

# Movie Genre Study

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# Overview

**Microsoft is considering a new movie studio venture, and needs some input on what kinds of movies to potentially pursue creating.**

**After taking in data concerning movies released in the past 20 years, and analyzing how successful different genres have been, this study found that creating movies in the genres of action or adventure have had the most consistent success.**

**Depending on the direction Microsoft would like to lead their new venture in, they could also consider the genres of drama, documentary, or family-friendly movies.**

# Outline

- » **Business Problem**
- » **Data**
- » **Methods**
- » **Results**
- » **Conclusions**



Image by Diego Ortiz from Pixabay

# Business Problem

**“What types of films are currently doing the best at the box office?”**

**“Actionable insights that the head of Microsoft’s new movie studio can use to help decide what type of films to create.”**

- 
- » **Focused on a genre study over the past 20 years.**
  - » **Inspected which genres earned the most income and were the most popular.**

# Data

## » Utilized four different sources:

- \* Box Office Mojo
- \* Internet Movie Database (IMDB)
- \* The Movie Database
- \* The Numbers

## » Relevant Information Extracted:

- \* Movie Title
- \* Domestic Gross Income
- \* Genre Categorization
- \* Release Year
- \* Production Budget
- \* Rating | *calculated by users' votes*
- \* Vote Count

# Methods

- **Unique identifier between sources, was the movie title + release year**
- **Between different data sources – no standard naming convention used**

\* *Harry Potter and the Deathly Hallows: Part 1*  
*Harry Potter and the Deathly Hallows Part 1*

- **Grouped entries by genre and averaged the data interested in**

# Methods – Four Questions

genres	domestic_gross
Action,Adventure,Sci-Fi	2.437244e+08
Adventure,Drama,Sci-Fi	2.082000e+08
Adventure,Fantasy	1.929000e+08
Biography,Drama,Musical	1.743000e+08
Action,Adventure,Fantasy	1.530602e+08
Action,Adventure,Mystery	1.509000e+08
Animation,Comedy,Family	1.458669e+08
Comedy,Music	1.446000e+08
Adventure,Animation,Comedy	1.413663e+08
Action,Drama,Family	1.310500e+08

## 1. What genres made the most domestic gross income?

- » Two data sources with domestic gross income
- » Top ten genres with highest average domestic income

## 2. What genres had the highest budget production?

- » Top ten genres with highest average production budget

# Methods – Four Questions

## 3. What genres made the most domestic net income?

» Assumption that production budget reported was actual cost

## 4. What genres were the most popular?

» Based on rating, ‘popularity’, and span of audience interaction from vote count

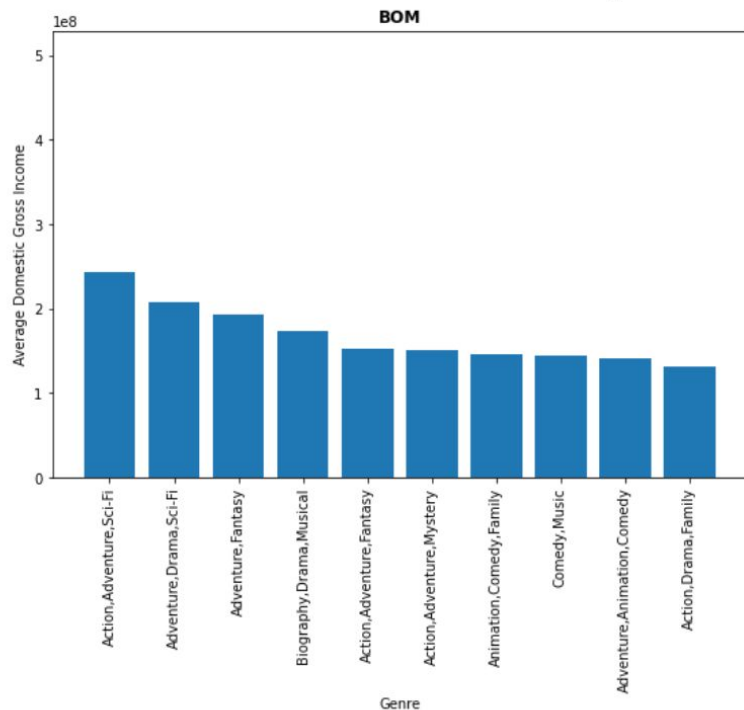
» Also considered top ten genres with the most movies released

genres	averagerating_of_genre	total_num_votes	num_entries
Documentary,Sport	7.500000	114731	318
Biography,Documentary,Drama	7.498674	74907	377
Documentary,Music	7.478756	393048	579
Biography,Documentary,History	7.454071	128555	479

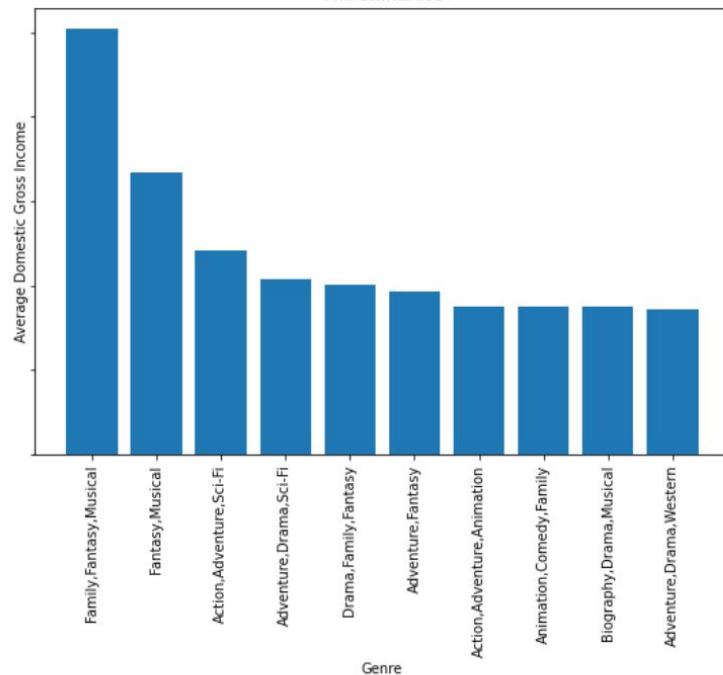


# Results – Domestic Gross Income

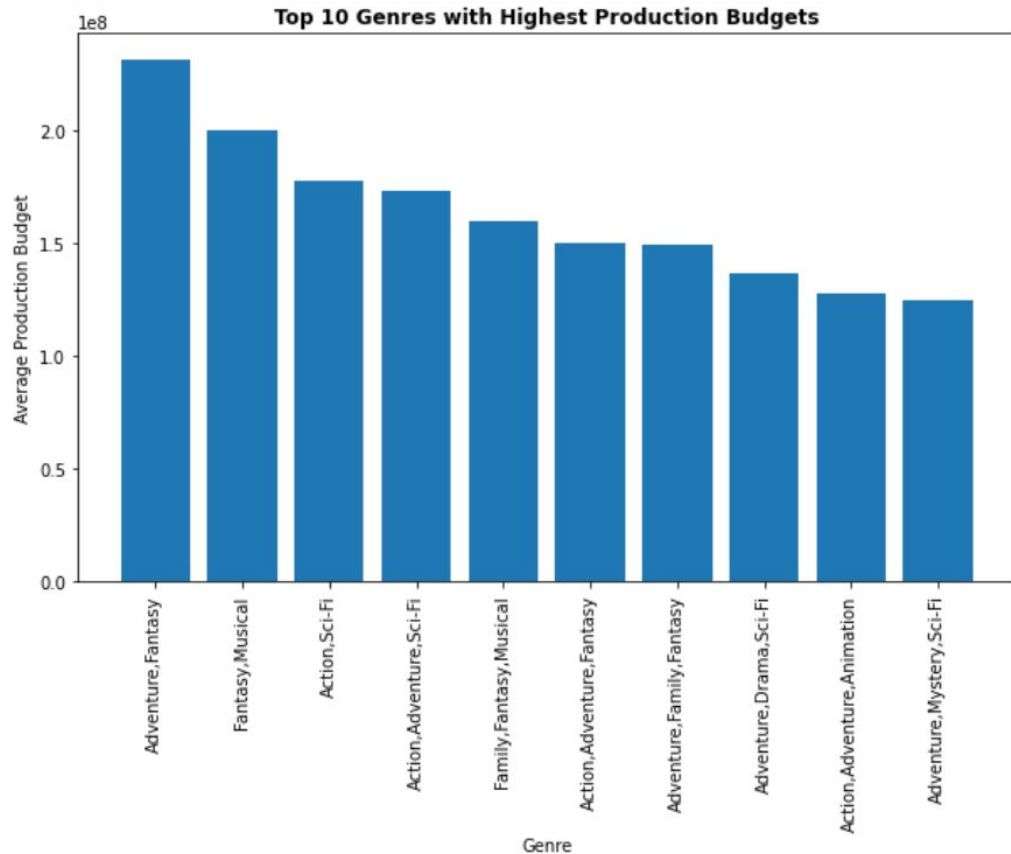
Top 10 Genres by Gross Income

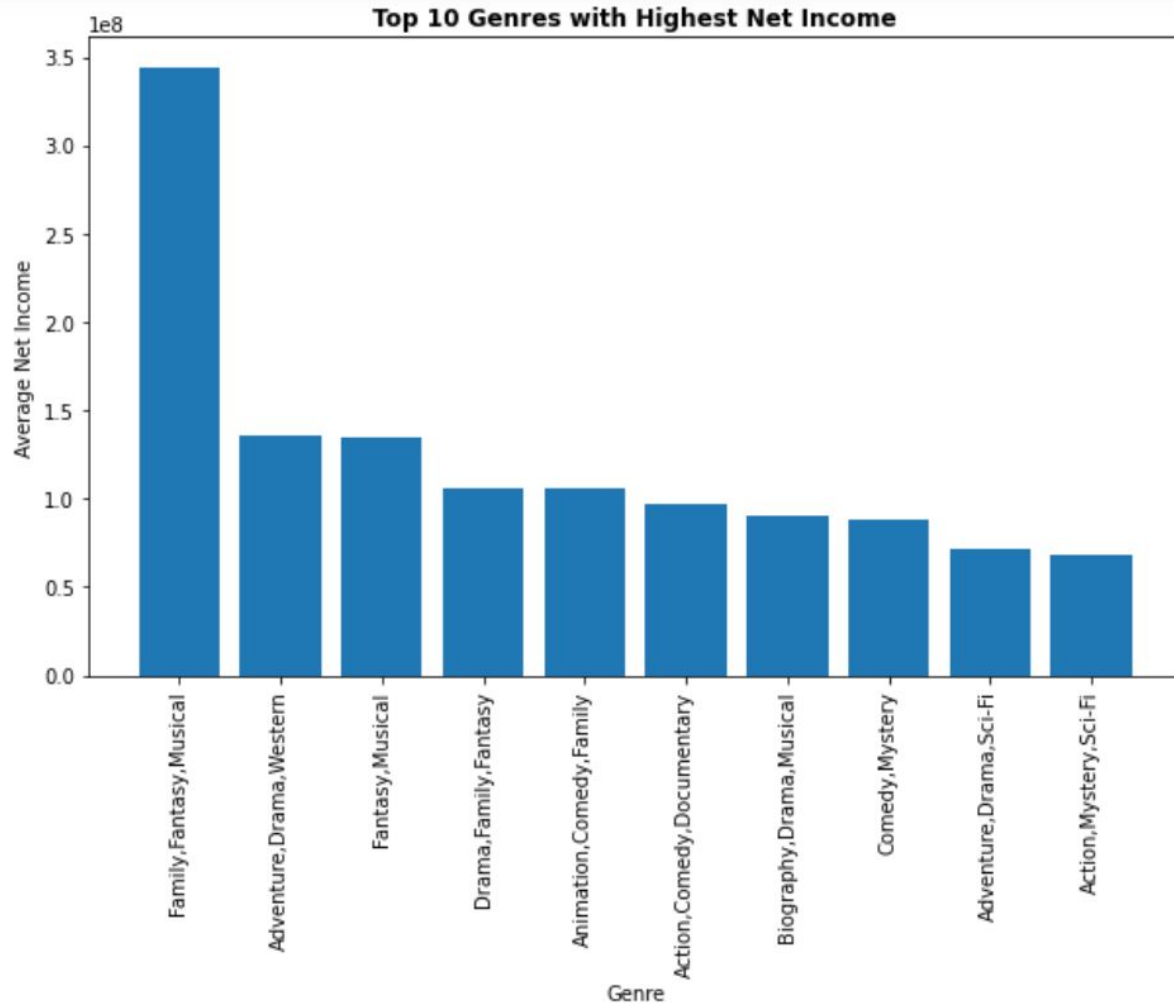


The Numbers



# Results – Highest Production Budget

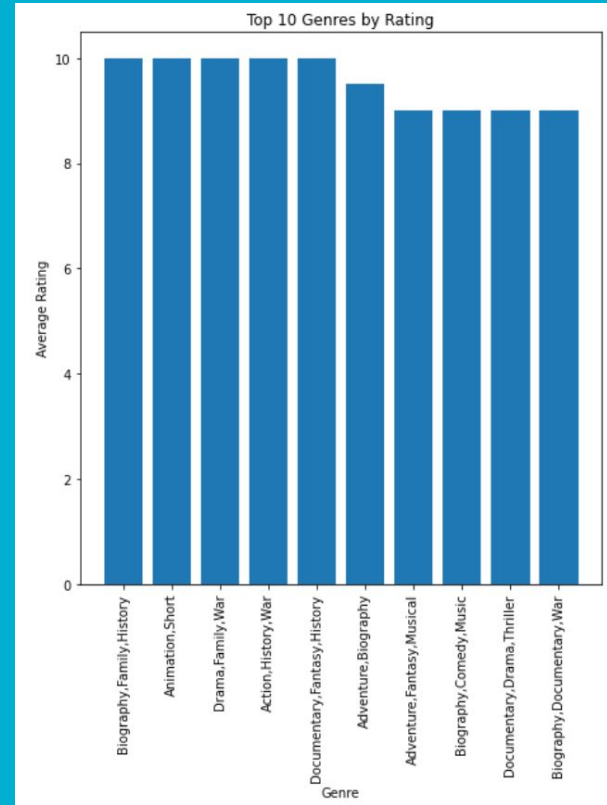
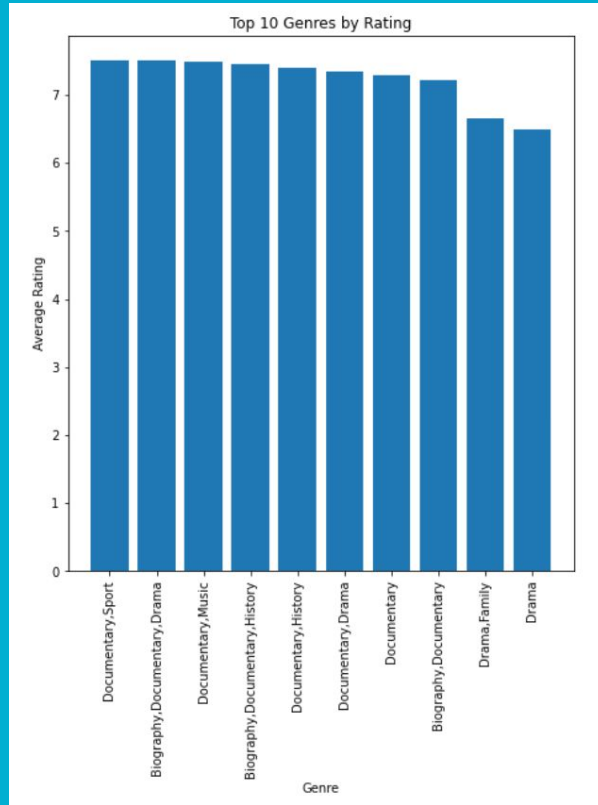




**Results –  
Net Income**

# Results - Popularity (Ratings)

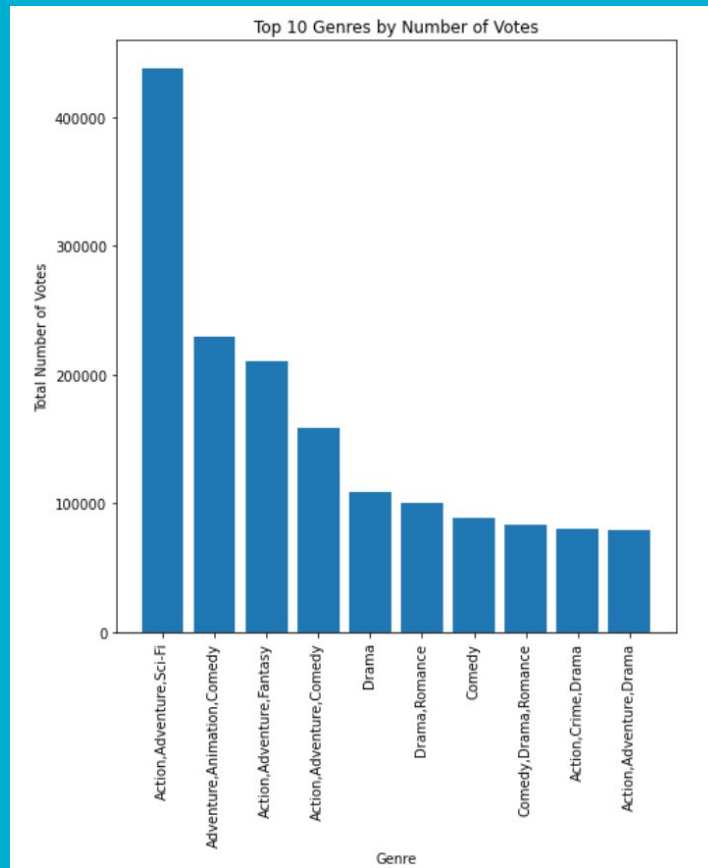
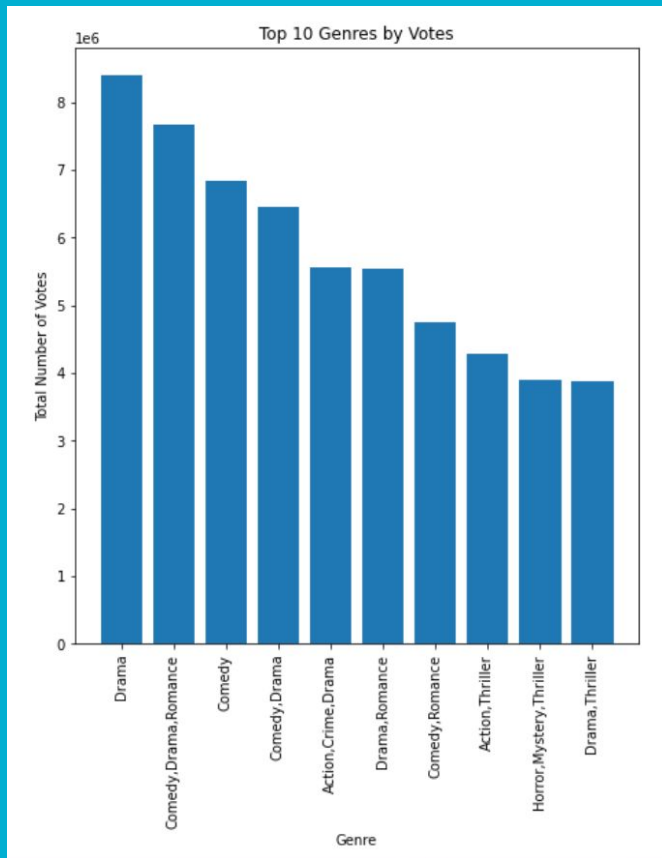
IMDB



The Movies  
Database

# Results - Popularity (Total Votes)

IMDB



The Movies  
Database

# Conclusions – Recommendations

- » **Action + Adventure** | most consistently present against measures of success, however would require decent starting budget
- » **Documentary** | more niche market, but less expensive to create
- » **Family-Friendly** | potential to earn highest profits, but would be entering a highly competitive market (Disney + Pixar)

# Conclusions – Future Research + Development

- » **Directors + Writers?**
- » **Trends over time?**
- » **More sophisticated methods of cleaning to retain increased data**
- » **Deeper investigation on more recent data**
- » **International statistics**

# Thank You!

## Questions, Comments, Concerns?

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