**Report Crowdfunding Statistical Analysis**

* Use your data to determine whether the mean or the median better summarizes the data.
* Use your data to determine if there is more variability with successful or unsuccessful campaigns. Does this make sense? Why or why not?

1. **Mean vs. Median to Summarize the Data:**

* **For Successful Campaigns**:
  + Mean: 851.15
  + Median: 201.00
  + Standard Deviation (SD): 1,266.24
* **For Failed Campaigns**:
  + Mean: 585.62
  + Median: 114.50
  + Standard Deviation (SD): 959.99

**Which Summarizes the Data Better?**

* **For both successful and failed campaigns**, the **mean** is much larger than the median. This suggests the presence of **outliers**, or campaigns that received significantly higher contributions than others, pulling the mean upwards.
* In such cases, the **median** is generally a better summary statistic, as it is less affected by extreme values and gives a better sense of the "typical" contribution amount. For example, in successful campaigns, the median contribution is only 201.00, meaning most campaigns receive around this amount, while the mean is inflated to 851.15 due to a few very high-contribution campaigns.

**Conclusion**: The **median** better summarizes the central tendency of contributions for both successful and failed campaigns, as it is less skewed by outliers.

1. **Variability in Successful vs. Unsuccessful (Failed) Campaigns:**

* **For Successful Campaigns**:
  + SD: 1,266.24
  + Variance: 1,603,373.73
* **For Failed Campaigns**:
  + SD: 959.99
  + Variance: 921,574.68

**Which Has More Variability?**

* **Successful campaigns have higher variability** as indicated by both the larger standard deviation and variance. This suggests that the amounts raised in successful campaigns are spread out over a wider range compared to failed campaigns.

**Does This Make Sense?**

* Yes, this makes sense. **Successful campaigns** likely vary widely in terms of contributions because:
  + Some campaigns just barely meet their funding goals, while others may significantly exceed them.
  + Successful campaigns tend to attract a broader range of support, leading to greater variability.

**In contrast**, failed campaigns are likely to receive relatively lower and more uniform contributions, as they do not achieve their goals and may not attract as much widespread support.

**Conclusion**: The higher variability in successful campaigns aligns with the idea that successful campaigns can receive a wide range of contributions, from modest amounts to far exceeding their goals, while failed campaigns likely struggle to gather substantial support, leading to less variation.