**What is the positive/mixed/negative ad message distribution for each candidate and how does it change by state?**

Our first research objective was to take a closer look at the message variable for each of the advertisements in our dataset. Each advertisement is classified as positive (mentions one or more candidates in a positive way with no negative message about any candidate), negative (mentions more than one candidate in a negative way), and mixed (mentions more than one candidate in particular race, with significant positive content about one or more candidates and negative content about one or more candidates). By looking at the distribution of these different categories, we can gain some insight into each candidate’s strategic approach and better understand the nature of these two races overall. The results from this analysis are summarized in Table 1 below and ordered by percent positive.

**Table 1:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Party** | **Candidate** | **% Positive** | **% Mixed** | **% Negative** |
| Democrat | Bernie Sanders | 99.9% | <0.1% | 0% |
| Republican | Carly Fiorina | 99.2% | <0.1% | 0% |
| Democrat | Hillary Clinton | 91.5% | 4.7% | 3.6% |
| Republican | Donald Trump | 72.2% | 27.3% | <0.1% |
| Republican | Chris Christie | 68.8% | 24.6% | 6.6% |
| Republican | John Kasich | 68.2% | 25.8% | 1.6% |
| Republican | Marco Rubio | 45.5% | 35.8% | 17.3% |
| Republican | Mike Huckabee | 34.8% | 65.2% | 0% |
| Republican | Ted Cruz | 31.2% | 37.1% | 25.4% |
| Republican | Jeb Bush | 24.7% | 35.9% | 39.3% |

Note: A small number of ads were classified as unknown for the message. These ads will not show up in the above table, but they are included in the total percentage of ads run. This means that some rows add up to less than 100%.

Republican candidates were much less likely than Democrats to run advertisements that were completely positive in nature, with the exception of Carly Fiorina who was not in the race for very long. This makes sense as most pundits would agree that the GOP race was more adversarial and combative than the Democratic contest. Some Republicans like Mike Huckabee tended to focus on creating a contrast between candidates with a mixed message, while others like Ted Cruz and Jeb Bush utilized both mixed and negative advertisements to bring down support for their opposition.

In order to dive deeper into this message question, we will look at how a majority positive candidate (Hillary Clinton) and a majority negative candidate (Ted Cruz) distributed their message across states. These were both candidates who stayed in the race through all of the contests in our dataset, but made much different strategic messaging choices. Table 2 shows each candidate’s messaging percentages by state and is ordered chronologically by when the primary was held.

**Table 2:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **State** | **HC**  **% Positive** | **TC**  **% Positive** | **HC**  **% Mixed** | **TC**  **% Mixed** | **HC % Negative** | **TC % Negative** |
| IA | 92.6% | 37.4% | 6.4% | 32.5% | 0.6% | 23.8% |
| NH | 90.5% | 57.6% | 8.6% | 40.6% | 0.7% | 0% |
| SC | 99.1% | 26.1% | 0.2% | 30.3% | 0.6% | 38.0% |
| NV | 99.4% | 37.8% | <0.1% | 27.8% | 0.2% | 0% |
| VA | 86.2% | 38.5% | 1.5% | 30.8% | 12.3% | 38.5% |
| MA | 100% | 6.9% | 0% | 93.1% | 0% | 0% |
| OH | 99.7% | 18.2% | 0.2% | 81.8% | <0.1% | 0% |
| NC | 99.9% | 1.3% | <0.1% | 98.7% | 0% | 0% |
| FL | 92.6% | 2.0% | 1.0% | 57.1% | 0.2% | 40.8% |
| NY | 71.2% | 9.1% | 26.0% | 54.5% | 2.9% | 18.2% |
| PA | 79.2% | 1.1% | 5.1% | 97.3% | 15.7% | 0.5% |
| CA | 34.8% | 26.3% | 3.8% | 60.7% | 59.7% | 11.2% |
| Tot. |  |  |  |  |  |  |

Note: A small number of ads were classified as unknown for the message. These ads will not show up in the above table, but they are included in the total percentage of ads run. This means that some rows add up to less than 100%.