

Data Citations

[1986 dollars in 2016 | Inflation Calculator \(in2013dollars.com\)](https://in2013dollars.com/)

[Population growth \(annual %\) | Data \(worldbank.org\)](https://data.worldbank.org/)

[Top Spotify songs from 2010-2019 - BY YEAR | Kaggle](https://www.kaggle.com/andrewmvd/music-sales)

<https://www.kaggle.com/andrewmvd/music-sales>

<https://www.kaggle.com/danielgrijalvas/movies>

<https://www.kaggle.com/gregorut/videogamesales>

Data Memo:

The core concepts in which my visualizations help explain are how certain aspects of the entertainment industry, such as video games, movies, and music, have changed over time in a positive manner. This idea seemingly aligns with the technological innovations that we have seen within the last twenty years.

For movies, we see that the total gross revenue has increased from 1986 to 2016. I made sure to account for average inflation rate and average world population growth rate by visualizing the rates as line graphs on top of the bar graphs. We see that the slopes of both lines are less than the relative slope of the increase in fiscal revenue, therefore there is indeed evidence of an increase in revenue from releasing films. This could likely be due to easier access to movies, such as from popular streaming services like Netflix. On the following plots, there is a correlation between allocated budget for film production and gross revenue. This could be since more and more films utilize expensive and time-consuming CGI animations and props to really capture the plot. These items may make movies more realistic and intriguing for viewers, which in turn can increase revenue or sales of tickets. However, there is no apparent

correlation between budget allocation and IMDb User Ratings which could mean that an increase in budget brings viewers in but does not necessarily keep them satisfied. Moreover, the most common runtime for movies is around 100 minutes and the most common budget is around 10 million dollars. Lastly, from the last pie chart, my visualization showed that there are no trends in genres of movies over time.

For music, the most significant insights are that CDs, cassettes, and other old records have become outdate and replaced with more online subscriptions to music streaming services. We also see a slight increase in loudness and danceability of modern music on Spotify as music has become more fast-paced and adjusted by electronic tools.

With video games, I designed a visualization on copies sold by different gaming consoles to identify the popular gaming consoles. This visualization explains that consoles such as Xbox and PS2, which have evolved from more simple gaming machines, produced the most sales in video games which shows how technological innovations in gaming consoles contributes to video game sales.