

Movie Analysis


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Overview

This analysis will investigate the following questions:

- ❖ Does movie runtime impact the rating of the movie, is there an ideal runtime?
 - ❖ What is a suggested budget and how does it affect profit?
 - ❖ How does genre affect popularity?
- 

Data

The data used in this analysis was provided by Flatiron from IMDB and TMDB

Movies from the past ten years (2010 - 2020) were used to analyse the budget, profit, runtime minutes and genres.

Profit was calculated by subtracting the worldwide gross revenue from the budget



Movie Length

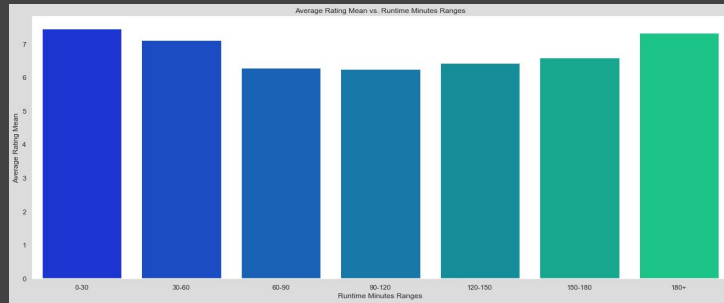
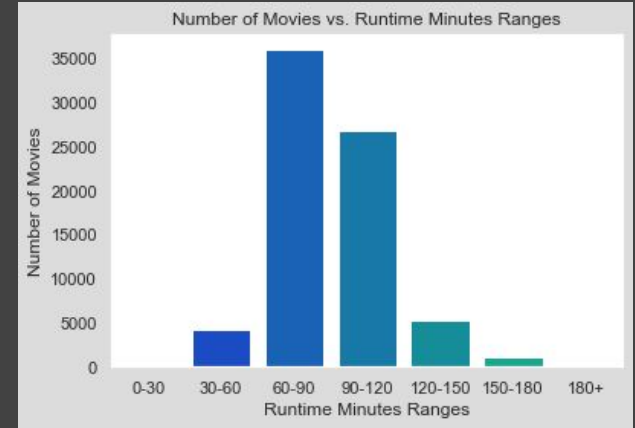
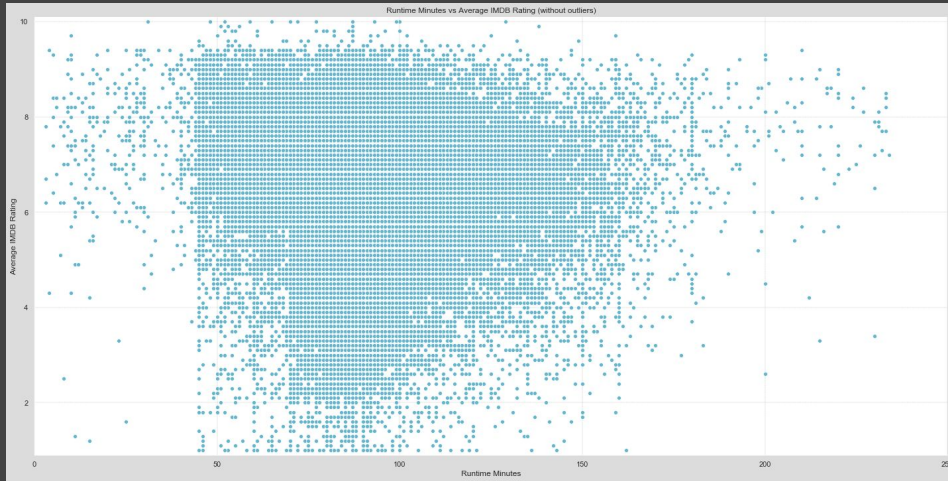


← With Outliers

Without Outliers →



Movie Length

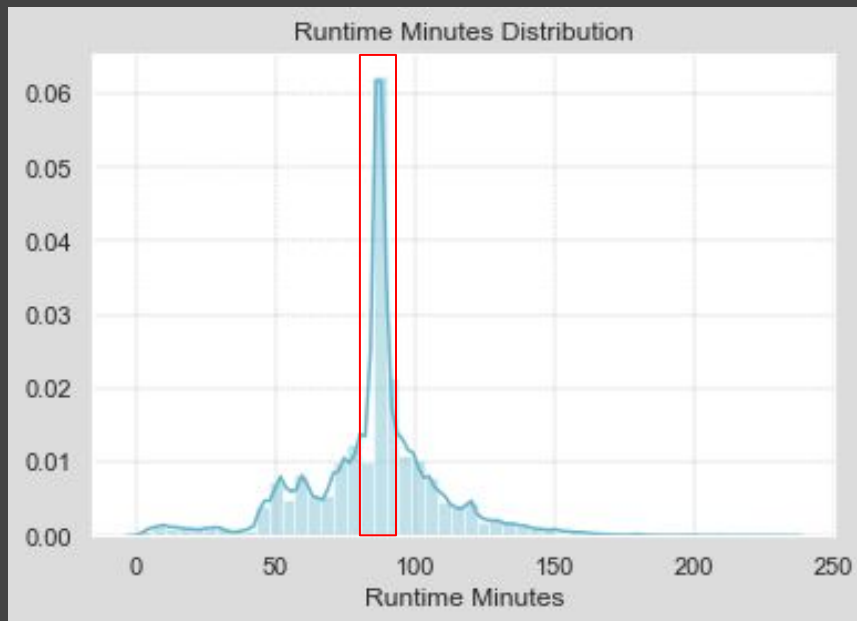


Number of movies affects the average rating mean across each group of runtimes.

Runtime Minutes Distribution

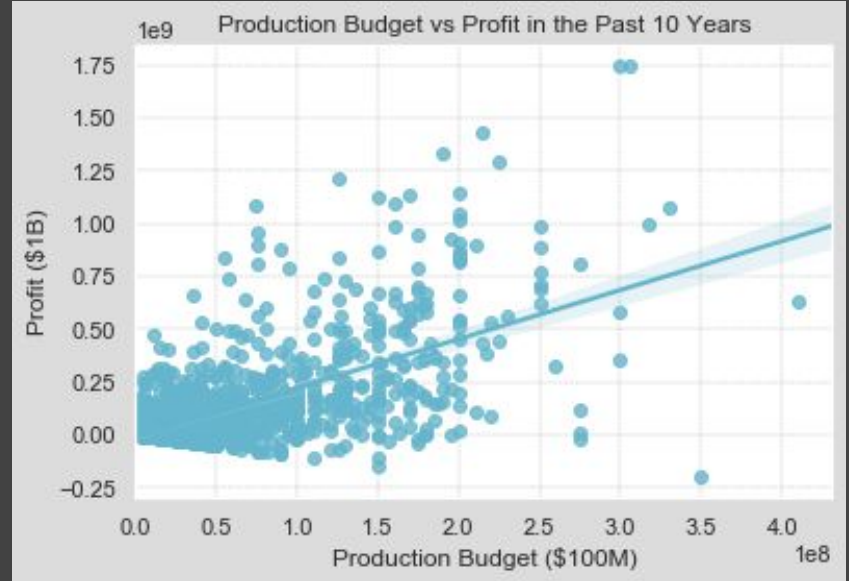
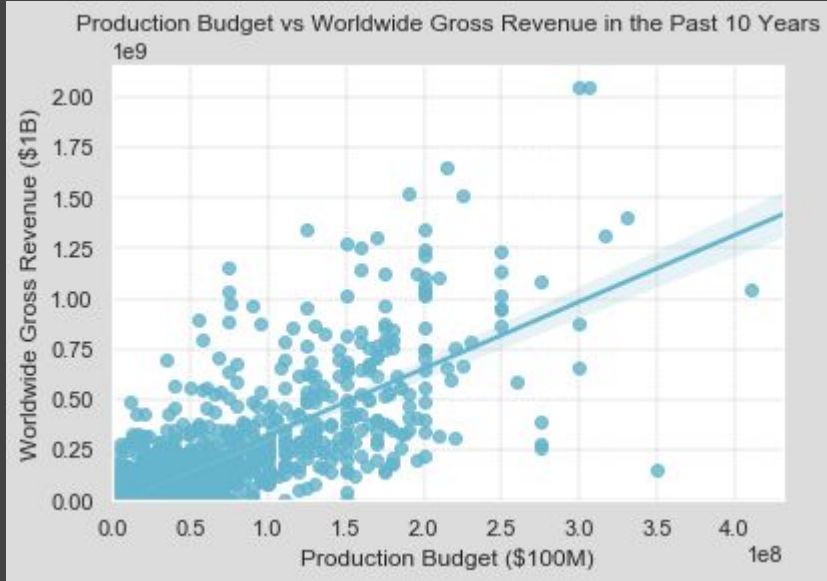
Mean: 85.1
minutes

Median: 87
minutes



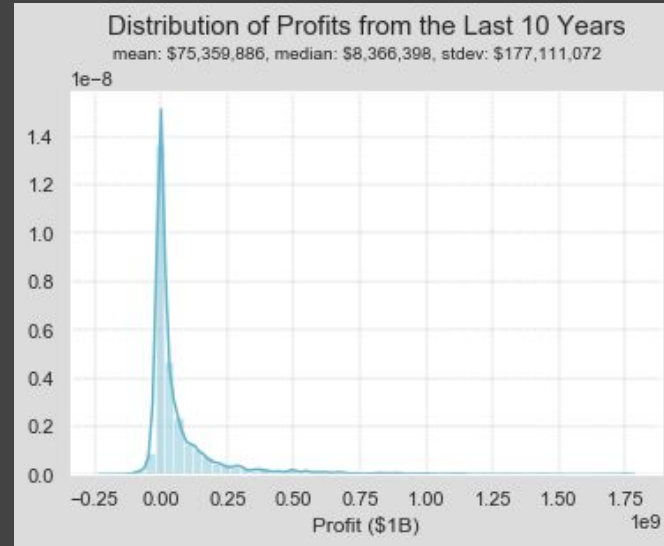
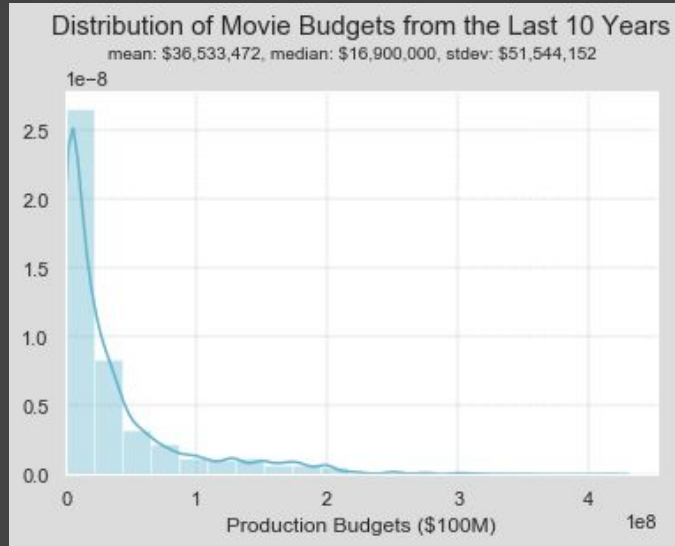
Budget Analysis

What is a suggested budget and how does it affect profit?



As budget increases, so does gross revenue and potential profit!

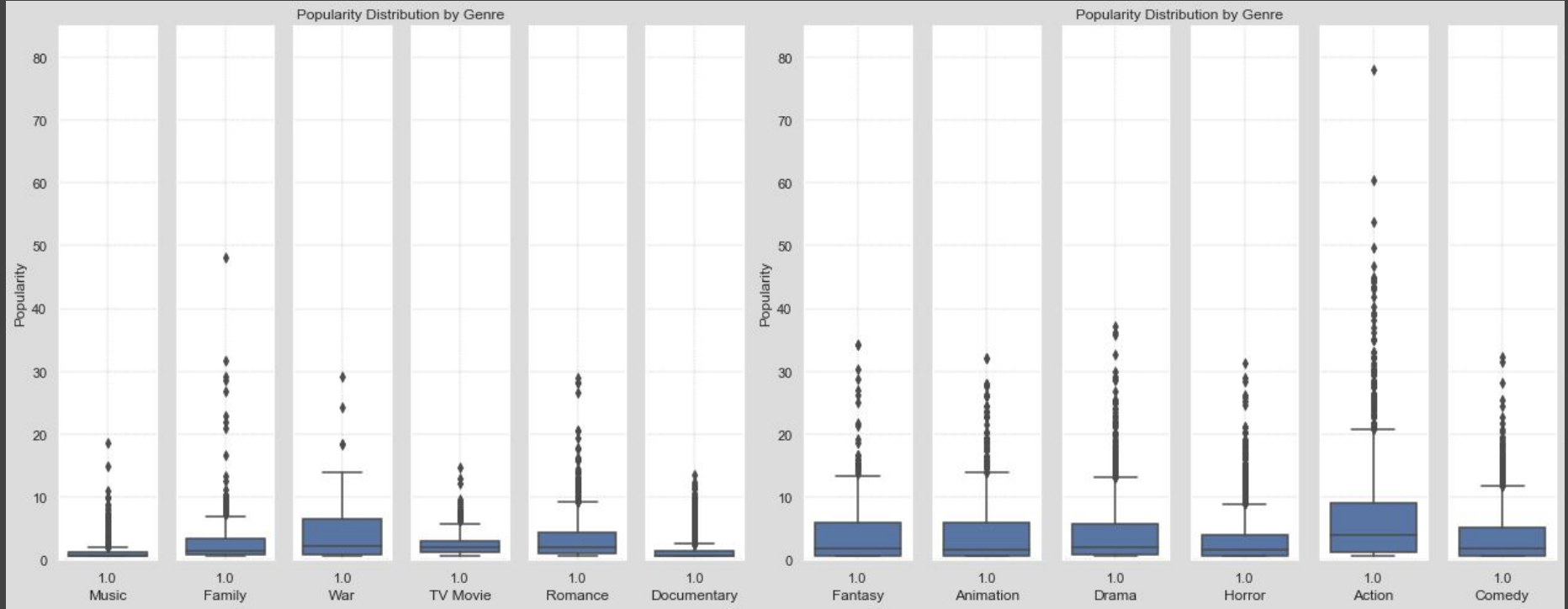
Budget and Profit Distribution



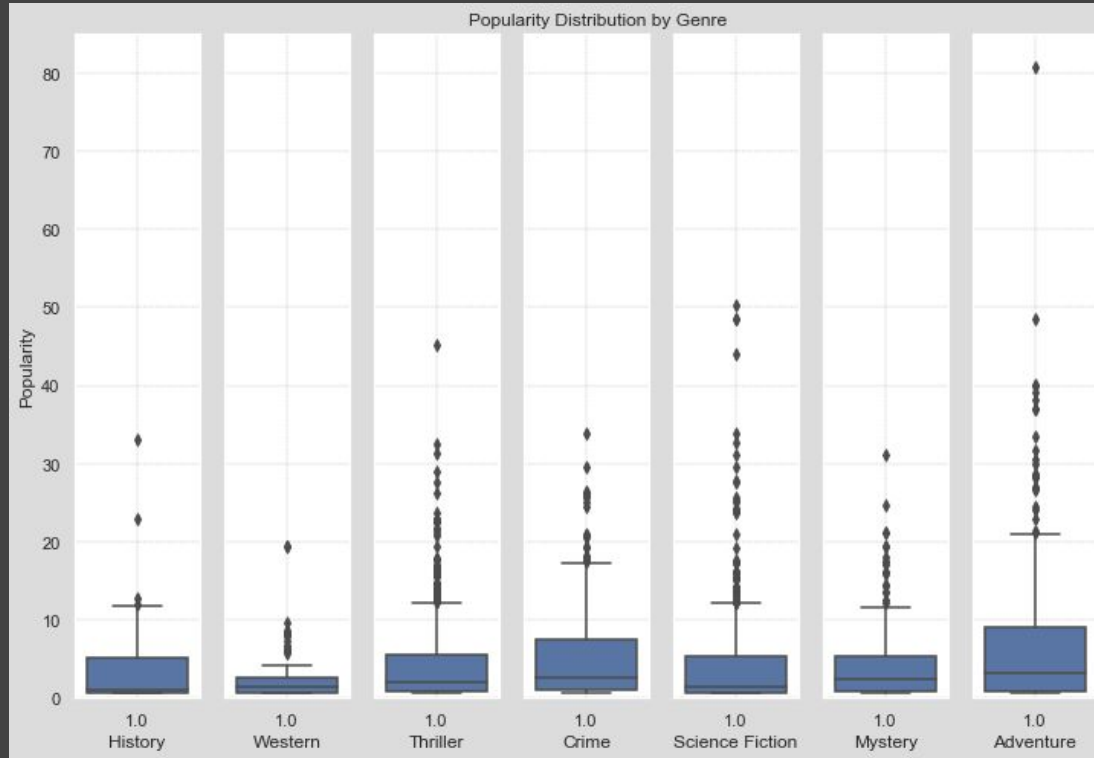
The average budget is \$36.5 million. The median is \$16.9 million, so half of the movies in this data fall below a budget of \$16.9 million.

The Budget and the Profit distributions are positively skewed so the mean is affected by the higher outliers and is much greater than the median

Genres Vs. Popularity



Genres Vs. Popularity Cont.



Conclusion and Recommendations

- ❖ Runtime does not significantly impact average rating, though outliers in this data set indicate that if a movie is extremely long or very short the average rating may be higher than movies of average length. However, the number of movies with 0-30 minutes runtime is significantly lower than movies with 60-90 or 90-120 minutes. More analysis is needed to give a specific recommendation for runtime.
- ❖ There is a positive correlation between budget and worldwide gross revenue. There is also a positive correlation between budget and profit, although not as steep. Unfortunately some data for worldwide gross revenue was 0, which effects exact number recommendations. Profit generally increases as budget increases. The standard deviation of the movie budgets is \$51,544,150. There is about \$50,000,000 of room for the budget to deviate (positively) from the average of \$36,533,470 to adjust the budget for the production's specific needs.
- ❖ Action and Adventure were two genres that were included in movies with the highest general popularity. Other popular genres include, Crime, Thriller, and Science Fiction. The recommendation is to include at least one of these genres in the film, especially Action or Adventure.

Thank You

- ❖ Check out my github repo here:
<https://github.com/newhousem/movie-project>
- ❖ Contact me: meredithnewhouse@gmail.com
- ❖ Thank you to Flatiron for providing the data sets used in this analysis.

