AMG Analysis

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Outline

- Short answers to the Instruction section Question 3.
- Methodology
- Interpreting Results
- Limitations of Analysis
- Further Analysis- Given more time

What are the important factors in presidential elections?

Of all the factors, these are the key factors in presidential elections.

- Economy outlook (q01, q02, q03)
- Local and federal government performance(q24, q37)
- Trust in government (q38, q39, q40)
- Incumbent president's approval ratings (q36)*
- People planning to vote on 4th Nov (q46b)

Shift in presidential elections between two elections.

- There has been significant shift between these two elections with huge swings in democratic and republican voters on economy, government trust, incumbent president performance and government's performance. The graphs plotted are really huge. Will try to plot of some of them here. Plots along with their weights are generated in the .R file and in the plots folder.
- In regard to economy, In 2012, there was 2.5 fold increase in Democrats who believed that things in california were going in right direction w.r.t 2008 and the Democrats believing in wrong direction decreased by half. On the other hand Republicans for republicans it increased by ¼.Similar reactions to q02(economic condition in next 12 months). Democrats further saw a decrease in recession in 2012 and republicans believed an increase.**(Plots q01, q02, q03)**
- The most important change was in Q36. Incumbent president approval. In 2012 democratic presidential approval shot to **900 from 50. A 18 fold increase** and the **republican ratings halved from 250 to 125.** The plots are named after the question number. **Plot for Q36 is named Q36.** For easy lookup with weights.
- Similar trend for Q38. In trusting the government. **Democrat voters trust in government increased by two folds** and republican remained unchanged.**(Plot named Q38)**
- The number of very liberal and very conservative vote increased in 2012, while other categories remained the same.(**q40**)
- Republicans interest in politics increased by 0.4 and democrat remained unchanged.(**q46**)
- More Republicans were planning to vote in 2012 and there was a decrease in Rep & Dem who didn't want to vote.(**q46b**)

Shifts in presidential elections unique to certain demographic

Age-Bracket(d1a): **Republicans** saw an **increase** in 18-24 bracket, with **democratic** support **constant**. Both **D and R saw an increased support from** 55 and above bracket. **In 35-54 bracket Den Support decreased and republican increased.**
Parent(d4): Bothe R and D saw a decrease in parent support and increase in non-parent voters.
Employment(d5): Full time voters decreased for R and D. Part-time voters support increased by ½ fold for both D and R. They saw marginal increase in support from unemployed.
Relationship(d6): Republicans saw an increase in support from divorced and separated voters and democrats remained unchanged. Both R & D saw decrease in voters living with a partner
Education(d7): Republicans saw an increase in voters with college, graduation, post-graduation degrees, Democrats almost unchanged. Democrats saw a decrease with voters having less than a high school ed.
Ethnicity(d8): **Asian** support increase for D & R.**Hispanic** support increased for Rep and decreased for D
Citizen(d9a): Republican support among U.S citizen increased and Democrat remained unchanged.
Salary(d11): Rep saw a ⅓ increase in support from 200k and above voters and significant increase in 40-60k bracket. Democrat remained constant w.r.t 2008.

weights: for factors i.e questions (q ~ year)

##weights of 2008

by(df_08$weight,df_08$pres_ticketpref,mean)

df_08$pres_ticketpref: Democratic

[1] 0.9656806

---

df_08$pres_ticketpref: Other

[1] 1.061806

---

df_08$pres_ticketpref: Republican

[1] 0.9808988

##weights of 2012

by(df_12$weight,df_12$pres_ticketpref,mean)

df_12$pres_ticketpref: Democratic

[1] 0.9853872

---

df_12$pres_ticketpref: Other

[1] 1.211456

---

df_12$pres_ticketpref: Republican

[1] 0.9310919

weights: demographic ~ year (d8(ethnicity) ~year)

##weights of 2008

```
by(df_08$weight,df_08$d8,mean)
df_08$d8: Asian
[1] 1.101163
------------------------------------------------------------
df_08$d8: Black or African American
[1] 1.006156
------------------------------------------------------------
df_08$d8: Hispanic or Latino
[1] 1.106914
------------------------------------------------------------
df_08$d8: Caucasian or White And Non-Hispanic
[1] 0.9410307
------------------------------------------------------------
df_08$d8: [VOL] Other (SPECIFY)
[1] 1.058619
```

##weights of 2012

```
by(df_12$weight,df_12$d8,mean)
df_12$d8: Asian
[1] 2.05228
------------------------------------------------------------
df_12$d8: Black or African American
[1] 0.9422829
------------------------------------------------------------
df_12$d8: Caucasian or White And Non-Hispanic
[1] 0.8307369
------------------------------------------------------------
df_12$d8: Hispanic or Latino
[1] 1.166358
------------------------------------------------------------
df_12$d8: [VOL] Other (SPECIFY)
[1] 0.5532901
```

Weights: Similarly other weights are calculated for each Demographic ~ year

by(df_08$weight,df_08$d1,mean)
by(df_08$weight,df_08$d2,mean)
by(df_08$weight,df_08$d3,mean)
by(df_08$weight,df_08$d4,mean)
by(df_08$weight,df_08$d5,mean)
by(df_08$weight,df_08$d9,mean)
by(df_08$weight,df_08$d11,mean) ……

Important Note: All the plots are named according to factors(questions like q01,q02) and all the demographic are labeled as (d1, d3, d4 ,d11 …..so on) in the plots folder. The corresponding weights are also calculated. The graphs are too big to be seen clearly here.

Limitation of Analysis:

All the questions are standardized for the 2008 and 2012. But there are still more questions which seemed really important and would have been crucial in understanding how people make decisions. Such as (q11-14, regarding which presidential candidate is good for **jobs, economy, immigration, healthcare** for 2008 survey).

In addition to that questions on **state performance, trust, taxes,** and others from q24-q32 for 2012 survey are missing from the 2008 data).

There are no standardization of the issues for the year 2008 and 2012 which were asked to the people. This information would have given us an insight into how much people care about the issues that are affecting their societies and, how presidential candidate personal belief have an impact on them.

Given more time, I would have done the following.

- I found all the patterns for demographic question to year(ex: d1 ~ year) and so on. The code for all the combination is in the R file. In addition to that, I further wanted to do a deeper granular analysis for each demographic (ex: q01 ~ d1), (q01 ~ d4) and so on for all the possible combinations of questions(factors) and demographic.
- To see how each demographic response to important factors (questions) responsible for the presidential elections and see how their beliefs/decisions/voting pattern have changed over time. I have done it for a two of them. But the possible combinations for questions to demographic is over 100. Given more time I would like to do this analysis at a finer granular level.

- I am sure this analysis of each demographic for each question would unravel deeper understanding of the voter psyche. It will further helps us in understanding what factors are important for a particular demographic. The weights would be calculated as following for each demographic.
- ex:
- **(by(df_08$weight,df_08$d8,mean)**
- **by(df_12$weight,df_12$d8,mean)**
- **p1 <- ggplot(data = df_08, aes(x = pres_ticketpref)) + geom_histogram() + facet_grid(d8~q01,scales = "free") + scale_fill_discrete()**
- **p2 <- ggplot(data = df_12, aes(x = pres_ticketpref)) + geom_histogram() + facet_grid(d8~q01,scales = "free") + scale_fill_discrete()**
- **grid.arrange(p1,p2,ncol=2)**