### How Do Americans Vote?

Wen Yin

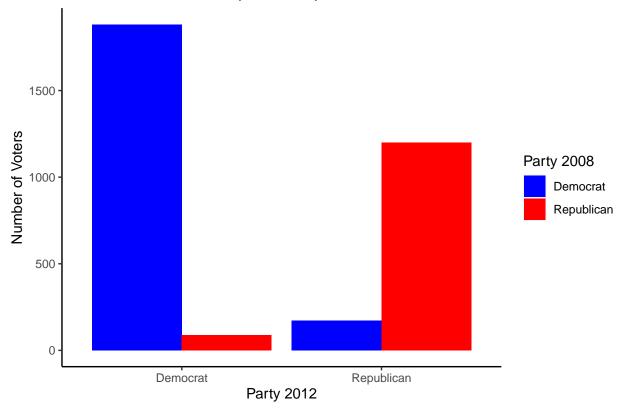
9/23/2020

How do Americans vote? Millions of dollars are spent on campaign funding meant to make the answer to that question "My candidate". But it turns out, the answer is really "Exactly the same way they've always voted". In other words, if someone voted for a democratic candidate in a previous election, we can confidently predict that they will also vote for a democratic candidate in current and future elections. It is only the drastic minority of individuals who will cross the proverbial line and vote for candidates in different parties.

#### A Case Study: The 2008 and 2012 Presidential Elections

Consider the 2008 presidential election between Barack Obama (democrat) and John McCain (Republican) and the 2012 presidential between Barack Obama (democrat, incumbent) and Mitt Romney (Republican). Obama, the democratic candidate, won the election in both cases, democratic voters voted for him and republican candidates voted for his opponent.

#### Voters stick to their parties in presidential elections



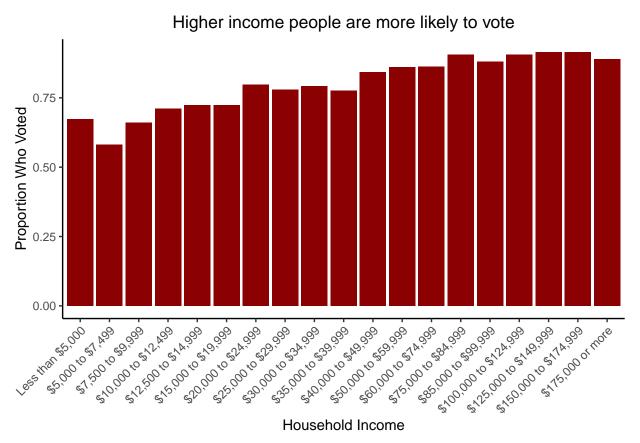
Note that out of 3,344 respondents who voted in both elections, 3,082 voted for candidates in the same parties while only 262 flipped parties. Republicans showed a higher flip rate - 173 out of 1,373 republican voters (12.6%) switched parties between 2008 and 2012, while only 89 out of 1,971 (4.5%) of democratic voters switched.

Such a stark trend implies two things. First, since very few voters cross party lines, the characteristics of swing voters may be of great interest to indicate which voters campaigns should target and how to potentially create more swing voters. Second, under the assumption that voters will not switch parties, the key factor that determines elections is how many voters of each type vote, and therefore increasing turnout of desired voters is a deciding factor in elections.

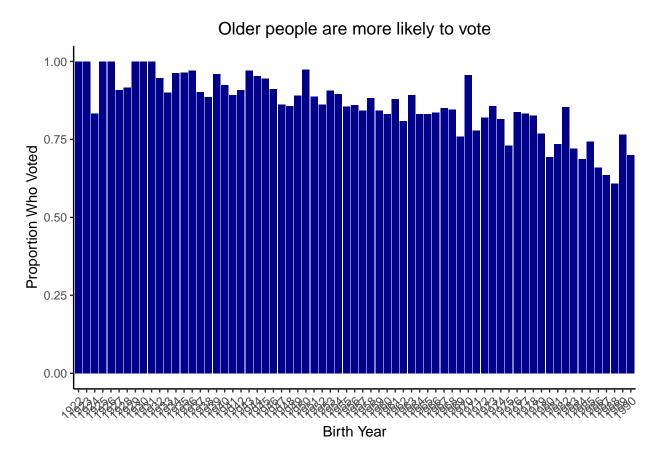
#### Which voters actually vote?

Considering the second point first, hypothetically, the candidate who wins is the candidate who has the highest number of voters who would in theory vote for them actually show up and cast their ballots. Since it is impossible to quantify the number of voters who would theoretically vote for a candidate, consider instead voter turnout based on demographic characteristics.

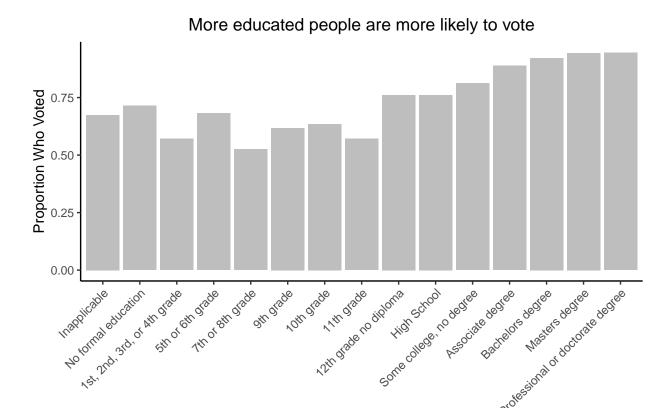
As is typically reported, in the 2008 election, higher income individuals were more likely to vote.



Likewise, older people were also more likely to vote.

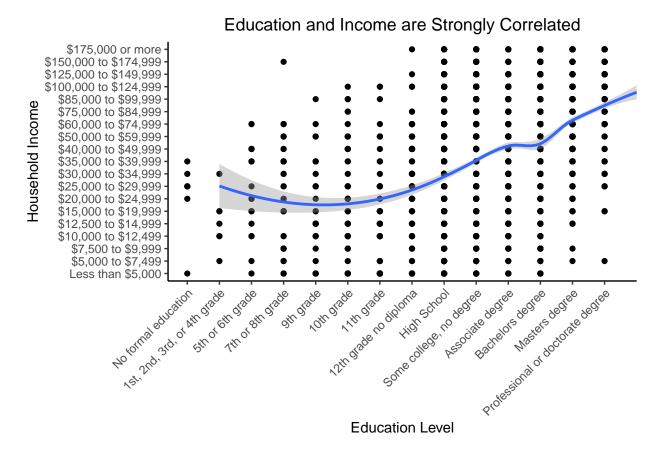


And finally, more educated people are more likely to vote.



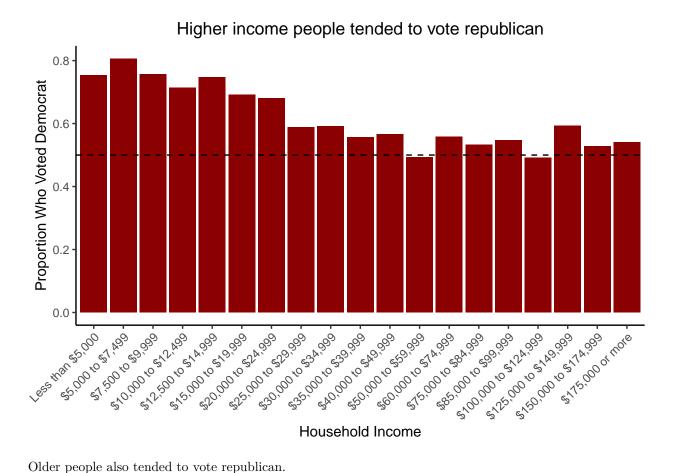
Also of important note is that income and education level are known to be related - individuals with more education tend to be higher earners.

**Education Level** 

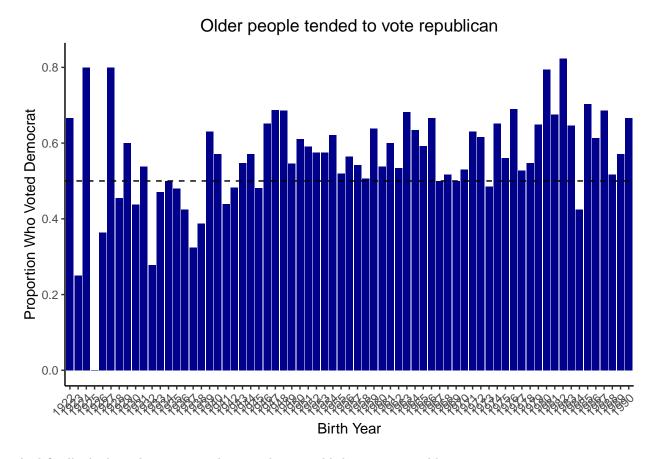


Considering these three factors (age, education level, and income) as key factors of voter turnout, consider voting tendencies of voters among these categories.

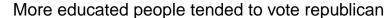
Interesteringly, the observed trends are opposite what we would expect if voter turnout had determined the 2008 election. Higher income individuals were more likely to vote republican.

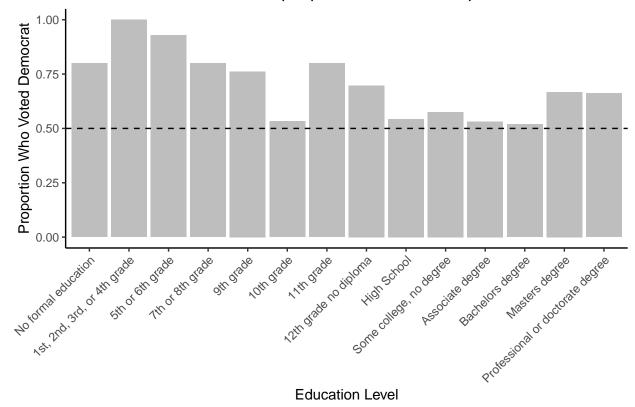


Older people also tended to vote republican.



And finally, higher education people were also more likely to vote republican.





How is it possible that the democratic candidate won the 2008 election when the voters with highest turnout tended to vote republican? The answer is that although they tended to vote for the republican candidate more often than other demographic groups, the majority of them still voted democrat. Particularly across income and education levels, nearly all groups had over 50% democrat voters, as indicated by bars surpassing the dashed line in the previous plots.

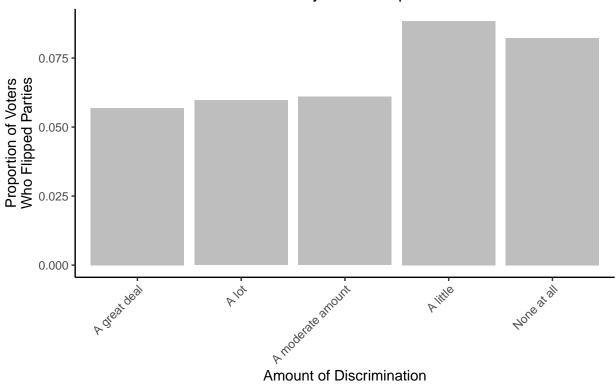
The findings suggest that voter turnout did not, in fact, determine the 2008 election. However, that finding may not hold for other elections and requires further investigation.

## Which voters are swing voters?

Apart from voter turnout, the remaining factor that may impact election outcome is swing voter loyalties - which voters will cross party lines and vote for an unexpected candidate?

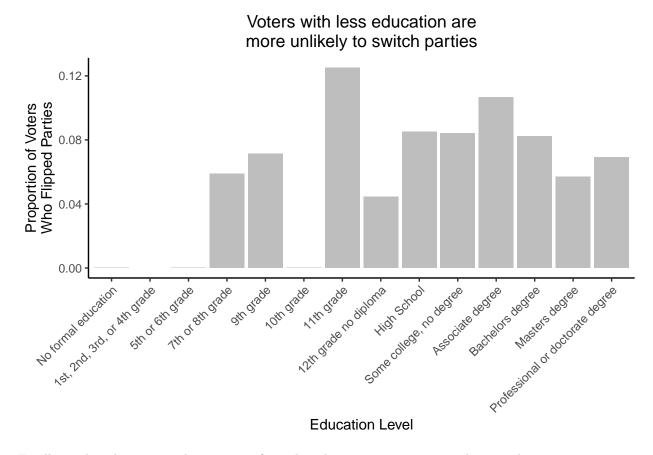
Unlike party affiliation, swing voter status is not related to income or age. However, it appears that voters who face less discrimination are more likely to switch political parties.

# Voters who face less discrimination are more likely to switch parties

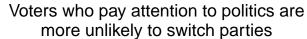


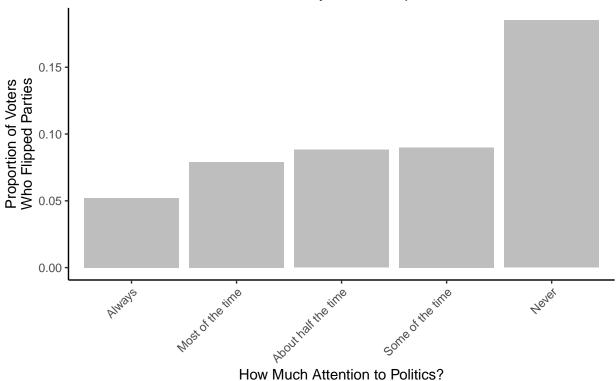
Individuals with very little education (less than high school) are unlikely to switch parties, but individuals at other education levels have similar probabilities of swapping parties.

## Warning: Removed 1 rows containing missing values (position\_stack).



Finally, and perhaps most discouraging for political campaigners, voters who pay the most attention to politics are actually less likely to switch parties, and in fact those who claim to never pay attention to politics are the most likely to swing vote.





Altogether, these findings suggest that swing voters change affiliation for trivial reasons. Although they tend to be relatively well educated majority group members, they claim to not pay attention to politics and change their votes for apparently trivial reasons. These findings may explain why political campaigns tend to focus on flashy ads rather than detailed political issues - they are appealing to fickle swing voters.

#### So what does this all mean?

These findings suggest that to win an election, a candidate must make sure their voters vote (and/or prevent competitors' voters from voting) and win over swing voters who do not care about politics. These findings are consistent with observed trends in political campaigning that focus on getting voters to the polls and emphasize politicians' characters rather than their policies.