**Module 1 Challenge Observations**

**Three Conclusions:**

Based on the charts we created, there were more crowdfunding campaigns in the Theater category than any other category. In the Film & Video category, about 57% (102/178) of the crowdfunding campaigns were successful. In the Science Fiction sub-category, there were more failed campaigns (9) than successful campaigns (5).

**Limitations:**

One limitation with this dataset is that we don’t know how much advertising (if any) went into each campaign. If a company committed some advertising resources to a campaign, that could result in more money pledged compared to a single person who has no avenue to advertise their campaign to a larger audience. Another limitation with this data set is that we don’t know how accurate the initial goals are for each campaign. Someone could set a low goal that is easily achievable while someone with a similar campaign might have overestimated the funds they would need, which would skew the percent funded levels for otherwise similar campaigns.

**Other Tables/Graphs:**

We could create some pie charts that are filterable by category or sub-category to analyze the percentage that are successful/failed/canceled. This would be valuable so that we could learn how likely certain campaigns are to succeed or fail. Another good one would be to separate the average donation amounts into buckets and see the percentage of each bucket that is successful. I’m assuming those campaigns with higher average donations are more successful, but I’d be able to test that hypothesis with a visualization like this.

**Successful vs Failed Campaigns Statistical Analysis:**

I believe the median better summarizes this data because the range between the maximum and minimum values vary so much. With this much variance in both successful and failed campaigns, the mean is really skewed by a few outlier values. It looks like there is more variability in successful campaigns because this has a larger standard deviation. With such a wide range between the minimum and maximum number of backers for successful campaigns, I think it does make sense that it varies more because these campaigns could succeed with many small pledges or a smaller number of large pledges.

**Sources:**

Split parent category and sub-category:

<https://www.indeed.com/career-advice/career-development/how-to-split-cells-into-columns-in-excel>

Convert unix timestamp to date:

<https://www.extendoffice.com/documents/excel/2473-excel-timestamp-to-date.html>

Calculate variance:

<https://www.ablebits.com/office-addins-blog/calculate-variance-excel-sample-population-formula/>

Calculate standard deviation:

<https://www.ablebits.com/office-addins-blog/calculate-standard-deviation-excel/>