

## The Story Behind The Statistic

After the 2008 Obama/McCain election media outlets released exit polls, which predict which political party certain demographics are likely to vote for, for example based on the polling, if you own a gun you are 64% likely to vote republican. I titled this project "The Story Behind The Statistic" because that was my overarching theme and goal. I wanted to see why these groups of diverse people tend to vote for a political party and why their values are important to them. I conducted a series of interviews with a variety of demographics to analyze these voting tendencies and recorded these interviews to document my findings. In every interview I ran into the same problem: A lot of people have conflicting statistics. For example, if you're white you are 55% likely to vote Republican and if you're Jewish you are 78% likely to vote Democrat. What if someone is both white and Jewish? How does their assigned statistic change?

My goal with this mathematical and political exploration is to challenge these statistics. How much more accurate will these statistics be if we factor in all other conditions? It's hard to group millions of people under one statistic so I'm curious to see how a possibly more accurate statistic will work. In one of my many interviews, I encountered a single woman who owns a gun. According to the data, a single woman is 66% likely to vote Democrat and a person who owns a gun is 64% likely to vote Republican. This data contradicts each other so I needed a way to combine them to give my interviewee an accurate statistic. This is what I came up with:

### Republican

$$100 - 66 = 34$$

$$\frac{64 + 34}{2} = 49\% \text{ likely to vote Republican}$$

### Democrat

$$100 - 64 = 36$$

$$\frac{66 + 36}{2} = 51\% \text{ likely to vote Democrat}$$

To solve this I first subtract the opposing statistic by 100 and add that to the whole statistics to get the average. I then repeat and compare both statistics. In this situation, the woman, according to the new statistic, would be 51% likely to vote democrat. This solution does not factor other life events or realizations into the equation therefore, in my opinion, it is more accurate than the original statistics, but is not completely 100% accurate.