**Weekly Challenge #1 Summary**

**Crowdfunding Analysis Observations**

Reviewing the tables created from the original dataset we can draw a few cursory conclusions.

* First observation – the number of crowdfunding campaigns is predominantly in film/video, music, and theater. The subcategory plays especially.

Examining pivot table one we see that the number of crowdfunding campaigns an overwhelmingly in the film/video, music, and theater parent categories, especially in the play subcategory. There could be several reasons for this: the organization this data was taken from is closely connected to those categories, those categories favor crowdfunding methods, etc.

* Second observation – the ratio of failed to total projects rarely rises above 50%.

Examining pivot table three and the crowd analysis table, we can see that the number of failed crowdfunding campaigns only rises above fifty percent twice. This rate of success would be useful to compare to other crowdfunding campaign organizations (assumed this data was taken from a company like GoFundMe). That comparison would be useful to a client to see if this organization offers the best chance of success, and if the organization can should their rate of failure/success is higher than other competing organizations.

* Third observation – the best success rate in relation to sought backers appears to be in the range of 15k to 35k.

If we are seeking to crowdfund a project whether through an organization, a process, etc. (depending on where this data was collected from) we should be seeking 15,000 to 35,000 backers (see the crowd funding analysis table). There could of course be other factors influencing this success rate and in fact the connection between backers and success may not actually exist. Currently, we only have a hypothesis, which will require further exploration and testing.

* Fourth observation – there seems to be a consistent downward trend from roughly July until September in the project tally.

There is a consistent slowdown in the number of total projects in late summer until early fall. This could have several implications. From the data source (i.e., company/organization) side, this slowdown could serve as a time for internal maintenance or could indicate a potential productivity issue regarding project management. Examining this pattern from the client side or project initiator side could indicate a poor or advantageous time to begin a crowdfunding project depending on the client’s specific project goals and additional data analysis.

**Crowdfunding Data Limitations and Possible Additions**

Some limitations of our collected data and analysis. Some of the latter have already been stated.

* We don’t have any information on the success of the crowdfunding campaigns after launch (e.g., profitability two years or five years after launch). There could be some early indicators which could help us predict success or failure.
* We could add some economic “health” data to see if we can corroborate this with our prior observations.
* We could add a graph that analyzes the amount raised in proportion to number of backers in various countries to see if there is an advantage to one country over another, in terms of where to initialize the project.
* We could look at the date started and see if some years were better to start a crowdfunding campaign than others and see if a pattern emerges.
* The one-hundred success rate of the 15k-35k backers is interesting, this should most definitely be explored further with more specific tables and testing for variable independence.
* A successful project could simply be a failed project that set a low bar. More information on how the projects were managed would be helpful.

**Backers Statistical Analysis**

Since both the mean and median of our failed and successful set are within one standard deviation of each other, both are relatively safe to use. I favor the median for both sets, since the majority of our values lie nearest those two values. Interestingly both sets have a mean and median that are roughly half a standard deviation from one another.

There is significantly more variability in successful campaigns versus failed. This does make sense since due to the fact that startup/crowdfunding projects initially have a high risk of failure. Many programs will flounder, while a few rise quickly to the top, and we see those largely successful programs in the higher mean and large variability.