**Data Analysis**

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

One observation I made regarding the data was that categories from the entertainment business (film & video, music, and theater) were the top three for the most backers. This tracks with the additional research I did about crowdfunding. Google listed the following industries as the most popular for using crowdfunding to raise money:

* 1. Food & craft
  2. Film & Video
  3. Art & comics
  4. Games
  5. Online learning, continuing education, and higher education

A second observation I made was how similar the data was for the “Successful” and “Failed” data points for the Launch Date Outcomes graph. For the first four months of the year, the data points trend in the same direction. It isn’t until May that the data points tend to reverse and go in opposite directions. I find it interesting too that the “Successful” and “Failed” data points have a drop off in the summer months of about the same amount. From July to August, “Successful” data drops by 17 points. While “Failed” drops by 12 points from August to September. In asking ChatGPT why this might happen, one of the answers definitely made sense to me…summer vacations and back to school. However, thinking about this more deeply, instead of being a similar decline in both, shouldn’t there be a drop in “Successful” and an increase in “Failed”? I’m afraid I don’t understand why there would be a decrease in “Failed” around that same time. There is a smaller decline for “Successful” campaigns from November to December. This, I am imagining, can be attributed to holiday shopping. And for this same data set for “Failed”, there is a rise in that data which makes sense.

A third observation I made was how large the variance for the successful and failed data is in the “Backers Count” sheet. I would have never imagined having a variance of over a million. However, in asking Xpert Learning Assistant, when a variance is this large, it means that the “data points in the dataset are quite spread out from the mean.” This means that the data is very scattered out which can be seen in the standard deviation. The mean is 851.15 with a standard deviation of 1266.24. This means that the average for the “Successful” campaigns is 851 with other data points as far away as 1266 points! Another way to see how diverse this dataset is is to look at the Minimum number and the Maximum number. The min for “Failed” is 0 while the max is 6080. That’s a huge difference!

1. What are some limitations of this dataset?

One limitation I am thinking of is how much marketing affected how successful the crowdfunding campaign was for these categories. For instance, was a campaign successful because it had a large marketing presence? Did the campaigns even have a marketing budget or was it more of a friends and family giving by word of mouth?

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

I feel like adding a box and whisker plot would have been beneficial to add to the Backers Count sheet. This would have been a great way to visually show the spread of the data. It would have been great to see the outliers from the “Successful” and “Failed” data and provide a comparison of the two datasets.

Side Notes:

I have attached another Data sheet named Data-Color Transition. I know when I asked you about it in class you said I could do it the original way I showed you which was to just have the colors be red, green or blue. However, I added this additional sheet so you could see that I knew how to format that information. I did not love this way of doing the color shading because there were data points that were green but weren’t in the 100 to 199 range. But the transitioning of the colors was cool.

In creating the Avg. Donation column, I kept getting an error in the first two cells because I was trying to divide by 0. I used ChatGPT to figure out how I could still get the information while dividing by 0 to produce an outcome.