
    end

    set seed 12345
    simulate p50=r(p50) p500=r(p500), ///
            reps(5000) : sim

    label var p50 "N=50"
    label var p500 "N=500"

    simpplot p50 p500, main1opt(mcolor(red)) ///
                       main2opt(mcolor(blue))
```



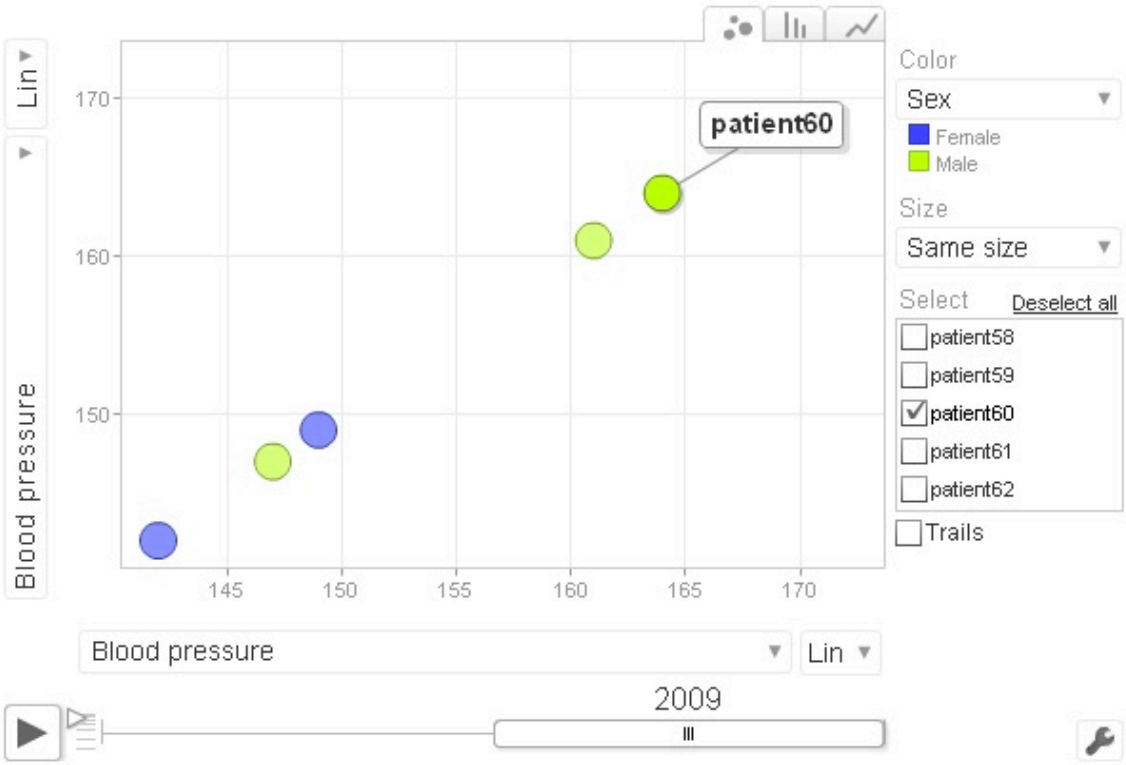

```
Fractal
// Generates fractals

Requires: fractal
to download this program type the following on the Stata
command line (if not already loaded):
ssc install fractal

clear

fractal  ,hs(0,.2,.3,.40,.5,.618,.75,.85,1.0)   ///
vs(0,.25,.2,.35,.25,.516,.366,.42,.2) hr(0 100) ///
vr(0 200) iter(3) savegraph

graph combine _frctl1.gph _frctl2.gph _frctl3.gph
```




```
Motion Chart
A "Motion Chart" is a scatter plot for time-series data.
You can hit "play" and see how the points move over time.
They were made famous, for example, by Hans Rosling's
internet videos: http://www.gapminder.org/

"Example of motion graph for code below"

Requires: motionchart
to download this program:
Open Stata viewer
type the following in:
net describe motionchart, from(http://kk-adofiles.googlecode.com/hg)

type help motionchart

Read the pharagraph on setting the Adobe Flash Player

sysuse bplong.dta , clear
generate year = 2007+when
decode sex , gen(gender)

motionchart patient year bp sex using "my_test.html" in 115/125 ,   ///
replace title("Blood Pressure")                                     ///
subtitle("Example motionchart: created in Stata with motionchart.ado")
```

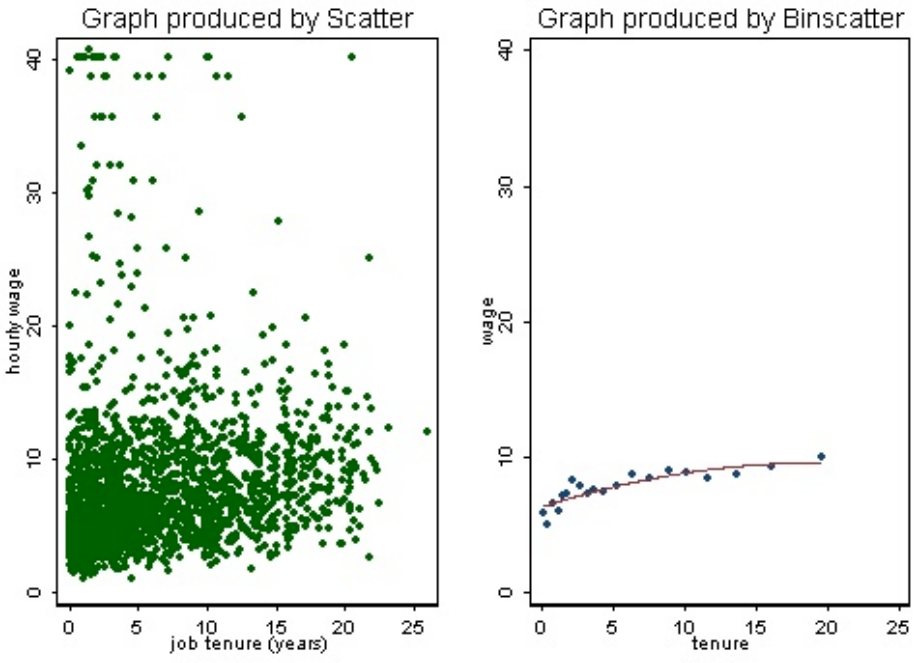
Blood Pressure

Example motionchart: created in Stata with motionchart.ado

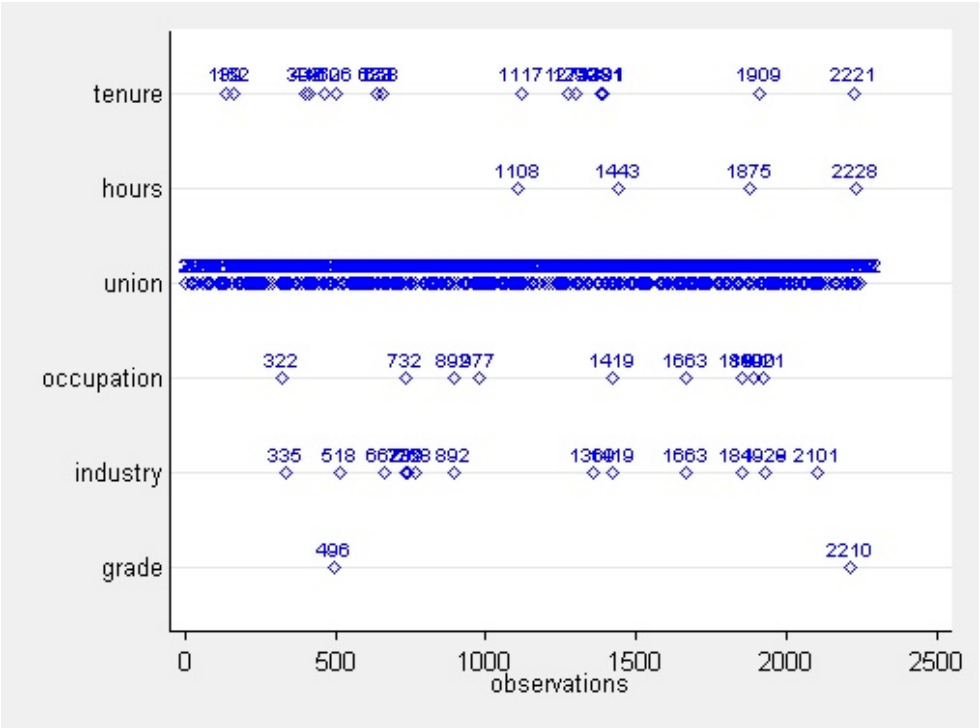



```
binscatter
binscatter generates binned scatterplots, and is optimized for
speed in large datasets.

Binned scatterplots provide a non-parametric way of visualizing the
relationship between two variables. With a large number of observations,
a scatterplot that plots every data point would become too crowded to
interpret visually.  binscatter groups the x-axis variable into
equal-sized bins, computes the mean of the x-axis and y-axis variables
within each bin, then creates a scatterplot of these data points.

Requires: binscatter
to download this program type the following on the Stata
command line (if not already loaded):
ssc install binscatter

clear all

sysuse nlsw88, clear

keep if inrange(age,35,44) & inrange(race,1,2)

scatter wage tenure ,  title("Graph produced by Scatter") name(g1)

// The scatter was too crowded to be easily interpetable. The binscatter
   is cleaner, try a quadratic fit.

```

```
binscatter wage tenure, line(qfit) xscale(range(0,25)) ///
xlabel(0(5)25) ylabel(0(10)40) yscale(range(0,40))     ///
title("Graph produced by Binscatter") name(g2)

graph combine g1 g2
```

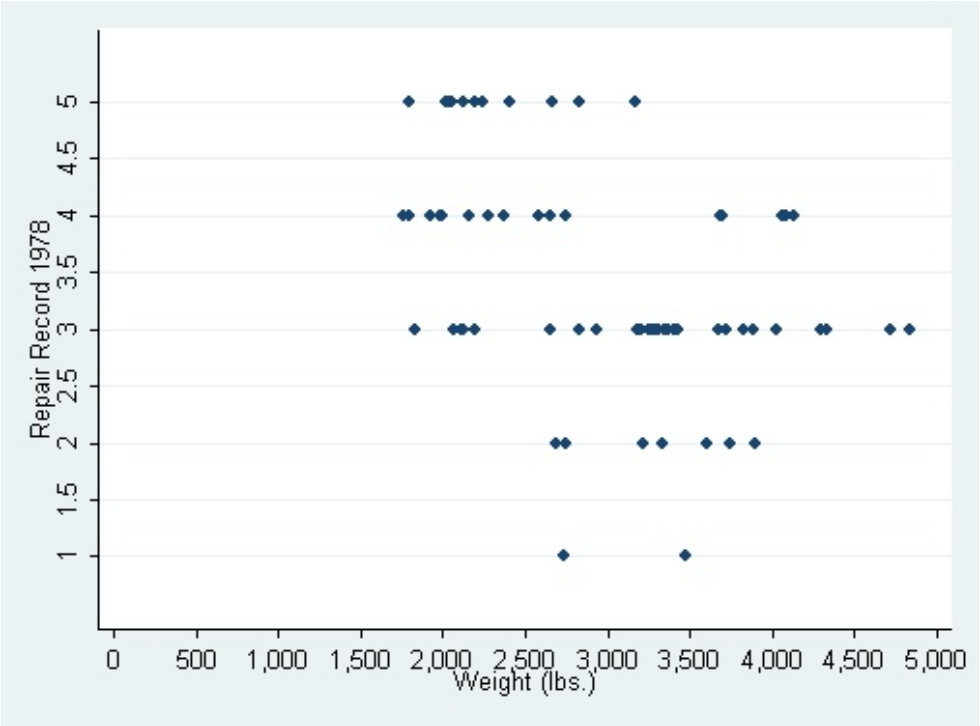



```
missingplot
// Generates a graph of missing values

Requires: missingplot
to download this program type the following on the Stata
command line (if not already loaded):
ssc install missingplot

webuse nlsw88, clear
missingplot, var labels mlabcolor(blue ..)
```




```
sparkline
// sparkline graphs sparkline-type plots for one or more y
// variables against a single x variable. Typically, plots for
// different y variables or for different subsets of one y variable
// are stacked vertically into one image.

Requires: sparkline
to download this program type the following on the Stata
command line (if not already loaded):
ssc install sparkline

webuse grunfeld, clear

sparkline invest year, by(company) extremes
```

```
Program that helps with specification of regular linear and logarithmic
axis scales, ranges and tick lists

Requires: regaxis
to download this program type the following on the Stata
command line (if not already loaded):

ssc install regaxis

To run the example: copy the following into a do file and run


sysuse auto, clear
regaxis rep78, cycle(.5) singleok margin(0.5) lrange(yrange) lticks(ylabs)
regaxis weight, include(0) lticks(xlabs)
scatter rep78 weight, yscale(range(`yrange')) ylabel(`ylabs') xlabel(`xlabs')
```




```
Program that helps with specification of label positions

Requires: egenmore
to download this program type the following on the Stata
command line (if not already loaded):
ssc egenmore

To run the example: copy the following into a do file and run


clear all

//graph without the egenmore generated label position
sysuse auto, clear
egen clock = mlabvpos(mpg weight)
scatter mpg weight, mlab(make) mlabvpos(clock) name(a1) ///
scheme(s1)

// look at a suitable matrix
```

```
// for the egen mlabvpos option
matrix z= 11, 1, 12, 11, 1 \ 10, 2, 12, 10, 2 \ 9, 3, 12, 9 ,3 \ ///
8, 4, 6, 8, 4 \ 7, 5 ,6, 7, 5

matrix list z

//graph with the egenmore generated label position
egen clock2 = mlabvpos(mpg weight), matrix(11 1 12 11 1 \\ ///
10 2 12 10 2 \\ 9 3 12 9 3 \\ 8 4 6 8 4 \\ 7 5 6 7 5)

scatter mpg weight, mlab(make) mlabvpos(clock2) name(a2) ///
title("Graph using egenmore mlabvpos generated data")    ///
scheme(s1)
```