1. **Use your data to determine whether the mean or the median better summarizes the data.**

For successful campaigns:

The mean (851) is higher than the median (201).

There is a significant difference between the mean and median, indicating the presence of outliers pulling the mean upwards.

The variance and standard deviation are relatively high.

For failed campaigns:

The mean (586) is higher than the median (115).

Like successful campaigns, there is a significant difference between the mean and median, suggesting the presence of outliers.

The variance and standard deviation are lower compared to successful campaigns.

In this scenario, due to outliers, the median is a better measure of the central tendency for successful and failed campaigns. The median is less affected by extreme values, providing a more representative value for each case's typical number of backers.

**2. Use your data to determine if there is more variability with successful or unsuccessful campaigns. Does this make sense? Why or why not?**

Successful Campaigns:

Variance: 1,606,216.594

Standard Deviation: 1,266

Failed Campaigns:

Variance: 921,575

Standard Deviation: 960

Comparing the variance and standard deviation:

Variance: Successful campaigns have a higher variance (1,606,216.594) than failed campaigns (921,575). This indicates more spread or dispersion in the number of backers for successful campaigns compared to failed ones.

Standard Deviation: Similarly, the standard deviation for successful campaigns (1,266) is higher than for failed campaigns (960), further supporting the notion that there is more variability in the number of backers for successful campaigns.

Within the framework of crowdsourcing, this remark is indeed logical. A broad spectrum of backers, including both large and small contributors and ardent fans, are frequently drawn to successful initiatives. Successful campaigns tend to have a more comprehensive range of backers who contribute varying amounts, which indicates the campaign's broad appeal and participation.   
  
Conversely, unsuccessful campaigns might not have the same widespread appeal, leading to a more concentrated group of backers and less fluctuation in the total number of backers. Furthermore, unsuccessful projects can find it challenging to get as many backers as possible, which could result in a smaller sample size and possibly less variation in the data.

* **3. Given the provided data, what are three conclusions that we can draw about crowdfunding campaigns?**

Monthly Trends in Campaign Outcomes:

There are fluctuations in the number of successful, failed, and canceled campaigns across different months. Analyzing these trends can provide insights into seasonal patterns or external factors influencing campaign outcomes. For example, campaigns launched around holidays or significant events may experience different success rates than campaigns launched during other times of the year.

Consistency in Successful Campaigns:

Despite variations in the number of campaigns launched each month, the number of successful campaigns remains relatively stable. This suggests that certain months may be more conducive to successful crowdfunding campaigns, possibly due to increased consumer spending or heightened interest in certain product categories during specific times of the year.

Impact of External Factors:

External factors such as economic conditions, global events, or cultural trends may influence the success or failure of crowdfunding campaigns. Analyzing campaign outcomes alongside external data sources could reveal correlations between specific events or trends and changes in crowdfunding success rates.

* **What are some limitations of this dataset?**

Temporal Limitations: The dataset appears to cover a specific period, which may not capture longer-term trends or changes in the crowdfunding landscape. Longitudinal data spanning multiple years would provide a more comprehensive understanding of how crowdfunding dynamics evolve and fluctuate over time.

* **What are some other possible tables and/or graphs that we could create, and what additional value would they provide?**

Funding Goals vs. Success Rate:

Scatter Plot: Plot the funding goal of each campaign against its success rate (successful or failed). Color codes the data points by the outcome.

Value: This plot would reveal whether there is a relationship between the funding goal of a campaign and its likelihood of success, helping project creators set realistic funding targets.

Duration vs. Success Rate:

Bar Chart: Calculate the average duration of successful and failed campaigns and plot them side by side.

Value: This chart would show whether there is a correlation between the duration of a campaign and its success rate, providing insights into optimal campaign lengths.

Geographic Distribution of Campaigns:

Heatmap or Choropleth Map: Visualize the geographic distribution of crowdfunding campaigns by region or country.

Value: This map would highlight regions with the highest concentration of crowdfunding activity, allowing for targeted marketing efforts or platform expansion strategies.