For users that are more comfortable working in Stata than R, the povmap packeg includes Rpovmap.ado and Rpovmap.hlp files, which run povmap from within Stata. Rpovmap.ado writes and executes an R script that loads previously saved population and sample files into R and calls the ebp function in povmap with appropriate options, without exiting Stata. The results are saved in an Excel spreadsheet and optionally an R object, which can be loaded in R for further analysis as desired.

Rpovmap.ado requires the following:

1. R to be installed on the local machine
2. The haven and povmap packages to be installed into R. These can be installed using “install.packages(“haven”) and “install.packages(“povmap”) commands in R. If the devtools package is installed and loaded into memory, povmap can also be installed directly from Github using “install\_github("NoraWuerz/povmap")”
3. The Rscript package to be installed in Stata, by typing “ssc install rscript” in Stata.
4. The Rpovmap.ado and Rpovmap.hlp to be present in either Stata’s current directory, or in a Stata-recognized ado directory (typing “cd” in Stata will show the current directory, and typing “adopath” will show the location of the ado folders)

Sample data eusilcA\_smp.dta and euslicA.dta are included in the package. These were created using the write\_dta function in the haven package, using the following R code:

data("eusilcA\_pop")

data("eusilcA\_smp")

write\_dta(data=eusilcA\_pop,path="eusilcA\_pop")

write\_dta(data=eusilcA\_smp,path="eusilcA\_smp")

These can be used to replicate the analysis in section 2.2 of this vignette, using the following command within Stata.

Rpovmap eqIncome gender eqsize cash self\_emp unempl\_ben age\_ben surv\_ben sick\_ben dis\_ben rent fam\_allow house\_allow cap\_inv tax\_adj, pop\_data(eusilcA\_pop.dta) smp\_data(eusilcA\_smp.dta) smp\_domains(district) pop\_domains(district) weights(weight) weights\_type(Guadarrama) transformation(log) na\_rm(TRUE) saveobject(emdi\_model\_Guadarrama) savexls(emdi\_model\_Guadarrama.xlsx)

This command produces two output files in the current folder: emdi\_model\_Guadarrama.xlsx and the saved R object emdi\_model\_Guadarrama, which contains the EMDI object ebp\_results. The files can also be saved in a directory specified by the user as part of the string in the savexls and saveobject options.

The saveobject option is recommended to allow for further analysis from within R. For example, after using the setwd() function to set the current directory in R to the folder in which emdi\_model\_Guadarrama was saved, executing:

load("emdi\_model\_Guadarrama")

ebp\_reportcoef\_table(ebp\_results)

displays model coefficients in R.

To analyze the results in Stata, use the import excel command to load the saved estimates.

import excel using "emdi\_model\_Guadarrama", sheet("Point Estimators") firstrow clear

. list Domain Mean in 1/5, clean noobs

Domain Mean

Eisenstadt-Umgebung 30926.729

Eisenstadt (Stadt) 94261.315

Güssing 17008.432

Jennersdorf 13281.905

Mattersburg 21830.831

Rpovmap treats all labeled variables in the sample and population data as factor variables, using the as\_factor function in the haven package. In this example, the gender variable takes on values of 1 or 2, but is appropriately treated as a factor variable instead of a continuous variable in model estimation.

Typing “help Rpovmap” from within Stata will load the help file listing the full set of options, which mirror those in the R povmap package.