**Analysis Report**

**Question: How many individuals cast their votes for the Republican and Democratic presidential candidates in each election from 1856 to 2020?**

Venturing through the political landscape from 1856 to 2020, I conducted a structured analysis of voting patterns between the Republican and Democratic parties. The approach was to divide the historical data into clear time periods, each reflecting significant political shifts and trends. Creating a historical summary was the initial step, offering insight into how party dominance has evolved over time. This approach not only made the large quantities of data more digestible but also allowed for a clearer narrative to emerge from the numbers.

In analyzing the historical voting patterns of the United States from 1856 to 2020, data was summarized in 50-year increments to elucidate the prevailing trends and outcomes of presidential elections. From 1856 to 1900, the nascent Republican Party, initially unified by their opposition to slavery's expansion, suffered an early loss but swiftly gained prominence with Abraham Lincoln's victories in the 1860 and 1864 elections. The period of 1901 to 1950 was largely dominated by Republican presidencies, punctuated by Democratic wins during the Wilson and Roosevelt eras, where the latter's New Deal policies and wartime leadership solidified a significant Democratic presence in four consecutive elections. The subsequent half-century, from 1951 to 2000, was marked by a more equitable tug-of-war between the two major parties. The Democrats secured notable wins with Presidents Kennedy, Johnson, Carter, and Clinton, while the Republicans consolidated their base under Eisenhower, Nixon, Reagan, and the senior Bush. The most recent two decades, 2001 to 2020, have been characterized by closely contested elections, with Republican victories in the early 2000s and a Democratic resurgence with President Obama's two terms. The pendulum swung back with President Trump's election in 2016, followed by a significant Democratic win in 2020 with President Biden. Across the historical tapestry, both parties have witnessed ebbs and flows in their political fortunes, with varied and complex factors influencing each election outcome. The latter part of the timeline shows a trend towards higher vote counts for both parties, signaling a combination of increased voter turnout and population growth.

To graph this data, I chose a Jupyter notebook to manage and visualize the information. A Data Frame was pivotal for ensuring the data was neatly organized, which is essential for accurate graphical interpretation. The line graph I created served as a detailed illustration of each party's vote count through the years, with color-coding and markers enhancing clarity and readability. I then employed a bar graph to provide a comparative view of the two parties’ results in each election year. The contrasting colors offered a straightforward visual comparison of the parties' performance. For hypothesis testing, I used a t-test to statistically compare the mean votes of both parties. I set the significance level at 0.05, following standard practice for determining statistical significance. The p-value obtained was 0.9682930895917796, significantly higher than the chosen alpha level. This result led me to maintain the null hypothesis, suggesting no significant difference in the mean number of votes between the two parties during the years studied.

It's important to note that this statistical analysis, focusing strictly on mean vote counts, does not reflect the entirety of political dynamics. The influence and success of a party are multifaceted, and a multitude of other factors come into play that cannot be captured by this test alone. The p-value here reflects numerical comparisons, not the depth and breadth of political influence or the historical and societal factors that drive electoral outcomes.