

# 220 Project

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```
library(readr)
library(tidyverse)
```

```
## Warning: package 'tibble' was built under R version 3.5.2
```

```
## Warning: package 'tidyr' was built under R version 3.5.2
```

```
## Warning: package 'dplyr' was built under R version 3.5.2
```

```
library(stargazer)
dat <- read_csv("dat.csv")
```

```
## Warning: Missing column names filled in: 'X1' [1]
```

## Clean the data and make model spec. variables

```
head(dat)
```

```
## # A tibble: 6 x 62
##       X1 year congress party district statenam name  ngirls nboys totchi
##   <int> <chr>      <int> <int>      <int> <chr>      <chr>  <int> <int>  <int>
## 1     1  1997~      105     1          1 HAWAII  ABER~     0     0     0
## 2     2  1997~      105     1          5 NEW YOR  ACKE~     1     2     3
## 3     3  1997~      105     2          4 ALABAMA  ADER~     0     0     0
## 4     4  1997~      105     1          1 MAINE    ALLE~     2     0     2
## 5     5  1997~      105     1          1 NEW JER  ANDR~     2     0     2
## 6     6  1997~      105     2          7 TEXAS    ARCH~     3     4     7
## # ... with 52 more variables: anygirls <int>, propgirls <dbl>,
## #   rgroup <int>, statabb <chr>, statalph <int>, region <int>,
## #   repub <int>, srvlng <int>, female <int>, white <int>, bday <chr>,
## #   age <int>, demvote <dbl>, medinc <int>, perf <dbl>, perw <dbl>,
## #   perhs <dbl>, percol <dbl>, perur <dbl>, alabort <dbl>, moreserv <dbl>,
## #   moredef <dbl>, morecrimesp <dbl>, protgay <dbl>, dr1per <dbl>,
## #   dr2per <dbl>, dr3per <dbl>, dr4per <dbl>, dr5per <dbl>, aaaw <int>,
## #   rtl <int>, nowtot <int>, now1 <int>, now2 <int>, now3 <int>,
## #   now4 <int>, now5 <int>, now6 <int>, now7 <int>, now8 <int>,
## #   now9 <int>, now10 <int>, now11 <int>, now12 <int>, now13 <int>,
## #   now14 <int>, now15 <int>, now16 <int>, now17 <int>, now18 <int>,
## #   now19 <int>, now20 <int>
```

```
dat$age2 <- dat$age^2
dat$srvlng2 <- dat$srvlng^2
dat$rgroup <- factor(dat$rgroup)
prop.table(table(dat$rgroup))
```

```
##
##           0           1           2           3           4
## 0.01379310 0.59425287 0.29425287 0.04022989 0.05747126
```

```
levels(dat$rgroup) <- c("None", "Protestant", "Catholic", "Other Christian", "Other religion")
dat$rgroup <- factor(dat$rgroup, levels = c("Protestant", "None", "Catholic", "Other Christian", "Other
```

## Model with NOW data

```
datNOW <- dat %>%
  filter(congress == 105)

summary(datNOW)
```

```
##           X1              year      congress      party
## Min.      : 1.0    Length:435      Min.      :105    Min.      :1.000
## 1st Qu.:109.5    Class :character    1st Qu.:105    1st Qu.:1.000
## Median :218.0    Mode  :character    Median :105    Median :2.000
## Mean   :218.0                      Mean   :105    Mean   :1.529
## 3rd Qu.:326.5                      3rd Qu.:105    3rd Qu.:2.000
## Max.    :435.0                      Max.    :105    Max.    :3.000
##
##      district      statenam      name      ngirls
## Min.      : 1.000    Length:435    Length:435    Min.      :0.000
## 1st Qu.: 3.000    Class :character    Class :character    1st Qu.:0.000
## Median : 6.000    Mode  :character    Mode  :character    Median :1.000
## Mean   : 9.979                      Mean   :1.274
## 3rd Qu.:13.000                      3rd Qu.:2.000
## Max.    :52.000                      Max.    :7.000
##                                     NA's      :1
##      nboys      totchi      anygirls      propgirls
## Min.      :0.000    Min.      : 0.000    Min.      :0.0000    Min.      :0.0000
## 1st Qu.:0.000    1st Qu.: 2.000    1st Qu.:0.0000    1st Qu.:0.0000
## Median :1.000    Median : 2.000    Median :1.0000    Median :0.5000
## Mean   :1.219    Mean   : 2.493    Mean   :0.7258    Mean   :0.4481
## 3rd Qu.:2.000    3rd Qu.: 3.000    3rd Qu.:1.0000    3rd Qu.:0.6667
## Max.    :6.000    Max.    :10.000    Max.    :1.0000    Max.    :1.0000
## NA's      :1      NA's      :1      NA's      :1      NA's      :1
##      rgroup      statabb      statalph      region
## Protestant      :259    Length:435    Min.      : 1.0    Min.      :1.000
## None              : 6    Class :character    1st Qu.:11.0    1st Qu.:3.000
## Catholic          :129    Mode  :character    Median :25.0    Median :5.000
## Other Christian: 16                      Mean   :25.1    Mean   :5.007
## Other religion : 25                      3rd Qu.:38.0    3rd Qu.:7.000
##                                     Max.    :51.0    Max.    :9.000
##
##      repub      srvlng      female      white
## Min.      :0.0000    Min.      : 1.000    Min.      :0.0000    Min.      :0.000
## 1st Qu.:0.0000    1st Qu.: 3.000    1st Qu.:0.0000    1st Qu.:1.000
## Median :1.0000    Median : 5.000    Median :0.0000    Median :1.000
## Mean   :0.5241    Mean   : 8.678    Mean   :0.1103    Mean   :0.869
## 3rd Qu.:1.0000    3rd Qu.:13.000    3rd Qu.:0.0000    3rd Qu.:1.000
## Max.    :1.0000    Max.    :47.000    Max.    :1.0000    Max.    :1.000
##
##      bday      age      demvote      medinc
## Length:435    Min.      :26.00    Min.      :0.2600    Min.      :16683
```

```

## Class :character      1st Qu.:45.00      1st Qu.:0.4200      1st Qu.:29593
## Mode  :character      Median :51.00      Median :0.4800      Median :34018
##                                     Mean  :51.67      Mean  :0.5032      Mean  :35923
##                                     3rd Qu.:58.00      3rd Qu.:0.5700      3rd Qu.:40682
##                                     Max.   :87.00      Max.   :0.9400      Max.   :64199
##
##      perf              perw              perhs              percol
## Min.   :0.4651      Min.   :0.1866      Min.   :0.3360      Min.   :0.0530
## 1st Qu.:0.5129      1st Qu.:0.7563      1st Qu.:0.6985      1st Qu.:0.1435
## Median :0.5212      Median :0.8712      Median :0.7640      Median :0.1840
## Mean   :0.5208      Mean   :0.8043      Mean   :0.7501      Mean   :0.2006
## 3rd Qu.:0.5297      3rd Qu.:0.9347      3rd Qu.:0.8125      3rd Qu.:0.2420
## Max.   :0.5677      Max.   :0.9871      Max.   :0.9230      Max.   :0.5140
##
##      perur              alabort              moreserv              moredef
## Min.   :0.1310      Min.   :0.1870      Min.   :0.0000      Min.   :0.0000
## 1st Qu.:0.5650      1st Qu.:0.3655      1st Qu.:0.3252      1st Qu.:0.1716
## Median :0.7897      Median :0.4237      Median :0.3788      Median :0.2056
## Mean   :0.7515      Mean   :0.4385      Mean   :0.3618      Mean   :0.2141
## 3rd Qu.:0.9768      3rd Qu.:0.5677      3rd Qu.:0.4197      3rd Qu.:0.2524
## Max.   :1.0000      Max.   :0.6129      Max.   :0.5000      Max.   :0.5052
##                                     NA's   :26      NA's   :32      NA's   :26
##      morecrimesp      protgay      dr1per      dr2per
## Min.   :0.2000      Min.   :0.3924      Min.   :0.1200      Min.   :0.0500
## 1st Qu.:0.5441      1st Qu.:0.5957      1st Qu.:0.3300      1st Qu.:0.1900
## Median :0.6093      Median :0.6625      Median :0.4800      Median :0.2700
## Mean   :0.5993      Mean   :0.6398      Mean   :0.4807      Mean   :0.2461
## 3rd Qu.:0.6349      3rd Qu.:0.6786      3rd Qu.:0.5400      3rd Qu.:0.3200
## Max.   :0.8125      Max.   :0.7660      Max.   :0.8000      Max.   :0.5100
## NA's   :26      NA's   :26      NA's   :3      NA's   :3
##      dr3per      dr4per      dr5per      aaaw
## Min.   :0.00000      Min.   :0.02000      Min.   :0.0900      Min.   : 0.00
## 1st Qu.:0.01000      1st Qu.:0.03000      1st Qu.:0.1800      1st Qu.: 0.00
## Median :0.01000      Median :0.06000      Median :0.1900      Median : 38.00
## Mean   :0.01794      Mean   :0.05856      Mean   :0.1943      Mean   : 47.31
## 3rd Qu.:0.02000      3rd Qu.:0.08000      3rd Qu.:0.2100      3rd Qu.:100.00
## Max.   :0.57000      Max.   :0.12000      Max.   :0.3100      Max.   :100.00
## NA's   :3      NA's   :3      NA's   :3
##      rtl      nowtot      now1      now2
## Min.   : 0.00      Min.   : 0.00      Min.   :0.0000      Min.   :0.0000
## 1st Qu.: 6.00      1st Qu.: 5.00      1st Qu.:0.0000      1st Qu.:0.0000
## Median : 84.00      Median : 35.00      Median :0.0000      Median :0.0000
## Mean   : 58.92      Mean   : 41.31      Mean   :0.2854      Mean   :0.2367
## 3rd Qu.:100.00      3rd Qu.: 80.00      3rd Qu.:1.0000      3rd Qu.:0.0000
## Max.   :100.00      Max.   :100.00      Max.   :1.0000      Max.   :1.0000
##                                     NA's   :4      NA's   :4      NA's   :4
##      now3      now4      now5      now6
## Min.   :0.0000      Min.   :0.0000      Min.   :0.0000      Min.   :0.0000
## 1st Qu.:0.0000      1st Qu.:0.0000      1st Qu.:0.0000      1st Qu.:0.0000
## Median :0.0000      Median :0.0000      Median :1.0000      Median :0.0000
## Mean   :0.3016      Mean   :0.3411      Mean   :0.5128      Mean   :0.4617
## 3rd Qu.:1.0000      3rd Qu.:1.0000      3rd Qu.:1.0000      3rd Qu.:1.0000
## Max.   :1.0000      Max.   :1.0000      Max.   :1.0000      Max.   :1.0000
## NA's   :4      NA's   :4      NA's   :4      NA's   :4

```

```
##          now7          now8          now9          now10
## Min.    :0.0000   Min.    :0.0000   Min.    :0.0000   Min.    :0.0000
## 1st Qu.:0.0000   1st Qu.:0.0000   1st Qu.:0.0000   1st Qu.:0.0000
## Median :0.0000   Median :0.0000   Median :1.0000   Median :0.0000
## Mean    :0.4617   Mean    :0.4455   Mean    :0.5104   Mean    :0.3341
## 3rd Qu.:1.0000   3rd Qu.:1.0000   3rd Qu.:1.0000   3rd Qu.:1.0000
## Max.    :1.0000   Max.    :1.0000   Max.    :1.0000   Max.    :1.0000
## NA's    :4       NA's    :4       NA's    :4       NA's    :4
##          now11        now12        now13        now14
## Min.    :0.0000   Min.    :0.0000   Min.    :0.0000   Min.    :0.0000
## 1st Qu.:0.0000   1st Qu.:0.0000   1st Qu.:0.0000   1st Qu.:0.0000
## Median :0.0000   Median :0.0000   Median :0.0000   Median :0.0000
## Mean    :0.3132   Mean    :0.1816   Mean    :0.4942   Mean    :0.2738
## 3rd Qu.:1.0000   3rd Qu.:0.0000   3rd Qu.:1.0000   3rd Qu.:1.0000
## Max.    :1.0000   Max.    :1.0000   Max.    :1.0000   Max.    :1.0000
## NA's    :4       NA's    :4       NA's    :4       NA's    :4
##          now15        now16        now17        now18
## Min.    :0.0000   Min.    :0.0000   Min.    :0.0000   Min.    :0.0000
## 1st Qu.:0.0000   1st Qu.:0.0000   1st Qu.:0.0000   1st Qu.:0.0000
## Median :1.0000   Median :1.0000   Median :0.0000   Median :1.0000
## Mean    :0.5267   Mean    :0.5731   Mean    :0.4548   Mean    :0.5777
## 3rd Qu.:1.0000   3rd Qu.:1.0000   3rd Qu.:1.0000   3rd Qu.:1.0000
## Max.    :1.0000   Max.    :1.0000   Max.    :1.0000   Max.    :1.0000
## NA's    :4       NA's    :4       NA's    :4       NA's    :4
##          now19        now20        age2        srvlng2
## Min.    :0.0000   Min.    :0.0000   Min.    : 676   Min.    : 1
## 1st Qu.:0.0000   1st Qu.:0.0000   1st Qu.:2025   1st Qu.: 9
## Median :0.0000   Median :0.0000   Median :2601   Median : 25
## Mean    :0.4919   Mean    :0.4826   Mean    :2762   Mean    : 137
## 3rd Qu.:1.0000   3rd Qu.:1.0000   3rd Qu.:3364   3rd Qu.: 169
## Max.    :1.0000   Max.    :1.0000   Max.    :7569   Max.    :2209
## NA's    :4       NA's    :4
```

```
lm.1 <- lm(nowtot ~ ngirls + female + white + repub + age + age2 + srvlng + srvlng2 + rgroup + demvote +
summary(lm.1)
```

```
##
## Call:
## lm(formula = nowtot ~ ngirls + female + white + repub + age +
##      age2 + srvlng + srvlng2 + rgroup + demvote + factor(totchi) +
##      factor(region), data = datNOW)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -51.732  -9.666  -0.456   8.932  62.264
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)    17.025463   21.661760   0.786  0.43235
## ngirls          2.299519   1.038119   2.215  0.02732 *
## female         10.838011   2.689784   4.029 6.70e-05 ***
## white           1.860315   3.451382   0.539  0.59018
## repub         -44.902819   2.109021 -21.291 < 2e-16 ***
## age              0.660705   0.799702   0.826  0.40919
## age2           -0.005706   0.007664  -0.745  0.45697
```

```
## srvlng          0.235404    0.300004    0.785    0.43311
## srvlng2        -0.008915    0.010147   -0.879    0.38015
## rgroupNone      7.261925    7.022355    1.034    0.30171
## rgroupCatholic  -3.973955    1.940810   -2.048    0.04126 *
## rgroupOther Christian  0.768547    4.600263    0.167    0.86740
## rgroupOther religion 10.866171    3.751570    2.896    0.00398 **
## demvote         84.158438   10.868851    7.743   8.11e-14 ***
## factor(totchi)1   -3.278460    3.497060   -0.937    0.34907
## factor(totchi)2   -5.523599    2.820904   -1.958    0.05092 .
## factor(totchi)3   -7.369559    3.272709   -2.252    0.02488 *
## factor(totchi)4  -11.011583    3.778913   -2.914    0.00377 **
## factor(totchi)5  -10.273736    4.718991   -2.177    0.03006 *
## factor(totchi)6  -12.453781    8.278559   -1.504    0.13329
## factor(totchi)7  -10.634369    9.583229   -1.110    0.26780
## factor(totchi)8  -28.973542   11.297360   -2.565    0.01069 *
## factor(totchi)9  -14.077336   17.660353   -0.797    0.42586
## factor(totchi)10 -23.044561   17.220364   -1.338    0.18159
## factor(region)2  -11.884261    4.095975   -2.901    0.00392 **
## factor(region)3  -13.046715    4.086030   -3.193    0.00152 **
## factor(region)4  -13.586565    4.701898   -2.890    0.00407 **
## factor(region)5  -11.358358    4.222274   -2.690    0.00744 **
## factor(region)6  -22.280800    4.984814   -4.470   1.02e-05 ***
## factor(region)7  -17.819681    4.523803   -3.939   9.66e-05 ***
## factor(region)8  -15.107737    5.035701   -3.000    0.00287 **
## factor(region)9   -8.186288    4.099879   -1.997    0.04654 *
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 16.09 on 398 degrees of freedom
## (5 observations deleted due to missingness)
## Multiple R-squared:  0.8199, Adjusted R-squared:  0.8058
## F-statistic: 58.44 on 31 and 398 DF,  p-value: < 2.2e-16
```

## Model with AAUW 105th Congress

```
datAAUW105 <- dat %>%
  filter(congress == 105)
lm.2 <- lm(aauw ~ ngirls + female + white + repub + age + age2 + srvlng + srvlng2 + rgroup + demvote +
summary(lm.2)

##
## Call:
## lm(formula = aauw ~ ngirls + female + white + repub + age + age2 +
##     srvlng + srvlng2 + rgroup + demvote + factor(totchi) + factor(region),
##     data = datAAUW105)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -58.930 -11.232  -0.809   8.842  74.928
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)    36.450769   23.400913   1.558 0.120100
```

```
## ngirls                2.384821    1.123848    2.122 0.034448 *
## female                9.193665    2.910140    3.159 0.001702 **
## white                 0.143934    3.675846    0.039 0.968785
## repub                -60.468440    2.280175   -26.519 < 2e-16 ***
## age                   0.854420    0.860012    0.993 0.321065
## age2                 -0.006414    0.008232   -0.779 0.436377
## srvlng               -0.207689    0.323641   -0.642 0.521416
## srvlng2              0.003581    0.010908    0.328 0.742865
## rgroupNone           5.670655    7.605983    0.746 0.456374
## rgroupCatholic       -4.504837    2.091041   -2.154 0.031806 *
## rgroupOther Christian  3.204342    4.983300    0.643 0.520580
## rgroupOther religion  9.682583    4.047467    2.392 0.017204 *
## demvote              62.147959   11.567940    5.372 1.32e-07 ***
## factor(totchi)1      -3.497354    3.738651   -0.935 0.350113
## factor(totchi)2      -4.408748    3.038459   -1.451 0.147565
## factor(totchi)3      -7.397466    3.526217   -2.098 0.036542 *
## factor(totchi)4     -10.871754    4.061698   -2.677 0.007740 **
## factor(totchi)5     -13.035875    5.093865   -2.559 0.010859 *
## factor(totchi)6     -17.865026    8.953045   -1.995 0.046672 *
## factor(totchi)7     -11.856900   10.376659   -1.143 0.253864
## factor(totchi)8     -43.702778   12.225549   -3.575 0.000393 ***
## factor(totchi)9     -15.928693   19.124351   -0.833 0.405395
## factor(totchi)10    -26.659436   18.646598   -1.430 0.153574
## factor(region)2      -9.286950    4.408594   -2.107 0.035775 *
## factor(region)3     -12.576558    4.421819   -2.844 0.004680 **
## factor(region)4      -7.869625    5.086779   -1.547 0.122632
## factor(region)5     -10.056063    4.565364   -2.203 0.028184 *
## factor(region)6     -19.685949    5.393746   -3.650 0.000297 ***
## factor(region)7     -15.546480    4.887668   -3.181 0.001583 **
## factor(region)8     -16.451153    5.450929   -3.018 0.002706 **
## factor(region)9      -8.656789    4.432920   -1.953 0.051532 .
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 17.44 on 402 degrees of freedom
## (1 observation deleted due to missingness)
## Multiple R-squared:  0.84, Adjusted R-squared:  0.8276
## F-statistic: 68.06 on 31 and 402 DF, p-value: < 2.2e-16
```

## Model with AAUW 106th Congress

```
datAAUW106 <- dat %>%
  filter(congress == 106)
lm.3 <- lm(aauw ~ ngirls + female + white + repub + age + age2 + srvlng + srvlng2 + rgroup + demvote +
  summary(lm.3)

##
## Call:
## lm(formula = aauw ~ ngirls + female + white + repub + age + age2 +
##     srvlng + srvlng2 + rgroup + demvote + factor(totchi) + factor(region),
##     data = datAAUW106)
##
## Residuals:
```

```
##      Min      1Q  Median      3Q      Max
## -68.861 -12.254  -0.263  10.379  77.986
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)      9.384230   25.004019    0.375 0.707628
## ngirls           1.687779    1.135634    1.486 0.138008
## female          10.440223    2.881348    3.623 0.000328 ***
## white           2.594087    3.833331    0.677 0.498973
## repub          -55.927128    2.335258   -23.949 < 2e-16 ***
## age             2.034389    0.901753    2.256 0.024604 *
## age2            -0.018305    0.008505   -2.152 0.031961 *
## srvlng          -0.726083    0.379992   -1.911 0.056742 .
## srvlng2         0.024968    0.012860    1.941 0.052895 .
## rgroupNone       5.352528    7.790652    0.687 0.492450
## rgroupCatholic  -2.276623    2.128764   -1.069 0.285504
## rgroupOther Christian  1.690461    4.912183    0.344 0.730923
## rgroupOther religion  11.889799    4.342803    2.738 0.006459 **
## demvote         57.436919   12.017562    4.779 2.47e-06 ***
## factor(totchi)1   -5.469827    3.752974   -1.457 0.145767
## factor(totchi)2   -5.402323    3.150248   -1.715 0.087134 .
## factor(totchi)3   -6.654154    3.649826   -1.823 0.069022 .
## factor(totchi)4  -10.650334    4.337895   -2.455 0.014503 *
## factor(totchi)5  -11.565357    5.110870   -2.263 0.024174 *
## factor(totchi)6  -20.394694   10.255307   -1.989 0.047411 *
## factor(totchi)7  -10.534574   10.152137   -1.038 0.300046
## factor(totchi)8  -29.255772   12.752995   -2.294 0.022302 *
## factor(totchi)10 -13.980355   19.157892   -0.730 0.465971
## factor(region)2   -3.234622    4.482938   -0.722 0.470995
## factor(region)3  -12.105109    4.486371   -2.698 0.007265 **
## factor(region)4   -8.518744    5.213591   -1.634 0.103050
## factor(region)5   -6.371197    4.671525   -1.364 0.173380
## factor(region)6  -13.846102    5.484528   -2.525 0.011967 *
## factor(region)7  -15.202413    4.974428   -3.056 0.002391 **
## factor(region)8  -14.357427    5.641486   -2.545 0.011301 *
## factor(region)9   -5.079990    4.553775   -1.116 0.265277
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 17.88 on 403 degrees of freedom
## (1 observation deleted due to missingness)
## Multiple R-squared:  0.8144, Adjusted R-squared:  0.8006
## F-statistic: 58.95 on 30 and 403 DF, p-value: < 2.2e-16
```

## Model with AAUW 107th Congress

```
datAAUW107 <- dat %>%
  filter(congress == 107)
lm.4 <- lm(aauw ~ ngirls + female + white + repub + age + age2 + srvlng + srvlng2 + rgroup + demvote +
summary(lm.4)

##
## Call:
```

```

## lm(formula = aauw ~ ngirls + female + white + repub + age + age2 +
##      srvlng + srvlng2 + rgroup + demvote + factor(totchi) + factor(region),
##      data = dataAAUW107)
##
## Residuals:
##      Min        1Q    Median        3Q        Max
## -79.797  -7.674   0.000   7.851  79.645
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)    2.745e+01  2.191e+01   1.252 0.211141
## ngirls          2.421e+00  1.092e+00   2.217 0.027194 *
## female          7.564e+00  2.618e+00   2.889 0.004069 **
## white          -2.626e+00  3.150e+00  -0.834 0.404940
## repub          -6.322e+01  2.120e+00 -29.820 < 2e-16 ***
## age             1.298e+00  7.990e-01   1.624 0.105074
## age2           -1.152e-02  7.466e-03  -1.543 0.123695
## srvlng          -1.001e-01  3.457e-01  -0.289 0.772363
## srvlng2         -1.683e-04  1.110e-02  -0.015 0.987905
## rgroupNone       7.027e+00  7.176e+00   0.979 0.328088
## rgroupCatholic  -4.016e+00  1.987e+00  -2.021 0.043926 *
## rgroupOther Christian  1.646e+00  4.491e+00   0.367 0.714184
## rgroupOther religion  1.029e+01  3.785e+00   2.718 0.006859 **
## demvote         5.621e+01  9.092e+00   6.182 1.56e-09 ***
## factor(totchi)1  -1.611e+00  3.378e+00  -0.477 0.633804
## factor(totchi)2  -3.251e+00  2.938e+00  -1.106 0.269226
## factor(totchi)3  -6.314e+00  3.465e+00  -1.822 0.069177 .
## factor(totchi)4  -8.223e+00  4.033e+00  -2.039 0.042116 *
## factor(totchi)5  -9.637e+00  4.836e+00  -1.992 0.046992 *
## factor(totchi)6  -2.121e+01  9.432e+00  -2.249 0.025049 *
## factor(totchi)7  -1.000e+00  1.053e+01  -0.095 0.924357
## factor(totchi)8  -2.079e+01  1.197e+01  -1.737 0.083078 .
## factor(totchi)9  -2.467e+01  1.928e+01  -1.279 0.201489
## factor(totchi)10 -1.559e+01  1.777e+01  -0.877 0.381083
## factor(region)2  -4.331e+00  4.132e+00  -1.048 0.295162
## factor(region)3  -9.906e+00  4.142e+00  -2.392 0.017233 *
## factor(region)4  -3.831e+00  4.891e+00  -0.783 0.433945
## factor(region)5  -1.001e+01  4.330e+00  -2.311 0.021320 *
## factor(region)6  -1.798e+01  5.075e+00  -3.543 0.000442 ***
## factor(region)7  -8.571e+00  4.747e+00  -1.805 0.071752 .
## factor(region)8  -8.901e+00  5.193e+00  -1.714 0.087306 .
## factor(region)9  -5.677e+00  4.203e+00  -1.351 0.177493
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 16.49 on 402 degrees of freedom
## (1 observation deleted due to missingness)
## Multiple R-squared:  0.8649, Adjusted R-squared:  0.8545
## F-statistic: 83.03 on 31 and 402 DF, p-value: < 2.2e-16

```



## Model with AAUW 107th Congress

```

datAAUW108 <- dat %>%
  filter (congress == 108)
lm.5 <- lm(aauw ~ ngirls + female + white + repub + age + age2 + srvlng + srvlng2 + rgroup + demvote + 
summary(lm.5)

##
## Call:
## lm(formula = aauw ~ ngirls + female + white + repub + age + age2 + 
##      srvlng + srvlng2 + rgroup + demvote + factor(totchi) + factor(region), 
##      data = datAAUW108)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -76.876  -9.159  -0.796   9.686  78.595
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)      1.869862   24.069084    0.078 0.938116
## ngirls            2.250368    1.145479    1.965 0.050156 .
## female            6.908988    2.730097    2.531 0.011767 *
## white             1.938711    3.210661    0.604 0.546295
## repub            -63.931869    2.436017  -26.244 < 2e-16 ***
## age               2.300460    0.860041    2.675 0.007784 **
## age2             -0.020665    0.007987   -2.587 0.010024 *
## srvlng            -0.138930    0.326509   -0.426 0.670700
## srvlng2           0.004479    0.010171    0.440 0.659920
## rgroupNone        -7.137120    7.499321   -0.952 0.341823
## rgroupCatholic    -5.467578    2.077421   -2.632 0.008819 **
## rgroupOther Christian  3.873688    4.683620    0.827 0.408690
## rgroupOther religion  3.156054    3.959417    0.797 0.425865
## demvote           66.950320   10.888708    6.149 1.89e-09 ***
## factor(totchi)1     -7.450581    3.634887   -2.050 0.041041 *
## factor(totchi)2     -8.891984    3.118601   -2.851 0.004580 **
## factor(totchi)3    -14.094729    3.622081   -3.891 0.000117 ***
## factor(totchi)4    -10.660337    4.324511   -2.465 0.014117 *
## factor(totchi)5    -16.514534    5.315221   -3.107 0.002025 **
## factor(totchi)6    -24.936074    9.858029   -2.530 0.011805 *
## factor(totchi)7     -2.564773   11.019008   -0.233 0.816068
## factor(totchi)8    -25.529296   12.548549   -2.034 0.042566 *
## factor(totchi)9    -42.548910   20.181228   -2.108 0.035623 *
## factor(totchi)10   -14.668008   18.636690   -0.787 0.431719
## factor(totchi)12   -26.442540   19.525851   -1.354 0.176427
## factor(region)2     -8.727198    4.452392   -1.960 0.050676 .
## factor(region)3    -12.943889    4.482627   -2.888 0.004093 **
## factor(region)4    -11.613990    5.206694   -2.231 0.026262 *
## factor(region)5    -13.680979    4.556604   -3.002 0.002846 **
## factor(region)6    -20.166479    5.442755   -3.705 0.000241 ***
## factor(region)7    -11.724006    5.084689   -2.306 0.021636 *
## factor(region)8    -16.528372    5.368109   -3.079 0.002220 **
## factor(region)9    -10.709793    4.449345   -2.407 0.016534 *
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```

```
##
## Residual standard error: 17.23 on 400 degrees of freedom
## (2 observations deleted due to missingness)
## Multiple R-squared: 0.8586, Adjusted R-squared: 0.8473
## F-statistic: 75.92 on 32 and 400 DF, p-value: < 2.2e-16
```

## Put all models in a stargazer table

```
stargazer(lm.1, lm.2, lm.3, lm.4, lm.5, title = "Table 2-Impact of Female Children on Legislator Voting
```

## Table 3 Replication

### NOW all legislators

```
lm_all_NOW<-lm(nowtot~ngirls + female + white + repub + age + age2 + srvlng + srvlng2+ rgroup + demvote
summary(lm_all_NOW)
```

```
##
## Call:
## lm(formula = nowtot ~ ngirls + female + white + repub + age +
##      age2 + srvlng + srvlng2 + rgroup + demvote + factor(totchi) +
##      factor(region), data = datNOW)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -51.732  -9.666  -0.456   8.932  62.264
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)    17.025463   21.661760   0.786  0.43235
## ngirls          2.299519   1.038119   2.215  0.02732 *
## female         10.838011   2.689784   4.029 6.70e-05 ***
## white           1.860315   3.451382   0.539  0.59018
## repub         -44.902819   2.109021 -21.291 < 2e-16 ***
## age              0.660705   0.799702   0.826  0.40919
## age2           -0.005706   0.007664  -0.745  0.45697
## srvlng           0.235404   0.300004   0.785  0.43311
## srvlng2        -0.008915   0.010147  -0.879  0.38015
## rgroupNone       7.261925   7.022355   1.034  0.30171
## rgroupCatholic  -3.973955   1.940810  -2.048  0.04126 *
## rgroupOther Christian  0.768547   4.600263   0.167  0.86740
## rgroupOther religion 10.866171   3.751570   2.896  0.00398 **
## demvote         84.158438  10.868851   7.743 8.11e-14 ***
## factor(totchi)1    -3.278460   3.497060  -0.937  0.34907
## factor(totchi)2    -5.523599   2.820904  -1.958  0.05092 .
## factor(totchi)3    -7.369559   3.272709  -2.252  0.02488 *
## factor(totchi)4   -11.011583   3.778913  -2.914  0.00377 **
## factor(totchi)5   -10.273736   4.718991  -2.177  0.03006 *
## factor(totchi)6   -12.453781   8.278559  -1.504  0.13329
## factor(totchi)7   -10.634369   9.583229  -1.110  0.26780
## factor(totchi)8   -28.973542  11.297360  -2.565  0.01069 *
## factor(totchi)9   -14.077336  17.660353  -0.797  0.42586
```

Table 1: Replication of Table 2—Impact of Female Children on Legislator Voting on Women's Issues

	<i>Dependent variable:</i>				
	NOW	AAUW			
	105th (1)	105th (2)	106th (3)	107th (4)	108th (5)
Number of female children	2.300** (1.038)	2.385** (1.124)	1.688 (1.136)	2.421** (1.092)	2.250* (1.145)
Female	10.838*** (2.690)	9.194*** (2.910)	10.440*** (2.881)	7.564*** (2.618)	6.909** (2.730)
White	1.860 (3.451)	0.144 (3.676)	2.594 (3.833)	−2.626 (3.150)	1.939 (3.211)
Republican	−44.903*** (2.109)	−60.468*** (2.280)	−55.927*** (2.335)	−63.216*** (2.120)	−63.932*** (2.436)
Age	0.661 (0.800)	0.854 (0.860)	2.034** (0.902)	1.298 (0.799)	2.300*** (0.860)
Age squared	−0.006 (0.008)	−0.006 (0.008)	−0.018** (0.009)	−0.012 (0.007)	−0.021** (0.008)
Service Length	0.235 (0.300)	−0.208 (0.324)	−0.726* (0.380)	−0.100 (0.346)	−0.139 (0.327)
Service length squared	−0.009 (0.010)	0.004 (0.011)	0.025* (0.013)	−0.0002 (0.011)	0.004 (0.010)
No religion	7.262 (7.022)	5.671 (7.606)	5.353 (7.791)	7.027 (7.176)	−7.137 (7.499)
Catholic	−3.974** (1.941)	−4.505** (2.091)	−2.277 (2.129)	−4.016** (1.987)	−5.468*** (2.077)
Other Christian	0.769 (4.600)	3.204 (4.983)	1.690 (4.912)	1.646 (4.491)	3.874 (4.684)
Other religion	10.866*** (3.752)	9.683** (4.047)	11.890*** (4.343)	10.286*** (3.785)	3.156 (3.959)
Democratic vote share in district	84.158*** (10.869)	62.148*** (11.568)	57.437*** (12.018)	56.206*** (9.092)	66.950*** (10.889)
N	430	434	434	434	433

*Note:*

\*p&lt;0.1; \*\*p&lt;0.05; \*\*\*p&lt;0.01

```
## factor(totchi)10      -23.044561  17.220364  -1.338  0.18159
## factor(region)2       -11.884261   4.095975  -2.901  0.00392 **
## factor(region)3       -13.046715   4.086030  -3.193  0.00152 **
## factor(region)4       -13.586565   4.701898  -2.890  0.00407 **
## factor(region)5       -11.358358   4.222274  -2.690  0.00744 **
## factor(region)6       -22.280800   4.984814  -4.470  1.02e-05 ***
## factor(region)7       -17.819681   4.523803  -3.939  9.66e-05 ***
## factor(region)8       -15.107737   5.035701  -3.000  0.00287 **
## factor(region)9       -8.186288   4.099879  -1.997  0.04654 *
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 16.09 on 398 degrees of freedom
## (5 observations deleted due to missingness)
## Multiple R-squared:  0.8199, Adjusted R-squared:  0.8058
## F-statistic: 58.44 on 31 and 398 DF,  p-value: < 2.2e-16
```

## NOW Men only

```
lm_men_NOW <- lm(nowtot~ngirls + female + white + repub + age + age2 + srvlng + srvlng2+ rgroup + demvote
summary(lm_men_NOW)
```

```
##
## Call:
## lm(formula = nowtot ~ ngirls + female + white + repub + age +
##      age2 + srvlng + srvlng2 + rgroup + demvote + factor(totchi) +
##      factor(region), data = datNOW, subset = female == 0)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -50.090  -9.514  -1.125    8.748   55.568
##
## Coefficients: (1 not defined because of singularities)
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)    4.397649   22.470956   0.196  0.844955
## ngirls         2.484019    1.087430   2.284  0.022950 *
## female          NA           NA      NA      NA
## white          1.164293    3.916342   0.297  0.766420
## repub        -44.508978    2.214830 -20.096 < 2e-16 ***
## age            1.139590    0.822765   1.385  0.166910
## age2          -0.010331    0.007911  -1.306  0.192448
## srvlng         0.115137    0.310983   0.370  0.711431
## srvlng2        -0.004704    0.010441  -0.451  0.652617
## rgroupNone      8.024563    7.678439   1.045  0.296706
## rgroupCatholic  -4.104736    2.056595  -1.996  0.046718 *
## rgroupOther Christian  0.200903    4.599285   0.044  0.965183
## rgroupOther religion  11.452514    3.937161   2.909  0.003859 **
## demvote        86.721384   11.885943   7.296  1.99e-12 ***
## factor(totchi)1    -4.849509    3.695655  -1.312  0.190304
## factor(totchi)2    -5.965521    2.916188  -2.046  0.041535 *
## factor(totchi)3    -8.977315    3.349540  -2.680  0.007706 **
## factor(totchi)4    -9.954246    3.955762  -2.516  0.012302 *
## factor(totchi)5   -10.732096    4.831519  -2.221  0.026970 *
## factor(totchi)6   -13.752241    8.282863  -1.660  0.097742 .
```

```
## factor(totchi)7      -11.286947    9.591569   -1.177 0.240090
## factor(totchi)8      -29.582901   11.345273   -2.608 0.009510 **
## factor(totchi)9      -14.330061   17.635753   -0.813 0.417023
## factor(totchi)10     -21.891503   17.177744   -1.274 0.203361
## factor(region)2      -11.759093    4.379070   -2.685 0.007591 **
## factor(region)3      -12.676502    4.353103   -2.912 0.003820 **
## factor(region)4      -10.297556    5.042270   -2.042 0.041874 *
## factor(region)5      -11.659940    4.516253   -2.582 0.010234 *
## factor(region)6      -21.716926    5.165498   -4.204 3.33e-05 ***
## factor(region)7      -17.577927    4.788586   -3.671 0.000279 ***
## factor(region)8      -13.388937    5.393197   -2.483 0.013511 *
## factor(region)9      -6.820590    4.457441   -1.530 0.126878
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 15.96 on 351 degrees of freedom
## (5 observations deleted due to missingness)
## Multiple R-squared:  0.814, Adjusted R-squared:  0.7981
## F-statistic: 51.21 on 30 and 351 DF,  p-value: < 2.2e-16
```

## NOW Women only

```
lm_women_NOW <- lm(nowtot~ngirls + female + white + repub + age + age2 + srvlng + srvlng2+ rgroup + demv
summary(lm_women_NOW)
```

```
##
## Call:
## lm(formula = nowtot ~ ngirls + female + white + repub + age +
##      age2 + srvlng + srvlng2 + rgroup + demvote + factor(totchi) +
##      factor(region), data = datNOW, subset = female == 1)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -29.286  -5.830   0.274   8.170  40.543
##
## Coefficients: (1 not defined because of singularities)
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)   154.66478   139.18696   1.111   0.277
## ngirls        -1.67157    5.63711  -0.297   0.769
## female                NA         NA      NA     NA
## white          10.03972   11.03473   0.910   0.372
## repub        -52.68068    9.63890  -5.465 1.29e-05 ***
## age           -3.84749    5.36668  -0.717   0.480
## age2           0.03530    0.05224   0.676   0.506
## srvlng        -0.53515    2.80845  -0.191   0.850
## srvlng2        0.05266    0.16929   0.311   0.758
## rgroupNone     2.14094   20.25419   0.106   0.917
## rgroupCatholic -2.65522    8.68392  -0.306   0.762
## rgroupOther religion 1.74909   18.93119   0.092   0.927
## demvote       61.45962   38.07255   1.614   0.120
## factor(totchi)1    1.71700   15.41175   0.111   0.912
## factor(totchi)2   -3.22304   17.93953  -0.180   0.859
## factor(totchi)3    10.96359   27.90708   0.393   0.698
## factor(totchi)4   -2.88244   22.16167  -0.130   0.898
```

```
## factor(totchi)5      -3.87069   33.17378  -0.117    0.908
## factor(region)2      -8.85284   18.32202  -0.483    0.633
## factor(region)3      -3.41626   18.28300  -0.187    0.853
## factor(region)4     -31.85721   22.03016  -1.446    0.161
## factor(region)5       1.22809   18.15949   0.068    0.947
## factor(region)7      -8.22778   20.13279  -0.409    0.686
## factor(region)8     -17.05142   22.04303  -0.774    0.447
## factor(region)9      -4.53504   17.58905  -0.258    0.799
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 18.26 on 24 degrees of freedom
## Multiple R-squared:  0.845, Adjusted R-squared:  0.6964
## F-statistic: 5.687 on 23 and 24 DF, p-value: 3.614e-05
```

## NOW Dems only

```
lm_Dem_NOW <- lm(nowtot~ngirls + female + white + repub + age + age2 + srvlng + srvlng2+ rgroup + demvote
summary(lm_Dem_NOW)
```

```
##
## Call:
## lm(formula = nowtot ~ ngirls + female + white + repub + age +
##      age2 + srvlng + srvlng2 + rgroup + demvote + factor(totchi) +
##      factor(region), data = datNOW, subset = repub == 0)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -54.703  -8.811   2.262   9.039  40.583
##
## Coefficients: (1 not defined because of singularities)
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)    23.465903   32.724140   0.717 0.474274
## ngirls          2.931423    1.604903   1.827 0.069463 .
## female          9.509844    3.650517   2.605 0.009972 **
## white         -1.264785    4.761331  -0.266 0.790830
## repub              NA           NA      NA      NA
## age             1.068978    1.196088   0.894 0.372688
## age2           -0.012950    0.011478  -1.128 0.260774
## srvlng          -0.167267    0.433299  -0.386 0.699940
## srvlng2         0.006867    0.013911   0.494 0.622190
## rgroupNone       3.255417    7.758972   0.420 0.675313
## rgroupCatholic  -6.975655    3.054350  -2.284 0.023575 *
## rgroupOther Christian  1.364428   18.332153   0.074 0.940754
## rgroupOther religion 10.335657    4.528061   2.283 0.023652 *
## demvote        75.958726   15.886580   4.781 3.66e-06 ***
## factor(totchi)1     0.304964    4.864774   0.063 0.950086
## factor(totchi)2    -1.748322    4.447552  -0.393 0.694723
## factor(totchi)3    -5.385592    5.385886  -1.000 0.318710
## factor(totchi)4   -12.186896    6.294968  -1.936 0.054473 .
## factor(totchi)5    -9.249612    7.562746  -1.223 0.222946
## factor(totchi)6     5.651849   13.866936   0.408 0.684079
## factor(totchi)8   -33.218711   20.774166  -1.599 0.111605
## factor(region)2   -14.866009    5.162213  -2.880 0.004474 **
```

```
## factor(region)3      -13.538686    5.220559   -2.593 0.010305 *
## factor(region)4      -12.809889    6.805977   -1.882 0.061466 .
## factor(region)5      -14.310426    5.780409   -2.476 0.014244 *
## factor(region)6      -26.702238    7.568222   -3.528 0.000534 ***
## factor(region)7      -21.090375    6.206250   -3.398 0.000839 ***
## factor(region)8       -4.013531   10.890695   -0.369 0.712922
## factor(region)9       -2.848641    5.344088   -0.533 0.594675
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 17.03 on 176 degrees of freedom
## (3 observations deleted due to missingness)
## Multiple R-squared:  0.4979, Adjusted R-squared:  0.4209
## F-statistic: 6.465 on 27 and 176 DF,  p-value: 2.613e-15
```

## NOW Repubs only

```
lm_Repub_NOW <- lm(nowtot~ngirls + female + white + repub + age + age2 + srvlng + srvlng2+ rgroup + dem
summary(lm_Repub_NOW)
```

```
##
## Call:
## lm(formula = nowtot ~ ngirls + female + white + repub + age +
##      age2 + srvlng + srvlng2 + rgroup + demvote + factor(totchi) +
##      factor(region), data = datNOW, subset = repub == 1)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -29.096  -9.229  -1.917   6.380  51.833
##
## Coefficients: (1 not defined because of singularities)
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)   -19.090296   28.753912  -0.664 0.507522
## ngirls         1.278677    1.322456   0.967 0.334788
## female        10.364195    4.197247   2.469 0.014394 *
## white          0.395339    6.749858   0.059 0.953354
## repub          NA          NA         NA      NA
## age            0.458807    1.079824   0.425 0.671382
## age2          -0.001429    0.010383  -0.138 0.890657
## srvlng         0.790151    0.485215   1.628 0.105035
## srvlng2       -0.033495    0.018586  -1.802 0.073051 .
## rgroupCatholic  0.518275    2.522949   0.205 0.837454
## rgroupOther Christian  4.661463    4.558988   1.022 0.307815
## rgroupOther religion 12.774078    8.773023   1.456 0.146975
## demvote       85.947961   16.859111   5.098 8.06e-07 ***
## factor(totchi)1    -9.943798    5.234312  -1.900 0.058936 .
## factor(totchi)2    -9.236306    3.523055  -2.622 0.009437 **
## factor(totchi)3    -6.441154    3.975712  -1.620 0.106813
## factor(totchi)4    -8.417750    4.551019  -1.850 0.065871 .
## factor(totchi)5    -9.075579    5.894235  -1.540 0.125237
## factor(totchi)6   -22.560882    9.915768  -2.275 0.023973 *
## factor(totchi)7    -8.300685    9.607838  -0.864 0.388672
## factor(totchi)8   -15.439712   13.171362  -1.172 0.242532
## factor(totchi)9   -22.784791   16.825435  -1.354 0.177236
```

```
## factor(totchi)10      -26.035181  16.039673  -1.623  0.106159
## factor(region)2       -18.312855   7.983995  -2.294  0.022868 *
## factor(region)3       -22.991771   7.885991  -2.916  0.003965 **
## factor(region)4       -22.675718   8.310375  -2.729  0.006939 **
## factor(region)5       -21.271679   7.889069  -2.696  0.007620 **
## factor(region)6       -29.093490   8.431266  -3.451  0.000685 ***
## factor(region)7       -26.329094   8.152942  -3.229  0.001455 **
## factor(region)8       -27.644673   8.100921  -3.413  0.000782 ***
## factor(region)9       -25.488333   7.959513  -3.202  0.001591 **
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 14.28 on 196 degrees of freedom
## (2 observations deleted due to missingness)
## Multiple R-squared:  0.349, Adjusted R-squared:  0.2526
## F-statistic: 3.623 on 29 and 196 DF,  p-value: 4.137e-08
```

## AAUW All

```
lm_all_AAUW <- lm(aauw~ngirls + female + white + repub + age + age2 + srvlng + srvlng2+ rgroup + demvot
summary(lm_all_AAUW)
```

```
##
## Call:
## lm(formula = aauw ~ ngirls + female + white + repub + age + age2 +
##      srvlng + srvlng2 + rgroup + demvote + factor(totchi) + factor(region),
##      data = dataAAUW105)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -58.930 -11.232  -0.809   8.842  74.928
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)    36.450769   23.400913   1.558  0.120100
## ngirls          2.384821    1.123848   2.122  0.034448 *
## female          9.193665    2.910140   3.159  0.001702 **
## white           0.143934    3.675846   0.039  0.968785
## repub        -60.468440    2.280175 -26.519 < 2e-16 ***
## age             0.854420    0.860012   0.993  0.321065
## age2          -0.006414    0.008232  -0.779  0.436377
## srvlng         -0.207689    0.323641  -0.642  0.521416
## srvlng2         0.003581    0.010908   0.328  0.742865
## rgroupNone      5.670655    7.605983   0.746  0.456374
## rgroupCatholic  -4.504837    2.091041  -2.154  0.031806 *
## rgroupOther Christian  3.204342    4.983300   0.643  0.520580
## rgroupOther religion  9.682583    4.047467   2.392  0.017204 *
## demvote        62.147959   11.567940   5.372  1.32e-07 ***
## factor(totchi)1   -3.497354    3.738651  -0.935  0.350113
## factor(totchi)2   -4.408748    3.038459  -1.451  0.147565
## factor(totchi)3   -7.397466    3.526217  -2.098  0.036542 *
## factor(totchi)4  -10.871754    4.061698  -2.677  0.007740 **
## factor(totchi)5  -13.035875    5.093865  -2.559  0.010859 *
## factor(totchi)6  -17.865026    8.953045  -1.995  0.046672 *
```



```
## factor(totchi)7      -11.856900  10.376659  -1.143  0.253864
## factor(totchi)8      -43.702778  12.225549  -3.575  0.000393 ***
## factor(totchi)9      -15.928693  19.124351  -0.833  0.405395
## factor(totchi)10     -26.659436  18.646598  -1.430  0.153574
## factor(region)2       -9.286950   4.408594  -2.107  0.035775 *
## factor(region)3      -12.576558   4.421819  -2.844  0.004680 **
## factor(region)4       -7.869625   5.086779  -1.547  0.122632
## factor(region)5      -10.056063   4.565364  -2.203  0.028184 *
## factor(region)6      -19.685949   5.393746  -3.650  0.000297 ***
## factor(region)7      -15.546480   4.887668  -3.181  0.001583 **
## factor(region)8      -16.451153   5.450929  -3.018  0.002706 **
## factor(region)9       -8.656789   4.432920  -1.953  0.051532 .
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 17.44 on 402 degrees of freedom
## (1 observation deleted due to missingness)
## Multiple R-squared:  0.84, Adjusted R-squared:  0.8276
## F-statistic: 68.06 on 31 and 402 DF,  p-value: < 2.2e-16
```

## AAUW Men only

```
lm_men_AAUW <- lm(aauw~ngirls + female + white + repub + age + age2 + srvlng + srvlng2+ rgroup + demvote
summary(lm_men_AAUW)
```

```
##
## Call:
## lm(formula = aauw ~ ngirls + female + white + repub + age + age2 +
##      srvlng + srvlng2 + rgroup + demvote + factor(totchi) + factor(region),
##      data = dataAAUW105, subset = female == 0)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -60.641 -11.040  -0.985   9.572  75.674
##
## Coefficients: (1 not defined because of singularities)
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)    26.72842    24.21159   1.104  0.270362
## ngirls          2.486103    1.174253   2.117  0.034940 *
## female          NA           NA      NA      NA
## white          -1.196786    4.143799  -0.289  0.772893
## repub          -61.043642    2.388256 -25.560 < 2e-16 ***
## age             1.298691    0.881865   1.473  0.141727
## age2           -0.010788    0.008468  -1.274  0.203495
## srvlng          -0.406994    0.334367  -1.217  0.224334
## srvlng2         0.009764    0.011184   0.873  0.383235
## rgroupNone      6.675761    8.294711   0.805  0.421461
## rgroupCatholic  -5.381219    2.209227  -2.436  0.015351 *
## rgroupOther Christian  2.514050    4.969209   0.506  0.613223
## rgroupOther religion 10.116007    4.233089   2.390  0.017381 *
## demvote        60.199121   12.569764   4.789  2.46e-06 ***
## factor(totchi)1    -4.914484    3.933461  -1.249  0.212340
## factor(totchi)2    -4.361137    3.130809  -1.393  0.164499
## factor(totchi)3    -9.187742    3.601294  -2.551  0.011153 *
```

```
## factor(totchi)4      -10.957038    4.236569   -2.586 0.010099 *
## factor(totchi)5      -13.746200    5.200820   -2.643 0.008580 **
## factor(totchi)6      -18.665181    8.932429   -2.090 0.037365 *
## factor(totchi)7      -12.458069   10.359624   -1.203 0.229948
## factor(totchi)8      -44.221245   12.245839   -3.611 0.000349 ***
## factor(totchi)9      -14.751013   19.047621   -0.774 0.439193
## factor(totchi)10     -25.354515   18.552174   -1.367 0.172597
## factor(region)2      -6.148925    4.700218   -1.308 0.191645
## factor(region)3      -9.206951    4.698228   -1.960 0.050817 .
## factor(region)4      -3.204894    5.438821   -0.589 0.556060
## factor(region)5      -8.207881    4.869249   -1.686 0.092741 .
## factor(region)6      -17.006333    5.573059   -3.052 0.002448 **
## factor(region)7      -12.904979    5.157700   -2.502 0.012796 *
## factor(region)8      -11.765309    5.823188   -2.020 0.044090 *
## factor(region)9      -5.196700    4.807729   -1.081 0.280473
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 17.25 on 355 degrees of freedom
## (1 observation deleted due to missingness)
## Multiple R-squared:  0.8382, Adjusted R-squared:  0.8246
## F-statistic: 61.32 on 30 and 355 DF,  p-value: < 2.2e-16
```

## AAUW Women only

```
lm_women_AAUW <- lm(aauw~ngirls + female + white + repub + age + age2 + srvlng + srvlng2+ rgroup + demv
summary(lm_women_AAUW)
```

```
##
## Call:
## lm(formula = aauw ~ ngirls + female + white + repub + age + age2 +
##      srvlng + srvlng2 + rgroup + demvote + factor(totchi) + factor(region),
##      data = dataAAUW105, subset = female == 1)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -30.546  -6.898   0.674   7.502  41.971
##
## Coefficients: (1 not defined because of singularities)
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)    223.81682   158.22882    1.415   0.1701
## ngirls         -3.89966    6.40831   -0.609   0.5486
## female          NA          NA        NA      NA
## white          14.13537   12.54436    1.127   0.2710
## repub         -57.63640   10.95758   -5.260 2.15e-05 ***
## age            -6.16709    6.10088   -1.011   0.3222
## age2            0.06056    0.05939    1.020   0.3180
## srvlng         -2.63811    3.19266   -0.826   0.4168
## srvlng2         0.15117    0.19245    0.786   0.4398
## rgroupNone      4.83708   23.02512    0.210   0.8354
## rgroupCatholic   2.37714    9.87195    0.241   0.8118
## rgroupOther religion 18.60723   21.52113    0.865   0.3958
## demvote        85.46721   43.28117    1.975   0.0599 .
## factor(totchi)1    2.23827   17.52019    0.128   0.8994
```

```
## factor(totchi)2      0.11098   20.39380   0.005   0.9957
## factor(totchi)3      2.75609   31.72498   0.087   0.9315
## factor(totchi)4      1.23483   25.19356   0.049   0.9613
## factor(totchi)5      1.89993   37.71221   0.050   0.9602
## factor(region)2     -32.50622   20.82862  -1.561   0.1317
## factor(region)3     -30.80865   20.78426  -1.482   0.1513
## factor(region)4     -41.83044   25.04406  -1.670   0.1079
## factor(region)5     -16.53341   20.64385  -0.801   0.4311
## factor(region)7     -30.56968   22.88712  -1.336   0.1942
## factor(region)8     -45.70426   25.05869  -1.824   0.0806 .
## factor(region)9     -27.81003   19.99537  -1.391   0.1770
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 20.76 on 24 degrees of freedom
## Multiple R-squared:  0.8464, Adjusted R-squared:  0.6992
## F-statistic: 5.751 on 23 and 24 DF,  p-value: 3.283e-05
```

## AAUW Dems only

```
lm_Dem_AAUW <- lm(aauw~ngirls + female + white + repub + age + age2 + srvlng + srvlng2+ rgroup + demvote,
summary(lm_Dem_AAUW)
```

```
##
## Call:
## lm(formula = aauw ~ ngirls + female + white + repub + age + age2 +
##      srvlng + srvlng2 + rgroup + demvote + factor(totchi) + factor(region),
##      data = dataAAUW105, subset = repub == 0)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -50.162  -7.602   2.148   8.820  33.056
##
## Coefficients: (1 not defined because of singularities)
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)    42.21839    29.24965   1.443 0.150661
## ngirls          2.21982     1.43865   1.543 0.124601
## female          5.61865     3.26310   1.722 0.086820 .
## white         -2.61522     4.15054  -0.630 0.529438
## repub              NA           NA      NA      NA
## age             1.40393     1.06505   1.318 0.189128
## age2           -0.01447     0.01017  -1.422 0.156622
## srvlng          -0.79808     0.38736  -2.060 0.040816 *
## srvlng2          0.02233     0.01234   1.809 0.072116 .
## rgroupNone       0.23942     6.94932   0.034 0.972555
## rgroupCatholic  -7.27201     2.71019  -2.683 0.007975 **
## rgroupOther Christian -0.02419    16.43604  -0.001 0.998827
## rgroupOther religion  8.75240     4.02578   2.174 0.031011 *
## demvote         50.30594    13.83243   3.637 0.000361 ***
## factor(totchi)1    -3.46962     4.32323  -0.803 0.423298
## factor(totchi)2    -3.32266     3.93085  -0.845 0.399084
## factor(totchi)3    -9.04969     4.74603  -1.907 0.058149 .
## factor(totchi)4   -13.61150     5.51434  -2.468 0.014511 *
## factor(totchi)5   -15.73067     6.69158  -2.351 0.019821 *
```

```
## factor(totchi)6      -8.01419    12.36910   -0.648  0.517867
## factor(totchi)8     -68.05779    18.57496   -3.664  0.000327 ***
## factor(region)2     -13.52838     4.57596   -2.956  0.003532 **
## factor(region)3     -12.17839     4.66590   -2.610  0.009819 **
## factor(region)4      -2.35765     6.08517   -0.387  0.698890
## factor(region)5      -6.73776     5.14260   -1.310  0.191812
## factor(region)6     -22.07244     6.76160   -3.264  0.001314 **
## factor(region)7     -12.86082     5.53100   -2.325  0.021181 *
## factor(region)8      -0.52160     9.76073   -0.053  0.957442
## factor(region)9       1.27899     4.76148    0.269  0.788538
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 15.27 on 179 degrees of freedom
## Multiple R-squared:  0.4854, Adjusted R-squared:  0.4077
## F-statistic: 6.253 on 27 and 179 DF,  p-value: 7.549e-15
```

## AAUW Repubs only

```
lm_Repub_AAUW <- lm(aauw~ngirls + female + white + repub + age + age2 + srvlng + srvlng2+ rgroup + demv
summary(lm_Repub_AAUW)
```

```
##
## Call:
## lm(formula = aauw ~ ngirls + female + white + repub + age + age2 +
##      srvlng + srvlng2 + rgroup + demvote + factor(totchi) + factor(region),
##      data = datAAUW105, subset = repub == 1)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -35.817 -10.042  -3.202   7.042  59.895
##
## Coefficients: (1 not defined because of singularities)
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)   -8.687539   33.804236  -0.257  0.797450
## ngirls         1.831060    1.560151   1.174  0.241955
## female         9.766288    4.951286   1.972  0.049954 *
## white        -9.820723    7.962712  -1.233  0.218919
## repub                NA           NA      NA      NA
## age            0.162433    1.264737   0.128  0.897938
## age2           0.002632    0.012180   0.216  0.829159
## srvlng         0.453273    0.570117   0.795  0.427540
## srvlng2       -0.018943    0.021846  -0.867  0.386931
## rgroupCatholic  0.404483    2.972684   0.136  0.891908
## rgroupOther Christian  9.379919    5.378620   1.744  0.082732 .
## rgroupOther religion 11.091203   10.348192   1.072  0.285121
## demvote       98.201113   19.879168   4.940 1.66e-06 ***
## factor(totchi)1   -8.980516    5.986631  -1.500  0.135191
## factor(totchi)2   -6.975158    4.155761  -1.678  0.094849 .
## factor(totchi)3   -3.694519    4.686234  -0.788  0.431424
## factor(totchi)4   -6.128749    5.367847  -1.142  0.254943
## factor(totchi)5   -9.409704    6.951927  -1.354  0.177435
## factor(totchi)6  -24.920088   11.693738  -2.131  0.034324 *
## factor(totchi)7   -5.834577   11.332177  -0.515  0.607222
```

```

## factor(totchi)8      -22.581465  15.535012  -1.454  0.147652
## factor(totchi)9      -25.697976  19.852532  -1.294  0.197028
## factor(totchi)10     -25.650826  18.924815  -1.355  0.176840
## factor(region)2      -15.736113   9.365064  -1.680  0.094484 .
## factor(region)3      -25.763849   9.297977  -2.771  0.006125 **
## factor(region)4      -21.288301   9.791534  -2.174  0.030886 *
## factor(region)5      -26.539521   9.293564  -2.856  0.004755 **
## factor(region)6      -29.986544   9.940308  -3.017  0.002893 **
## factor(region)7      -30.486389   9.605101  -3.174  0.001745 **
## factor(region)8      -33.747552   9.542710  -3.536  0.000506 ***
## factor(region)9      -32.582380   9.375596  -3.475  0.000628 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 16.85 on 197 degrees of freedom
## (1 observation deleted due to missingness)
## Multiple R-squared:  0.3579, Adjusted R-squared:  0.2634
## F-statistic: 3.786 on 29 and 197 DF,  p-value: 1.268e-08

```

Make the table

Table 2: Replication of Table 3—Impact of Female Children on Legislator Voting on Women’s Issues, by Legislator Gender and Party

	<i>Dependent variable:</i>				
	NOW	AAUW			
	105th (1)	105th (2)	106th (3)	107th (4)	108th (5)
Number of female children	2.300** (1.038)	2.385** (1.124)	1.688 (1.136)	2.421** (1.092)	2.250* (1.145)
Female	10.838*** (2.690)	9.194*** (2.910)	10.440*** (2.881)	7.564*** (2.618)	6.909** (2.730)
White	1.860 (3.451)	0.144 (3.676)	2.594 (3.833)	−2.626 (3.150)	1.939 (3.211)
Republican	−44.903*** (2.109)	−60.468*** (2.280)	−55.927*** (2.335)	−63.216*** (2.120)	−63.932*** (2.436)
Age	0.661 (0.800)	0.854 (0.860)	2.034** (0.902)	1.298 (0.799)	2.300*** (0.860)
Age squared	−0.006 (0.008)	−0.006 (0.008)	−0.018** (0.009)	−0.012 (0.007)	−0.021** (0.008)
Service Length	0.235 (0.300)	−0.208 (0.324)	−0.726* (0.380)	−0.100 (0.346)	−0.139 (0.327)
Service length squared	−0.009 (0.010)	0.004 (0.011)	0.025* (0.013)	−0.0002 (0.011)	0.004 (0.010)
No religion	7.262 (7.022)	5.671 (7.606)	5.353 (7.791)	7.027 (7.176)	−7.137 (7.499)
Catholic	−3.974** (1.941)	−4.505** (2.091)	−2.277 (2.129)	−4.016** (1.987)	−5.468*** (2.077)
Other Christian	0.769 (4.600)	3.204 (4.983)	1.690 (4.912)	1.646 (4.491)	3.874 (4.684)
Other religion	10.866*** (3.752)	9.683** (4.047)	11.890*** (4.343)	10.286*** (3.785)	3.156 (3.959)
Democratic vote share in district	84.158*** (10.869)	62.148*** (11.568)	57.437*** (12.018)	56.206*** (9.092)	66.950*** (10.889)
N	430	434	434	434	433

*Note:*

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01