Log File

Christopher N. Krewson, Jessica A. Schoenherr, and Marcy Shieh

2024-03-27

```
#Figure 1
library(rdd)
```

```
## Loading required package: sandwich
```

```
## Loading required package: lmtest
```

```
## Loading required package: zoo
```

```
##
## Attaching package: 'zoo'
```

```
## The following objects are masked from 'package:base':
##
##     as.Date, as.Date.numeric
```

```
## Loading required package: AER
```

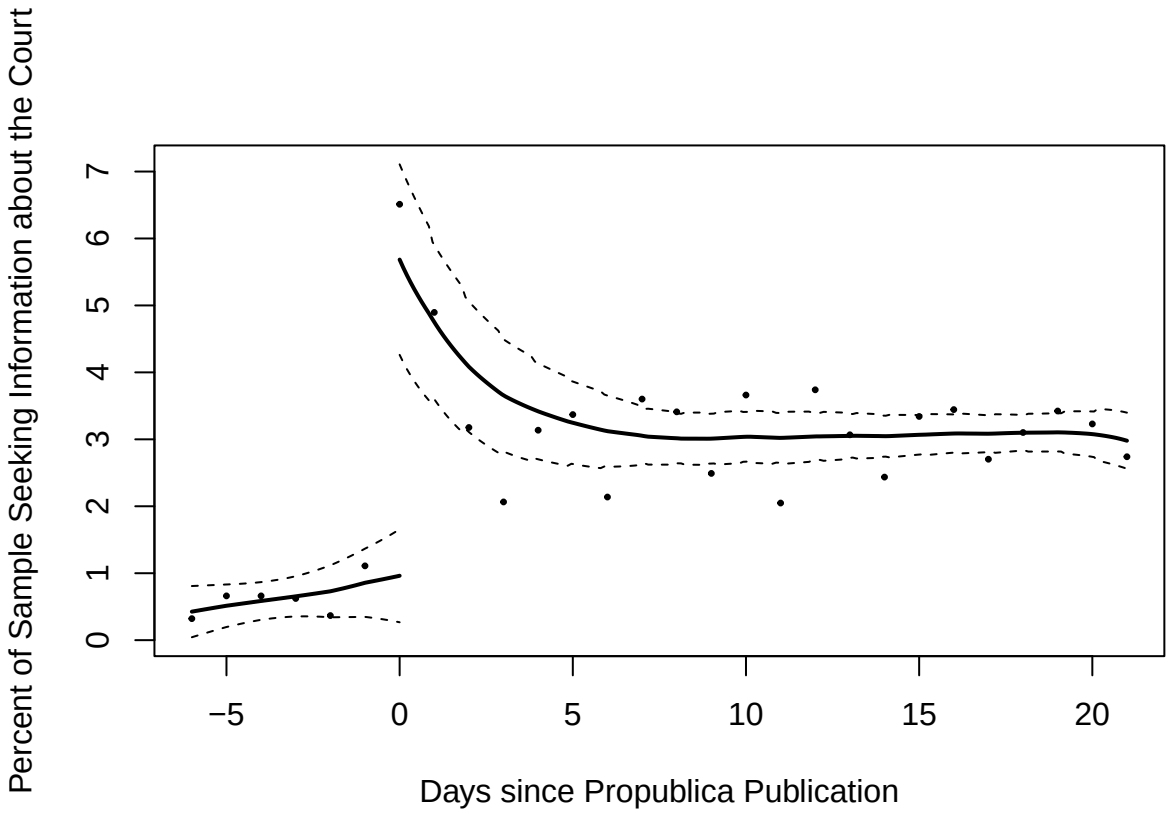
```
## Loading required package: car
```

```
## Loading required package: carData
```

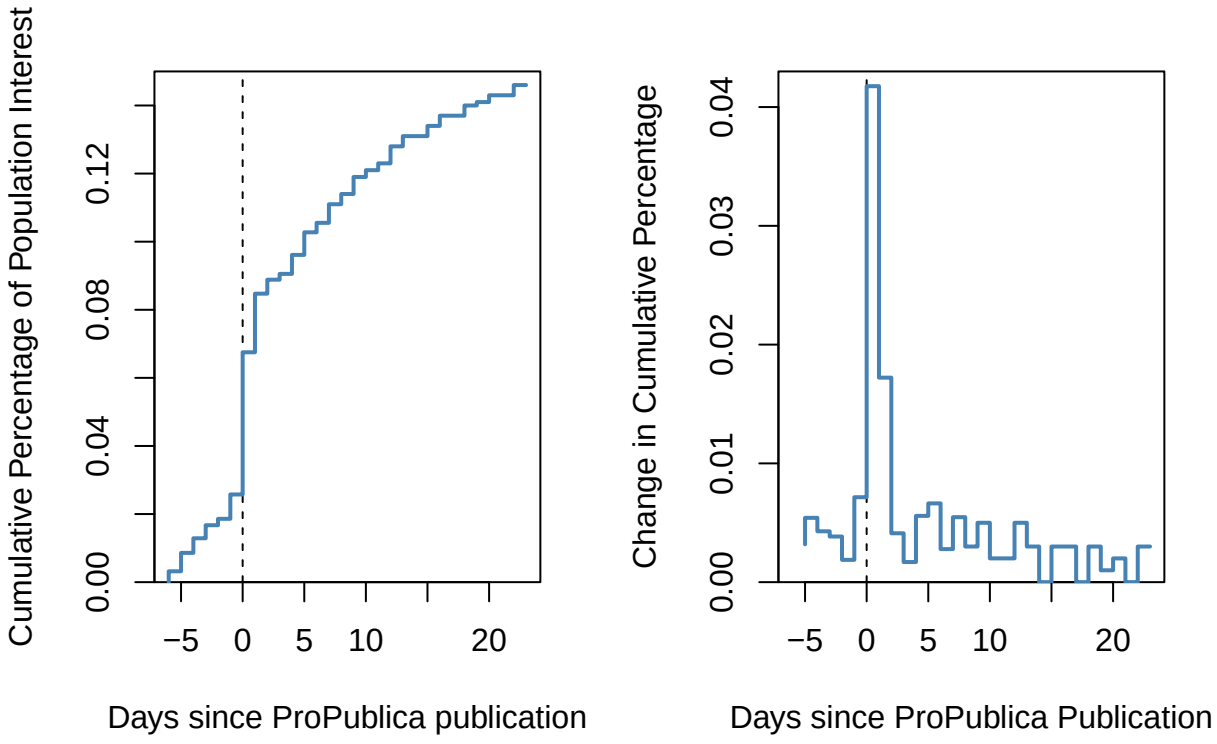
```
## Loading required package: survival
```

```
## Loading required package: Formula
```

```
load("rdd.RData")
rdd_simple <- RDestimate(total~rdd_count,data=agg,cutpoint=0)
plot(rdd_simple)
title(xlab="Days since Propublica Publication",
      ylab="Percent of Sample Seeking Information about the Court")
```




```
#Figure 2
load("cumulative.RData")
par(mfrow=c(1,2))
plot(dat$rdd,dat$prop,col="white",xlab="Days since ProPublica publication",
     ylab="Cumulative Percentage of Population Interest",type="S",ylim=c(0,.15),yaxs="i")
abline(v=0,lty=2)
lines(dat$rdd,dat$prop,type="S",lwd=2,col="steelblue")
plot(dat$rdd,dat$prop_dif,col="white",xlab="Days since ProPublica Publication",
     ylab="Change in Cumulative Percentage",type="S",ylim=c(0,0.043),yaxs="i")
abline(v=0,lty=2)
lines(dat$rdd,dat$prop_dif,type="S",lwd=2,col="steelblue")
```




```
par(mfrow=c(1,1))

#Appendix A
summary(rdd_simple)
```

```
##
## Call:
## RDestimate(formula = total ~ rdd_count, data = agg, cutpoint = 0)
##
## Type:
## sharp
##
## Estimates:
##             Bandwidth  Observations  Estimate  Std. Error  z value  Pr(>|z|)
## LATE         7.136     14            4.723     0.7030       6.718   1.844e-11
## Half-BW      3.568      7            5.066     0.3265      15.518   2.614e-54
## Double-BW   14.272     21            3.692     0.8994       4.105   4.046e-05
##
## LATE        ***
## Half-BW     ***
## Double-BW   ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## F-statistics:
##             F       Num. DoF  Denom. DoF  p
```

```
## LATE        25.24  3         10          0.0001110
## Half-BW    238.40  3          3          0.0009155
## Double-BW   16.78  3         17          0.0000501
```

```
#Appendix B
library(stargazer)
```

```
##
## Please cite as:
##  Hlavac, Marek (2022). stargazer: Well-Formatted Regression and Summary Statistics Tables.
##  R package version 5.2.3. https://CRAN.R-project.org/package=stargazer
```

```
load("preonly.RData")
summary(mod1<-glm(total~gender+as.numeric(educ)+as.numeric(pid7)+nonwhite+
                    as.numeric(faminc_new)+birthyr+poly(visits,1),agg,family="binomial"))
```

```
##
## Call:
## glm(formula = total ~ gender + as.numeric(educ) + as.numeric(pid7) +
##     nonwhite + as.numeric(faminc_new) + birthyr + poly(visits,
##     1), family = "binomial", data = agg)
##
## Coefficients:
##                          Estimate Std. Error z value Pr(>|z|)
## (Intercept)            32.499981  24.038766   1.352  0.17638
## genderMale              1.128276   0.501166   2.251  0.02437 *
## as.numeric(educ)        0.475635   0.170607   2.788  0.00531 **
## as.numeric(pid7)       -0.153462   0.108074  -1.420  0.15562
## nonwhite               -0.976211   0.579681  -1.684  0.09217 .
## as.numeric(faminc_new)  0.008304   0.068430   0.121  0.90342
## birthyr                -0.019299   0.012219  -1.579  0.11425
## poly(visits, 1)         4.086965   3.077631   1.328  0.18419
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## (Dispersion parameter for binomial family taken to be 1)
##
##     Null deviance: 204.05  on 846  degrees of freedom
## Residual deviance: 177.59  on 839  degrees of freedom
##   (85 observations deleted due to missingness)
## AIC: 193.59
##
## Number of Fisher Scoring iterations: 7
```

```
load("allprepost.RData")
summary(mod4<-glm(dif~gender+as.numeric(educ)+as.numeric(pid7)+nonwhite+
                    as.numeric(faminc_new)+birthyr+poly(visits,1),
                  family=binomial(link="logit"),agg))
```

```
##
## Call:
## glm(formula = dif ~ gender + as.numeric(educ) + as.numeric(pid7) +
##     nonwhite + as.numeric(faminc_new) + birthyr + poly(visits,
##     1), family = binomial(link = "logit"), data = agg)
##
```

```
## Coefficients:
##                          Estimate Std. Error z value Pr(>|z|)
## (Intercept)            35.698703  11.926340   2.993 0.002760 **
## genderMale              0.472501   0.224037   2.109 0.034941 *
## as.numeric(educ)        0.074050   0.075564   0.980 0.327102
## as.numeric(pid7)       -0.209426   0.054563  -3.838 0.000124 ***
## nonwhite               -0.029515   0.241746  -0.122 0.902826
## as.numeric(faminc_new)  0.066011   0.033723   1.957 0.050296 .
## birthyr                -0.019231   0.006073  -3.167 0.001543 **
## poly(visits, 1)        23.493545   3.658173   6.422 1.34e-10 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## (Dispersion parameter for binomial family taken to be 1)
##
##     Null deviance: 661.69  on 846  degrees of freedom
## Residual deviance: 570.94  on 839  degrees of freedom
##   (85 observations deleted due to missingness)
## AIC: 586.94
##
## Number of Fisher Scoring iterations: 5
```

```
load("6daysprepost.RData")
summary(mod3<-glm(dif~gender+as.numeric(educ)+as.numeric(pid7)+nonwhite+
                    as.numeric(faminc_new)+birthyr+poly(visits,1),
                  family=binomial(link="logit"),agg))
```

```
##
## Call:
## glm(formula = dif ~ gender + as.numeric(educ) + as.numeric(pid7) +
##     nonwhite + as.numeric(faminc_new) + birthyr + poly(visits,
##     1), family = binomial(link = "logit"), data = agg)
##
## Coefficients:
##                          Estimate Std. Error z value Pr(>|z|)
## (Intercept)            47.893413  14.637170   3.272 0.001068 **
## genderMale              0.595326   0.274055   2.172 0.029834 *
## as.numeric(educ)        0.125045   0.092229   1.356 0.175158
## as.numeric(pid7)       -0.289408   0.068962  -4.197 2.71e-05 ***
## nonwhite               -0.014913   0.293075  -0.051 0.959417
## as.numeric(faminc_new)  0.028981   0.041039   0.706 0.480078
## birthyr                -0.025598   0.007467  -3.428 0.000608 ***
## poly(visits, 1)        27.709539   4.031308   6.874 6.26e-12 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## (Dispersion parameter for binomial family taken to be 1)
##
##     Null deviance: 507.82  on 827  degrees of freedom
## Residual deviance: 410.58  on 820  degrees of freedom
##   (83 observations deleted due to missingness)
## AIC: 426.58
##
## Number of Fisher Scoring iterations: 6
```

```r
load("2daysprepost.RData")
summary(mod2<-glm(dif~gender+as.numeric(educ)+as.numeric(pid7)+nonwhite+
                    as.numeric(faminc_new)+birthyr+poly(visits,1),
                  family=binomial(link="logit"),agg))
```

```
##
## Call:
## glm(formula = dif ~ gender + as.numeric(educ) + as.numeric(pid7) +
##     nonwhite + as.numeric(faminc_new) + birthyr + poly(visits,
##     1), family = binomial(link = "logit"), data = agg)
##
## Coefficients:
##                          Estimate Std. Error z value Pr(>|z|)
## (Intercept)            46.940172  15.703147   2.989  0.00280 **
## genderMale              0.387621   0.288208   1.345  0.17865
## as.numeric(educ)        0.176672   0.097426   1.813  0.06977 .
## as.numeric(pid7)       -0.234501   0.072472  -3.236  0.00121 **
## nonwhite                0.127255   0.307455   0.414  0.67895
## as.numeric(faminc_new)  0.052043   0.043400   1.199  0.23047
## birthyr                -0.025350   0.008008  -3.166  0.00155 **
## poly(visits, 1)        17.429881   3.888050   4.483 7.36e-06 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## (Dispersion parameter for binomial family taken to be 1)
##
##     Null deviance: 422.85  on 748  degrees of freedom
## Residual deviance: 368.72  on 741  degrees of freedom
##   (77 observations deleted due to missingness)
## AIC: 384.72
##
## Number of Fisher Scoring iterations: 6
```

```r
stargazer(mod1,mod4,mod3,mod2)
```

```
##
## % Table created by stargazer v.5.2.3 by Marek Hlavac, Social Policy Institute. E-mail: marek.hlavac a
## % Date and time: Wed, Mar 27, 2024 - 1:43:33 PM
## \begin{table}[!htbp] \centering
##   \caption{}
##   \label{}
## \begin{tabular}{@{\extracolsep{5pt}}lcccc}
## \\[-1.8ex]\hline
## \hline \\[-1.8ex]
##  & \multicolumn{4}{c}{\textit{Dependent variable:}} \\
## \cline{2-5}
## \\[-1.8ex] & total & \multicolumn{3}{c}{dif} \\
## \\[-1.8ex] & (1) & (2) & (3) & (4)\\
## \hline \\[-1.8ex]
##  genderMale & 1.128$^{**}$ & 0.473$^{**}$ & 0.595$^{**}$ & 0.388 \\
##   & (0.501) & (0.224) & (0.274) & (0.288) \\
##   & & & & \\
##  as.numeric(educ) & 0.476$^{***}$ & 0.074 & 0.125 & 0.177$^{*}$ \\
##   & (0.171) & (0.076) & (0.092) & (0.097) \\
```

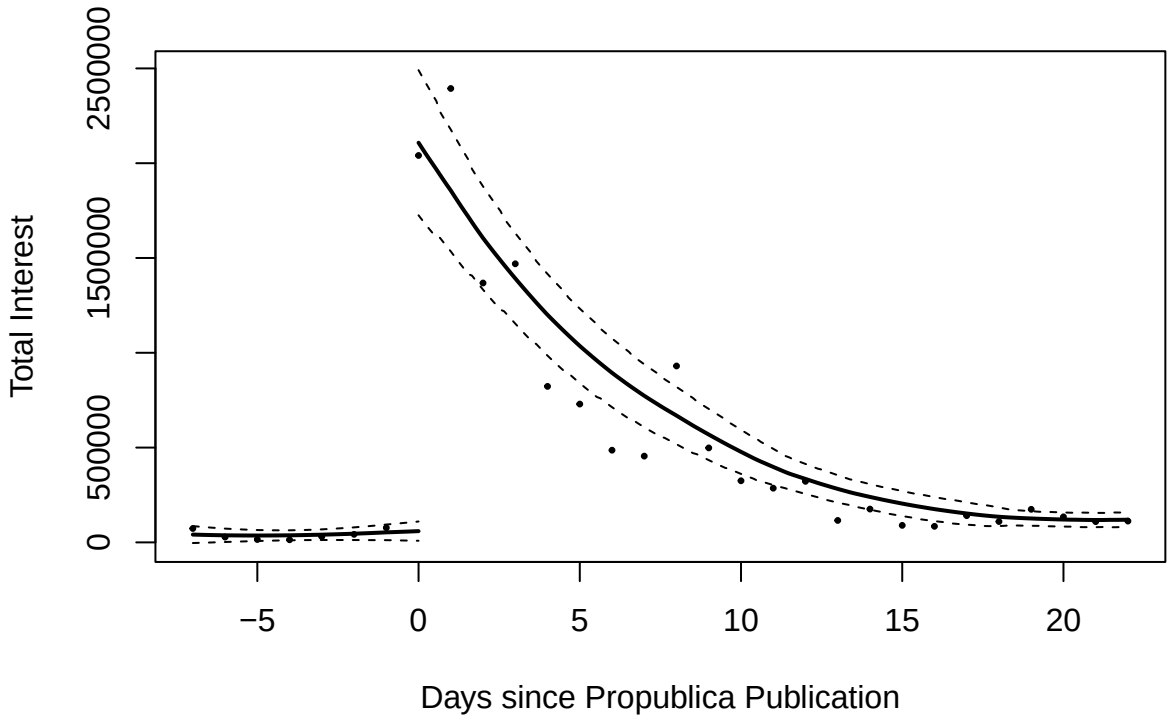
```
##   & & & & \\
##  as.numeric(pid7) & $-$0.153 & $-$0.209$^{***}$ & $-$0.289$^{***}$ & $-$0.235$^{***}$ \\
##   & (0.108) & (0.055) & (0.069) & (0.072) \\
##   & & & & \\
##  nonwhite & $-$0.976$^{*}$ & $-$0.030 & $-$0.015 & 0.127 \\
##   & (0.580) & (0.242) & (0.293) & (0.307) \\
##   & & & & \\
##  as.numeric(faminc\_new) & 0.008 & 0.066$^{*}$ & 0.029 & 0.052 \\
##   & (0.068) & (0.034) & (0.041) & (0.043) \\
##   & & & & \\
##  birthyr & $-$0.019 & $-$0.019$^{***}$ & $-$0.026$^{***}$ & $-$0.025$^{***}$ \\
##   & (0.012) & (0.006) & (0.007) & (0.008) \\
##   & & & & \\
##  poly(visits, 1) & 4.087 & 23.494$^{***}$ & 27.710$^{***}$ & 17.430$^{***}$ \\
##   & (3.078) & (3.658) & (4.031) & (3.888) \\
##   & & & & \\
##  Constant & 32.500 & 35.699$^{***}$ & 47.893$^{***}$ & 46.940$^{***}$ \\
##   & (24.039) & (11.926) & (14.637) & (15.703) \\
##   & & & & \\
## \hline \\[-1.8ex]
## Observations & 847 & 847 & 828 & 749 \\
## Log Likelihood & $-$88.797 & $-$285.468 & $-$205.290 & $-$184.362 \\
## Akaike Inf. Crit. & 193.594 & 586.936 & 426.580 & 384.723 \\
## \hline
## \hline \\[-1.8ex]
## \textit{Note:}  & \multicolumn{4}{r}{$^{*}$p$<$0.1; $^{**}$p$<$0.05; $^{***}$p$<$0.01} \\
## \end{tabular}
## \end{table}
```

```
#Appendix C
load("GoogleTrends.RData")
bw <- with(comb,IKbandwidth(dates,count,cutpoint=0))
rdd_simple <- RDestimate(count~dates,data=comb,cutpoint=0,bw=bw)
summary(rdd_simple)
```

```
##
## Call:
## RDestimate(formula = count ~ dates, data = comb, cutpoint = 0,
##     bw = bw)
##
## Type:
## sharp
##
## Estimates:
##            Bandwidth  Observations  Estimate  Std. Error  z value  Pr(>|z|)
## LATE       10.44      18            2048628   211475      9.687    3.413e-22
## Half-BW     5.22      11            2152760   267887      8.036    9.277e-16
## Double-BW  20.88      28            1699055   219361      7.745    9.522e-15
##
## LATE       ***
## Half-BW    ***
## Double-BW  ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
```

```
## F-statistics:
##             F      Num. DoF  Denom. DoF  p
## LATE        50.79  3         14          1.807e-07
## Half-BW     38.37  3          7          2.052e-04
## Double-BW   37.49  3         24          6.459e-09
```

```
plot(rdd_simple)
title(xlab="Days since Propublica Publication",ylab="Total Interest")
```



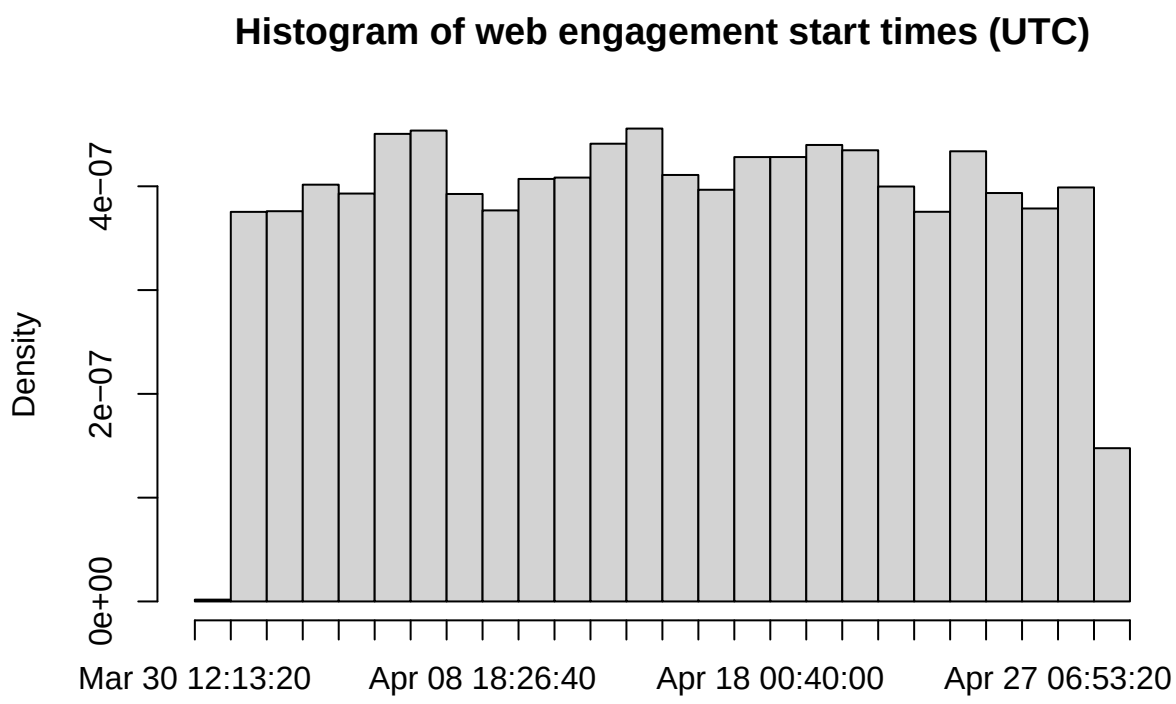

```
#Appendix F
library(xtable)
load("demos.RData")
df <- data.frame(variable=names(demos)[17:29],mean=NA,sd=NA,min=NA,max=NA,length=NA)
for(i in 17:29){
  df[i-16,2] <- mean(demos[,i],na.rm=T)
  df[i-16,3] <- sd(demos[,i],na.rm=T)
  df[i-16,4] <- min(demos[,i],na.rm=T)
  df[i-16,5] <- max(demos[,i],na.rm=T)
  df[i-16,6] <- sum(!is.na(demos[,i]))
}
xtable(df)
```

```
## % latex table generated in R 4.3.3 by xtable 1.8-4 package
## % Wed Mar 27 13:43:34 2024
## \begin{table}[ht]
## \centering
## \begin{tabular}{rlrrrrr}
```

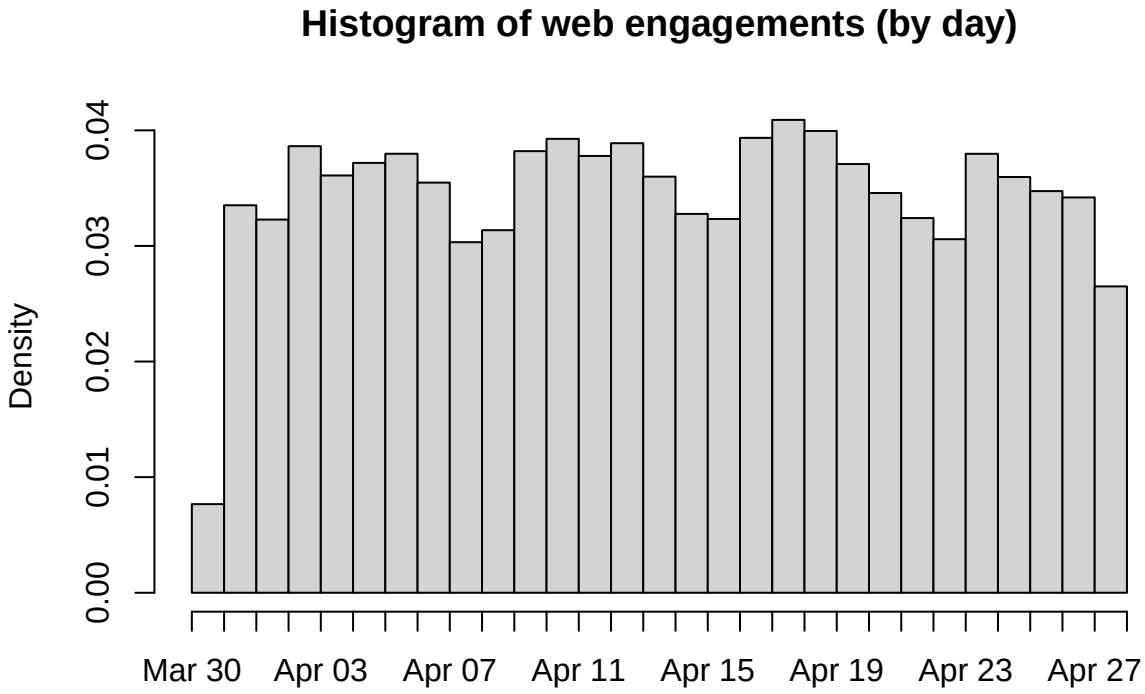
```
##   \hline
##  & variable & mean & sd & min & max & length \\
##   \hline
## 1 & education & 3.42 & 1.54 & 1.00 & 6.00 & 1000 \\
##   2 & family\_income & 5.49 & 3.43 & 1.00 & 16.00 & 937 \\
##   3 & ideology & 2.94 & 1.22 & 1.00 & 5.00 & 882 \\
##   4 & female & 0.53 & 0.50 & 0.00 & 1.00 & 1000 \\
##   5 & male & 0.47 & 0.50 & 0.00 & 1.00 & 1000 \\
##   6 & white & 0.63 & 0.48 & 0.00 & 1.00 & 1000 \\
##   7 & hispanic\_latino & 0.17 & 0.37 & 0.00 & 1.00 & 1000 \\
##   8 & black\_africanamerican & 0.11 & 0.31 & 0.00 & 1.00 & 1000 \\
##   9 & race\_other & 0.20 & 0.40 & 0.00 & 1.00 & 1000 \\
##   10 & democrat & 0.35 & 0.48 & 0.00 & 1.00 & 996 \\
##   11 & independent & 0.30 & 0.46 & 0.00 & 1.00 & 996 \\
##   12 & republican & 0.24 & 0.43 & 0.00 & 1.00 & 996 \\
##   13 & pid\_other & 0.11 & 0.32 & 0.00 & 1.00 & 1000 \\
##    \hline
## \end{tabular}
## \end{table}
```

```
#Appendix H
load("webdata.RData")
hist(web$start_time_utc,breaks=30,main="Histogram of web engagement start times (UTC)",xlab="")
```

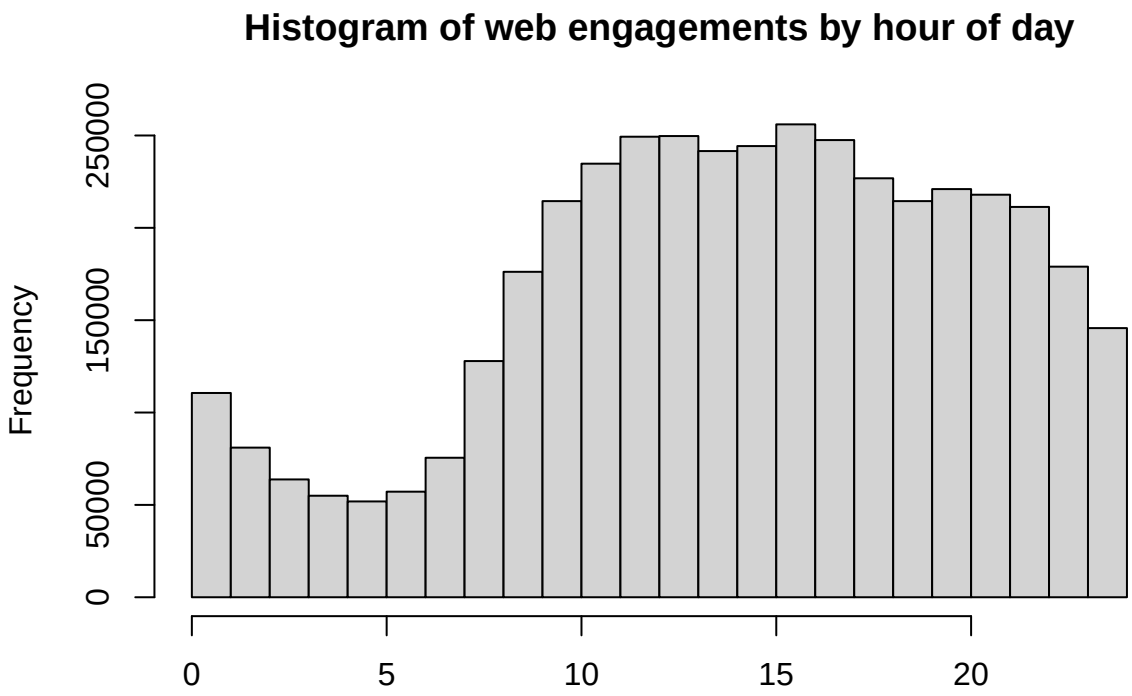
```
## Warning in breaks[-1L] + breaks[-nB]: NAs produced by integer overflow
```



```r
hist(web$date,breaks=30,main="Histogram of web engagements (by day)",xlab="")
```




```r
hist(web$time,main="Histogram of web engagements by hour of day",xlab="")
```

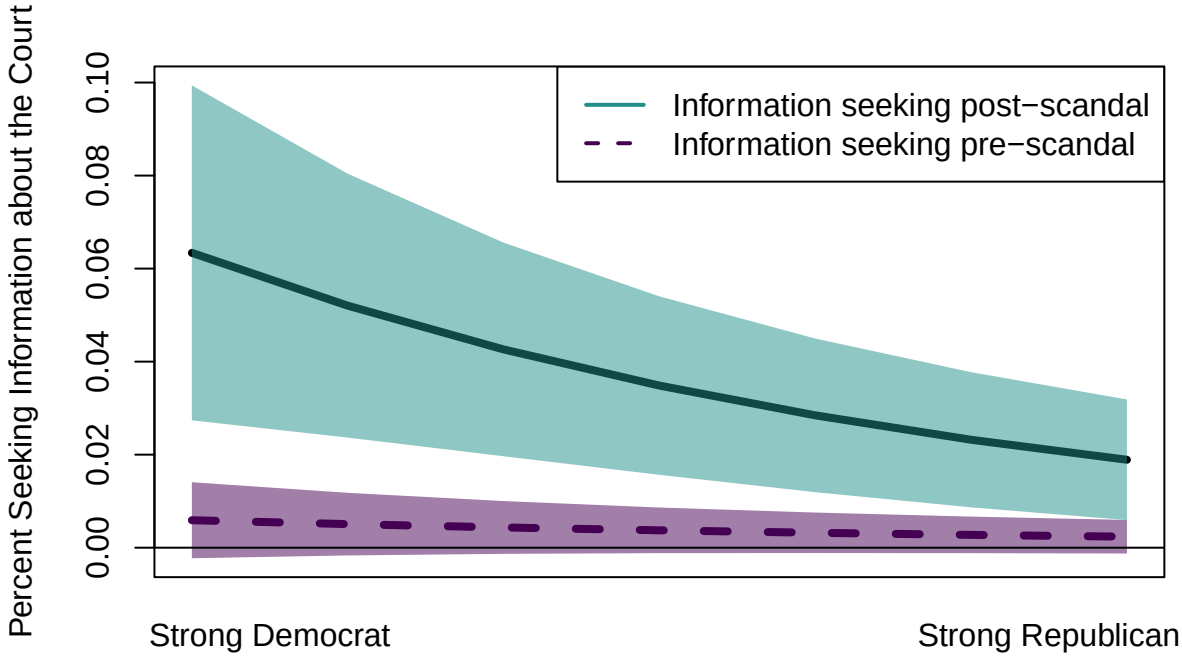



```
#Appendix I
library(viridis)
```

```
## Loading required package: viridisLite
```

```
preds1 <- predict(mod1,newdata=data.frame(gender="Female",
                                          educ=2,
                                          nonwhite=0,
                                          faminc_new=3,
                                          birthyr=1990,
                                          visits=1887,
                                          pid7=1:7),
                  type="response",se.fit=T)
preds2 <- predict(mod2,newdata=data.frame(gender="Female",
                                          educ=2,
                                          nonwhite=0,
                                          faminc_new=3,
                                          birthyr=1990,
                                          visits=1877,
                                          pid7=1:7),
                  type="response",se.fit=T)
preds3 <- predict(mod3,newdata=data.frame(gender="Female",
                                          educ=2,
                                          nonwhite=0,
                                          faminc_new=3,
                                          birthyr=1990,
                                          visits=1877,
```

```
                                          pid7=1:7),
                  type="response",se.fit=T)
preds4 <- predict(mod4,newdata=data.frame(gender="Female",
                                          educ=2,
                                          nonwhite=0,
                                          faminc_new=3,
                                          birthyr=1990,
                                          visits=1877,
                                          pid7=1:7),
                  type="response",se.fit=T)
preds1$lo <- preds1$fit-preds1$se.fit*qnorm(.975)
preds1$hi <- preds1$fit+preds1$se.fit*qnorm(.975)
preds2$lo <- preds2$fit-preds2$se.fit*qnorm(.975)
preds2$hi <- preds2$fit+preds2$se.fit*qnorm(.975)
preds3$lo <- preds3$fit-preds3$se.fit*qnorm(.975)
preds3$hi <- preds3$fit+preds3$se.fit*qnorm(.975)
preds4$lo <- preds4$fit-preds4$se.fit*qnorm(.975)
preds4$hi <- preds4$fit+preds4$se.fit*qnorm(.975)
cols <- viridis(3)
plot(1:7,preds1$fit,type="l",lwd=4,ylim=c(-0.002270816,0.099396190),col=cols[1],
     xaxt="n",xlab="",ylab="Percent Seeking Information about the Court",lty=2)
lines(1:7,preds4$fit,lwd=4)
polygon(x=c(1:7,7:1),
        y=c(preds1$lo,rev(preds1$hi)),
        border=NA,col=scales::alpha(cols[1],.5))
polygon(x=c(1:7,7:1),
        y=c(preds4$lo,rev(preds4$hi)),
        border=NA,col=scales::alpha(cols[2],.5))
legend("topright",legend=c("Information seeking post-scandal",
                           "Information seeking pre-scandal"),
       lty=1:2,col=rev(cols[1:2]),lwd=2)
abline(h=0)
axis(1,at=c(1.5,6.5),labels=c("Strong Democrat","Strong Republican"),tick=F)
```


Percent Seeking Information about the Court
0.00
0.02
0.04
0.06
0.08
0.10
Information seeking post−scandal
Information seeking pre−scandal
Strong Democrat
Strong Republican