

# Hit Movie Project

## Group 8

- John McDowell - "Square"
- Jeremy Ocain - "Circle"
- Latifou Amoussa - "Triangle"
- Jose Mendez - "X"



# Why Hit Movies?

- We all enjoy movies, but what makes them hits?
- What is our definition of a “hit”?
- This analysis attempts to dissect what is a critical hit based on Metascore data and a Monetary hit based on Net Profit.



# Data Sources and Tools Utilized

1. CSV file from Kaggle - IMDb movies.csv
2. Pandas / Python / SQLAlchemy / Scikit-learn
3. SQLite to clean and integrate data
4. Tableau for visualizations and final presentation



the social network



# Purpose

- Is a movie a hit based on simply Metascore, Gross Income or a mixture of these outputs?
- Is there a seasonality effect in place?
- Does higher budget increase hit probability?
- Has there been a significant change in profitability for movies over the decades analyzed?
- Is there any correlation by genres?



# Definitions / Terminology Used

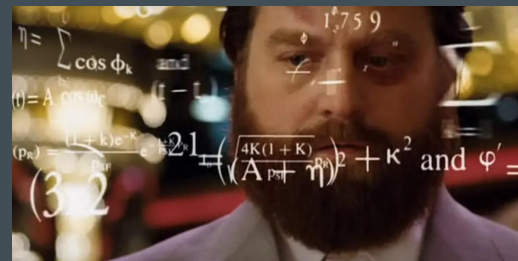
## Critically Acclaimed Movies (Based off of Metascore)

Our group considers a movie to be critically acclaimed (meta\_hit) if the movie achieves a metascore of 75 or greater.

## Blockbuster movies

Our group considers a blockbuster movie by two stipulations:

- A movie with a budget less than 7 million and having a gross profit greater than or equal to 500 percent.
- A movie with a budget over 7 million and having a gross profit greater than or equal to 250 percent.



# Total Movie Count and Net Profits

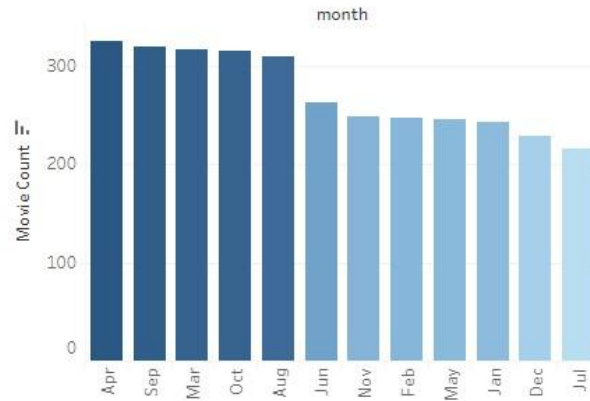
What makes a Hit Movie?

< 1 2 3 4 5 6 >

Year (date) (group)

(All)

Total movies by month



Net Profits by Month

| month | Net Profits    |
|-------|----------------|
| Dec   | 24,444,711,152 |
| Sep   | 24,048,720,563 |
| Oct   | 22,937,406,371 |
| Apr   | 19,982,549,257 |
| Nov   | 17,548,030,944 |
| Aug   | 16,923,874,503 |
| Mar   | 15,771,014,830 |
| Jan   | 15,260,219,345 |
| May   | 15,185,191,105 |
| Feb   | 13,914,909,765 |
| Jun   | 13,790,053,036 |
| Jul   | 8,158,954,406  |

# Critical Hits - Budget and Month Data

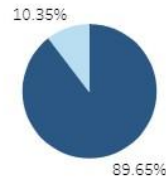
What makes a Hit Movie?

< 1 2 3 4 5 6 >

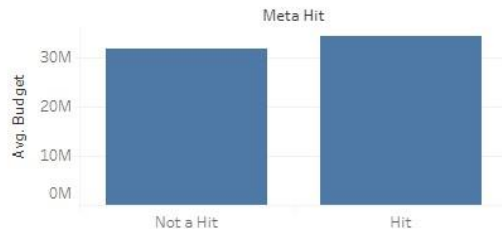
Is a movie a Hit based on Critic's Reviews?

What % of Movies are Critics Hits?

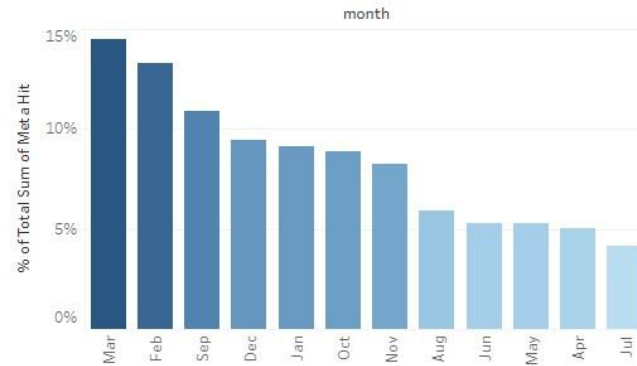
Year (date) (group)  
(All)



Average Budget Critics Hit vs Not



Critic's Hits by Month





# Block-Buster Analysis

What makes a Hit Movie?

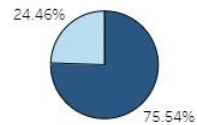
< 1 2 3 4 5 6 >

Is a movie a Hit based on Income?

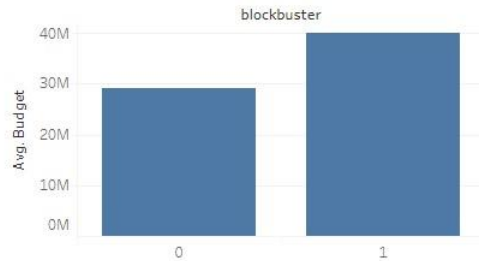
What % of Movies are Blockbusters?

Year (date) (group)

(All)



Average Budget Blockbuster vs Not



block busters by month



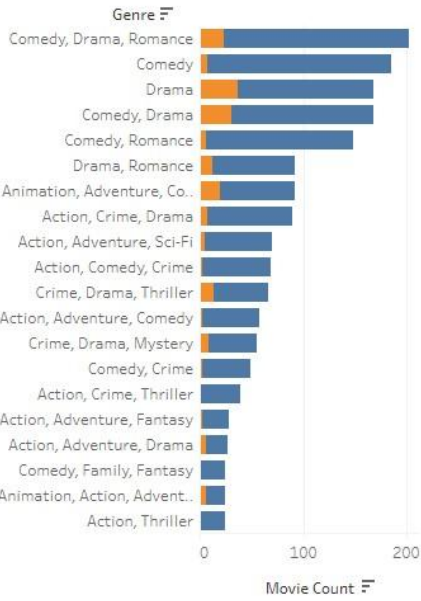


# Hit Movie by Genre Analysis

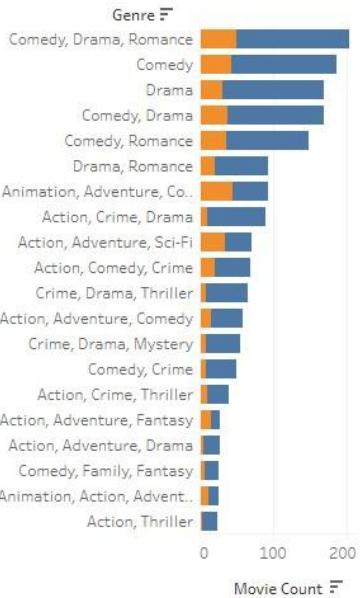
What makes a Hit Movie?

< 1 2 3 4 5 6 >

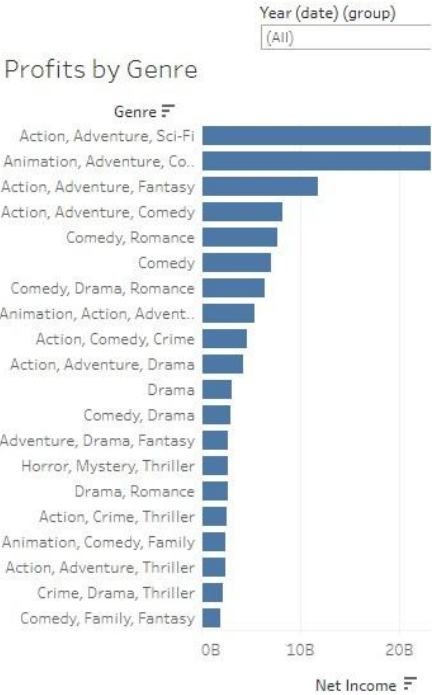
Critic's Hits by Genre



Blockbuster by Genre



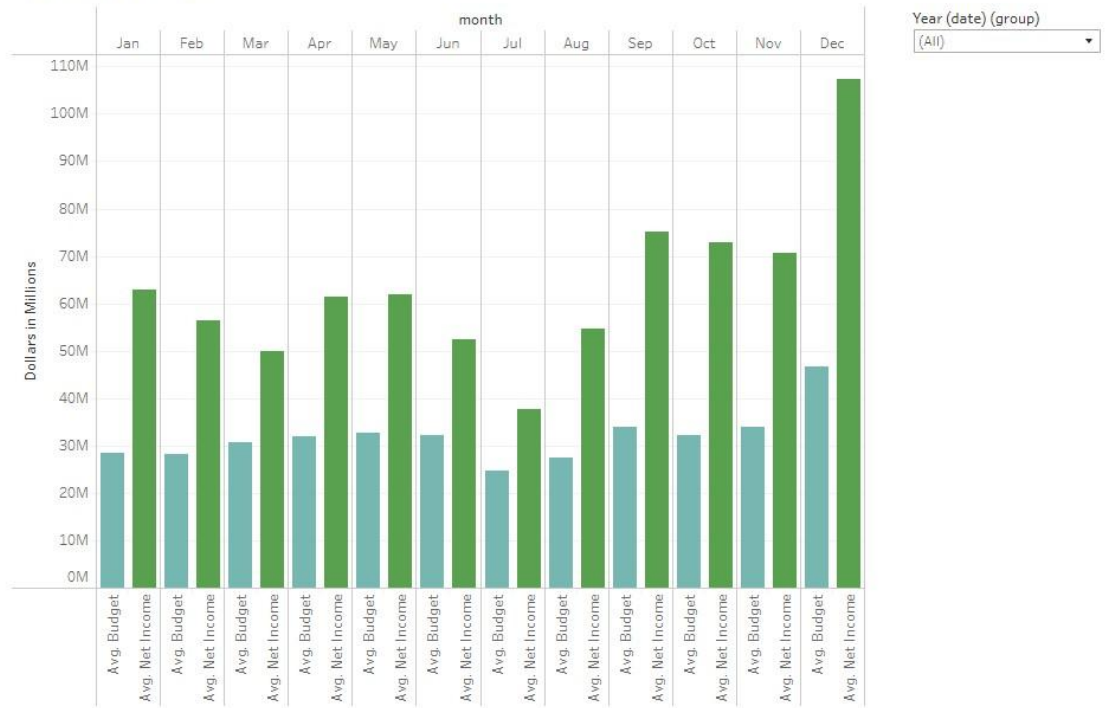
Profits by Genre



# Budget Analysis

What makes a Hit Movie?

Avg Budget to Income



# Machine Learning - Part 1



# Machine Learning - Part 2



# Conclusions

