Rurality Manuscript

Erich Seamon

05/10/2024

Contents

R Markdown

This is an R Markdown document. Markdown is a simple formatting syntax for authoring HTML, PDF, and MS Word documents. For more details on using R Markdown see http://rmarkdown.rstudio.com.

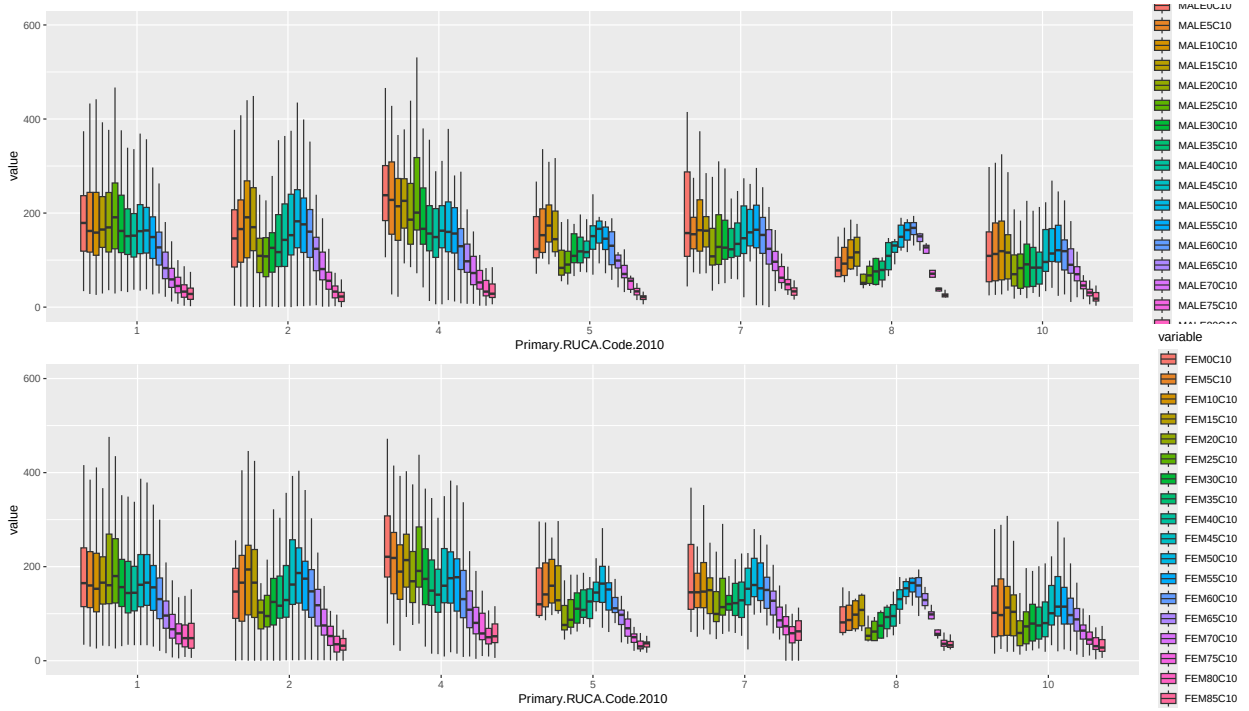
When you click the **Knit** button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document. You can embed an R code chunk like this:

```
library(gridExtra)

ct <- read.csv("./data/ct_2010_I.csv")
ruca <- read.csv("./data/ruca2010revised2.csv")
ruca$Primary.RUCA.Code.2010 <- as.factor(ruca$Primary.RUCA.Code.2010)

names(ruca)[names(ruca) == 'GEOID5'] <- 'ID'

ct2 <- merge(ruca, ct, by="ID")
```

```
library(reshape2)
ct_Male_age = melt(ct2, id.vars = c("Primary.RUCA.Code.2010", "ID"), measure.vars = c("MALE0C10","MALE5

library(ggplot2)
male_plot <- ggplot(ct_Male_age,aes(x=Primary.RUCA.Code.2010,y=value))+geom_boxplot(aes(fill=variable),
ylim(0, 600)


library(reshape2)
ct_Female_age = melt(ct2, id.vars = c("Primary.RUCA.Code.2010", "ID"), measure.vars = c("FEM0C10","FEM5

library(ggplot2)
female_plot <- ggplot(ct_Female_age,aes(x=Primary.RUCA.Code.2010,y=value))+geom_boxplot(aes(fill=variabl
  ylim(0, 600)

grid.arrange(male_plot, female_plot, nrow = 2, ncol = 1)
```

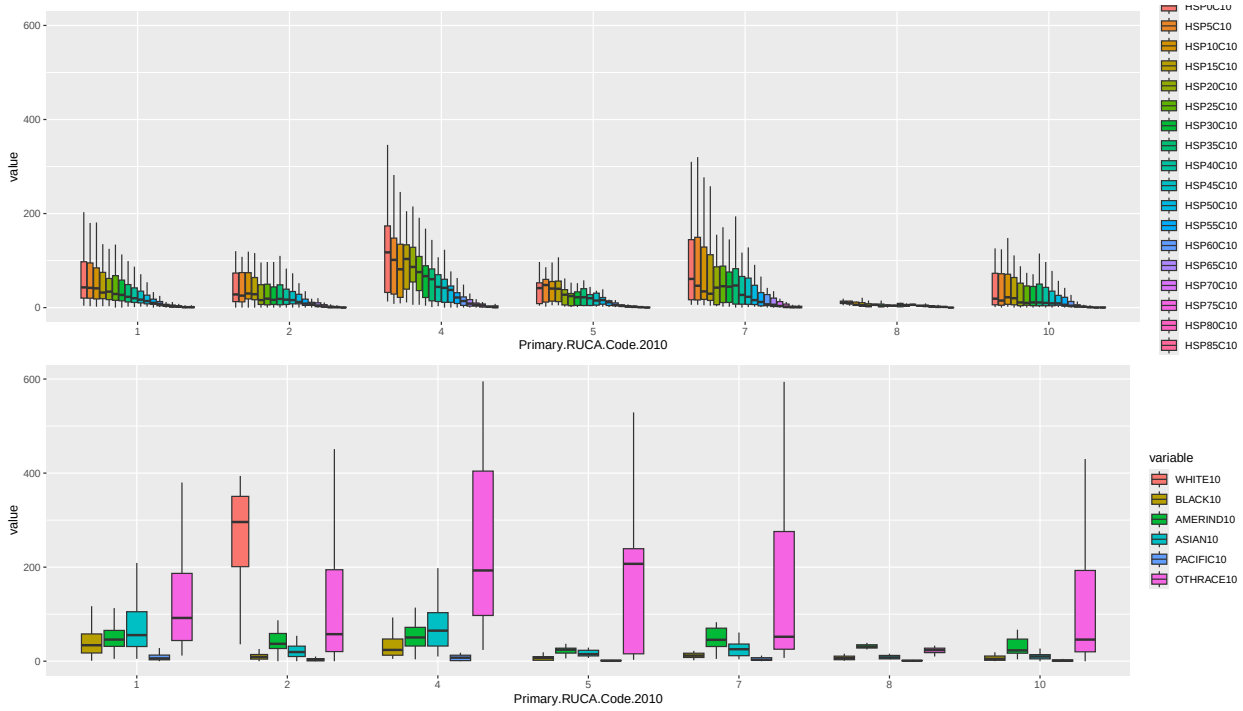
```
## Warning: Removed 73 rows containing non-finite outside the scale range
## (`stat_boxplot()`).
```

```
## Warning: Removed 67 rows containing non-finite outside the scale range
## (‘stat_boxplot()‘).
```




```
library(reshape2)
ct_Race_age = melt(ct2, id.vars = c("Primary.RUCA.Code.2010", "ID"), measure.vars = c("WHITE10","BLACK1

library(ggplot2)
race_plot <- ggplot(ct_Race_age,aes(x=Primary.RUCA.Code.2010,y=value))+geom_boxplot(aes(fill=variable),
  ylim(0, 600)


library(reshape2)
ct_hispanic_age = melt(ct2, id.vars = c("Primary.RUCA.Code.2010", "ID"), measure.vars = c("HSPOC10","HSI
))

library(ggplot2)
hispanic_plot <- ggplot(ct_hispanic_age,aes(x=Primary.RUCA.Code.2010,y=value))+geom_boxplot(aes(fill=va
  ylim(0, 600)

grid.arrange(hispanic_plot, race_plot, nrow = 2, ncol = 1)
```

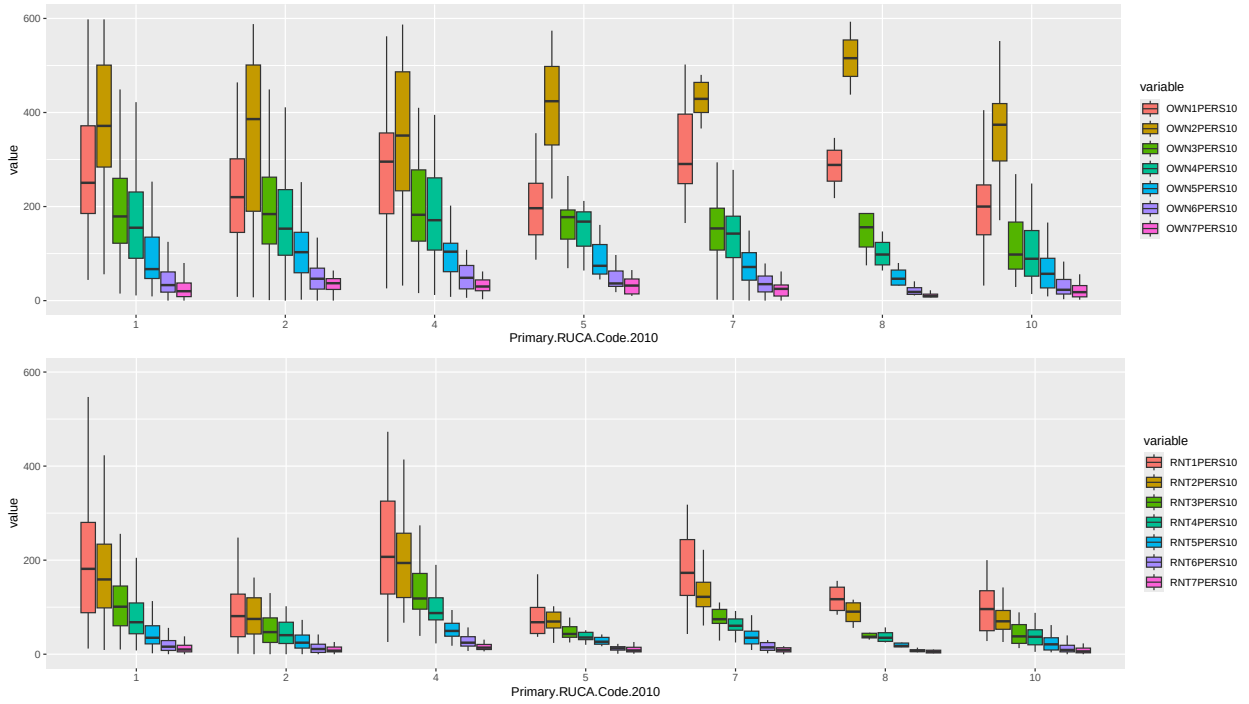
```
## Warning: Removed 1 row containing non-finite outside the scale range
## (‘stat_boxplot()‘).

## Warning: Removed 344 rows containing non-finite outside the scale range
## (‘stat_boxplot()‘).
```




```
library(reshape2)
ct_own_age = melt(ct2, id.vars = c("Primary.RUCA.Code.2010", "ID"), measure.vars = c("OWN1PERS10","OWN2

library(ggplot2)
own_plot <- ggplot(ct_own_age,aes(x=Primary.RUCA.Code.2010,y=value))+geom_boxplot(aes(fill=variable), ou
  ylim(0, 600)


library(reshape2)
ct_rent_age = melt(ct2, id.vars = c("Primary.RUCA.Code.2010", "ID"), measure.vars = c("RNT1PERS10","RNT

library(ggplot2)
rent_plot <- ggplot(ct_rent_age,aes(x=Primary.RUCA.Code.2010,y=value))+geom_boxplot(aes(fill=variable),
  ylim(0, 600)

grid.arrange(own_plot, rent_plot, nrow = 2, ncol = 1)
```

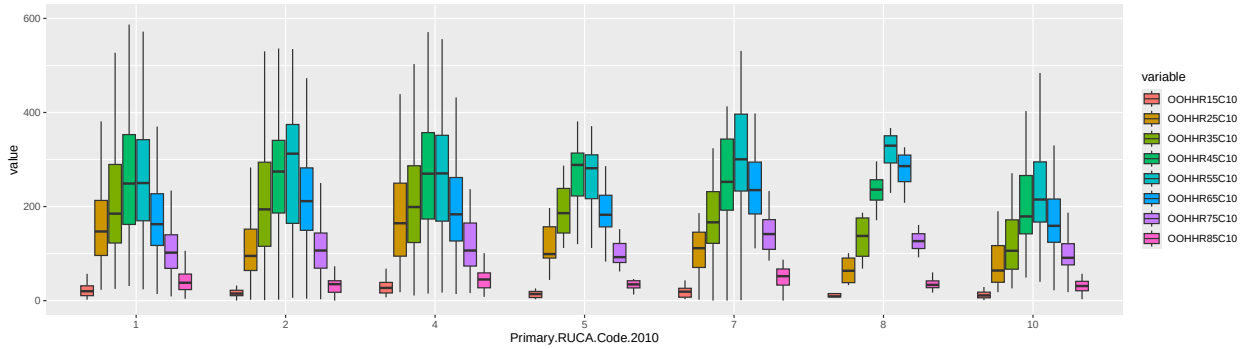
```
## Warning: Removed 118 rows containing non-finite outside the scale range
## (‘stat_boxplot()‘).
```

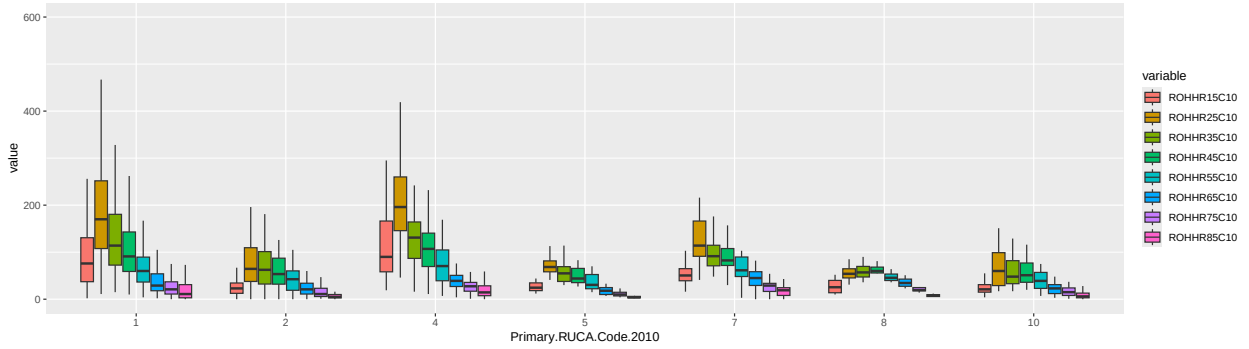
```
## Warning: Removed 14 rows containing non-finite outside the scale range
## (‘stat_boxplot()‘).
```




```
library(reshape2)
ct_own_housing_age = melt(ct2, id.vars = c("Primary.RUCA.Code.2010", "ID"), measure.vars = c("OOHHR15C1

library(ggplot2)
own_housing_plot <- ggplot(ct_own_housing_age,aes(x=Primary.RUCA.Code.2010,y=value))+geom_boxplot(aes(f
  ylim(0, 600)


library(reshape2)
ct_rent_housing_age = melt(ct2, id.vars = c("Primary.RUCA.Code.2010", "ID"), measure.vars = c("ROHHR15C

library(ggplot2)
rent_housing_plot <- ggplot(ct_rent_housing_age,aes(x=Primary.RUCA.Code.2010,y=value))+geom_boxplot(aes
  ylim(0, 600)


grid.arrange(own_housing_plot, rent_housing_plot, nrow = 2, ncol = 1)
```

```
## Warning: Removed 64 rows containing non-finite outside the scale range
## (‘stat_boxplot()‘).

## Warning: Removed 8 rows containing non-finite outside the scale range
## (‘stat_boxplot()‘).
```






```
library(ggplot2)
library(gridExtra)
ggplot(ct2,aes(x=Primary.RUCA.Code.2010,y=FEMALES10))+geom_boxplot()
```