Abramowitz stuff
Choices: how to use Fivethirtyeight data, whether to adjust past data,

```
seatchange <- read_csv("../data/seatchange.csv")

genpolls <- read_csv("../data/GenericPolls.csv")

model <- genpolls %>%
  filter(mtil >= 60, mtil <= 90) %>%
  filter(!is.na(dem), !is.na(rep)) %>%
  mutate(rmargin = rep-dem, is_rv = ifelse(is.na(type),TRUE, type == "RV" | type=="A")) %>%
  group_by(year) %>%
  summarise(gendiff = mean(rmargin),pct_rv=mean(is_rv)) %>%
  mutate(adj_gendiff = gendiff + 2.7 * pct_rv) %>%
  merge(seatchange, by="year") %>%
  select(year, chrseats, prevrseats, gendiff, adj_gendiff, midterm, pct_rv)


fit <- lm(chrseats ~ prevrseats + gendiff + midterm, data=model)
summary(fit)

##
## Call:
## lm(formula = chrseats ~ prevrseats + gendiff + midterm, data = model)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -24.035  -4.441  -0.863   8.580  24.485
##
## Coefficients:
##             Estimate Std. Error t value Pr(>|t|)
## (Intercept)  105.646     30.885    3.42  0.00414 **
## prevrseats    -0.447      0.153   -2.93  0.01105 *
## gendiff        1.678      0.390    4.30  0.00073 ***
## midterm      -17.749      4.056   -4.38  0.00063 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 15.2 on 14 degrees of freedom
## Multiple R-squared:  0.836,Adjusted R-squared:  0.801
## F-statistic: 23.8 on 3 and 14 DF,  p-value: 9.23e-06
```

```
generic_polllist <- read_csv("~/generic_polllist.csv",
                             col_types = cols(enddate = col_date(format = "%m/%d/%Y"),
                                              startdate = col_date(format = "%m/%d/%Y"))) %>
```

```
  filter(enddate > as.Date("2018-5-10"), enddate < as.Date("2018-7-08")) %>%
  mutate(rmargin = rep-dem,
         adj_rmargin = adjusted_rep-adjusted_dem,
         is_rv = population == "rv" | population == "a")

genpoll2018 <- sum(generic_polllist$adj_rmargin * generic_polllist$weight) /
               sum(generic_polllist$weight)
# genpoll2018
params18 <- data.frame(prevrseats=241, midterm=1, gendiff=genpoll2018)
interval <- predict.lm(fit, params18, se.fit=TRUE)
pt((-24-interval$fit)/interval$se.fit,df=interval$df)

##      1
## 0.8218

genpoll2018 <- mean(generic_polllist$adj_rmargin)
# genpoll2018
params18 <- data.frame(prevrseats=241, midterm=1, gendiff=genpoll2018)
interval <- predict.lm(fit, params18, se.fit=TRUE)
pt((-24-interval$fit)/interval$se.fit,df=interval$df)

##      1
## 0.7951

genpoll2018 <- sum(generic_polllist$rmargin * generic_polllist$weight) /
               sum(generic_polllist$weight)
# genpoll2018
params18 <- data.frame(prevrseats=241, midterm=1, gendiff=genpoll2018)
interval <- predict.lm(fit, params18, se.fit=TRUE)
pt((-24-interval$fit)/interval$se.fit,df=interval$df)

##      1
## 0.7952

genpoll2018 <- mean(generic_polllist$rmargin)
#genpoll2018
params18 <- data.frame(prevrseats=241, midterm=1, gendiff=genpoll2018)
interval <- predict.lm(fit, params18, se.fit=TRUE)
pt((-24-interval$fit)/interval$se.fit,df=interval$df)

##     1
## 0.753
```

```
params18 <- data.frame(prevrseats=241, midterm=1, gendiff=genpoll2018)
interval <- predict.lm(fit, params18, se.fit=TRUE)
pt((-24-interval$fit)/interval$se.fit,df=interval$df)
```

```
##     1
## 0.753

80.7507 - 8.4 * (1.9844) - 17.0064 -0.3296 * 235 #-30.38, Abramowitz' prediction

## [1] -30.38
```