DATA607 Assignment 1

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What The World Thinks Of Trump

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Overview

"What The World Thinks Of Trump" by FiveThirtyEight uses Pew Research Center data to attempt to glean insight into global opinion about the United States and our Presidents since 2000, specifically Donald Trump who had just been in office for 9 months when this was originally published. 1,000 residents of a number of countries were asked about their opinion on a number of Trumps' policies, their opinion of the US (done yearly), and their confidence that the US President will "do the right thing regarding world affairs."

Data Extraction

First things first, let's import our data. There's different ways to handle this. For this assignment, I've included the datasets in the git repo itself, though this is not always possible or prudent. We have a number of delimited text files, csvs, each with countries' populations' opinions on the US and the President of the US over multiple years as well as specific policies during Trump's presidency.

```
wclimate <- read.csv("datasets/TRUMPWORLD-issue-1.csv")
borderwall <- read.csv("datasets/TRUMPWORLD-issue-2.csv")
wirannuke <- read.csv("datasets/TRUMPWORLD-issue-3.csv")
wtradeagr <- read.csv("datasets/TRUMPWORLD-issue-4.csv")
muslimimgtn <- read.csv("datasets/TRUMPWORLD-issue-5.csv")
us <- read.csv("datasets/TRUMPWORLD-us.csv")
pres <- read.csv("datasets/TRUMPWORLD-pres.csv")
is.data.frame(borderwall)
```

```
## [1] TRUE
```

```
head(borderwall)
```

```
##   country net_approval Approve Disapprove DK.Refused
## 1  Canada          -71      13         84          3
## 2  France          -79      10         89          1
## 3 Germany          -81       8         89          3
## 4  Greece          -60      18         78          5
## 5 Hungary          -14      35         49         16
## 6   Italy          -56      17         73         10
```

```r
head(us)
```

```
##   year      avg Canada France Germany Greece Hungary Italy Netherlands Poland
## 1 2000 67.50000     NA     62      78     NA      NA    76          NA     86
## 2 2002 61.50000     72     62      60     NA      NA    70          NA     79
## 3 2003 44.69231     63     42      45     NA      NA    60          NA     NA
## 4 2004 35.66667     NA     37      38     NA      NA    NA          NA     NA
## 5 2005 43.58333     59     43      42     NA      NA    NA          45     62
## 6 2006 35.33333     NA     39      37     NA      NA    NA          NA     NA
##   Spain Sweden UK Russia Australia India Indonesia Japan Philippines
## 1    50     NA 83     37        NA    NA        NA    77          NA
## 2    NA     NA 75     61        NA    NA        NA    72          90
## 3    38     NA 70     37        59    NA        NA    NA          NA
## 4    NA     NA 58     46        NA    NA        NA    NA          NA
## 5    41     NA 55     52        NA    NA        38    NA          NA
## 6    23     NA 56     43        NA    NA        30    63          NA
##   South.Korea Vietnam Israel Jordan Lebanon Tunisia Turkey Ghana Kenya Nigeria
## 1          58      NA     NA     NA      NA      NA     52    NA    94      NA
## 2          52      NA     NA     25      36      NA     30    83    80      NA
## 3          46      NA     78      1      27      NA     15    NA    NA      NA
## 4          NA      NA     NA      5      NA      NA     30    NA    NA      NA
## 5          NA      NA     NA     21      42      NA     23    NA    NA      NA
## 6          NA      NA     NA     15      NA      NA     12    NA    NA      NA
##   Senegal South.Africa Tanzania Argentina Brazil Chile Colombia Mexico Peru
## 1      NA           NA       NA        50     NA    NA       NA     68   74
## 2      NA           65       53        34     NA    NA       NA     64   67
## 3      NA           NA       NA        NA     NA    NA       NA     NA   NA
## 4      NA           NA       NA        NA     NA    NA       NA     NA   NA
## 5      NA           NA       NA        NA     NA    NA       NA     NA   NA
## 6      NA           NA       NA        NA     NA    NA       NA     NA   NA
##   Venezuela
## 1        NA
## 2        NA
## 3        NA
## 4        NA
## 5        NA
## 6        NA
```

Alright so we've got our data. However, some headers are ambiguous or just not pretty. Let's rename avg to something more appropriate and prettify what we can. I handle all of the issues in a loop to improve readability and make changes in the future easier.

```r
names(us)[names(us) == 'avg'] <- 'Global_Average'
names(us)[names(us) == 'year'] <- 'Year'
names(us)
```

```
##  [1] "Year"           "Global_Average" "Canada"         "France"
##  [5] "Germany"        "Greece"         "Hungary"        "Italy"
##  [9] "Netherlands"    "Poland"         "Spain"          "Sweden"
## [13] "UK"             "Russia"         "Australia"      "India"
## [17] "Indonesia"      "Japan"          "Philippines"    "South.Korea"
## [21] "Vietnam"        "Israel"         "Jordan"         "Lebanon"
```

```
## [25] "Tunisia"        "Turkey"         "Ghana"          "Kenya"
## [29] "Nigeria"        "Senegal"        "South.Africa"   "Tanzania"
## [33] "Argentina"      "Brazil"         "Chile"          "Colombia"
## [37] "Mexico"         "Peru"           "Venezuela"
```

```
names(pres)[names(pres) == 'avg'] <- 'Global_Average'
names(pres)[names(pres) == 'year'] <- 'Year'
names(pres)
```

```
##  [1] "Year"           "Global_Average" "Canada"         "France"
##  [5] "Germany"        "Greece"         "Hungary"        "Italy"
##  [9] "Netherlands"    "Poland"         "Spain"          "Sweden"
## [13] "UK"             "Russia"         "Australia"      "India"
## [17] "Indonesia"      "Japan"          "Philippines"    "South.Korea"
## [21] "Vietnam"        "Israel"         "Jordan"         "Lebanon"
## [25] "Tunisia"        "Turkey"         "Ghana"          "Kenya"
## [29] "Nigeria"        "Senegal"        "South.Africa"   "Tanzania"
## [33] "Argentina"      "Brazil"         "Chile"          "Colombia"
## [37] "Mexico"         "Peru"           "Venezuela"
```

```
for(df in c("borderwall", "muslimimgtn", "wclimate", "wirannuke", "wtradeagr"))
  data.table::setnames(get(df),  c("Country", "Net_Approval", "Approves", "Disapproves", "DontKnow_NoRes

names(borderwall)
```

```
## [1] "Country"             "Net_Approval"        "Approves"
## [4] "Disapproves"         "DontKnow_NoResponse"
```

I wonder how these countries felt about the border wall... (approval ranges from -100 to 100)

```
mean(borderwall$Net_Approval)
```

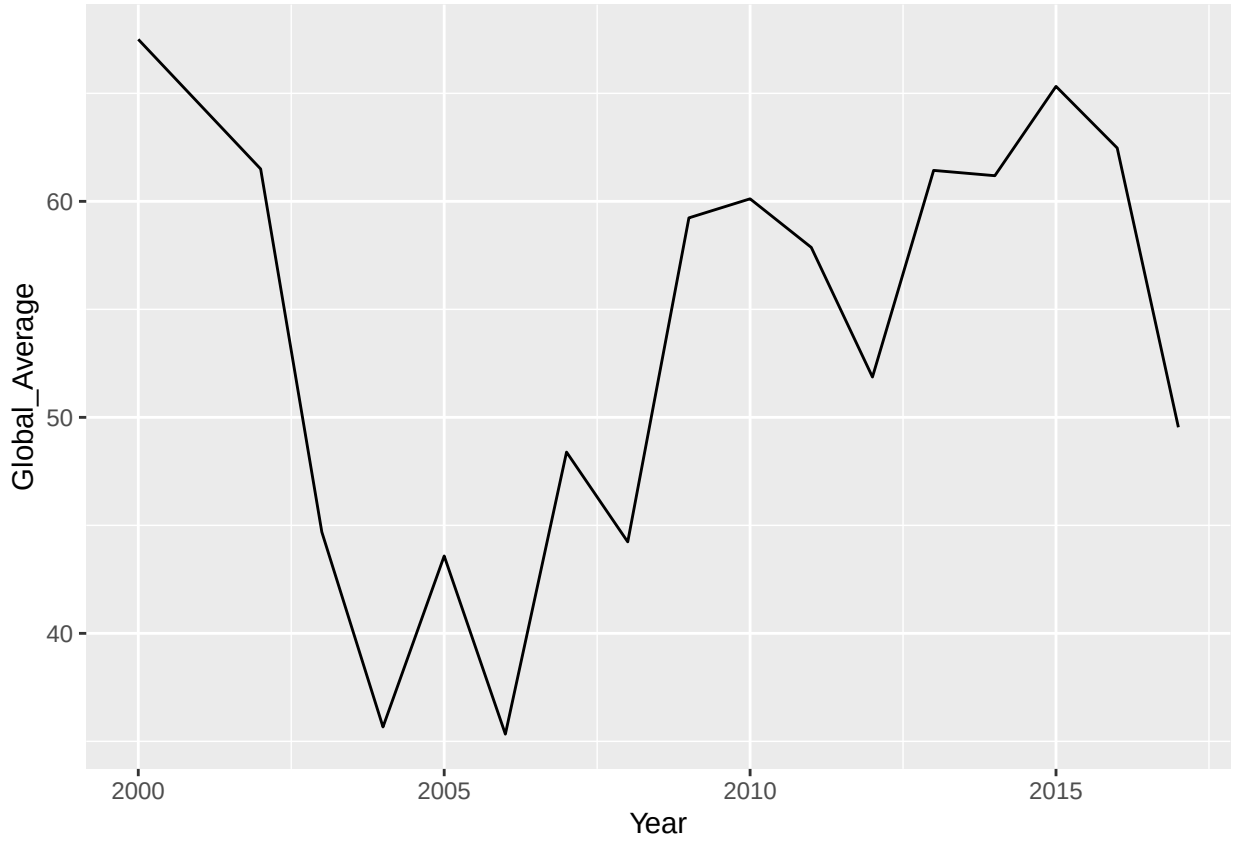
```
## [1] -50.54054
```

```
median(borderwall$Net_Approval)
```

```
## [1] -59
```

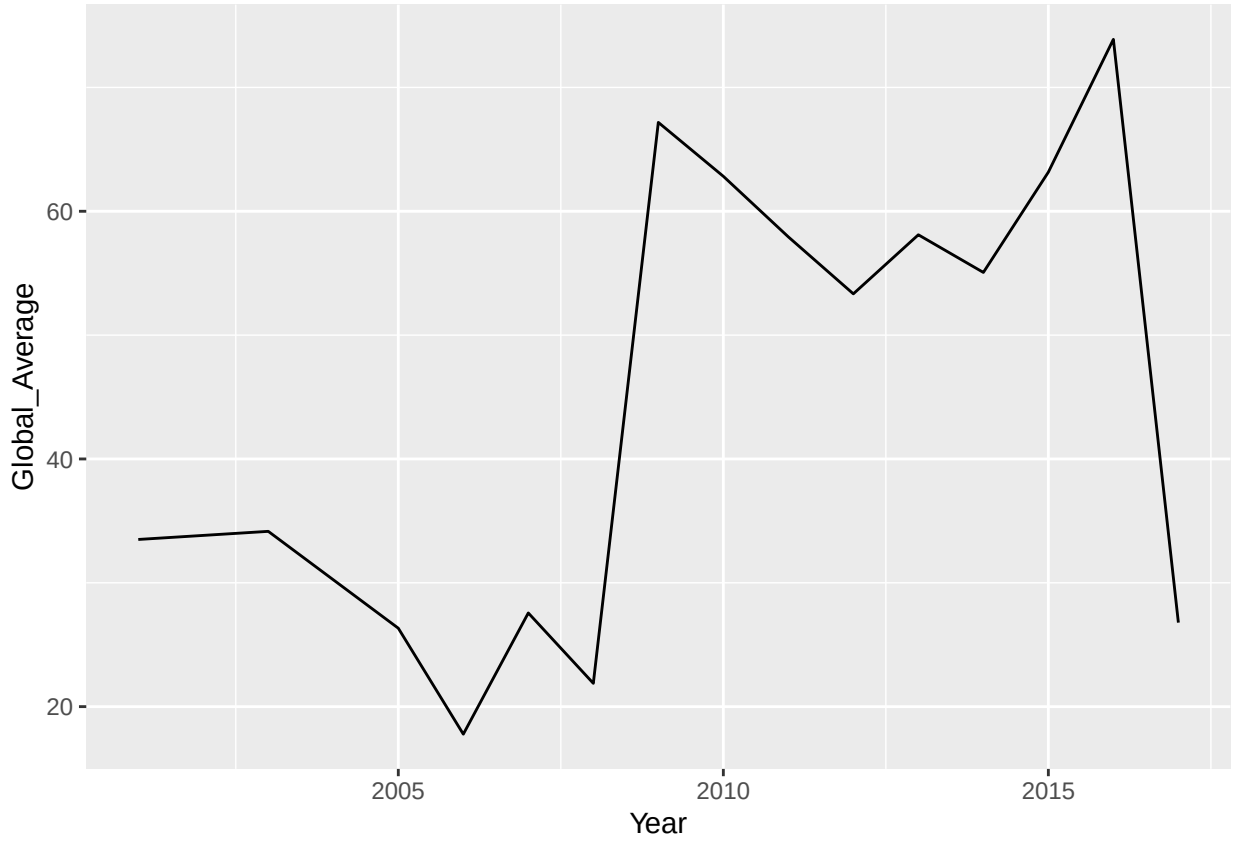
Oof, that's not great. Well, let's see if this is just nations disliking the US in general... (approval ranges from 0 to 100)

```
ggplot(data = us, aes(x = Year, y = Global_Average)) + geom_line()
```



No, there doesn't appear to be a single trend in this chart. Maybe these are tied to international confidence in the President.

```
ggplot(data = pres, aes(x = Year, y = Global_Average)) + geom_line()
```



The President's global trust does appear to be a similar shape as the US global approval. However, Presidential trust appears to be more volatile and open to change than US approval.

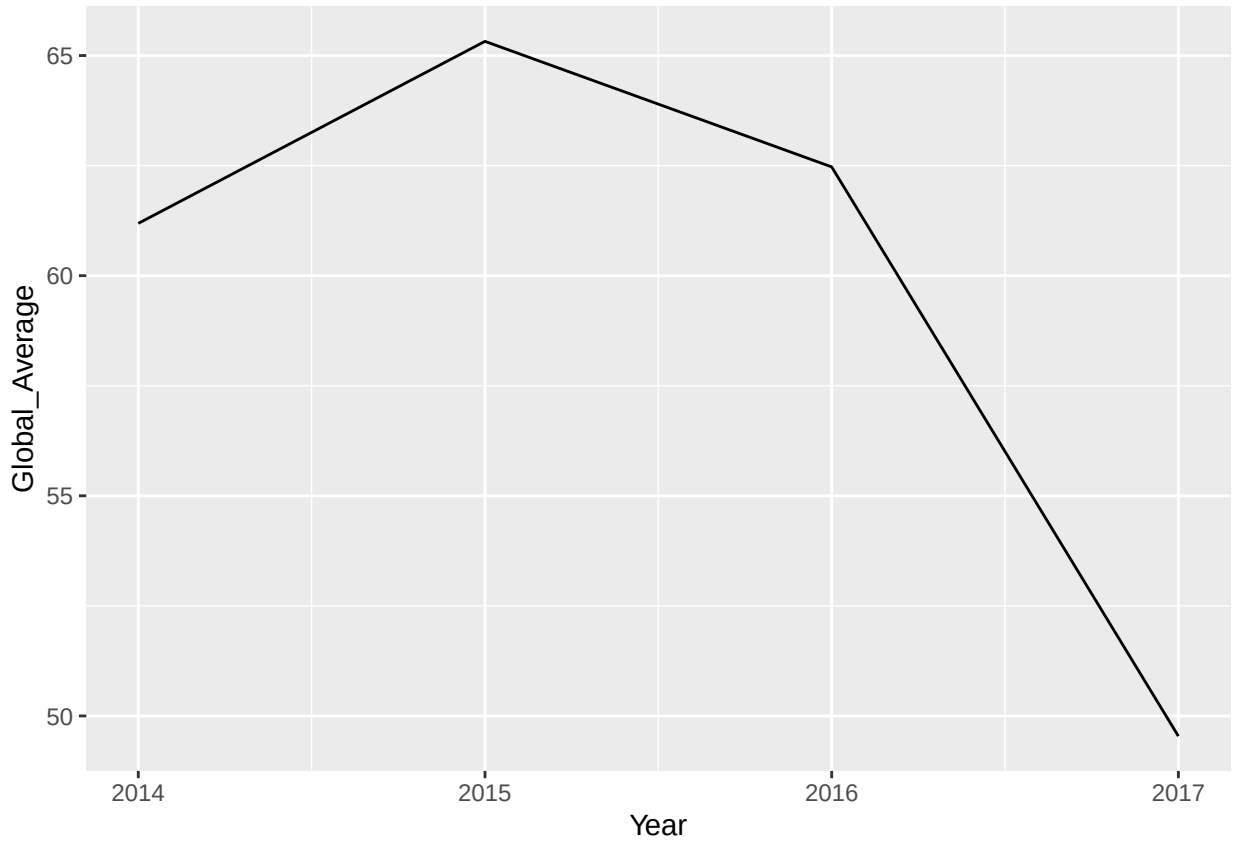
Data Subset Selection - Presidencies

Let's get opinion data about the US for the last years of Obama and Trump's first year.

```
range(us['Year'], na.rm=TRUE)
```

```
## [1] 2000 2017
```

```
us2013plus <- subset(us, Year > 2013)
ggplot(data = us2013plus, aes(x = Year, y = Global_Average)) + geom_line()
```

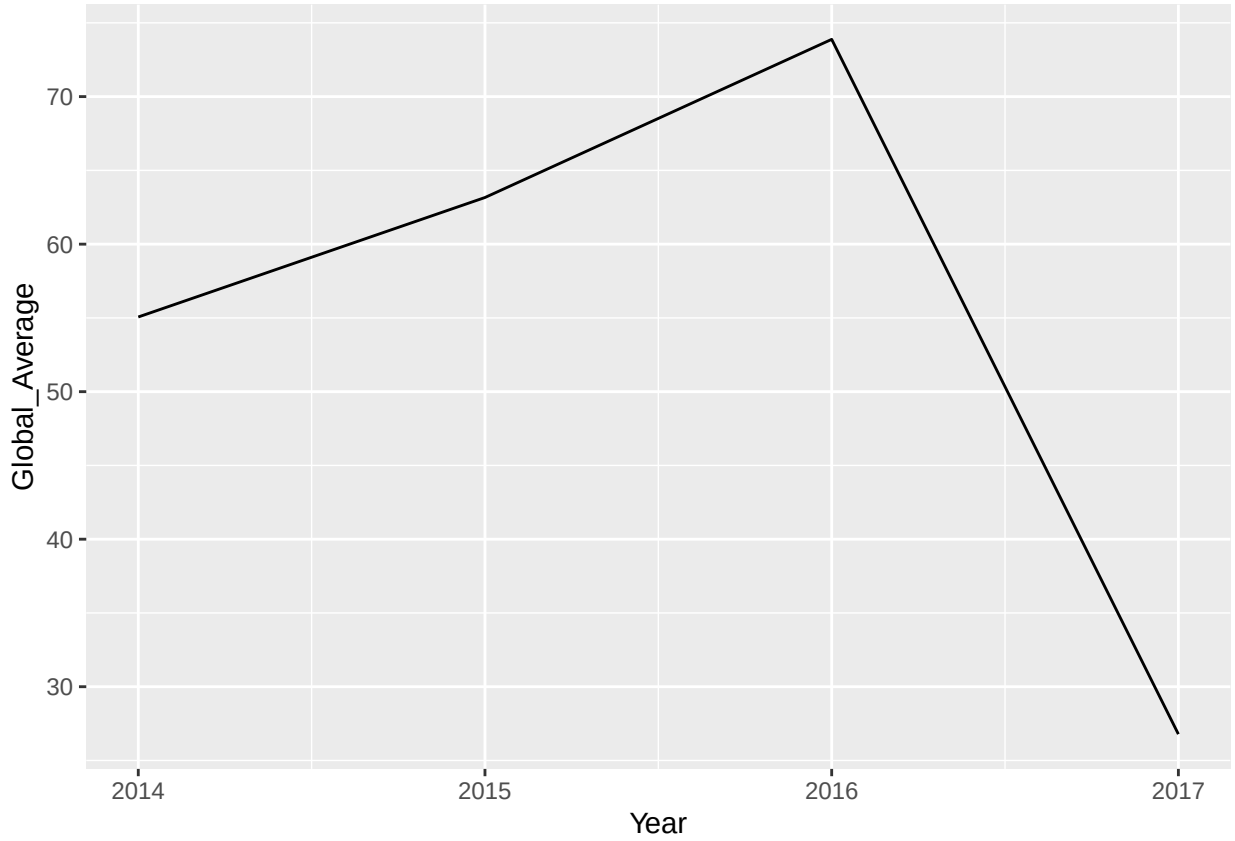


And now trust in the President...

```
range(pres['Year'], na.rm=TRUE)
```

```
## [1] 2001 2017
```

```
pres2013plus <- subset(pres, Year > 2013)
ggplot(data = pres2013plus, aes(x = Year, y = Global_Average)) + geom_line()
```



It does appear that since Trump has taken office, trust in both the United States and its President have dropped by a large amount. In fact, this might be the lowest trust in the President seen in this entire data set...

```
pres$Year[pres$Global_Average == min(pres['Global_Average'])]
```

```
## [1] 2006
```

```
pres[order(pres$Global_Average, decreasing = FALSE),]
```

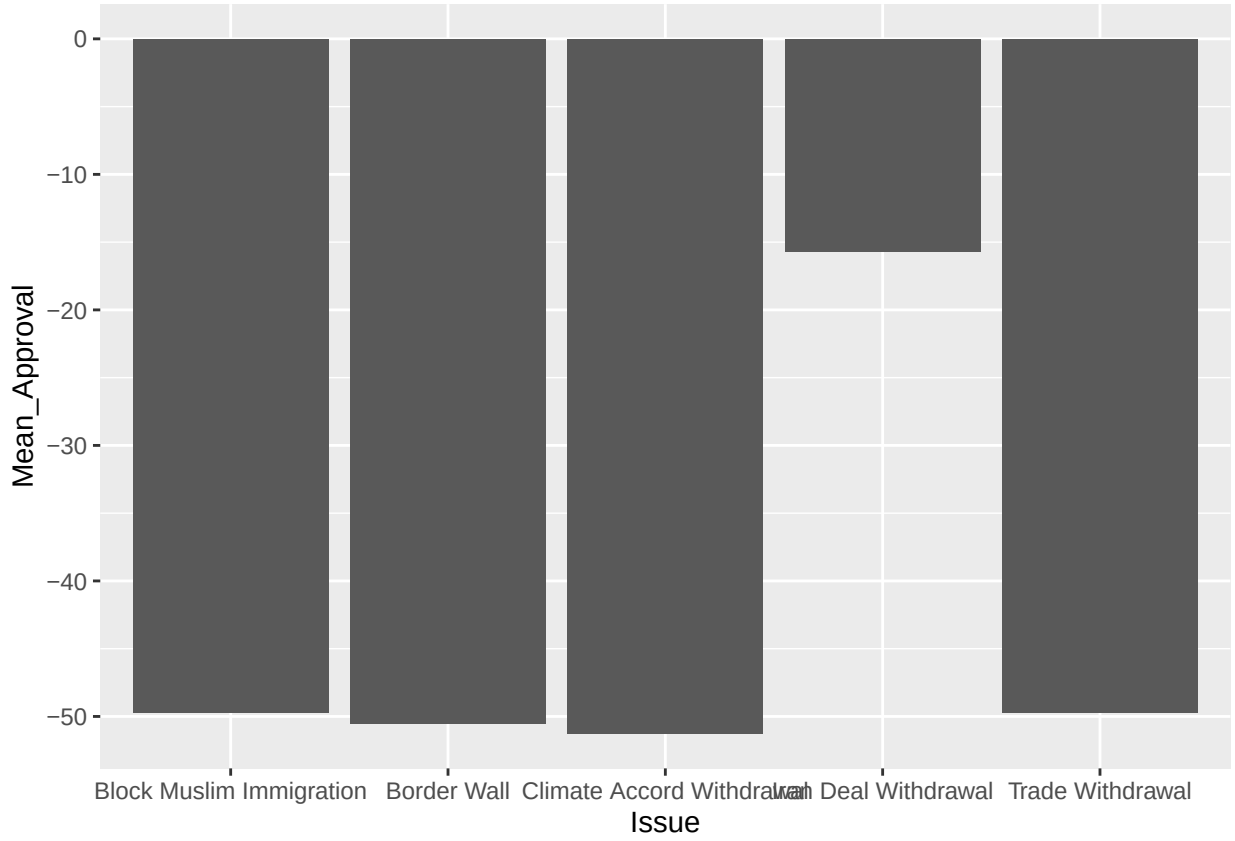
```
##    Year Global_Average Canada France Germany Greece Hungary Italy Netherlands
## 4  2006       17.77778     NA     15      25     NA      NA    NA          NA
## 6  2008       21.88235     NA     13      14     NA      NA    NA          NA
## 3  2005       26.33333     40     25      30     NA      NA    NA          39
## 15 2017       26.78378     22     14      11     19      29    25          17
## 5  2007       27.56522     28     14      19     NA      NA    30          NA
## 1  2001       33.50000     NA     20      51     NA      NA    33          NA
## 2  2003       34.15385     59     20      33     NA      NA    43          NA
## 10 2012       53.33333     NA     86      87     30      NA    73          NA
## 12 2014       55.06250     NA     83      71     27      NA    75          NA
## 9  2011       57.93333     NA     84      88     NA      NA    NA          NA
## 11 2013       58.10000     81     83      88     35      NA    76          NA
## 8  2010       62.82353     NA     87      90     NA      NA    NA          NA
## 13 2015       63.16129     76     83      73     NA      NA    77          NA
## 7  2009       67.17647     88     91      93     NA      NA    NA          NA
```

```
## 14 2016       73.88235     83     84      86     41      58    68          92
##    Poland Spain Sweden UK Russia Australia India Indonesia Japan Philippines
## 4      NA     7     NA 30     21        NA    NA        20    32          NA
## 6      41     8     NA 16     22        23    NA        23    25          NA
## 3      47    18     NA 38     28        NA    NA        19    NA          NA
## 15     23     7     10 22     53        29    40        23    24          69
## 5      29     7     21 24     18        NA    NA        14    35          NA
## 1      NA    NA     NA 30     NA        NA    NA        NA    NA          NA
## 2      NA    26     NA 51      8        59    NA        NA    NA          NA
## 10     50    61     NA 80     36        NA    NA        NA    74          NA
## 12     55    58     NA 74     15        NA    48        60    60          89
## 9      52    67     NA 75     41        NA    NA        62    81          NA
## 11     49    54     NA 72     29        77    53        53    70          84
## 8      60    69     NA 84     41        NA    NA        67    76          NA
## 13     64    58     NA 76     11        81    74        64    66          94
## 7      62    72     NA 86     37        NA    NA        71    85          NA
## 14     58    75     93 79     NA        84    58        NA    78          NA
##    South.Korea Vietnam Israel Jordan Lebanon Tunisia Turkey Ghana Kenya Nigeria
## 4           NA      NA     NA      7      NA      NA      3    NA    NA      NA
## 6           30      NA     NA      7      33      NA      2    NA    NA      NA
## 3           NA      NA     NA      1      23      NA      8    NA    NA      NA
## 15          17      58     56      9      15      18     11    49    51      58
## 5           22      NA     57      8      34      NA      2    69    72      NA
## 1           NA      NA     NA     NA      NA      NA     NA    NA    NA      NA
## 2           36      NA     83      1      17      NA      8    NA    NA      NA
## 10          NA      NA     NA     22      39      28     24    NA    NA      NA
## 12          84      67     71     17      35      27     24    60    78      53
## 9           NA      NA     49     28      43      NA     12    NA    86      NA
## 11          77      NA     61     24      37      24     29    55    81      53
## 8           75      NA     NA     26      43      NA     23    NA    95      84
## 13          88      71     49     14      36      NA     45    82    80      73
## 7           81      NA     56     31      46      NA     33    NA    94      NA
## 14          NA      NA     NA     NA      NA      NA     NA    NA    83      63
##    Senegal South.Africa Tanzania Argentina Brazil Chile Colombia Mexico Peru
## 4       NA           NA       NA        NA     NA    NA       NA     NA   NA
## 6       NA           32       60         7     NA    NA       NA     16   NA
## 3       NA           NA       NA        NA     NA    NA       NA     NA   NA
## 15      26           39       51        13     14    12       15      5   17
## 5       NA           NA       40         5     NA    29       NA     28   29
## 1       NA           NA       NA        NA     NA    NA       NA     NA   NA
## 2       NA           NA       NA        NA     NA    NA       NA     NA   NA
## 10      NA           NA       NA        NA     68    NA       NA     42   NA
## 12      73           72       74        31     52    54       56     40   46
## 9       NA           NA       NA        NA     63    NA       NA     38   NA
## 11      78           74       NA        44     69    56       NA     49   NA
## 8       NA           NA       NA        49     56    NA       NA     43   NA
## 13      77           77       78        40     63    60       NA     49   53
## 7       NA           NA       NA        61     NA    NA       NA     55   NA
## 14      NA           73       NA        NA     NA    NA       NA     NA   NA
##    Venezuela
## 4         NA
## 6         NA
## 3         NA
## 15        20
```

```
## 5          NA
## 1          NA
## 2          NA
## 10         NA
## 12         33
## 9          NA
## 11         28
## 8          NA
## 13         26
## 7          NA
## 14         NA
```

Nope! Getting close, though. Maybe his policies he's pushing for will get the US some good will. We already saw that the border wall was unpopular internationally, but that may be an outlier.

```
issues <- data.frame(
  Issue = c("Border Wall", "Block Muslim Immigration", "Climate Accord Withdrawal", "Iran Deal Withdraw
  Mean_Approval = c(mean(borderwall$Net_Approval), mean(muslimimgtn$Net_Approval), mean(wclimate$Net_Ap
)
ggplot(data = issues, aes(x = Issue, y = Mean_Approval)) + geom_bar(stat='identity')
```



All policies appear to be disliked by the international community as a whole. The outlier here is actually the US withdrawal from the nuclear agreement with Iran, with an average global net approval of -15.7.

Conclusions

Based on this data, it appears that the world appears to have disliked the former President Donald Trump, and his proposed policies, quite heavily during his first year in office. This is especially true when compared to Obama's terms, where approval for the US and trust in our President appears to mostly improve. At this time, it appears that the US was likely to gon a trend to be as unpopular as it was during Bush's presidencies, where we saw the lowest approval ratings in our analysis above.