```
> ## Section 4 of the Online Appendix: continuity-based approach
>
> library(dplyr)
> library(ggplot2)
> library(gridExtra)
> library(grid)
> library(reshape2)
> library(grid)
> library(rdrobust)
> library(rdlocrand)
> library(lubridate)
>
>
> ## Clear workspace
>
> rm=list(ls())
>
> ## Set working directory
> setwd("~/Dropbox/Documents/Projects/Active_Projects/Compulsory_Voting_BR/Replication_Files/PSRM/")
>
> ##Opening the voting data:
>
> load("ReplicationData.RData")
>
> ## Turnout variable
> data2010$turnout <- as.numeric(data2010$VOTOU.1º.TURNO) - 1
>
>
> ############
> ### 2010 ###
> ############
>
> ###################################################################
> ## Discontinuity analyses treating the forcing variable as ######
> ## continuous and adopting the RD Honest approach          ######
> ###################################################################
>
> ## Election Day: use balanced windows from July 07 through December 31 (cutpoint is October 03), 89 days on each side
>
> data.18.rddED <- dplyr::filter(data2010, (dob >= "1992-07-07" & dob <= "1992-12-31") & turnout == 1)
>
> DataRDDED18 <- data.18.rddED %>%
+   filter(GRAU.INSTRUÇÃO != "Analfabeto") %>%
+   group_by(dob) %>%
+   summarise(voters = n(),
+             turnout = unique(turnout))
`summarise()` ungrouping output (override with `.groups` argument)
>
> DataRDDED18$daysToFrom <- seq(88, -89, by = -1)
>
>
> ## RDD using MSE-optimal bandwidth selection and p = 1
>
> rdd.18ED <- rdrobust(y = DataRDDED18$voters, x = DataRDDED18$daysToFrom, c = 0, p = 1, bwselect = "mserd")
> summary(rdd.18ED)
Call: rdrobust

Number of Obs.                  178
BW type                       mserd
Kernel                   Triangular
VCE method                       NN

Number of Obs.                   89          89
Eff. Number of Obs.              24          25
Order est. (p)                    1           1
Order bias  (q)                   2           2
BW est. (h)                  24.843      24.843
BW bias (b)                  41.549      41.549
rho (h/b)                     0.598       0.598
Unique Obs.                      89          89

=============================================================================
        Method     Coef. Std. Err.         z     P>|z|      [ 95% C.I. ]
=============================================================================
  Conventional   827.057   238.057     3.474     0.001   [360.475 , 1293.640]
        Robust         -         -     2.708     0.007   [207.269 , 1293.975]
=============================================================================
> rdd.18ED$beta_p_r
           [,1]
[1,] 5756.03637
[2,]   17.21933
```

```
> rdd.18ED$beta_p_l
          [,1]
[1,] 4928.9790
[2,]   36.1048
> (percentIncrease <- ((rdd.18ED$beta_p_r[1,]-rdd.18ED$beta_p_l[1,])/rdd.18ED$beta_p_l[1,])*100)
[1] 16.77949
>
>
> ## End-of-year: use balanced windows from October 04 through March 30 (cutpoint is December 31), 89 days on each side
>
> data.18.rddEoY <- dplyr::filter(data2010, (dob >= "1992-10-04" & dob <= "1993-03-30") & turnout == 1)
>
> DataRDDEoY18 <- data.18.rddEoY %>%
+   filter(GRAU.INSTRUÇÃO != "Analfabeto") %>%
+   group_by(dob) %>%
+   summarise(voters = n(),
+             turnout = unique(turnout))
`summarise()` ungrouping output (override with `.groups` argument)
>
> DataRDDEoY18$daysToFrom <- seq(88, -89, by = -1)
>
>
> ## RDD using MSE-optimal bandwidth selection and p = 1
>
> rdd.18EoY <- rdrobust(y = DataRDDEoY18$voters, x = DataRDDEoY18$daysToFrom, c = 0, p = 1, bwselect = "mserd")
> summary(rdd.18EoY)
Call: rdrobust

Number of Obs.                  178
BW type                       mserd
Kernel                   Triangular
VCE method                       NN

Number of Obs.                   89          89
Eff. Number of Obs.              25          26
Order est. (p)                    1           1
Order bias  (q)                   2           2
BW est. (h)                  25.218      25.218
BW bias (b)                  40.226      40.226
rho (h/b)                     0.627       0.627
Unique Obs.                      89          89

=============================================================================
        Method     Coef. Std. Err.         z     P>|z|      [ 95% C.I. ]
=============================================================================
  Conventional   355.408   187.728     1.893     0.058   [-12.532 , 723.347]
        Robust         -         -     1.850     0.064   [-24.181 , 839.138]
=============================================================================
> rdd.18EoY$beta_p_r
           [,1]
[1,] 3634.374904
[2,]    7.003402
> rdd.18EoY$beta_p_l
           [,1]
[1,] 3278.967096
[2,]   -7.051204
> (percentIncrease <- ((rdd.18EoY$beta_p_r[1,]-rdd.18EoY$beta_p_l[1,])/rdd.18EoY$beta_p_l[1,])*100)
[1] 10.83902
>
>
>
>
>
>
>
>
>
```