



MS Box Office Insights

Finding Opportunity Through Data



Outline

- Business Problem
- Data
- Methods
- Results
- Conclusions



Business Problem

- According to data from The-Numbers.com, the US box office has increased from 5.3 billion USD in 1995 to 11.3 billion USD in 2019.
- Identifying opportunities with the highest probability for profit and ROI in this growing market is our strategic priority.



Data

- Data from Rotten Tomatoes and The-Numbers.com were combined to form a primary data frame of 4,776 films.
- The-Numbers.com and Internet Movie Database data were joined into a complimentary dataframe of 32,088 individuals in the film industry.

Methods

SQLite, Python, Pandas, and Seaborn were used for data preparation, analysis and visualization.





Budget and Cost Analysis



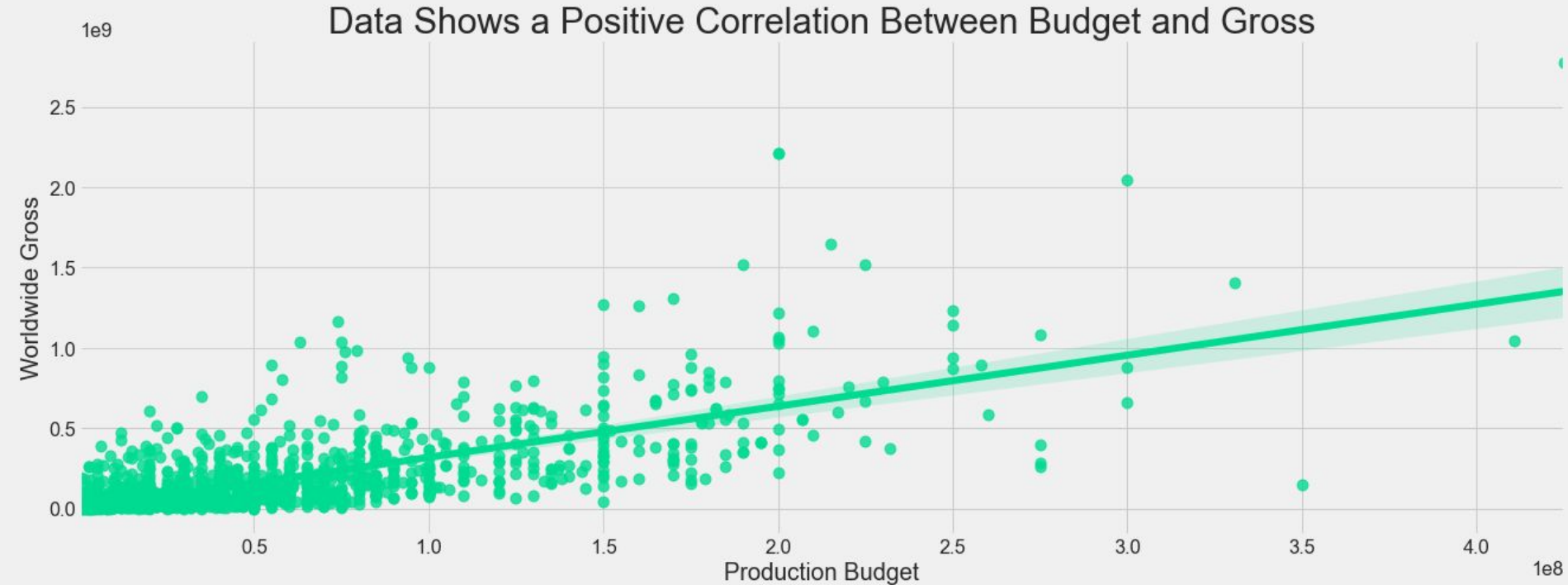
Results:

Cost Estimate for the First Year's Films

- Mean Production Budget per Film: 70,620,199 USD
- Projected Marketing Budget per Film: 35,310,100 USD
- Total Cost per Film: 105,930,299 USD
- Mean Number of Films per Year by a Major Studio: 15
- Total Estimated Cost for First Year: 1,588,954,479 USD

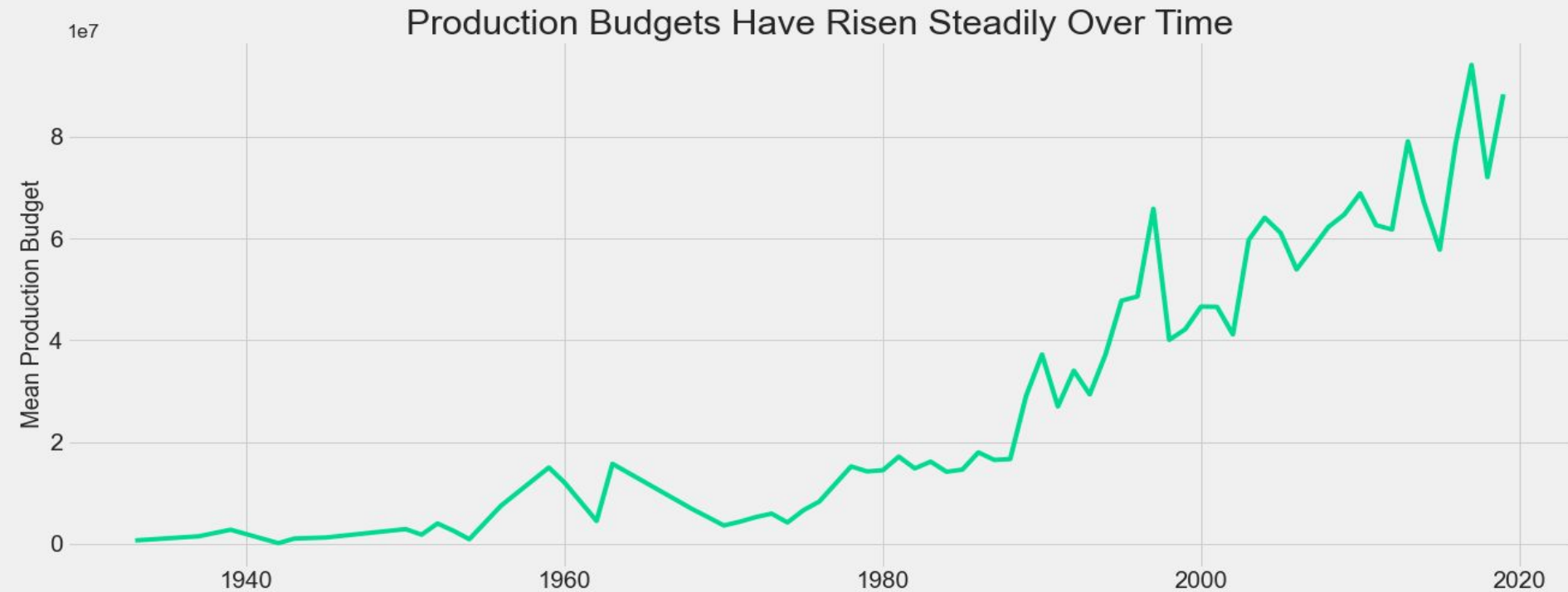
Results:

Budget vs Gross (Films Released Since 2009)





Results: Mean Budget for a Major Studio Film



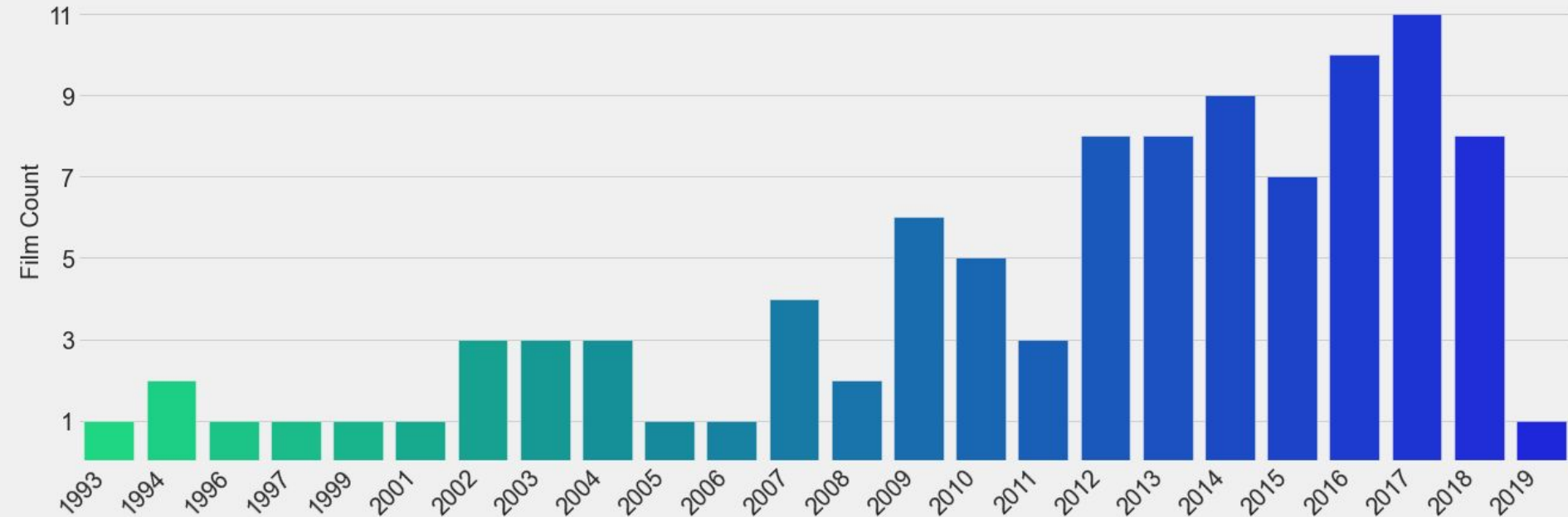


Top 100 Films by Gross



Results: Distribution of the Top 100 Grossing Films

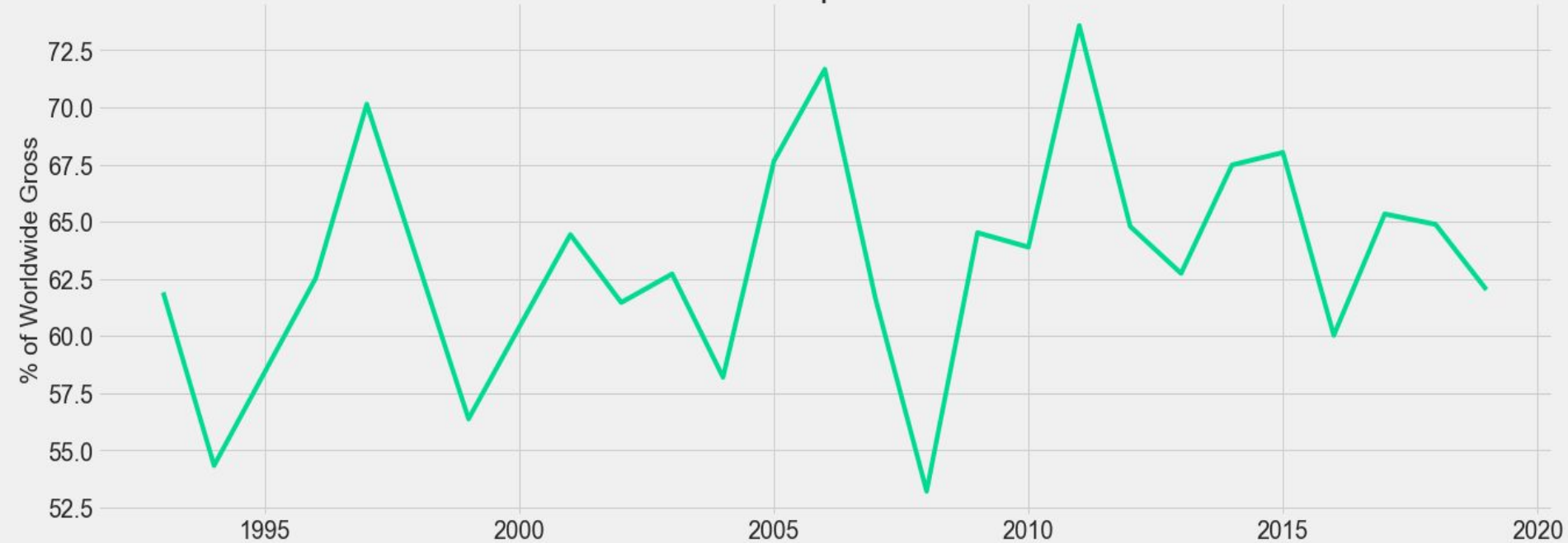
The Bulk of Top Grossing Films Were Released After 2008





Results: Mean Share of Gross From Outside US

The International Market Makes Up 50% to 75% of Worldwide Profits



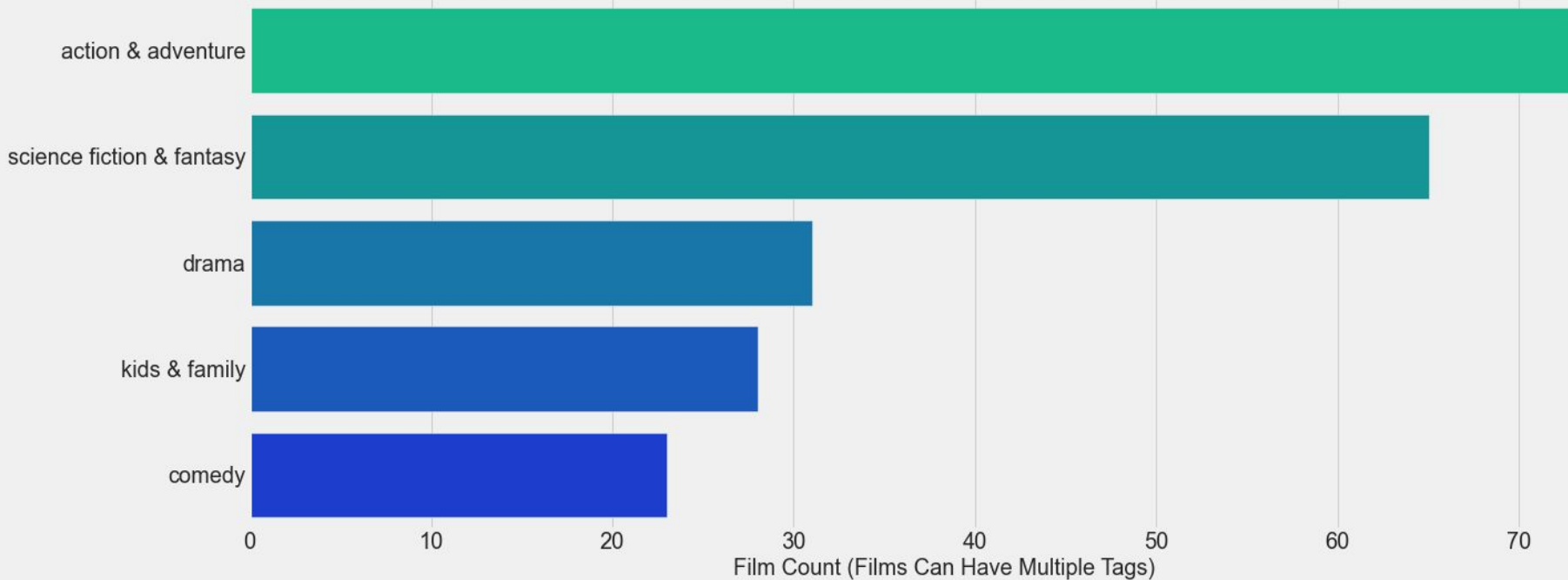


Genre Analysis



Results: The Big Five Genres

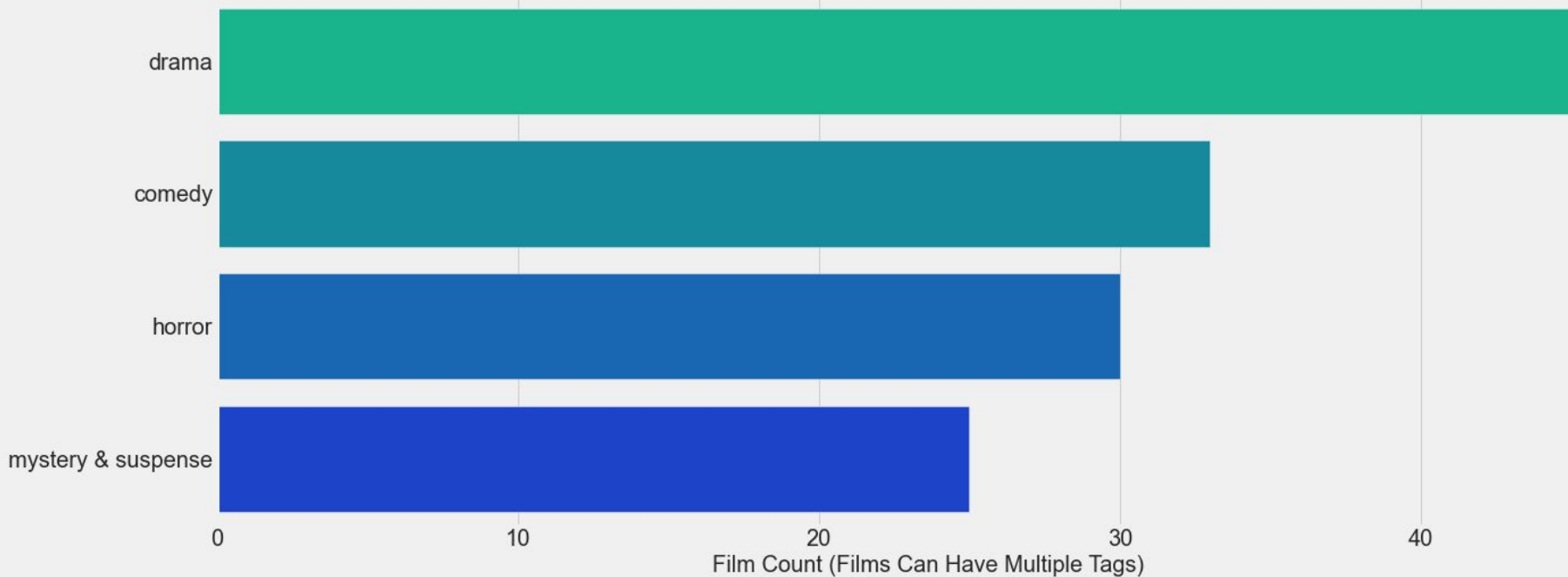
Genre Tags with the Highest Counts in the Top 100 Films





Results: Hidden Value Genres

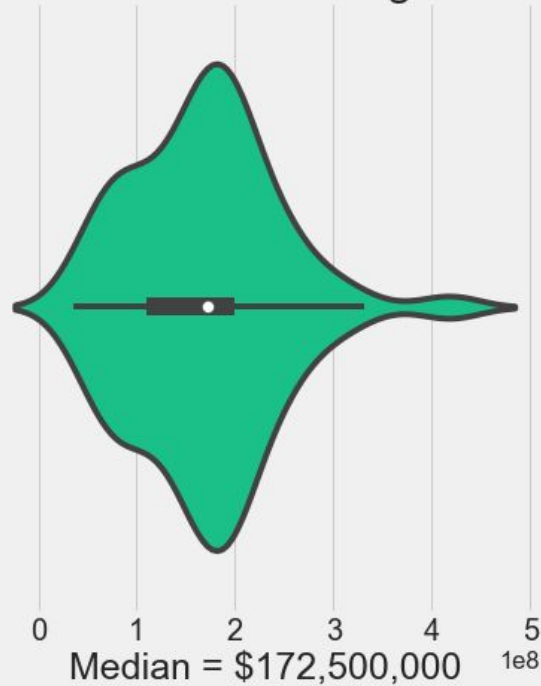
Genre Tags with the Highest Counts in the Top 100 ROI Films



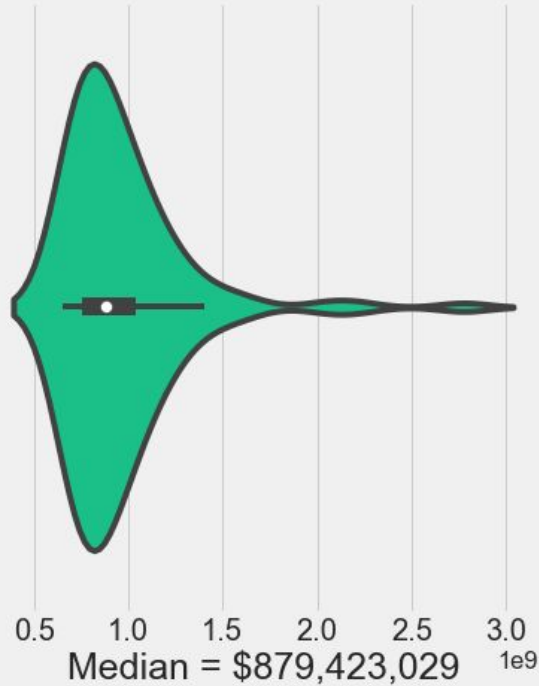


Results: Statistics for the Top 100 Grossing Films

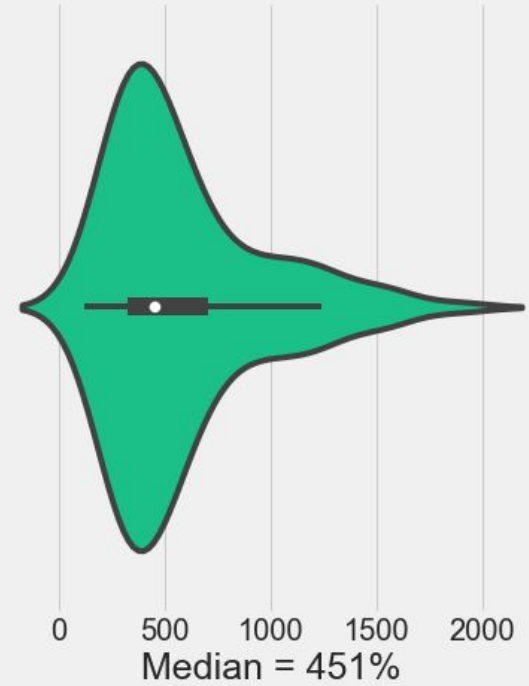
Production Budget



Worldwide Gross



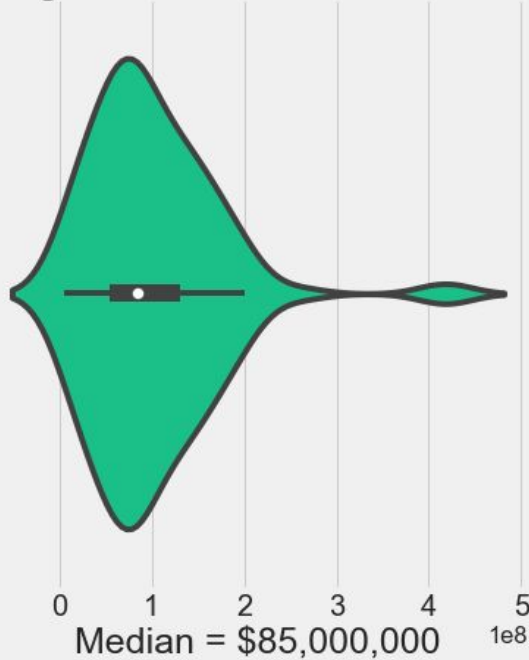
Worldwide ROI



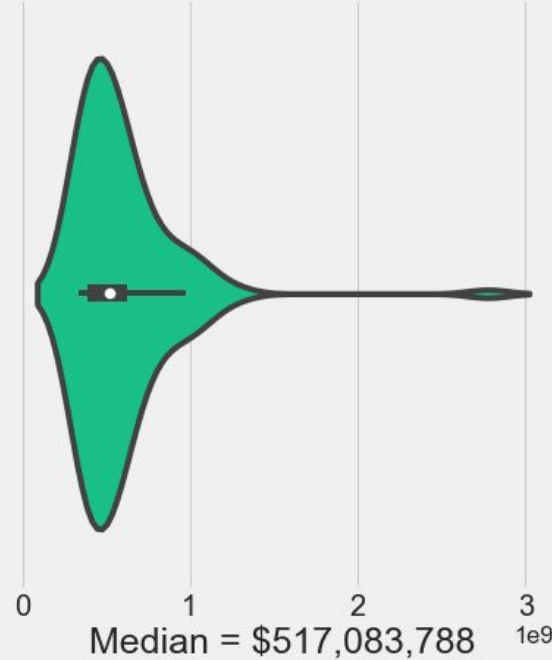


Results: Statistics For Comedy Films

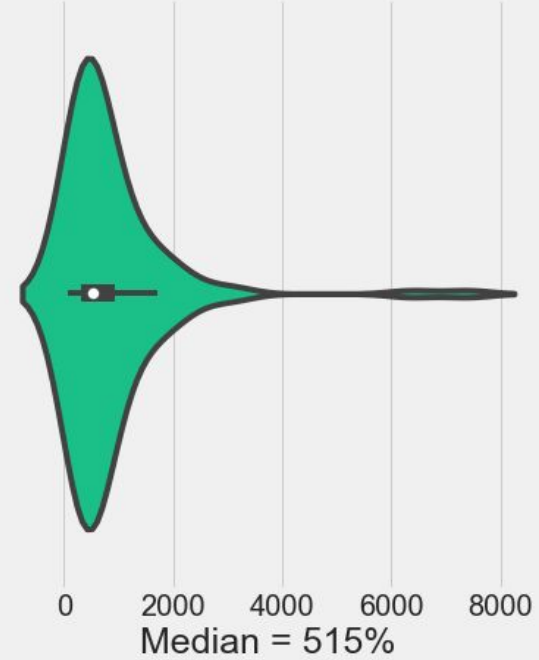
Budget in Hundreds of Millions



Worldwide Gross in Billions



Worldwide ROI





Conclusions



Summary

Descriptive analysis of film industry data reveals the following:

- The estimated cost for production and marketing in the first year: 1,588,954,479 USD.
- The bulk of film revenue will come from the international market.
- The Big Five genres of Action, SciFi, Drama, Family, and Comedy offer the best chances to maximize profits.
- The Hidden Value genres of Comedy, Horror, Mystery, and Drama have the highest probability for optimal return on investment.



Next Steps

Possible Extensions of the Analysis:

- Analysis of creative talent is available upon request.
- Incorporating streaming market data into the analysis.
- Researching the purchase of a production company.

Thank You!

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An abstract geometric graphic on the right side of the slide, featuring a series of dark gray, three-dimensional rectangular blocks arranged in a diagonal line. Two blocks are highlighted: a light green one and a blue one, both positioned towards the bottom right of the arrangement.