

1.3RCharts_AHarvey

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0.0.1 1.3 Charts - R

R

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```
[74]: # Library to read the Excel document
library("readxl")
# For plots
library("dplyr")
library("ggplot2")
library("reshape2")
```

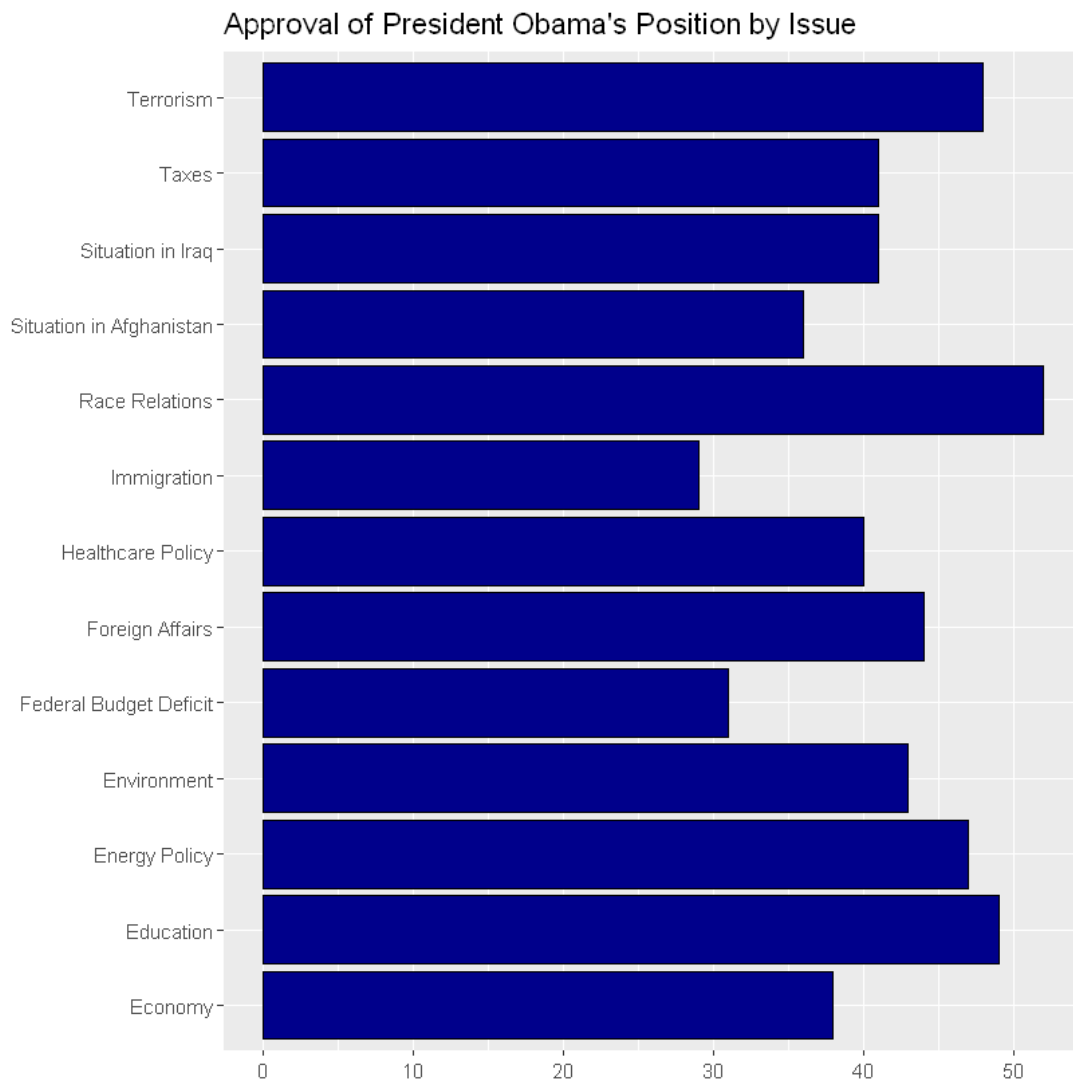
```
[2]: # Import Excel document
obama <- read_excel("obama-approval-ratings.xls")
```

```
[57]: print(obama)
```

```
# A tibble: 13 x 4
  Issue                Approve Disapprove  None
  <chr>                <dbl>    <dbl> <dbl>
1 Race Relations      52        38    10
2 Education           49        40    11
3 Terrorism           48        45     7
4 Energy Policy       47        42    11
5 Foreign Affairs     44        48     8
6 Environment        43        51     6
7 Situation in Iraq  41        53     6
8 Taxes              41        54     5
9 Healthcare Policy  40        57     3
10 Economy            38        59     3
11 Situation in Afghanistan 36        57     7
12 Federal Budget Deficit 31        64     5
13 Immigration       29        62     9
```

```
[23]: # Bar plot
ggplot(obama, aes(y=Approve, x=Issue)) +
  geom_bar(position="dodge", stat="identity", color = "black", fill = "dark_
↳blue") +
```

```
labs(title = "Approval of President Obama's Position by Issue", x = "", y = "
↪") + coord_flip()
```



```
[44]: # Stacked bar plot

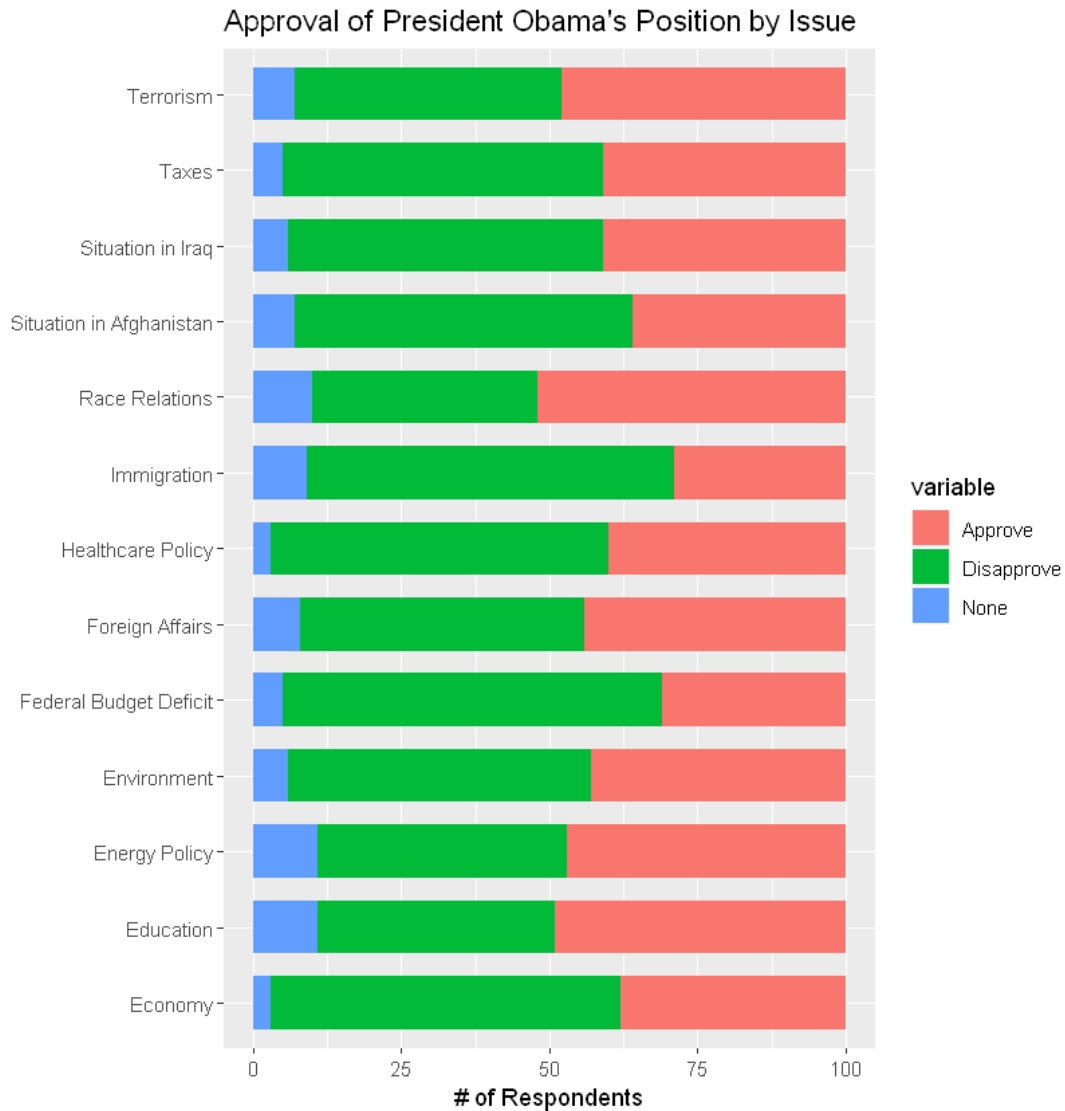
# In order to make the stacked chart, I had to melt the dataset into a long
↪form so that the variables could be grouped together.
melted <- melt(obama, "Issue")
```

```
[45]: print(melted)
```

	Issue	variable	value
1	Race Relations	Approve	52

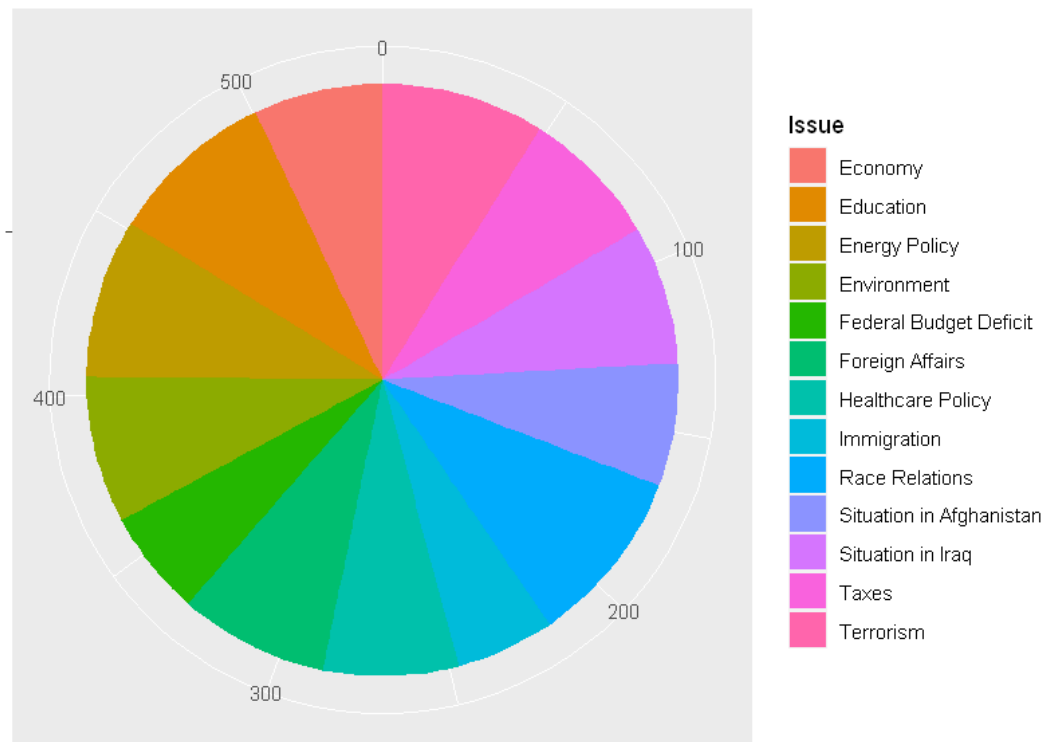
2	Education	Approve	49
3	Terrorism	Approve	48
4	Energy Policy	Approve	47
5	Foreign Affairs	Approve	44
6	Environment	Approve	43
7	Situation in Iraq	Approve	41
8	Taxes	Approve	41
9	Healthcare Policy	Approve	40
10	Economy	Approve	38
11	Situation in Afghanistan	Approve	36
12	Federal Budget Deficit	Approve	31
13	Immigration	Approve	29
14	Race Relations	Disapprove	38
15	Education	Disapprove	40
16	Terrorism	Disapprove	45
17	Energy Policy	Disapprove	42
18	Foreign Affairs	Disapprove	48
19	Environment	Disapprove	51
20	Situation in Iraq	Disapprove	53
21	Taxes	Disapprove	54
22	Healthcare Policy	Disapprove	57
23	Economy	Disapprove	59
24	Situation in Afghanistan	Disapprove	57
25	Federal Budget Deficit	Disapprove	64
26	Immigration	Disapprove	62
27	Race Relations	None	10
28	Education	None	11
29	Terrorism	None	7
30	Energy Policy	None	11
31	Foreign Affairs	None	8
32	Environment	None	6
33	Situation in Iraq	None	6
34	Taxes	None	5
35	Healthcare Policy	None	3
36	Economy	None	3
37	Situation in Afghanistan	None	7
38	Federal Budget Deficit	None	5
39	Immigration	None	9

```
[48]: ggplot(melted, aes(x = Issue, y = value))+
  geom_col(aes(fill = variable), width = 0.7) +
  labs(title = "Approval of President Obama's Position by Issue", y = "# of_
↳ Respondents", x = "") + coord_flip()
```



```
[73]: # Pie chart
ggplot(obama, aes(x="", y=Approve, fill=Issue)) +
  geom_bar(stat="identity", width=1) +
  coord_polar("y", start=0) +
  labs(title = "Approval of President Obama's Position by Issue", x = "", y = "
  ↳")
```

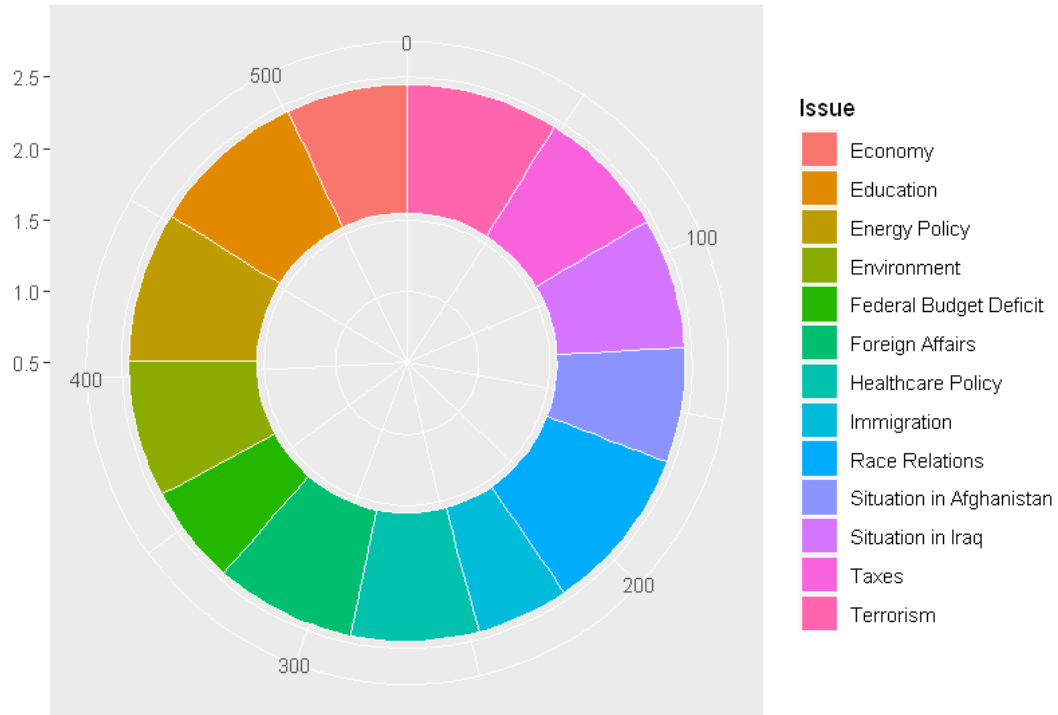
Approval of President Obama's Position by Issue



```
[80]: # Donut chart

ggplot(obama, aes(x = 2, y = Approve, fill = Issue)) +
  geom_bar(stat = "identity", color = "white") +
  coord_polar(theta = "y", start = 0)+
  xlim(0.5, 2.5) + labs(title = "Approval of President Obama's Position by_Issue", x = "", y = "")
```

Approval of President Obama's Position by Issue



[]: