## Statistical Analysis

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

By analyzing the data I was able to notice that for the success projects, the mean is a lot higher than the median. This means there are a few projects that raised way more money than most, and they make the average seem bigger. The median is probably better to look at because it shows what most projects were like without being affected by the few super high ones.

For failed projects, the same thing happens the mean is higher than the median because some projects had bigger goals. The median gives a better picture of what usually happened with most of the failed projects.

**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 tent to have a lot of differences in the amount of money they raise, which means that this campaigns can either have small and large amounts. Due the wider range of result of successful project, it shows a higher variance and standard deviation. On the other hand, failed campaigns has raised less money, which means they have less differences in the outcome. Most of them are together around low amounts, with only a few that were able to raise a bit more. This provoke to less variability in the results.

The median is also a better way to look at the successful and failed campaigns because it isn't influenced by the few campaigns that raise a lot of money. The higher variability in successful campaigns fits with the idea that a few very successful projects can have much larger results.

## Conclusions

**1.** Success Rates by Category Comparison: Theater projects have the success rate with 187 outcomes as opposed to "film & video " which has 102 successes and "music " with 99 successes total. This indicates that theater projects tend to fare than projects, in categories overall.

**2.** Among the types, within the entertainment category "plays" stands out with a higher success rate of 187 successful projects compared to categories such as "documentary," with 34 successful projects and "fiction " with 9 successful projects respectively. This suggests that plays tend to be more successful, within this category.

**3.** In looking at how projects have done over months of the year so far this year (with 86 projects in June and 93 in July) it seems like the ones started or finished during the summer might have a better chance, at success compared to other times of the year.

**Limitations of the Dataset:**

1. The dataset provides an overview of projects by month, which lacks details regarding the duration of the projects, such as the time taken to achieve their goals or outcomes. A column indicating project durations could facilitate an analysis to determine whether shorter or longer campaigns are more likely to success.

2. Some categories, like "theater" have a lot data points than categories such as "animation." This difference, in distribution could affect the findings because smaller categories may not have data to make strong conclusions.

3. Live projects are not given attention in the dataset as there are 14 entries under the "live" category, this imbalance implies a bias towards completed projects, and lacks sufficient information, for analyzing ongoing projects current status.

**Suggestions for Additional Tables or Graphs:**

1. Comparing the pledge amount across categories and subcategories, with their success rates through a visual representation like a table or graph could reveal if projects, with higher funding are more successful.

2. Using a Map for the success and failure rates based on regions, if geographical data permits could offer insights into how project outcomes vary across regions.

3. A chart comparing the duration of projects and their success rates can help determine if longer or shorter projects are more successful based on their period, from start to completion.