Regional Research Institute
West Virginia University

Technical Document Series

Document Title
Document subtitle

INSERT AUTHOR(S) NAME(S) HERE

RRI TechDoc 2014-01

Document Title

Abstract

. Click here to enter a concise, 1-2 sentence description

Place text and mathematical description here. Add citation example [Figueredo and Wolf, 2009]

$$\beta = (X'X)^{-1}X'Y \tag{1}$$

Supporting Algorithm(s)/Code

Matlab (or other) Code here. Not all TechDocs will have code or supporting algorithms. Those that do not should delete this heading and section. Code should be self-documenting and in the form of a function if and when possible.

Sample of matlab code:

```matlab
a = 1; % MATLAB comment
b = 2;
c = a^2 + b^2;
```

Sample R code:

```
### R code from vignette source 'RRIWS_4_spatecon_R.Rnw'
### Encoding: UTF-8

###################################################
```

```
### code chunk number 1: install-libraries
##################################################
  install.packages(c('sp','spdep','maptools','classInt'))


##################################################
### code chunk number 2: library
##################################################
library(spdep)
library(maptools)
library(classInt)


##################################################
### code chunk number 3: data01
##################################################
shape <- readShapePoly("wa_final_census2.shp" )
summary(shape)


##################################################
### code chunk number 4: Create-weight-matrixdataqueen
##################################################
nb2=poly2nb(shape, queen=TRUE)
nb2
plot(shape, border="grey60")
plot(nb2, coordinates(shape), add=TRUE, pcv=".", lwd=2)



##################################################
### code chunk number 8: Create_variables
##################################################
shape$PCT_Hisp<-shape$HISP_/shape$TOT_POP
shape$PCT_Asian<-shape$ASIAN_/shape$TOT_POP
shape$PCT_Black<-shape$BLACK_/shape$TOT_POP
shape$PCT_U16O65<-(shape$POP_16+shape$POP_65)/shape$TOT_POP
shape$PCT_EMP_HOME<-shape$EMP_HOME/(shape$EMPL16+1)
shape$PCT_EMP_FAR<-shape$EMP_30/(shape$EMPL16+1)
shape$PCT_POV<-shape$POV_TOT/(shape$POV_POP+1)
```

References

[Figueredo and Wolf, 2009] Figueredo, A. J. and Wolf, P. S. A. (2009). Assortative pairing and life history strategy - a cross-cultural study. *Human*

Nature, 20:317–330.

References go here unless included in footnotes. Footnotes should be kept to a minimum, however, so if there are many references, a reference section is preferred.

Not all TechDocs will have code or references. Those that do not should delete or comment this heading and section.