PollingViz

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Basic Setup

Data Manipulation

```
polls$Rdate <- mdy(polls$Middate)
polls$competitiveness <- polls$trump-polls$clinton
polls$colors = "black"
polls$colors[polls$competitiveness>0]="red"
polls$colors[polls$competitiveness<0]="blue"

#Create new columns to measure "competitiveness": the difference
#between support for Trump and Clinton. Pollers with a positive
#competitiveness rate show support for Trump, colored red, while
#negative is support for Clinton, colored blue.
```

Polygon Setup

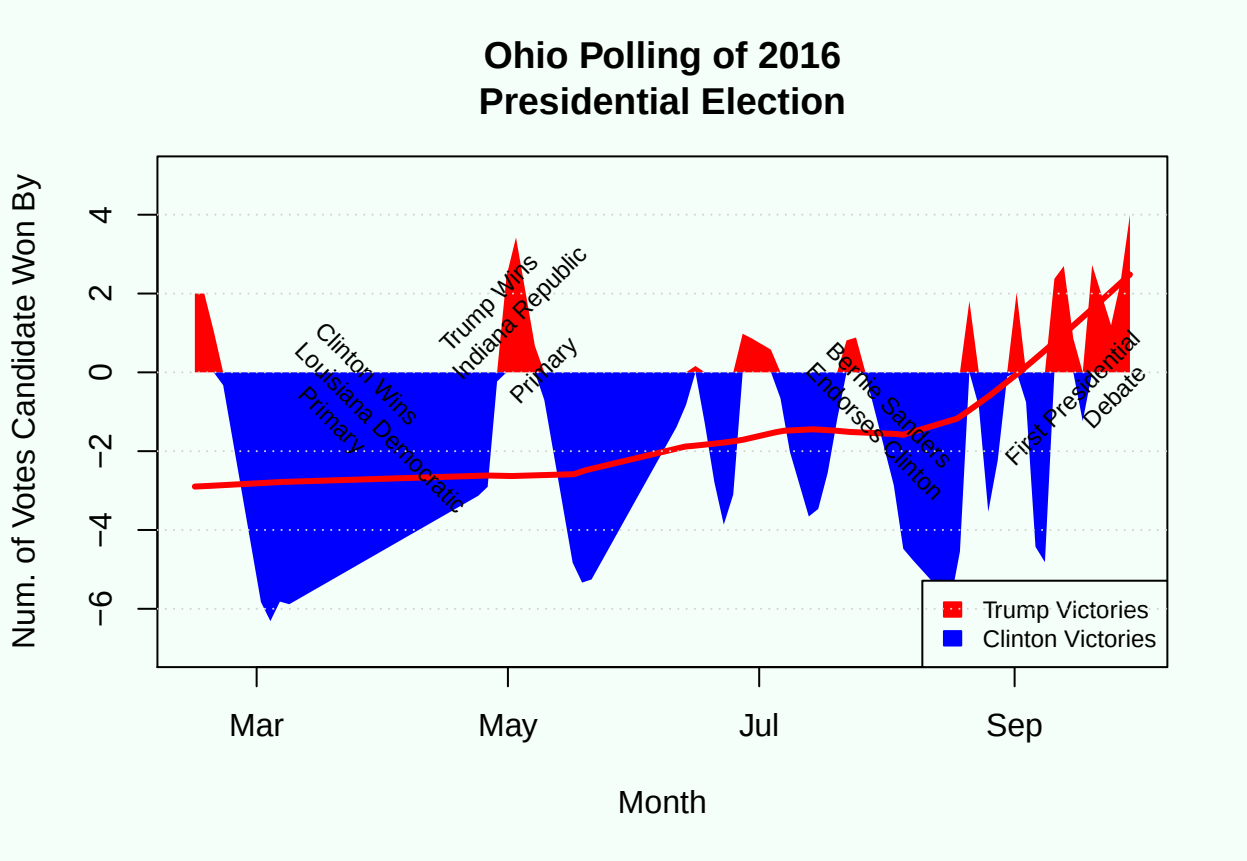
```
hi.res.date <- approx(polls$Rdate, polls$competitiveness, n=100)$x
hi.res.comp <- approx(polls$Rdate, polls$competitiveness, n=100)$y
comp.poly.plus <- hi.res.comp
comp.poly.minus <- hi.res.comp
comp.poly.plus[comp.poly.plus < 0] <- 0
comp.poly.minus[comp.poly.minus>0] <- 0
x.comp.poly.plus <- c(hi.res.date, rev(hi.res.date))
y.comp.poly.plus <- c(comp.poly.plus, rep(0, 100))
x.comp.poly.minus <- c(hi.res.date, rev(hi.res.date))
y.comp.poly.minus <- c(comp.poly.minus, rep(0,100))

##Creating a polygon for the plot.
```

Plot

```
par(bg = "mintcream")
plot(polls$Rdate, rep(NA, 53), ylim = c(-7, 5), xlab = "Month",
ylab = "Num. of Votes Candidate Won By", main = "Ohio Polling of 2016
Presidential Election")
polygon(x.comp.poly.plus, y.comp.poly.plus, col="red", border = NA)
polygon(x.comp.poly.minus, y.comp.poly.minus, col = "blue", border =
          NA)
lines(lowess(polls$Rdate, polls$competitiveness), col=polls$colors,
```

```
      lwd = "3")
text(mdy("March 5, 2016"), 0, "Clinton Wins \nLouisiana Democratic
     Primary", srt=-45, adj = c(0,0), cex = 0.75)
text(mdy("May 3, 2016"), 0, "Trump Wins \nIndiana Republic
     \nPrimary", srt=45, adj = c(.25,.25), cex = 0.75)
text(mdy("July 12, 2016"), 0, "Bernie Sanders \nEndorses Clinton",
     srt=-45, adj = c(0,0), cex = 0.75)
text(mdy("September 26, 2016"), 0, "First Presidential \nDebate",
     srt=45, adj = c(.75,.5), cex = 0.75)
legend("bottomright", fill = c("red","blue"), border = c("red",
"blue"), legend = c("Trump Victories", "Clinton Victories"),
cex = 0.75)
grid(NA, NULL, col = "lightgray", lty = "dotted", lwd = par("lwd"),
     equilogs = TRUE)
```




```
##Plotting the polygon. The plot shows the number of votes each
#candidate won by in the polls, measured by the variable
#Competitiveness. Several campaign events are listed to show impact
#on voters.The red abline is a loess regression plot. Loess
#regressions are a nonparametric regression technique that are
#useful in revealing underlying trends in data. In this case, the
#overall data shows massive support for Clinton over Trump, but the
#loess curve shows an overall pattern of increasing support for
#Trump over Clinton.
```