

# Project: Visualizing Movie Data

## Step 1: Data Cleanup and Attribute Selection

- Looking at the data there was a large number of movies with 0 \$\$\$ for budgets. Most of these movies had very low ratings and popularity. Given that this analysis will focus primarily around budget and revenue, removing this data should not skew the study and should improved performance.
- There are several columns with multiple attributes separated by a |. I created custom splits on several of these including genres and production\_companies which I am using in my analysis.
- I created two calculated measures to include in my analysis:
  - Gross Profit
  - Count of Titles
- The following attributes were explored:
  - Production Companies
  - Genres
  - Popularity
  - Revenue Adj
  - Vote Count
  - Budget Adj
  - Release Date

## Step 2: Tableau Visualizations

- [https://public.tableau.com/profile/brian.j.hartman#!/vizhome/TheMovieDatabase\\_Submission/Q1Story](https://public.tableau.com/profile/brian.j.hartman#!/vizhome/TheMovieDatabase_Submission/Q1Story)

## Step 3: Questions

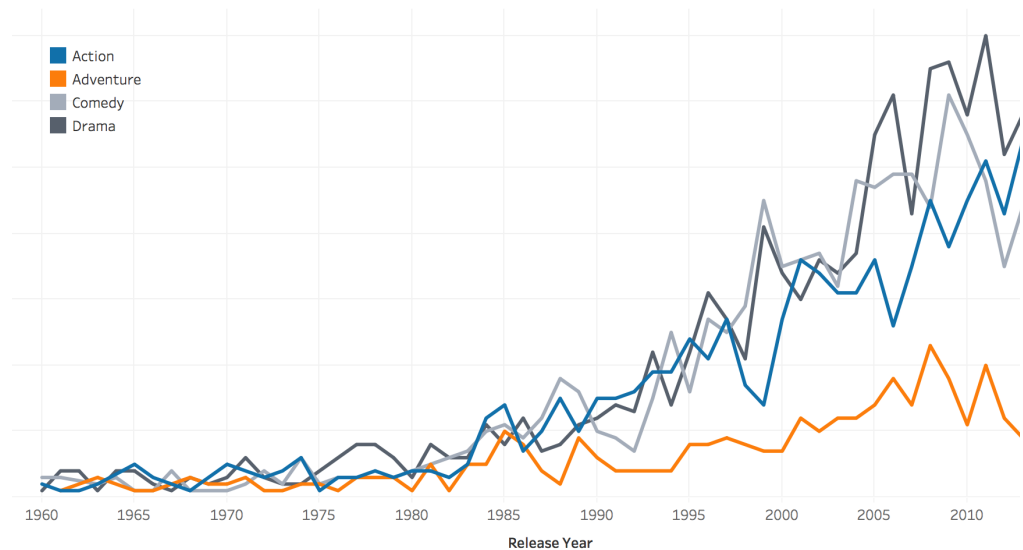
- Answer the following questions. Refer to your online visualizations to back up your answers:
  - **Question 1:** How have movie genres changed over time?
    - The chart below show the top 4 genres and the number of movies released over the time period of 1960 -2015. Beginning around 1985 we see a significant increase in the number of movies being made in all 4 of these genres.

There has been a significant increase in the number of movies as being released yearly. Action, Adventure, Comedy and Drama are leading all movie releases.

This chart describes the average budget, adjusted for inflation, by year for the four top genres of movies.

Here we show the average revenue, adjusted for inflation, by year for the top four genres of movies.

## Revenue by Count



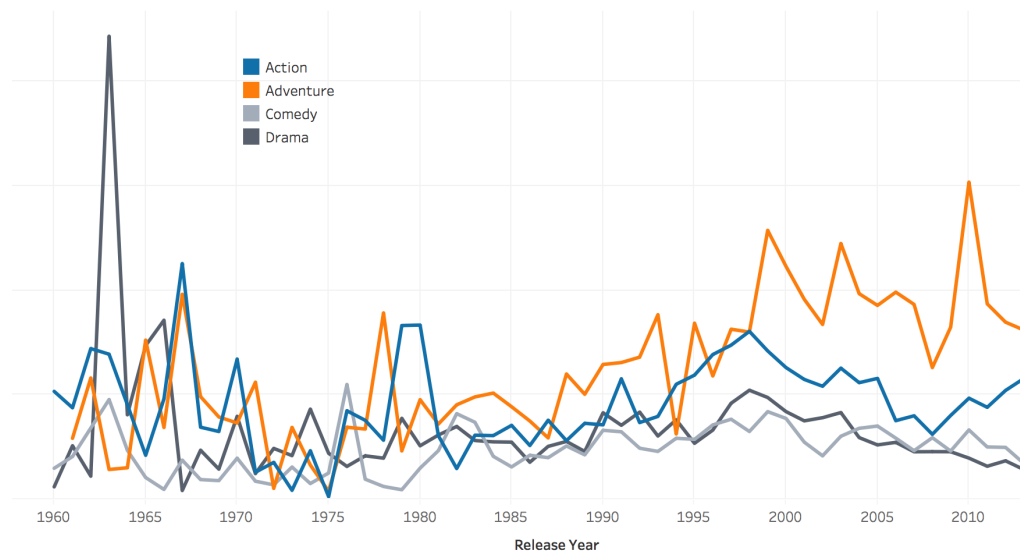
- The chart below shows the average budget per year spent by the top 4 genres. I utilized the budget adjusted for inflation to get a clearer picture of whether or not more money was being spent. As you can see, all genres showed increases in budget but by far the adventure genre's budget increase more than the other three genres.

There has been a significant increase in the number of movies as being released yearly. Action, Adventure, Comedy and Drama are leading all movie releases.

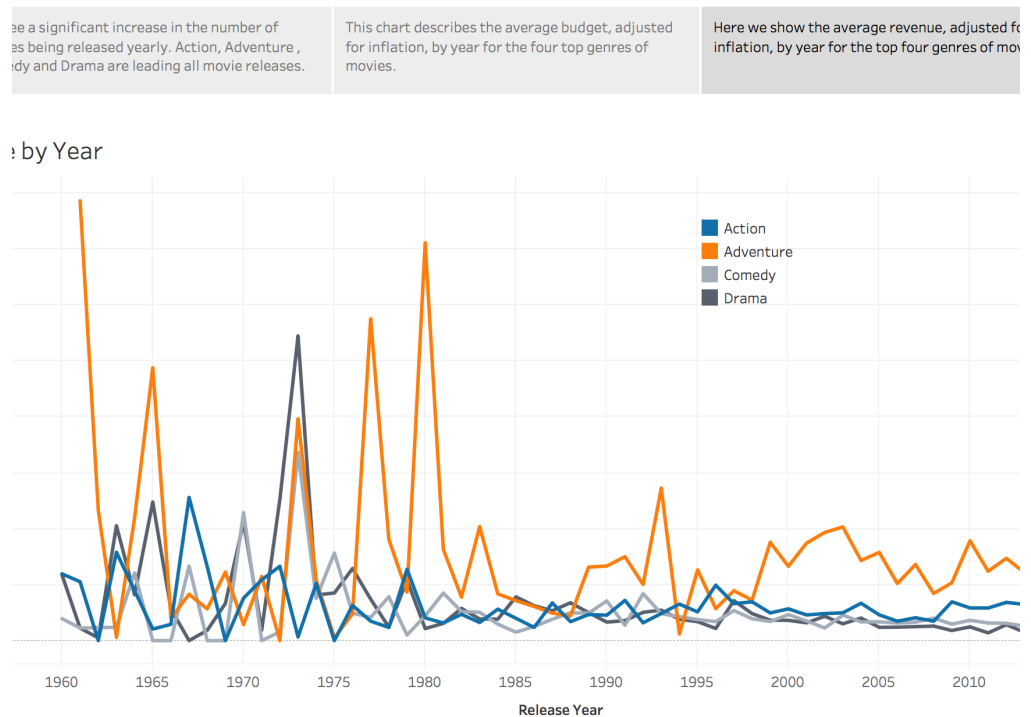
This chart describes the average budget, adjusted for inflation, by year for the four top genres of movies.

Here we show the average revenue, adjusted for inflation, by year for the top four genres of movies.

## Budget by Year



- Below I am showing the average revenue generated by the top 4 genres.

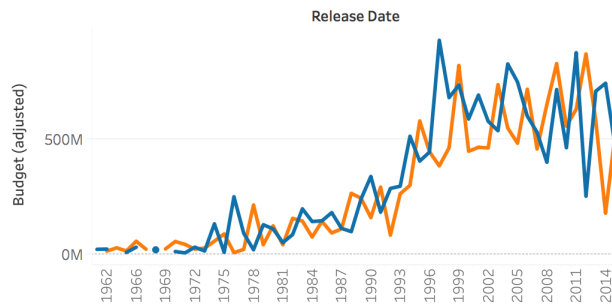


Again an adjusted for inflation revenue was utilized to differentiate between actual revenue increases and cost of living increases. We do not see the same large increases in revenue being generated as we do in the increases in budgets being spent.

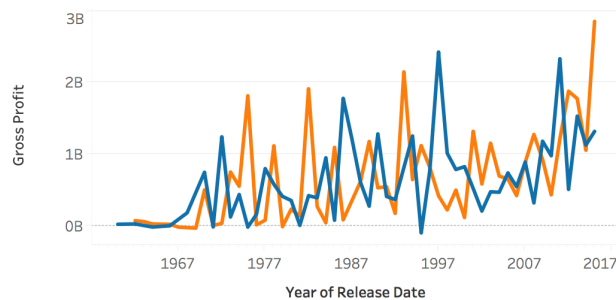
- **Question 2:** How do the attributes differ between Universal Pictures and Paramount Pictures?
  - The attributes for Universal Pictures and Paramount Pictures are very similar. Both have similar budget trends as well as similar trends in gross profit. When we look at the top 20 films by votes between 1960 and 2015 we see there's an equal amount of representation by both Universal Pictures and Paramount Pictures.

Q2

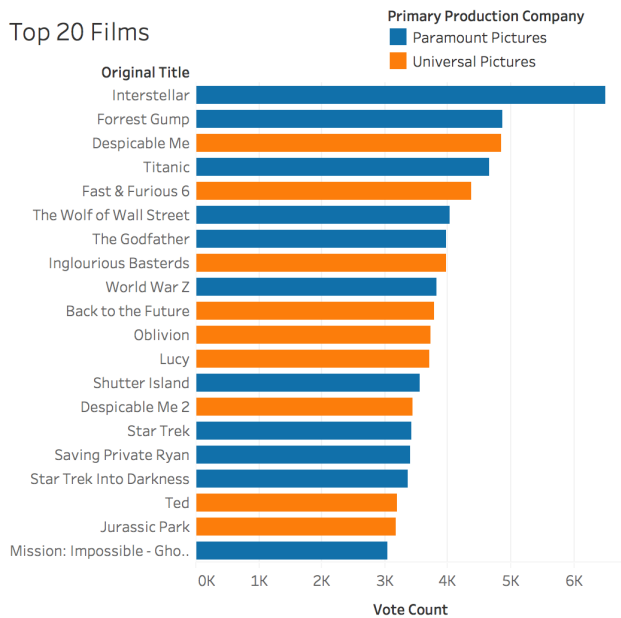
Yearly Budget (adjusted)



Profit Margins



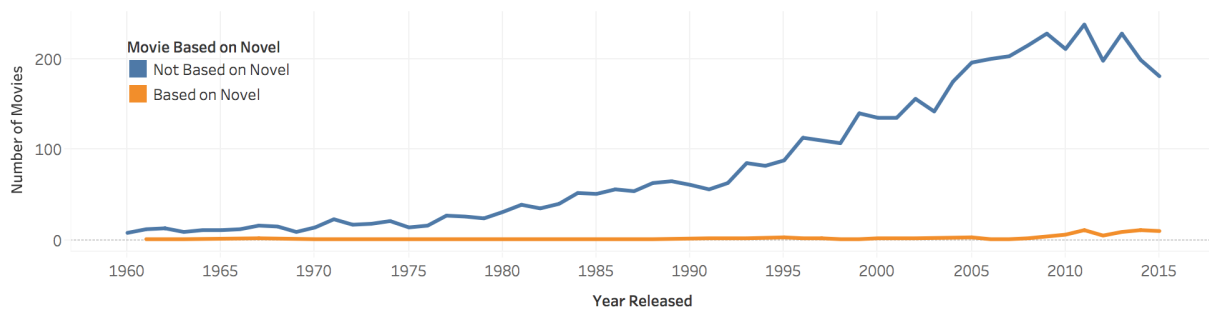
Top 20 Films



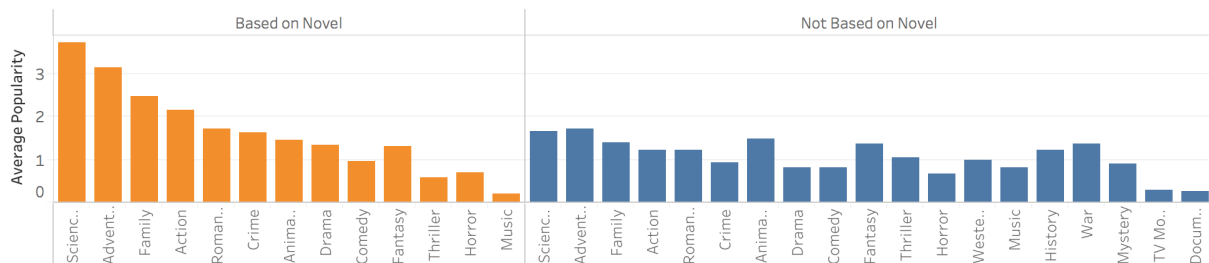
- **Question 3:** How have movies based on novels performed relative to movies not based on novels?
  - The number of films based on novels is relatively small compared to those not based on novels. Several genres of films based on novels enjoy higher popularity scores than those not based off of novels like, Science Fiction, Adventure, Family, Action, and many others.

Q3

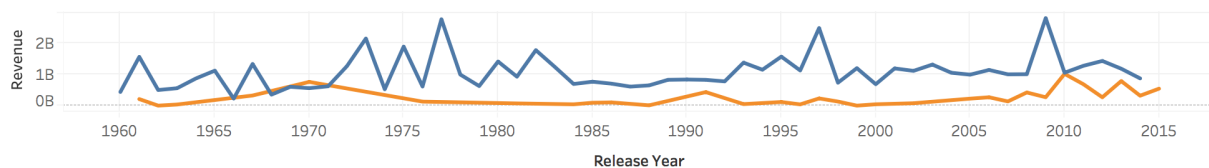
Movies Based on Novels



Most Popular Genres



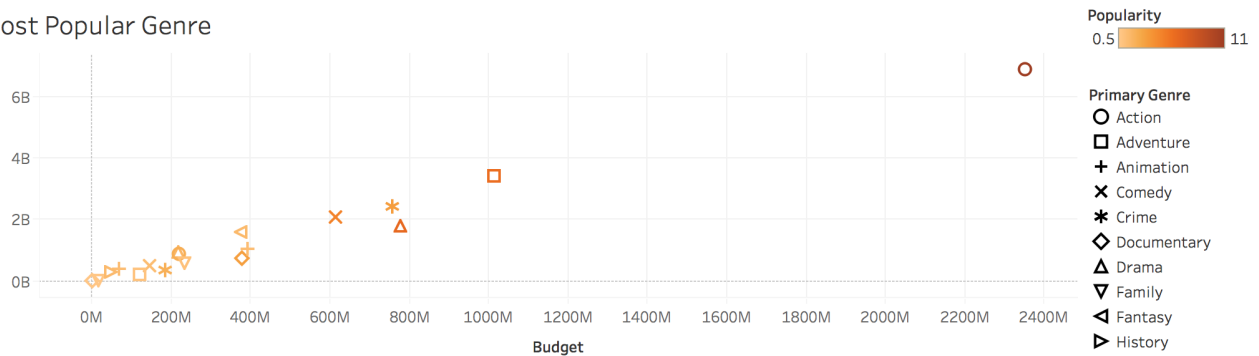
Maximum Revenue (adjusted)



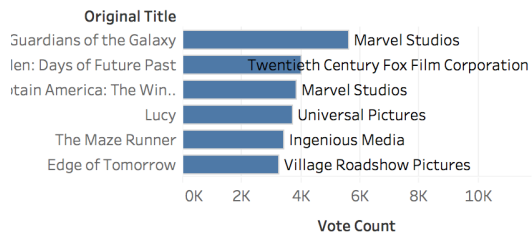
- **Question 4:** 2014 has the largest number of films released. What are some of the key attributes of that year?
  - When I looked at the data on revenue I noticed that 2014 was the highest year for revenue generated. I want to look into what was driving that revenue. I saw that Action films had the largest budgets that year, returned the largest amount of revenue, and were the most popular. Two of the most popular action films that year were made by Marvel Studios who generated nearly 1.5 billion in revenue; twice what the next closest film company generated.

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Most Popular Genre



Top 6 in Vote Count



Top 6 in Revenue

