Farida Muhammad
Project: Visualizing Movie Data Submission

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Step 1: Data Cleanup and Attribute Selection

- Clean up any missing information and choose the most important attributes you will explore further in your visualizations.
- List out the attributes (or variables) you plan to dive further with your visualizations. You should explore no more than 8 attributes.
- Please refer back to the Data Cleanup course to help you clean up your data.

For this project, the following attributes were analyzed: genre, release year, popularity, production company, original title, budget adj, revenue adj, and profit (this will be calculated).

I removed 7,011 records in the dataset where the budget adj or revenue adj values were 0. There are 3,855 records remaining in the dataset. Although a large amount of the data is being removed, this will help with the analysis since budget adj and revenue adj are key attributes that will be used for the analysis. The decision to remove these records is justified since the 0 values can skew the data in the analysis. For example, when sorting by popularity, the movies with a 0 budget or revenue are ranked poorly and this skews the data. In addition, it is not advisable to impute/replace 0's for so many fields because this can lead to a faulty analysis.

Step 2: Tableau Visualizations

- Please make sure you follow the rubric and include Tableau Dashboards, Stories, and the appropriate visualizations (small multiples, scatter plot, bar chart, etc..) your reviewer expects your visualizations to contain. Remember: You need one Dashboard for every question (Q1-Q4) and in addition, you also need one Story, pertaining to a question of your choosing.
- Attach your visualizations as Tableau Workbooks in a zip file along with this report.

IMPORTANT: Please upload the workbooks to **Tableau Public** to allow reviewers to access your workbooks. Note that simply saving your file as a ".twbx" is not enough to allow all reviewers to access. Instructions on how to do this.

Step 3: Questions

- Answer the following questions. Refer to your online visualizations to back up your answers:
  - **Question 1: How have movie genres changed over time?**

Over the years, you can see from the area chart that the total budget adjusted for inflation (in 2010 US dollars) and the total revenue (adjusted for inflation in 2010 dollars) by genre has significantly increased from 1960 to 2015.

The line chart shows that over the years the movie genres earning the highest percentage of revenue has changed. The percentage of revenue that movies in the Drama genre category has fallen over the years. While more recently Action and Adventure movies make up the highest percentage of movie revenue.

Since action and adventure movies bring in the most revenue, this may be the reason why they have the highest budgets. One can conclude that a relationship exists between the budget a specific genre of movie is given based on the revenue the genre of movie brings in.
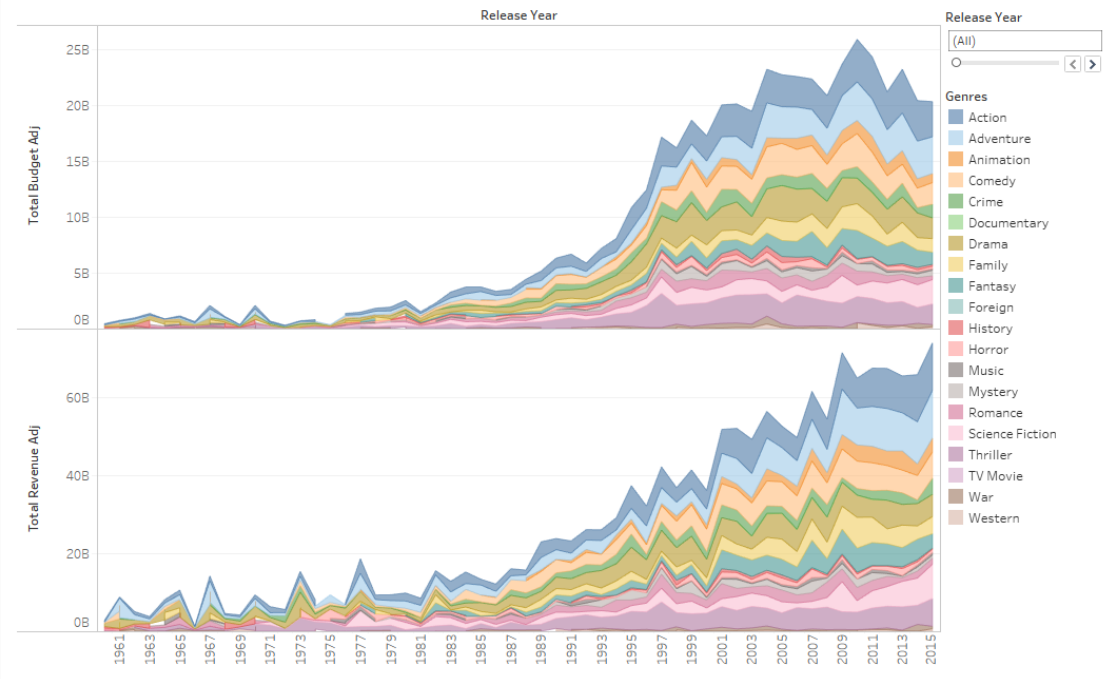
Link:
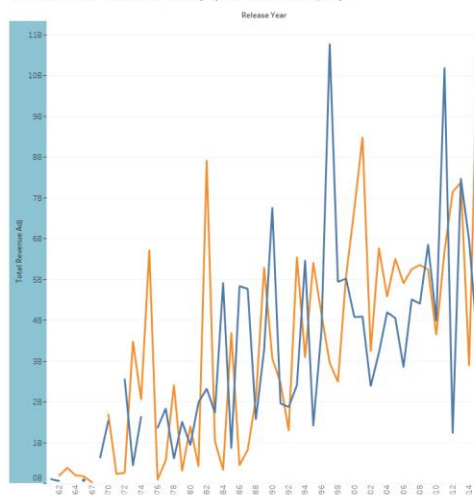https://public.tableau.com/profile/farida2860#!/vizhome/Story1_Movie_Genres/Story1?publish=yes

○ **Question 2: How do the attributes differ between Universal Pictures and Pictures?**

The Total Revenue Adj by Production Company line graph shows that revenue fluctuates often over time. In 2011, Paramount Pictures had the highest revenue and in 2015 Universal Pictures had the highest revenue.
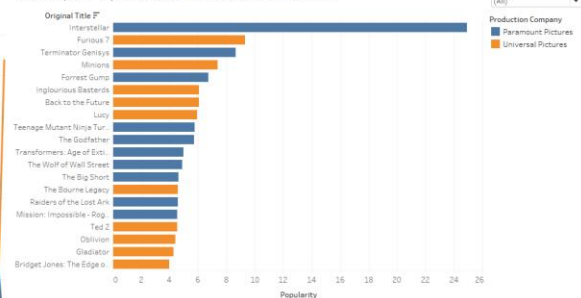
The most popular top 10 movies for Paramount Pictures and Universal Pictures are depicted on the bar graph.
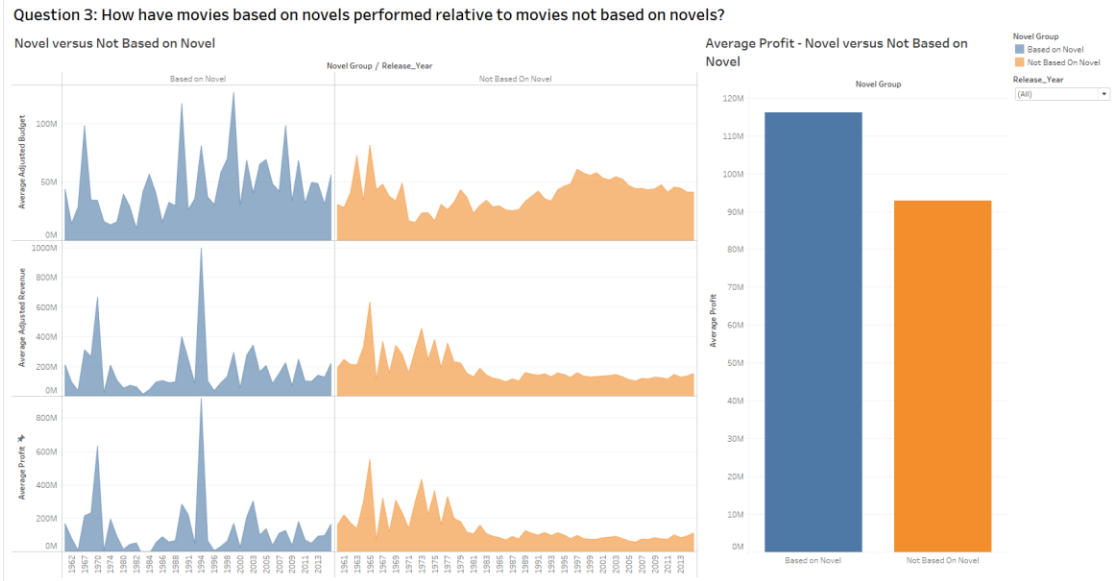

Link:
https://public.tableau.com/profile/farida2860#!/vizhome/q2_Universal_vs_Paramount/Dashboard-Q2

○ **Question 3: How have movies based on novels performed relative to movies not based on novels?**
The Novel vs. Not Based on Novels chart shows the average total budget, revenue and profit for movies based on novels and movies not based on novels over the years. The average budget, revenue, and profit for movies based on novels fluctuates very often over the years. The average budget, revenue, and profit for movies not based on novels, fluctuated more in the 1960's and 1970's but remain more steady after that time period.
The Avg. Profit – Movies Based on Novels vs. movies Not Based on Novels chart show that average overall profit for movies based on novels vs. movies that are not based on novels.

Question 3: How have movies based on novels performed relative to movies not based on novels?
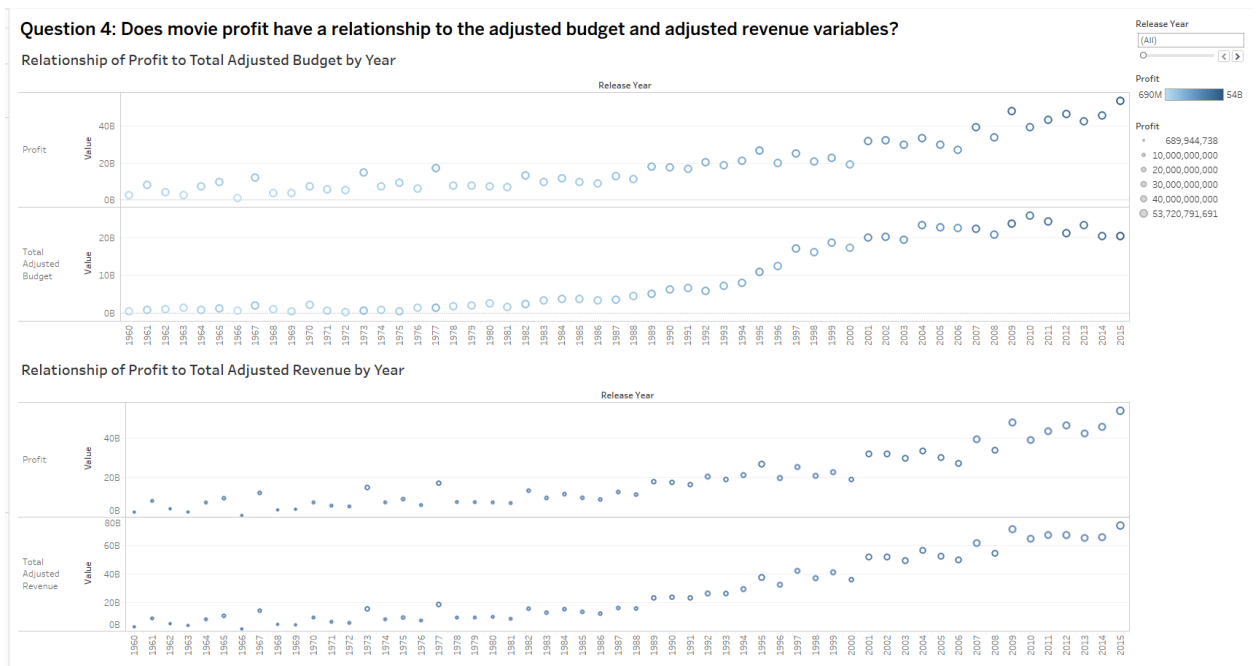
Link:
https://public.tableau.com/profile/farida2860#!/vizhome/q3_Novel_vs_Not_Based_on_Novel/Dashboard-Q3?publish=yes

- **What is your additional question that you proposed? What is the answer? How did you come up with this question?**

Question 4: Does movie profit have a relationship to the budget adj and revenue adj variables?
The first scatterplot shows that the relationship of profit to total budget adj by year. You can that a higher budget generally leads to a higher profit.

The second scatterplot shows that the relationship of profit to total revenue adj by year. It does appear that profit increases as revenue increases.

Question 4: Does movie profit have a relationship to the adjusted budget and adjusted revenue variables?

Relationship of Profit to Total Adjusted Budget by Year

Relationship of Profit to Total Adjusted Revenue by Year

Link:
https://public.tableau.com/profile/farida2860#!/vizhome/q4_Profit_Relationships/Dashboard-Q4

Workbooks zip:

Workbooks.zip