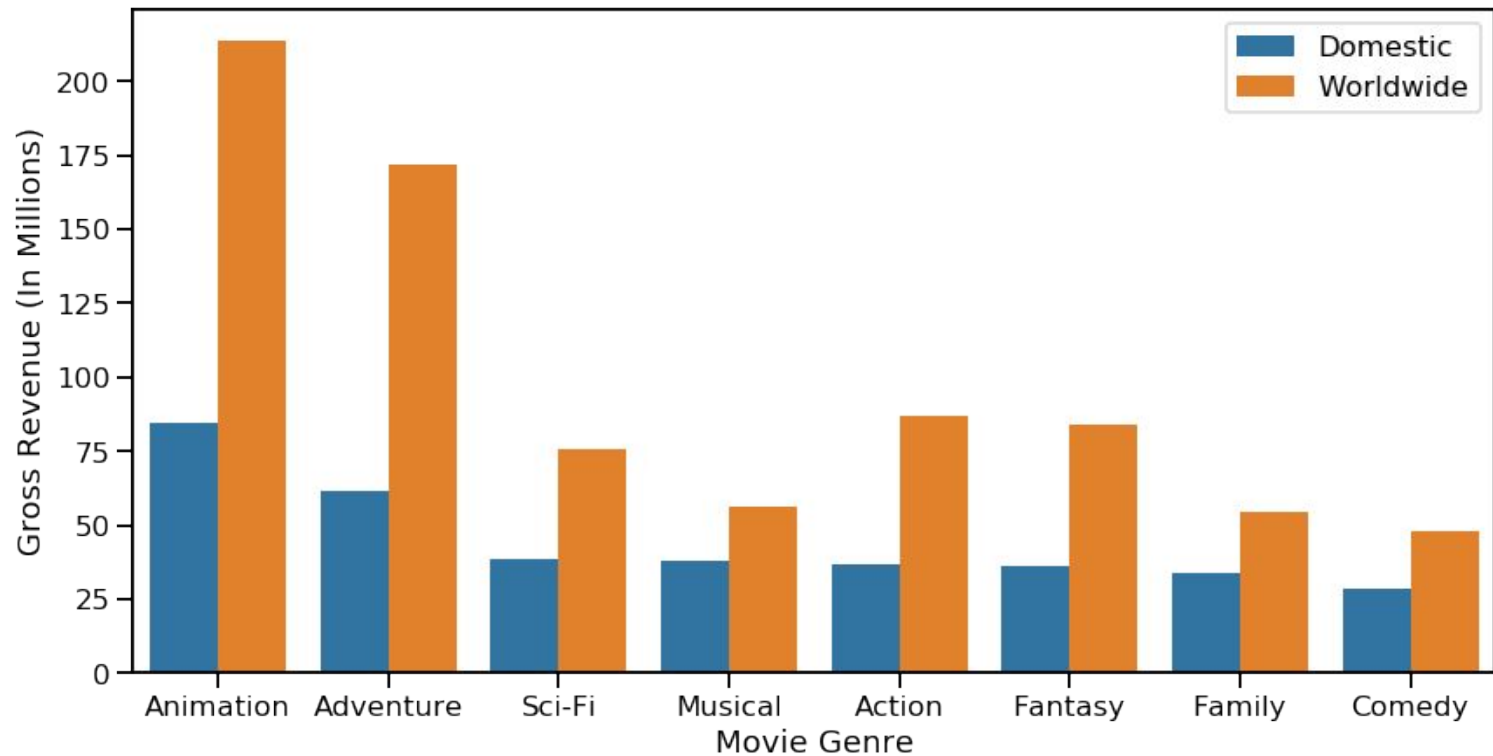# An Analysis on Movie Creation and the Movie Industry

By: Erica Gabriel and Alex Billinger
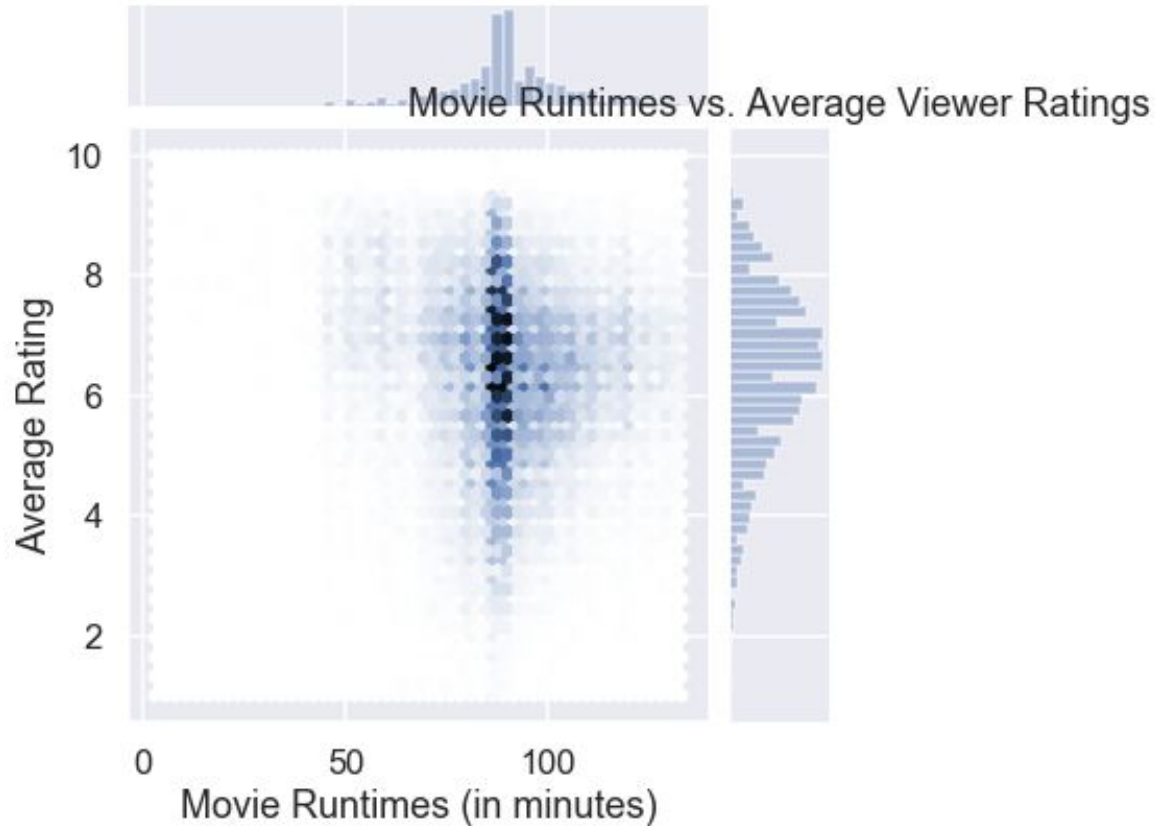
Top Grossing Genres

Genre Recommendations

- Animation and Adventure are consistently the highest performing genres, both domestically and worldwide. Microsoft should focus on these genres as they get started.
- Action, Sci-Fi, Musicals, and Fantasy all perform very well-these would be good genres to work on once established.
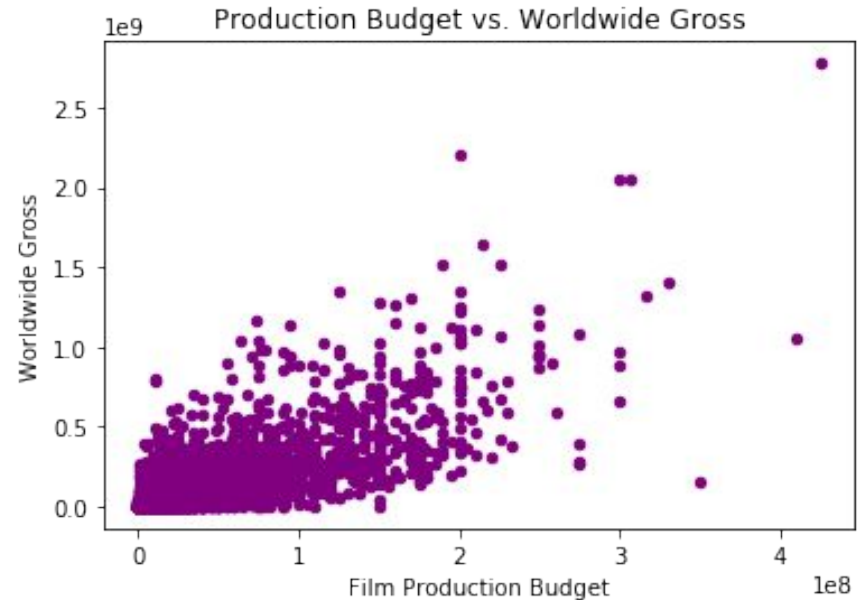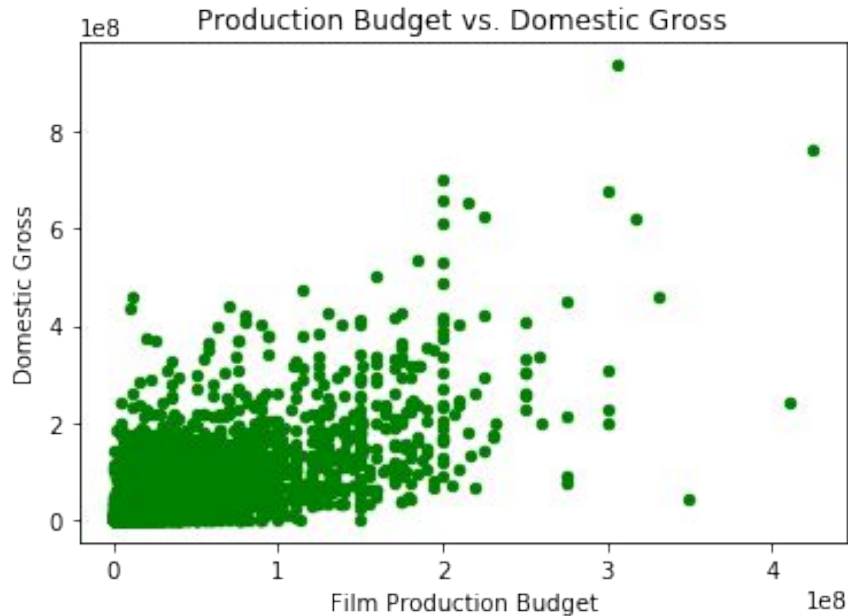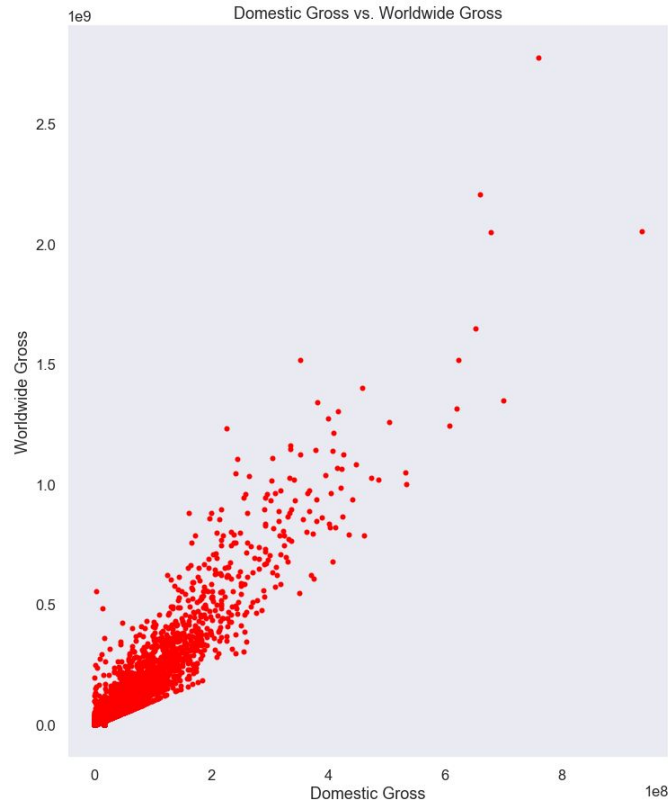
Movie Runtime Effects on Viewer Ratings

Movie Runtimes vs. Average Viewer Ratings

Movie Runtime Recommendations

- After a Log Transformation time = log(runtime_minutes) was used to treat outlier data; the Covariance, **Cov**(runtime, averagerating) = -2.02 and Pearson Correlation Coefficient, **r** = -0.082 respectively.
- The values closeness to zero tells us that the effects of movie runtime and viewer ratings are negligible. Thus Viewers do not care about the length of a film.
- Microsoft can make shorts, or full documentaries, and place the focus on quality content and cinematography.

Production Budget vs. Domestic Gross vs. Worldwide Gross

Domestic Gross vs. Worldwide Gross

Domestic Gross vs. Worldwide Gross
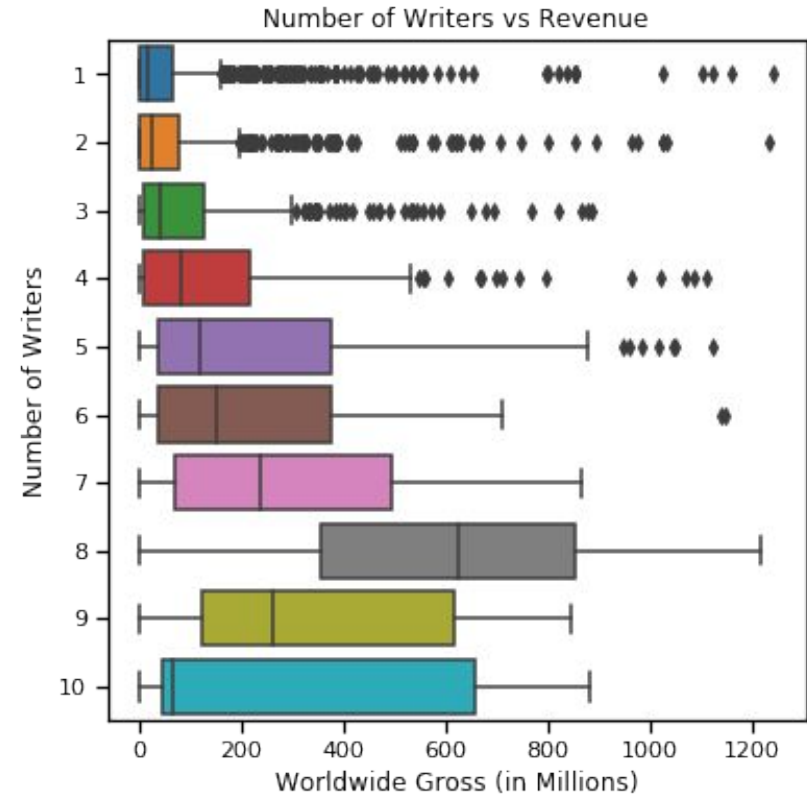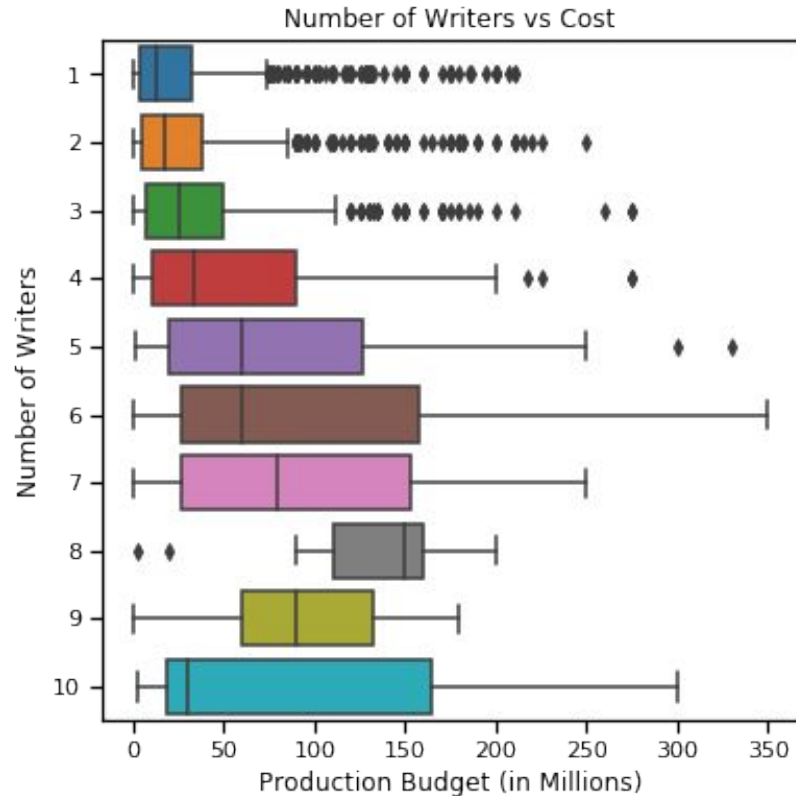
Do You Really "Pay for Quality"?

- Covariance (**Cov**) & Pearson Correlation Coefficient (**r**)
  - Production Budget vs. Domestic Gross: **1.95e15 | 0.685**
  - Production Budget vs. Worldwide Gross: **5.46e15 | 0.748**
  - Domestic Gross vs. Worldwide Gross: **1.11e16 | 0.938**

- Insights & Recommendations
  - The increase in **r** in Production Budget vs. Domestic Gross & Production Budget vs. Worldwide Gross tell us that international audiences care more about things such as "big name" actors and actresses, production quality, etc.
  - If a film is successful domestically, the film will also do well abroad with international audiences and vice versa.
  - When a film does poorly domestically, then failure abroad can be expected, and international release should be reconsidered.
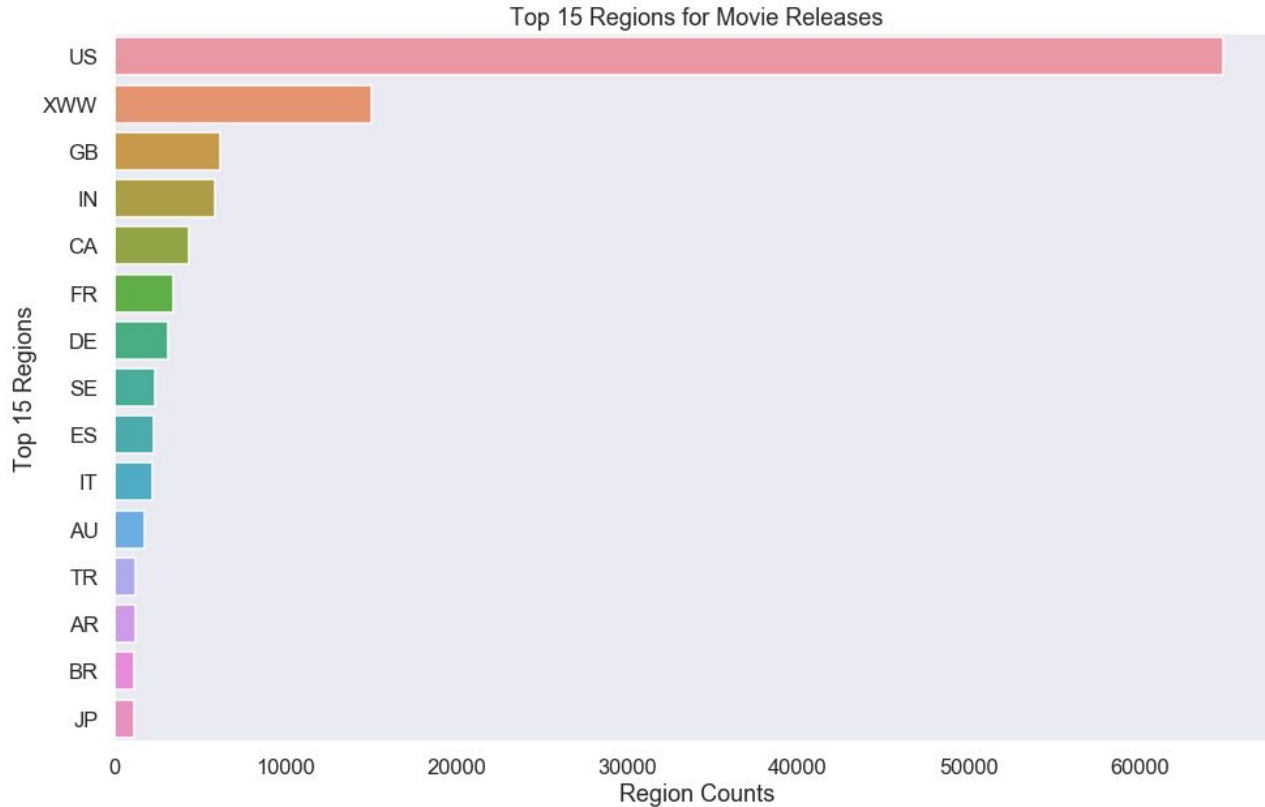
Number of Writers Effects on Cost and Revenue

Writer Recommendations

- Adding more writers to a project will increase gross revenue, but it will have even more of an impact on the required budget.
- Ambitious projects will benefit from more writers, but overall it should not be a primary concern.
- Might be more correlation than causation-see previous correlation between budget and revenue.

Top 15 Regions for Movie Releases

Top 15 Regions for Movie Releases

Movie Region Recommendations

- Why reinvent the wheel? If Microsoft follows the blueprint, release patterns, and promo of existing major studios, then they will see similar success.
- Alternatively if Microsoft were looking to render their potential movie studio competitors irrelevant, they should avoid these top target countries, and focus on serving smaller, niche markets.

Final Thoughts

- Start in Animation and Adventure genres, these are safe bets
- Generally, you get what you pay for, so increasing the budget as is feasible is worthwhile
- Hiring more writers or obsessing over runtime are both unlikely to have a major impact on results