AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search
http://ageconsearch.umn.edu
aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

The Stata Journal

Editor
H. Joseph Newton
Department of Statistics
Texas A & M University
College Station, Texas 77843
979-845-3142; FAX 979-845-3144
jnewton@stata-journal.com

Editor
Nicholas J. Cox
Department of Geography
Durham University
South Road
Durham City DH1 3LE UK
n.j.cox@stata-journal.com

Associate Editors

Christopher F. Baum, Boston College
Rino Bellocco, Karolinska Institutet, Sweden and Univ. degli Studi di Milano-Bicocca, Italy
A. Colin Cameron, University of California–Davis
David Clayton, Cambridge Inst. for Medical Research
Mario A. Cleves, Univ. of Arkansas for Medical Sciences
William D. Dupont, Vanderbilt University
Charles Franklin, University of Wisconsin–Madison
Joanne M. Garrett, University of North Carolina
Allan Gregory, Queen's University
James Hardin, University of South Carolina
Ben Jann, ETH Zürich, Switzerland
Stephen Jenkins, University of Essex
Ulrich Kohler, WZB, Berlin
Jens Lauritsen, Odense University Hospital
Stanley Lemeshow, Ohio State University
J. Scott Long, Indiana University
Thomas Lumley, University of Washington–Seattle
Roger Newson, Imperial College, London
Marcello Pagano, Harvard School of Public Health
Sophia Rabe-Hesketh, University of California–Berkeley
J. Patrick Royston, MRC Clinical Trials Unit, London
Philip Ryan, University of Adelaide
Mark E. Schaffer, Heriot-Watt University, Edinburgh
Jeroen Weesie, Utrecht University
Nicholas J. G. Winter, University of Virginia
Jeffrey Wooldridge, Michigan State University

Stata Press Production Manager Lisa Gilmore
Stata Press Copy Editor Gabe Waggoner

Copyright Statement: The Stata Journal and the contents of the supporting files (programs, datasets, and help files) are copyright © by StataCorp LP. The contents of the supporting files (programs, datasets, and help files) may be copied or reproduced by any means whatsoever, in whole or in part, as long as any copy or reproduction includes attribution to both (1) the author and (2) the Stata Journal.

The articles appearing in the Stata Journal may be copied or reproduced as printed copies, in whole or in part, as long as any copy or reproduction includes attribution to both (1) the author and (2) the Stata Journal.

Written permission must be obtained from StataCorp if you wish to make electronic copies of the insertions. This precludes placing electronic copies of the Stata Journal, in whole or in part, on publicly accessible web sites, fileservers, or other locations where the copy may be accessed by anyone other than the subscriber.

Users of any of the software, ideas, data, or other materials published in the Stata Journal or the supporting files understand that such use is made without warranty of any kind, by either the Stata Journal, the author, or StataCorp. In particular, there is no warranty of fitness of purpose or merchantability, nor for special, incidental, or consequential damages such as loss of profits. The purpose of the Stata Journal is to promote free communication among Stata users.

The *Stata Journal*, electronic version (ISSN 1536-8734) is a publication of Stata Press. Stata and Mata are registered trademarks of StataCorp LP.

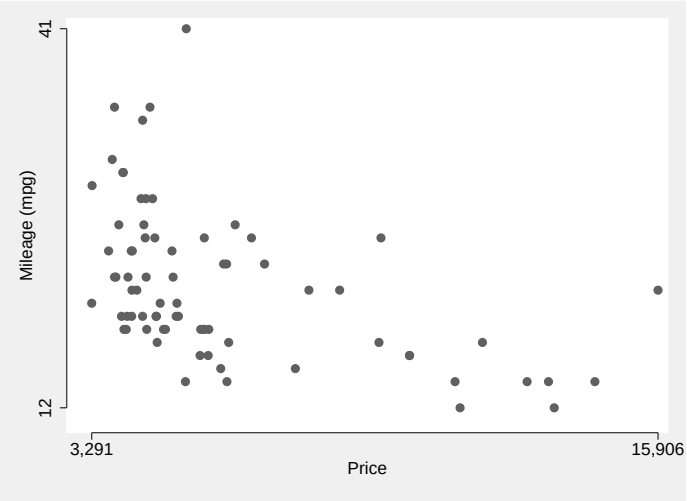
The Stata Journal (2007)
7, Number 3, pp. 436–437

Stata tip 49: Range frame plots

Scott Merryman
Risk Management Agency
Kansas City, MO
scott.merryman@gmail.com

One of Edward Tufte's principles for good graph design is to erase nondata ink (Tufte 2001). The axes on a typical scatterplot will extend beyond the range of the observed data. You can minimize the nondata ink by having the axis lines extend only over the range of the data. This can be accomplished by not having the lines extend through the plot region and the region's margin:

```
. sysuse auto
. twoway scatter mpg price, ylabel(minmax, nogrid) xlabel(minmax)
> yscale(nofextend) xscale(nofextend) plotregion(margin(5 2 5 2))
```

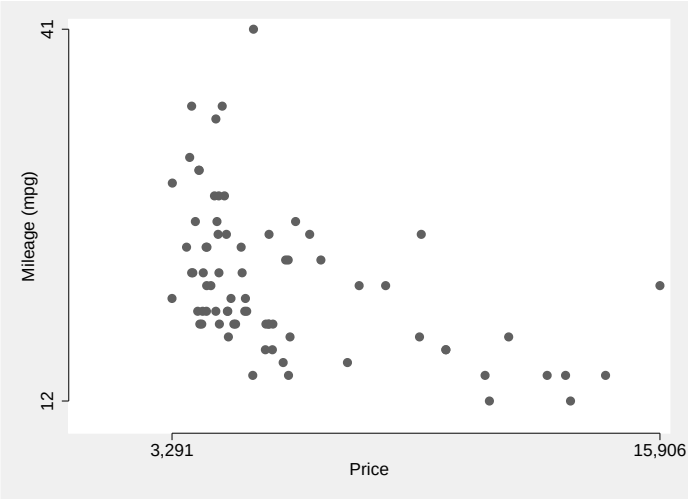


`nofextend` is an undocumented axis-scale option.

To position the origin of the scatterplot at $(0, 10)$, you can adjust the `plotregion(margin())` by the percentage of the observed axis to the total axis length.

© 2007 StataCorp LP

```
. sysuse auto
. summarize price, meanonly
. local w = (1 - (r(max) - r(min))/(r(max) - 0))*100
. summarize mpg, meanonly
. local h = (1 - (r(max) - r(min))/(r(max) - 10) )*100
. twoway scatter mpg price, ylabel(minmax, nogrid) xlabel(minmax)
> yscale(nofextend) xscale(nofextend) plotregion(margin(‘w’ 2 ‘h’ 2))
```



Reference

Tufte, E. R. 2001. *The Visual Display of Quantitative Information.* 2nd ed. Cheshire, CT: Graphics Press.