



# MS Box Office Insights

Finding Opportunity Through Data



# Summary

Descriptive analysis of film industry data reveals the following:

- The estimated cost for production and marketing in the first year: 3,881,250,000 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, and Drama have the highest probability for optimal return on investment.



# 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

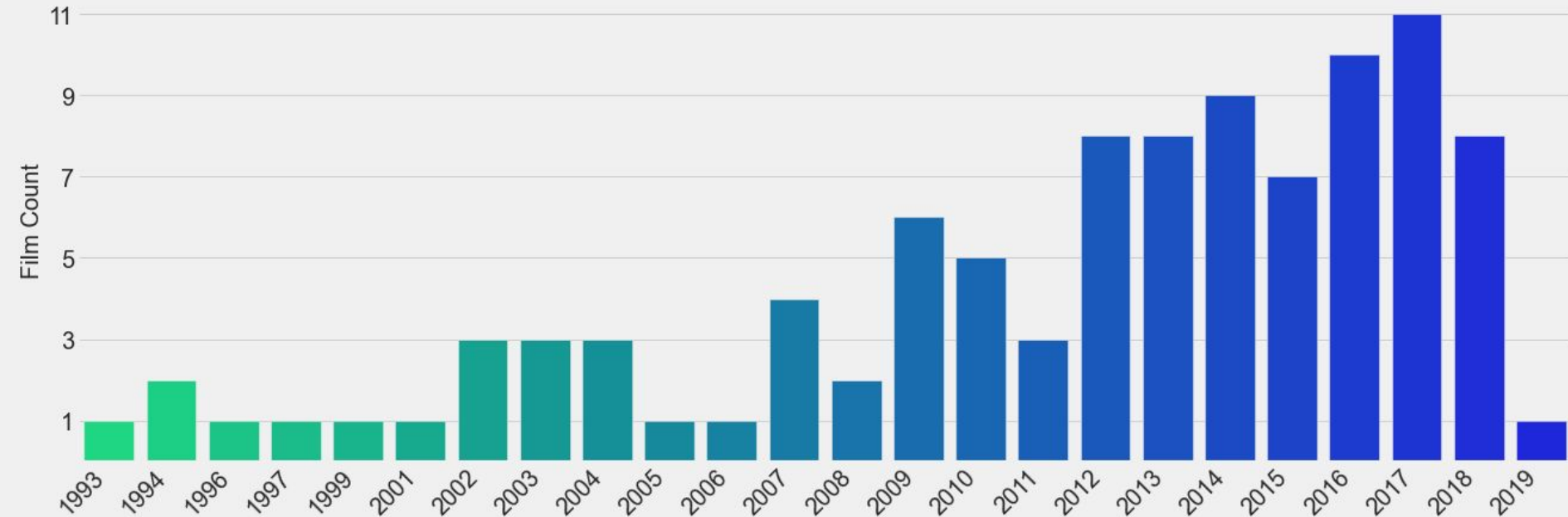
SQLite, Python, Pandas, and Seaborn were used for data preparation, analysis and visualization.





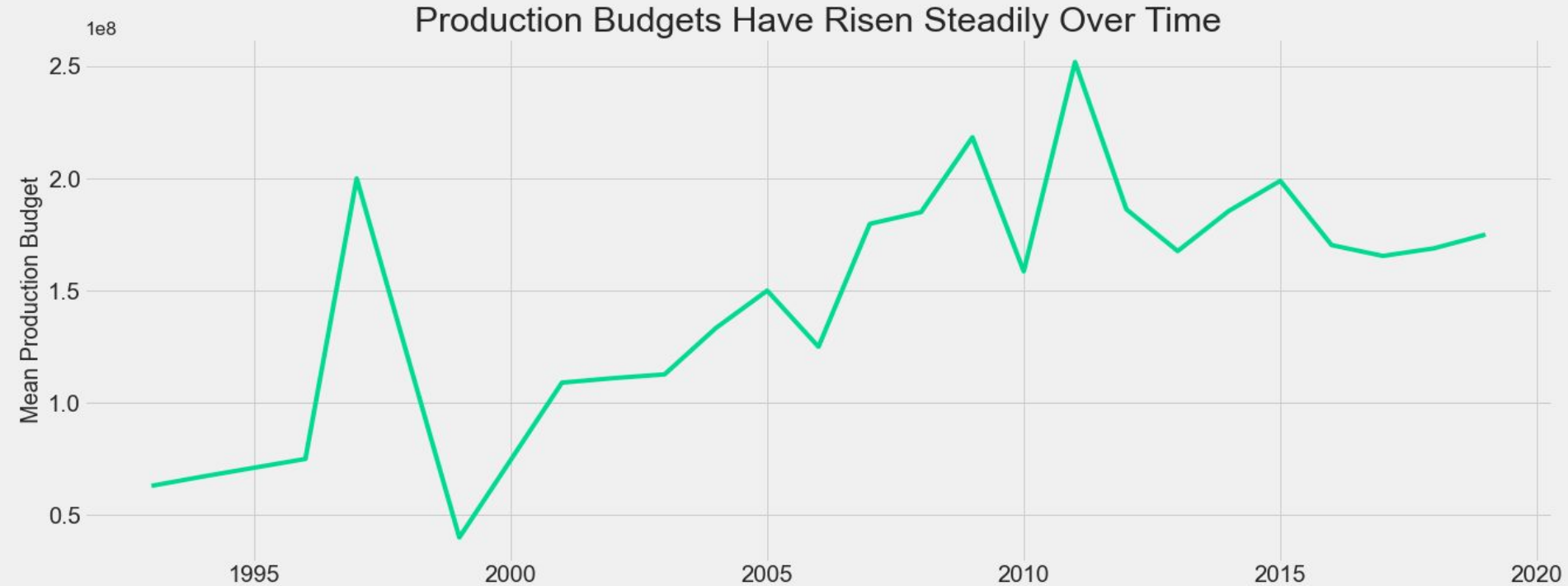
# Results: Distribution of the Top 100 Grossing Films

The Bulk of Top Grossing Films Were Released After 2008





# Results: Mean Budget For a Top 100 Grossing Film

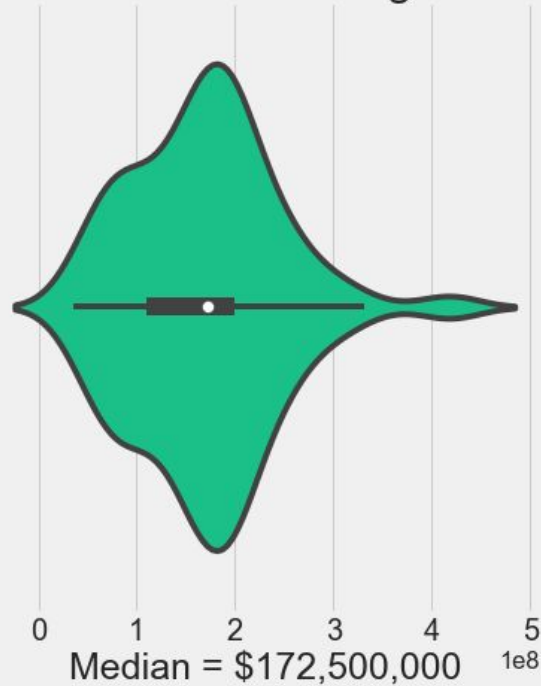




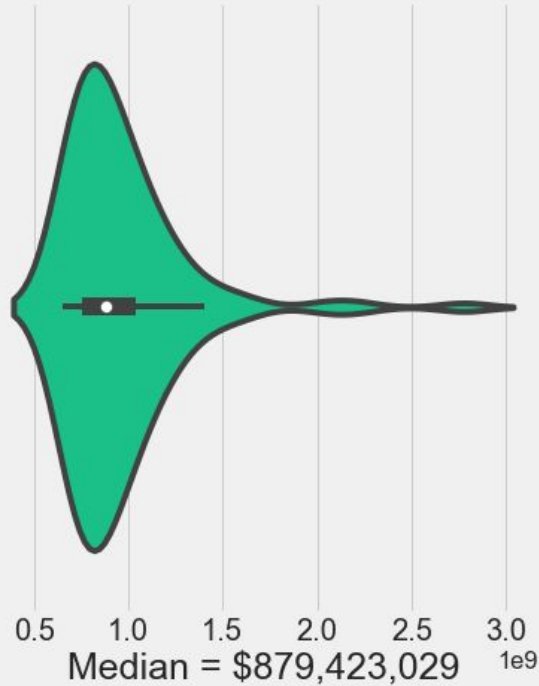


# Results: Statistics for the Top 100 Grossing Films

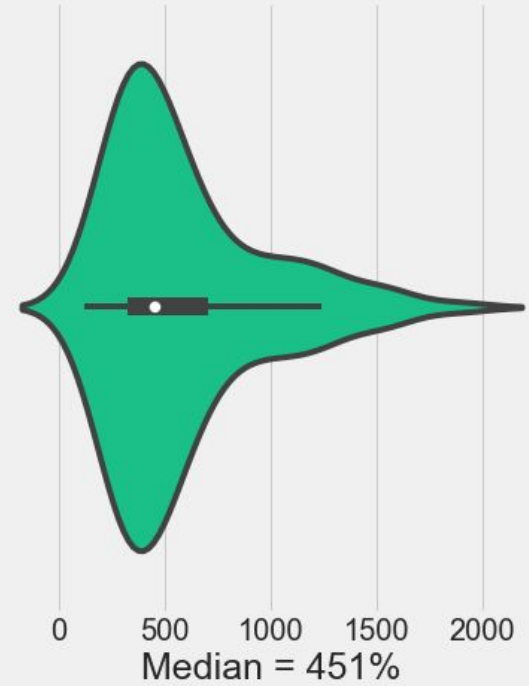
Production Budget



Worldwide Gross



Worldwide ROI





Results:

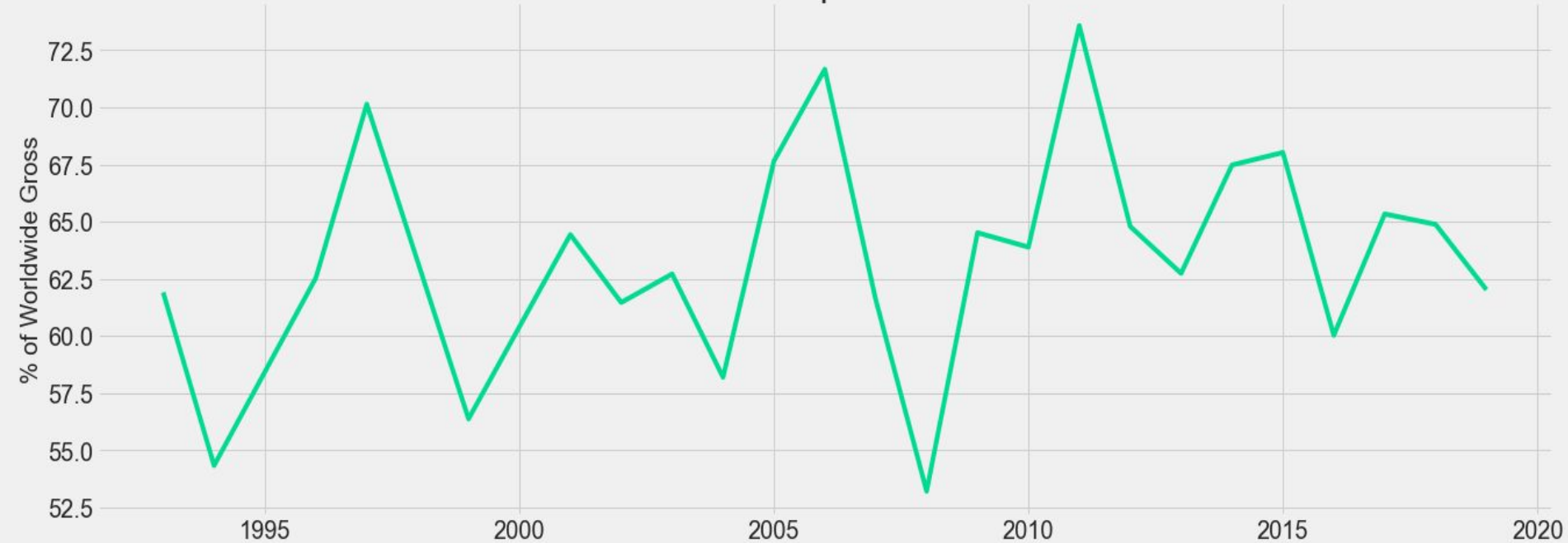
## Cost Estimate for the First Year's Films

- Median Budget: 172,500,00 USD
- Projected Marketing Budget per Film: 86,250,000 USD
- Mean Number of Films per Year by a Major Studio: 15
- Total Estimated Cost for First Year: 3,881,250,000 USD



# Results: Mean Share of Gross From Outside US

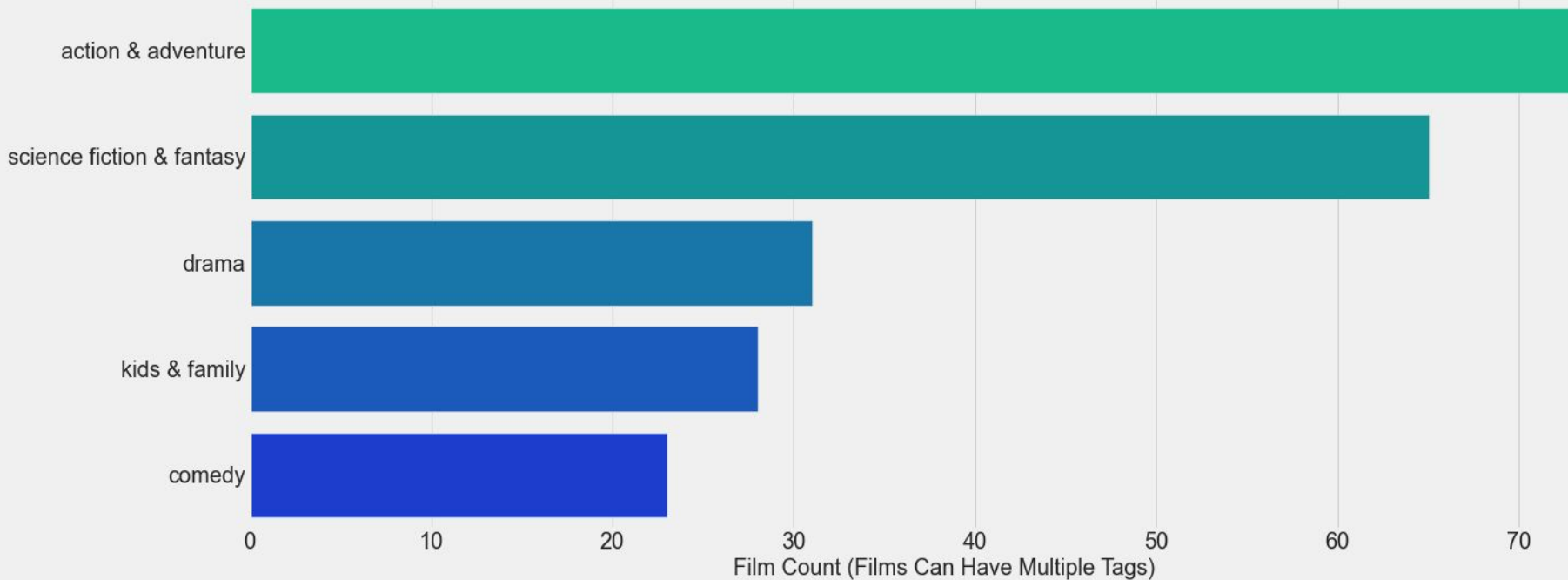
The International Market Makes Up 50% to 75% of Worldwide Profits





# Results: The Big Five Genres

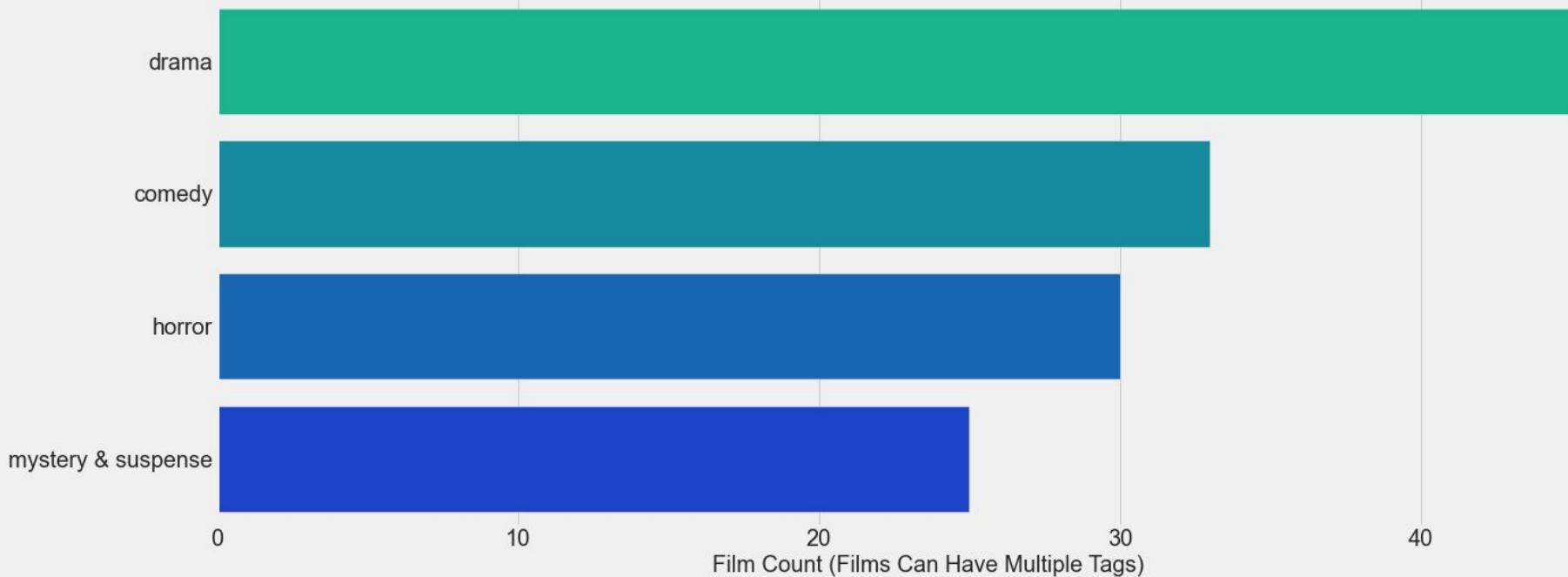
Genre Tags with the Highest Counts in the Top 100 Films





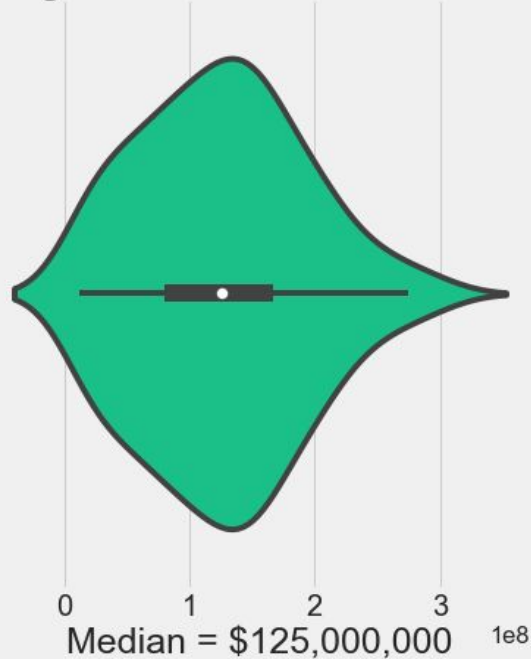
# Results: Hidden Value Genres

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

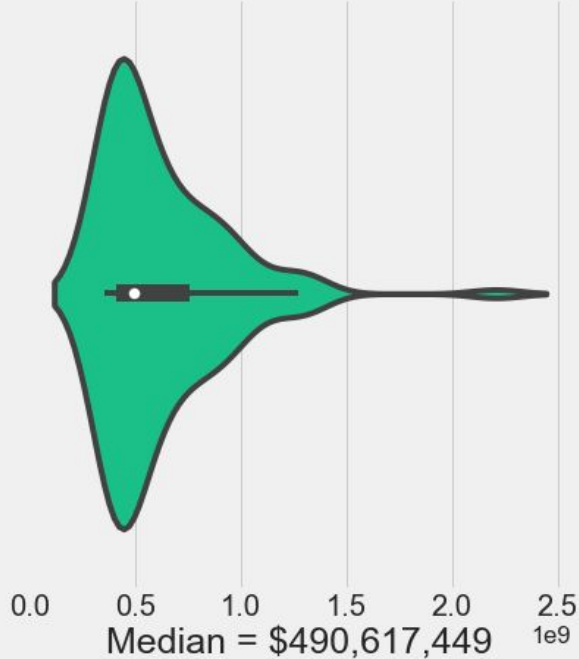


# Results: Statistics For Drama Films

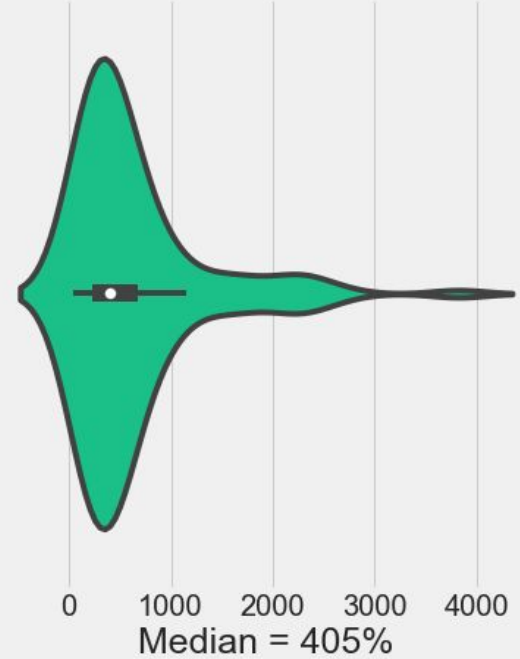
Budget in Hundreds of Millions



Worldwide Gross in Billions

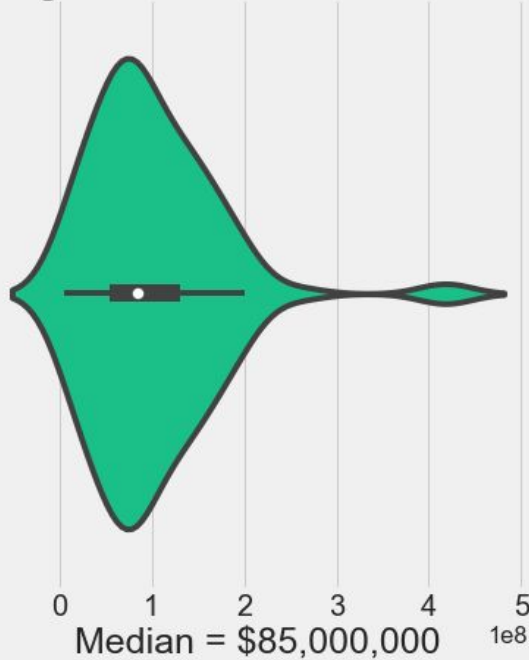


Worldwide ROI

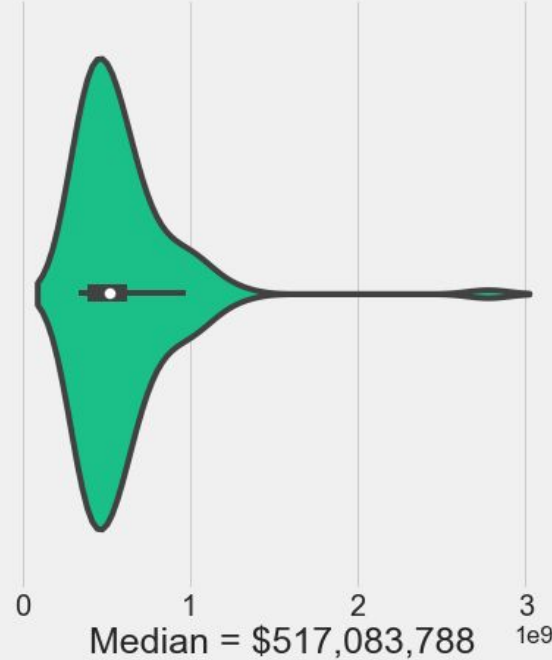


# Results: Statistics For Comedy Films

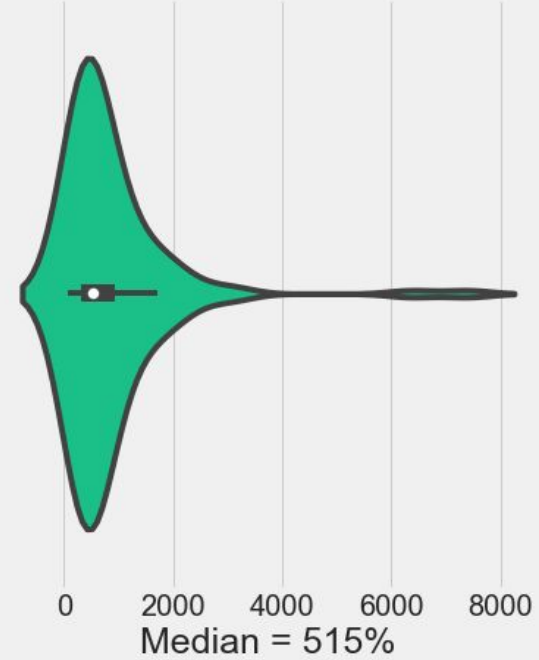
Budget in Hundreds of Millions



Worldwide Gross in Billions



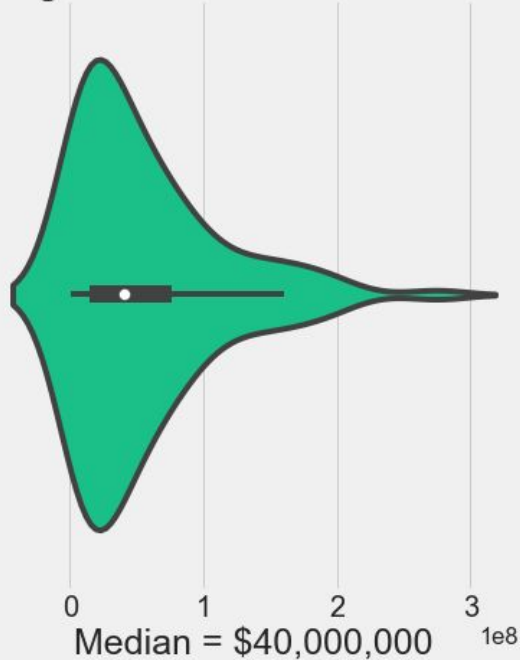
Worldwide ROI



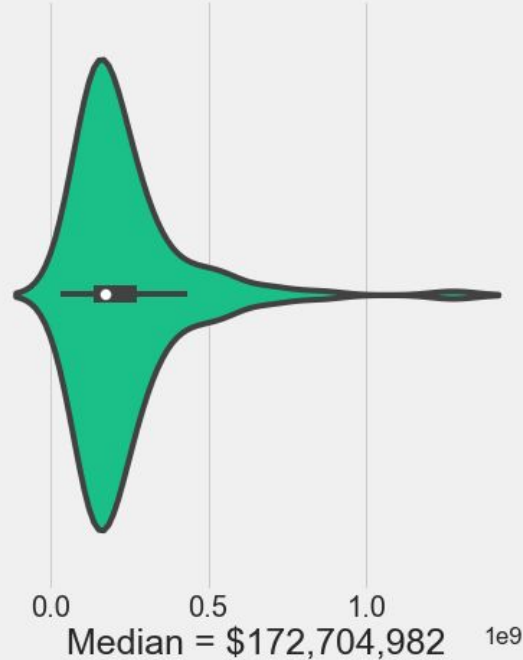


# Results: Statistics For Horror Films

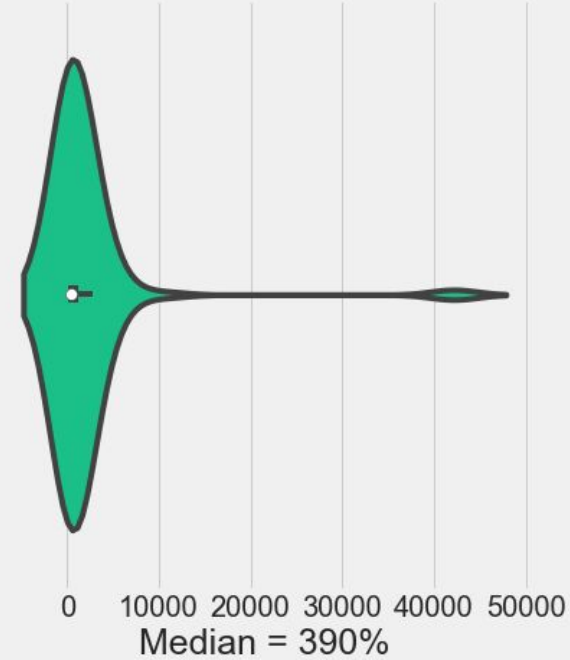
Budget in Hundreds of Millions



Worldwide Gross in Billions



Worldwide ROI

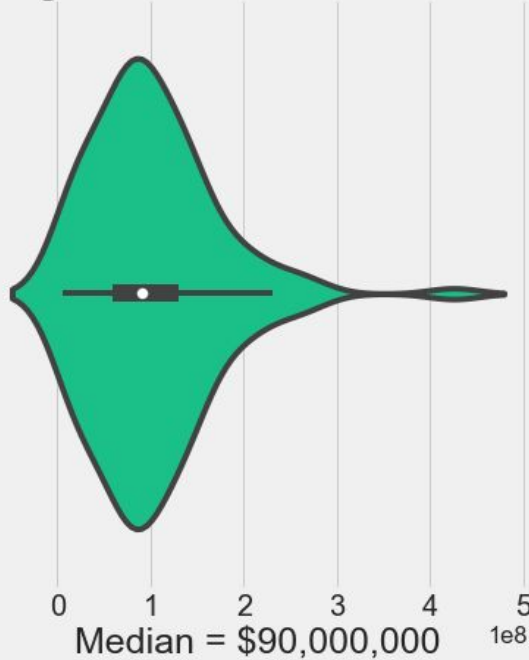




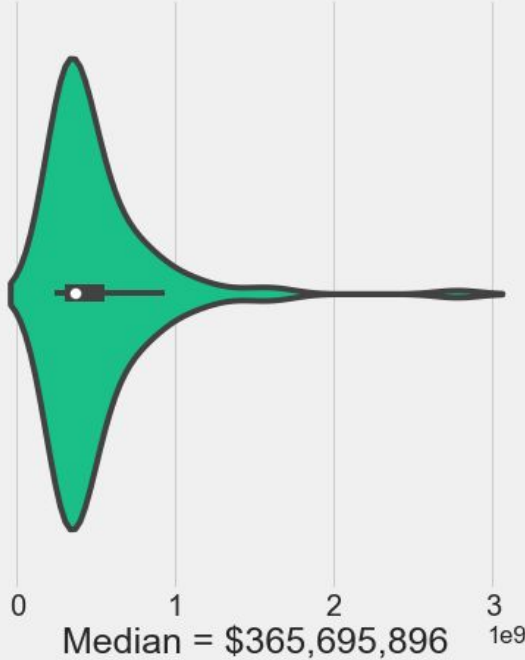


# Results: Statistics For Mystery Films

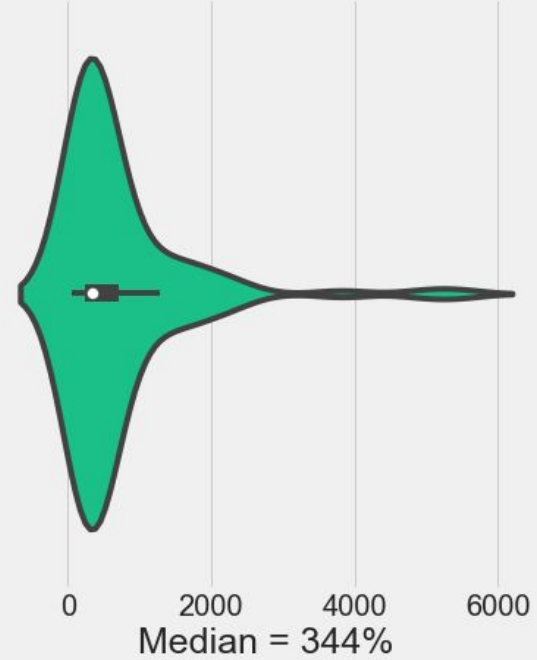
Budget in Hundreds of Millions



Worldwide Gross in Billions



Worldwide ROI





# Conclusions

## Recap:

- Estimated initial cost: 3,881,250,000 USD.
- Most revenue will come from the international market.
- The Big Five genres increase the chance of maximum gross profits.
- Hidden Value genres have a increase probability of a high ROI.

## Next Steps:

- Analysis of creative talent was performed and is available upon request.
- Incorporate the streaming market into the analysis.
- Research purchase of a production company rather than starting from scratch.

# Thank You!

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