

MyAnimeList Tableau Visualization

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Introduction

With Anime gaining more popularity among the Western community since COVID, I began wondering what are some of the characteristics of the current most popular shows and are there any interesting trends that are showing.

To analyze this information, I have scraped data from [MyAnimeList](#) using *BeautifulSoup*, obtaining **the top 1000 anime shows by popularity and by rating (we will focus on popularity for most graphs)**. Data is gathered on March 9 and 10.

Pandas were then used to clean and generate new helpful calculations. Data is then finally visualized using Tableau.

Code for scraping and cleaning can be found on the same GitHub repository.

Title	Rank	Popularity	Score	Score_Count	Members	Favorites	Type	Episodes	Status	Season	Year	Producers	Licensors	Studios	Genres	Themes
Shingeki no Kyojin	111	1	8.53	2606155.0	3666477	160638	TV	25	Finished Airing	Spring	2013	['Production I.G.', 'Dentsu', 'Mainichi Broadca...']	['Funimation']	['Wit Studio']	['Action', 'Award Winning', 'Drama', 'Suspense']	['Gore', 'Military', 'Survival']
Death Note	80	2	8.62	2569010.0	3640099	164958	TV	37	Finished Airing	Fall	2006	['VAP', 'Konami', 'Ashi Productions', 'Nippon ...']	['VIZ Media']	['Madhouse']	['Supernatural', 'Suspense']	Psychological
Fullmetal Alchemist: Brotherhood	2	3	9.11	1973141.0	3104299	214087	TV	64	Finished Airing	Spring	2009	['Aniplex', 'Square Enix', 'Mainichi Broadcast...']	['Funimation', 'Aniplex of America']	['Bones']	['Action', 'Adventure', 'Drama', 'Fantasy']	Military
One Punch Man	129	4	8.50	2087800.0	2995422	61395	TV	12	Finished Airing	Fall	2015	['TV Tokyo', 'Bandai Visual', 'Lantis', 'Asats...']	['VIZ Media']	['Madhouse']	['Action', 'Comedy']	['Adult Cast', 'Parody', 'Super Power']
Sword Art Online	3113	5	7.20	2040692.0	2904838	66325	TV	25	Finished Airing	Summer	2012	['Aniplex', 'Genco', 'DAX Production', 'ASCII ...']	['Aniplex of America']	['A-1 Pictures']	['Action', 'Adventure', 'Fantasy', 'Romance']	['Love Polygon', 'Video Game']
...
Koukaku Kidoutai: Stand Alone Complex 2nd GIG	121	996	8.52	100739.0	218442	3072	TV	26	Finished Airing	Winter	2004	['Bandai Visual', 'Dentsu', 'Victor Entertainm...']	['Bandai Entertainment', 'Manga Entertainment']	['Production I.G']	['Action', 'Mystery', 'Sci-Fi']	['Adult Cast', 'Detective', 'Mecha', 'Military']
Boogiepop wa Warawanai (2019)	3687	997	7.08	65339.0	218396	792	TV	18	Finished Airing	Winter	2019	['AT-X', 'Kadokawa Media House', 'Kadokawa']	['Funimation']	['Madhouse']	['Avant Garde', 'Drama', 'Horror', 'Mystery', ...]	Psychological
Sword Art Online: Progressive Movie - Hoshi Na...	581	998	8.00	71481.0	218318	2070	Movie	1	Finished Airing	NaN	2021	['Aniplex', 'Bandai Namco Entertainment', 'Egg...']	['Aniplex of America']	['A-1 Pictures']	['Action', 'Adventure', 'Fantasy']	Video Game
Kujira no Kora wa Sajou ni Utau	3264	999	7.17	99705.0	217960	969	TV	12	Finished Airing	Fall	2017	['Bandai Visual', 'Lantis', 'Magic Capsule', '...']	['add some']	['J.C.Staff']	['Drama', 'Fantasy', 'Mystery']	Super Power
Yuuukaku no...												['Mainichi				['Adult Cast']

Snapshot of the resulting concatenated dataset of the top shows

TLDR Summary

Q: Any shows that were extremely popular but scored very low?

There were two shows that satisfy this description: "The Promised Neverland Season 2" and "School Days".

Q: Outstanding genres and studios?

From the charts, we can see that most common genres (Action, Comedy, Romance, etc.) had lower ratings, while the less common genres had higher ratings. The least rated genres were "Ecchi" and "Erotica". Regarding the studios, "Madhouse" and "Bones", followed by "Production I.G." and "Kyoto Animations", have produced the highest number of popular shows with an overall high rating compared to other studios.

Q: Any trends in the popularity of titles by the year?

Interestingly, there seems to be a somewhat inverse relationship between the number of titles and the average rating given by users. When the number of popular titles increased, the average rating for all shows followed a decreasing trend. Similar trends were exhibited vice versa. Although the recent couple of years show a slight dip in the proportion of members who have rated the title, the overall percentage seems to remain constant for the most popular and highest-rated shows.

Q: Do the number of licensors affect the number of members per title?

Upon observation, we noticed that as the number of members was declining, the number of titles and licensors was also declining. However, the rate of which members were declining was at a similar rate to the number of licensors, while the general pattern matched the number of titles per year.

Q: Is there any signs of COVID impacting the number of popular shows?

One fascinating point between 2020 and 2021 is the sudden increase in popular shows. Multiple animation studios faced a decline in work productivity due to COVID, causing delays in the production of animation. Though it is difficult to establish a direct relationship, the additional time received by studios may be positively correlated with the quality of animations for the following seasons.

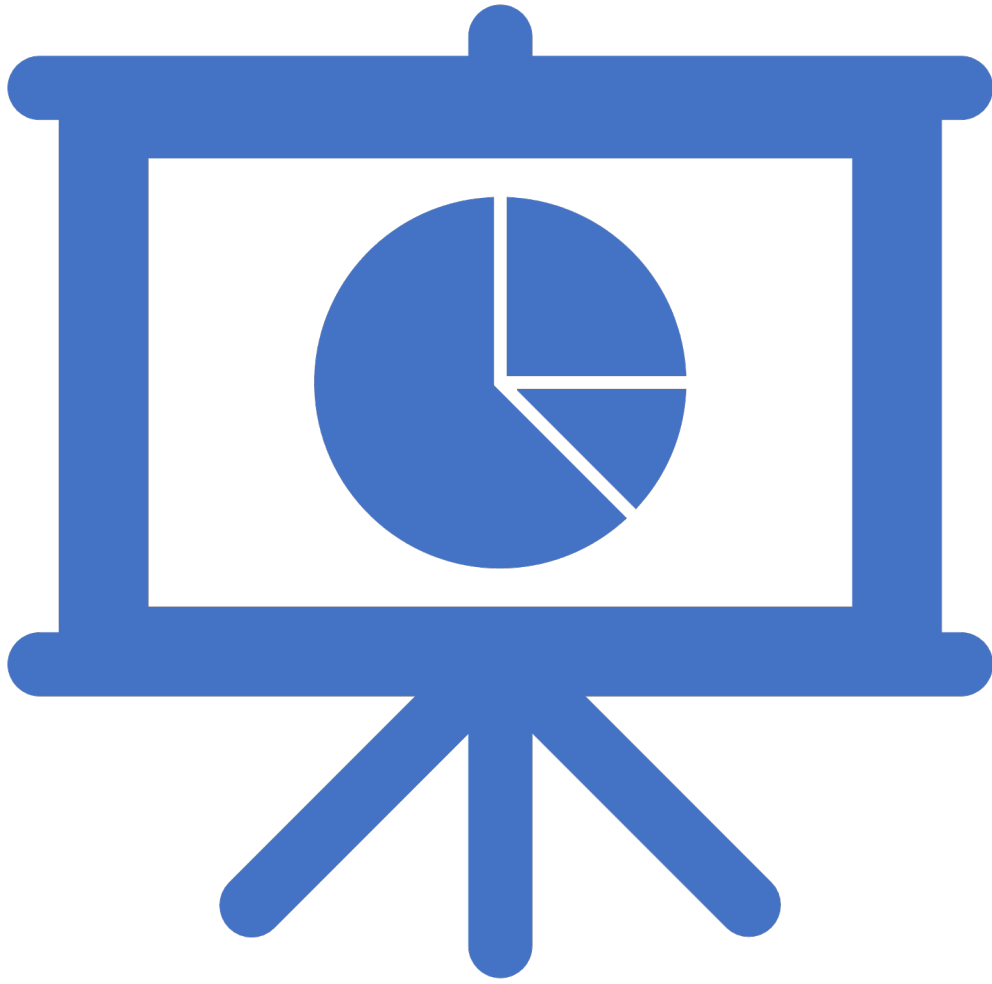


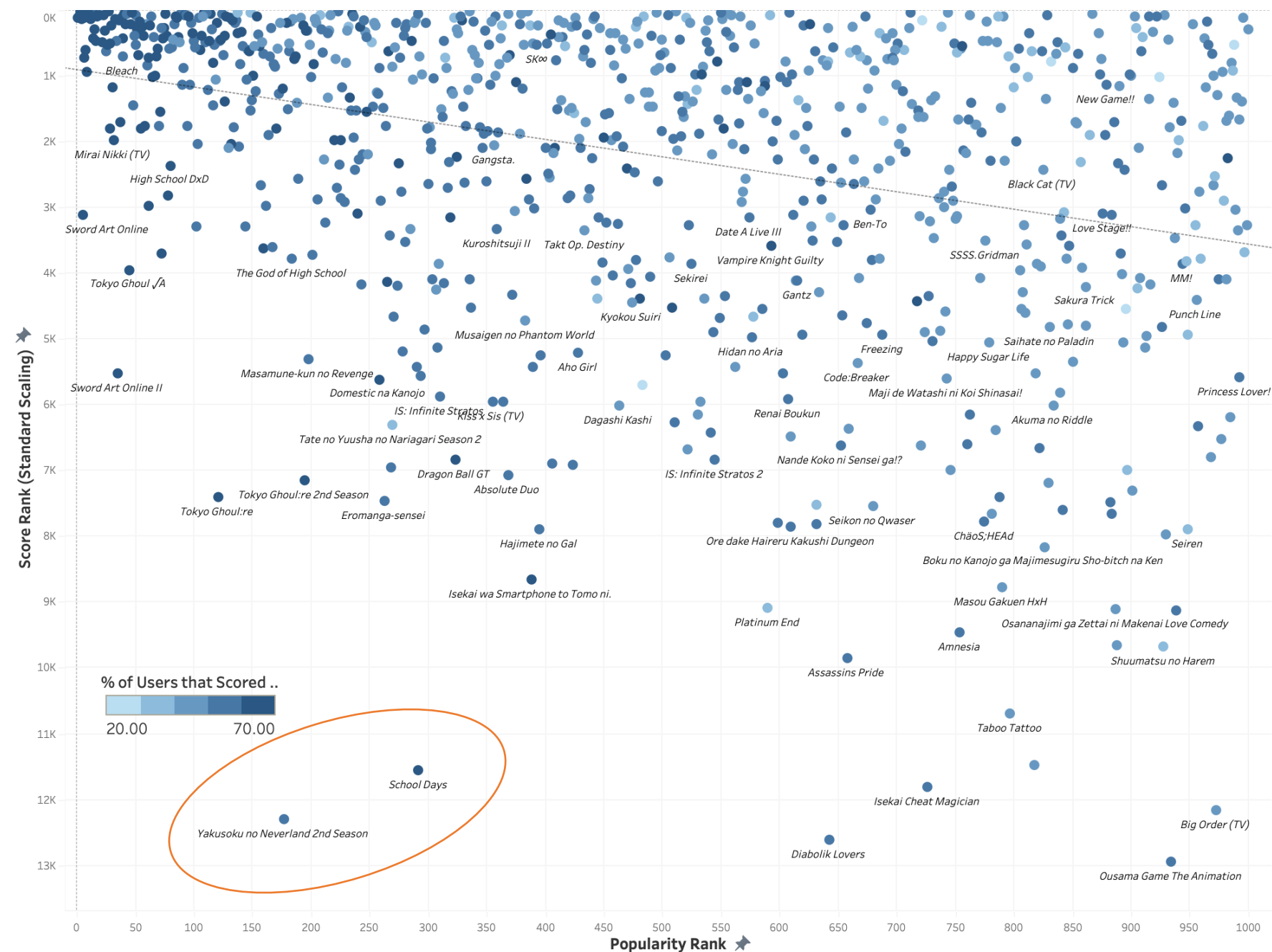
Tableau Visuals

The following graphics are plots and dashboards built using Tableau to explore and analyze the cleaned data.

The focus of this study will be on finished tv anime shows.



Popularity Ranking v Score Ranking

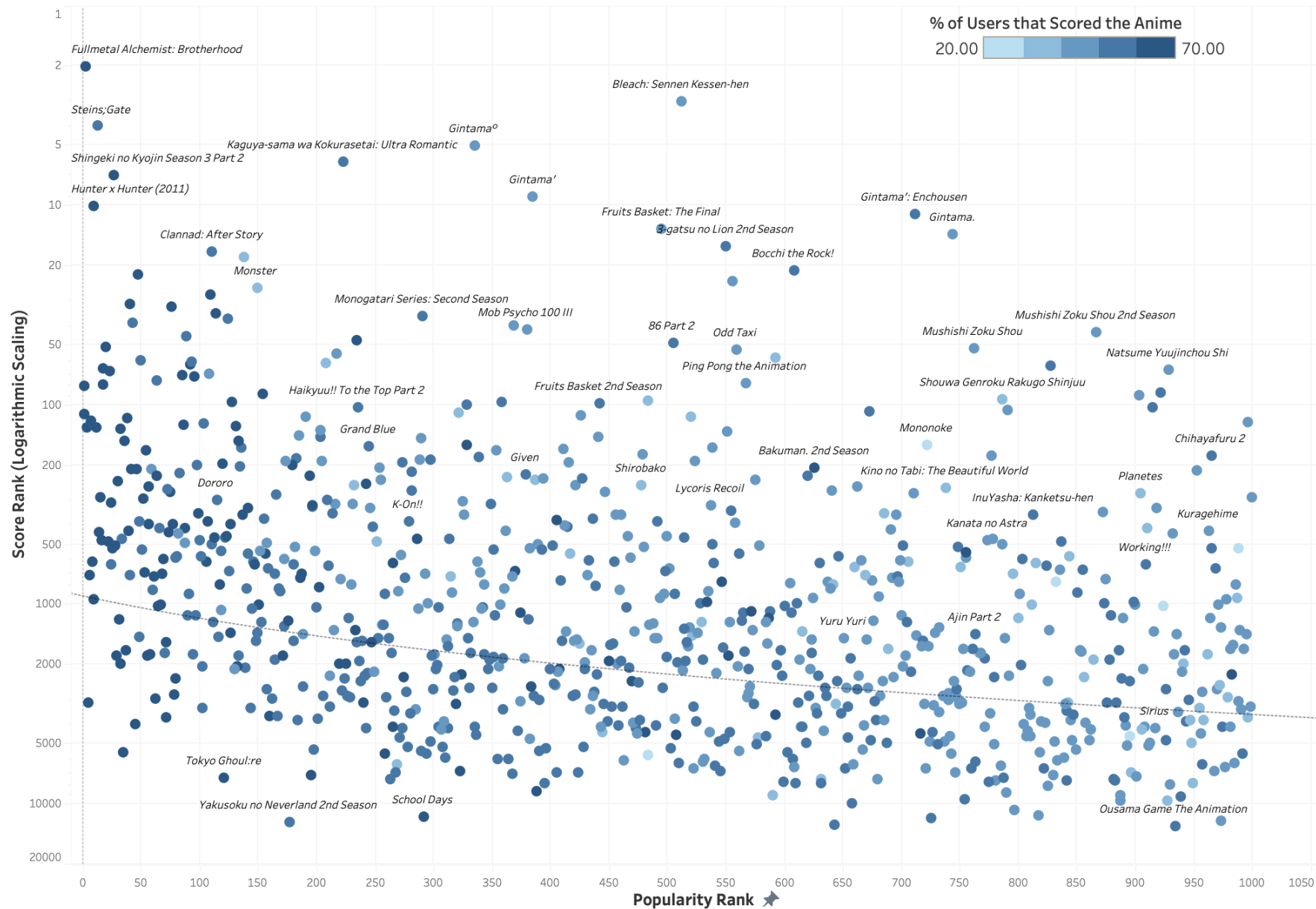


This is a simple scatterplot that shows how the various titles are distributed with the ranking of the score plotted against the popularity.

The shade of the of the point represents the proportion of members that have scored the show. The dotted line represents the line of best fit.

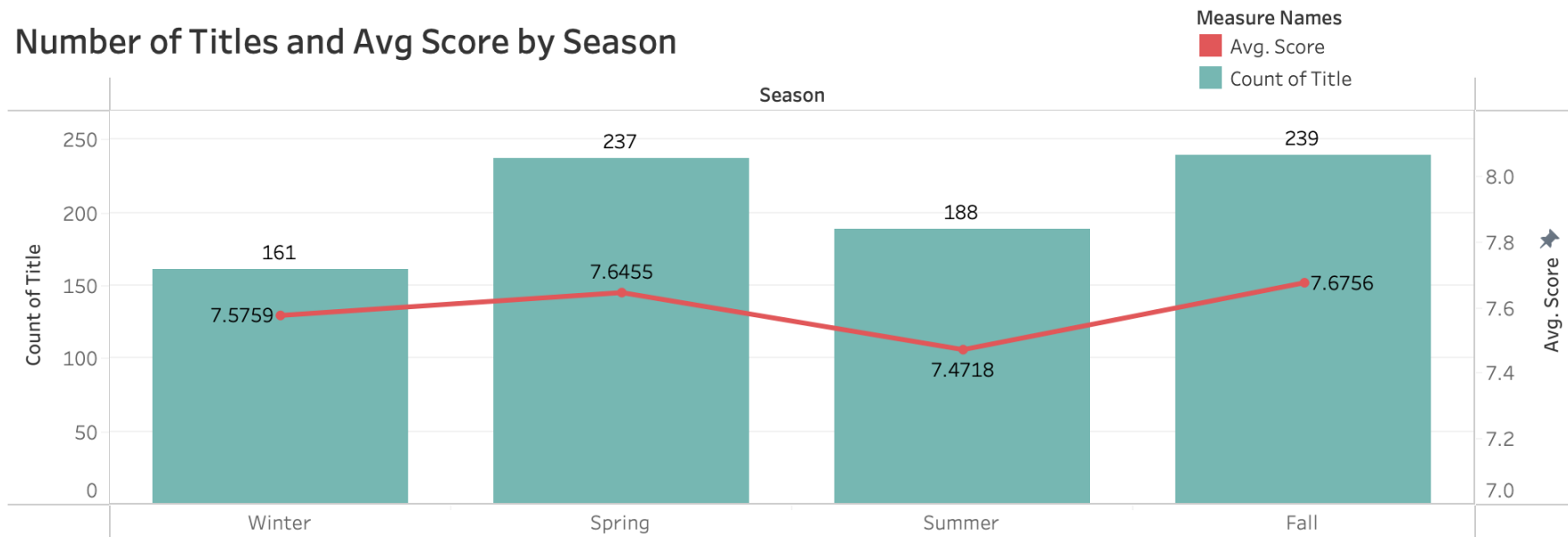
Using the standard scaling, **this plot highlights outlying shows:** Shows that are extremely popular but scored lowly by the community.

Popularity Ranking v Score Ranking

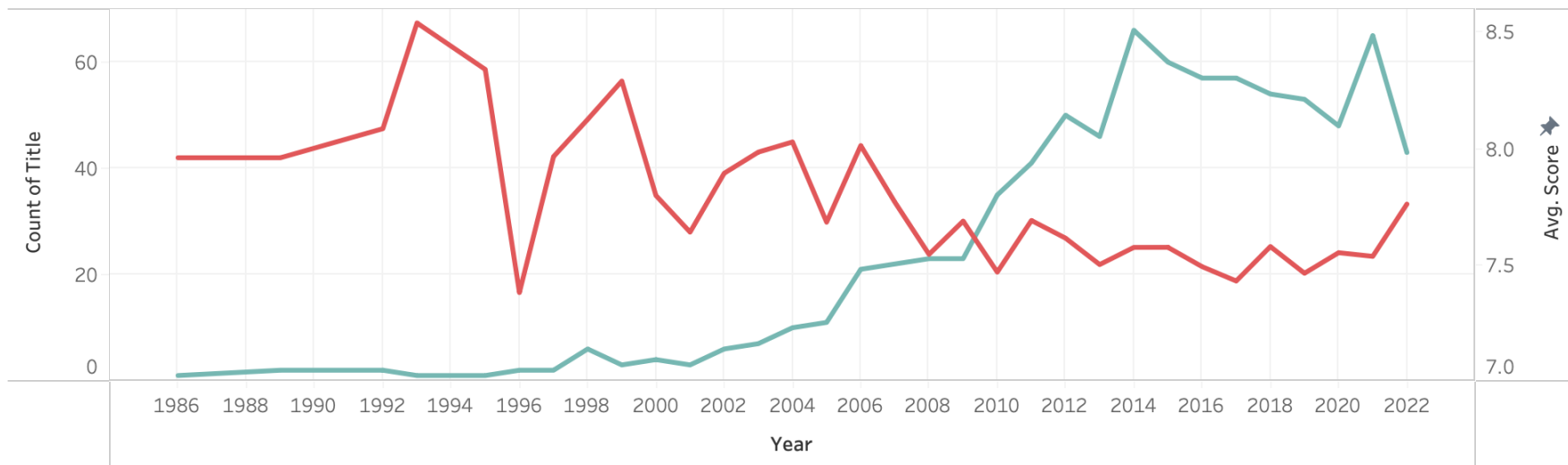


Unlike the previous scatterplot, this one compares the rank of scores and popularity using a log scale. A logarithmic scale is used to highlight shows that are highly praised by the community. As seen from the plot, the **Gintama** series is highly adored by the Western community. The highest scored show is supposedly, "*Shingeki no Kyojin: The Final Season - Kanketsu-hen*", but due to recency and the conclusion season still in progress, the show is not included for this plot.

Number of Titles and Avg Score by Season



Average Score and Number of Popular Titles over the Years

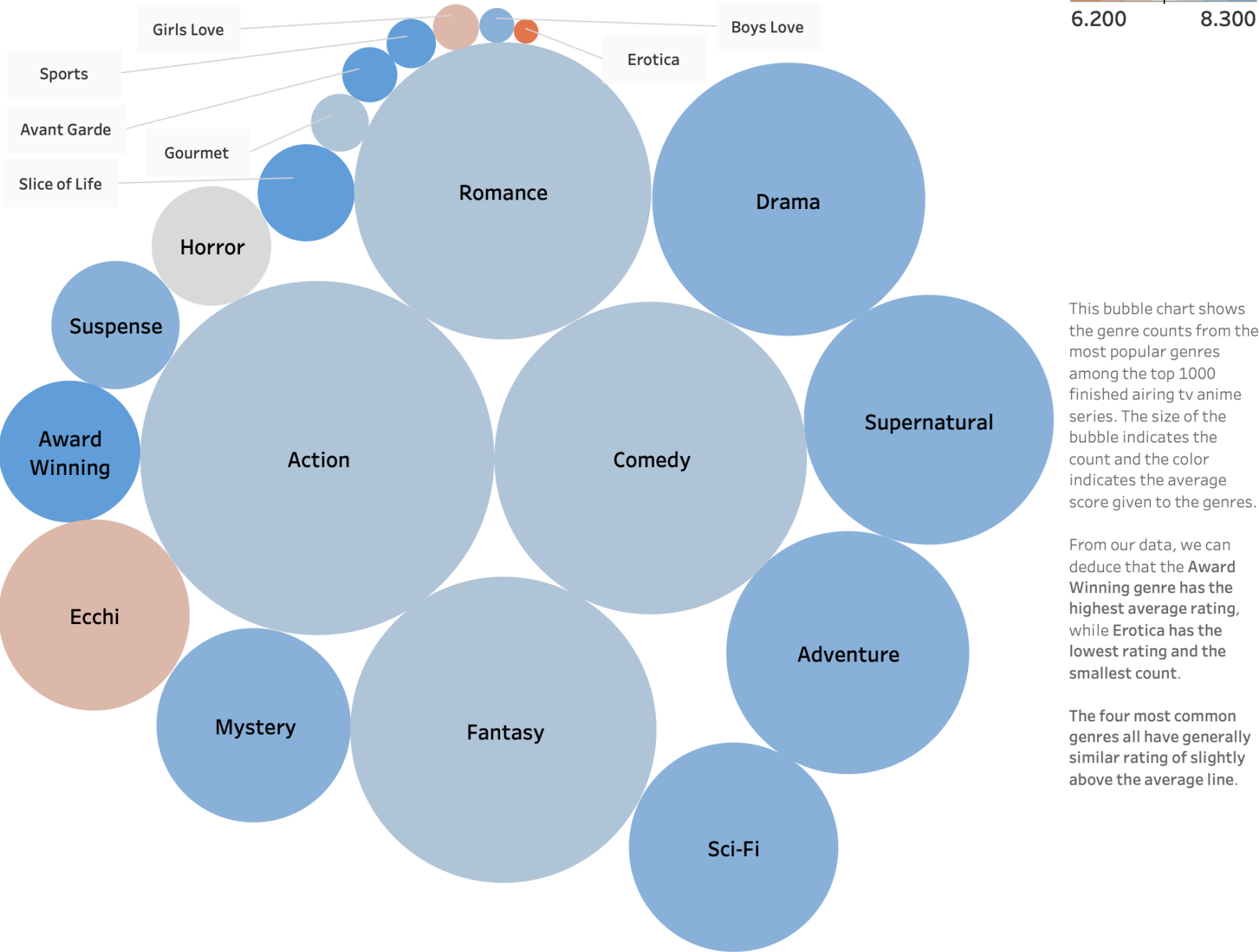


The two plots above compares the number of titles and the average score for the top 1000 anime in popularity. The first plot compares by season the show premiered and the bottom compares by the year of premiere.

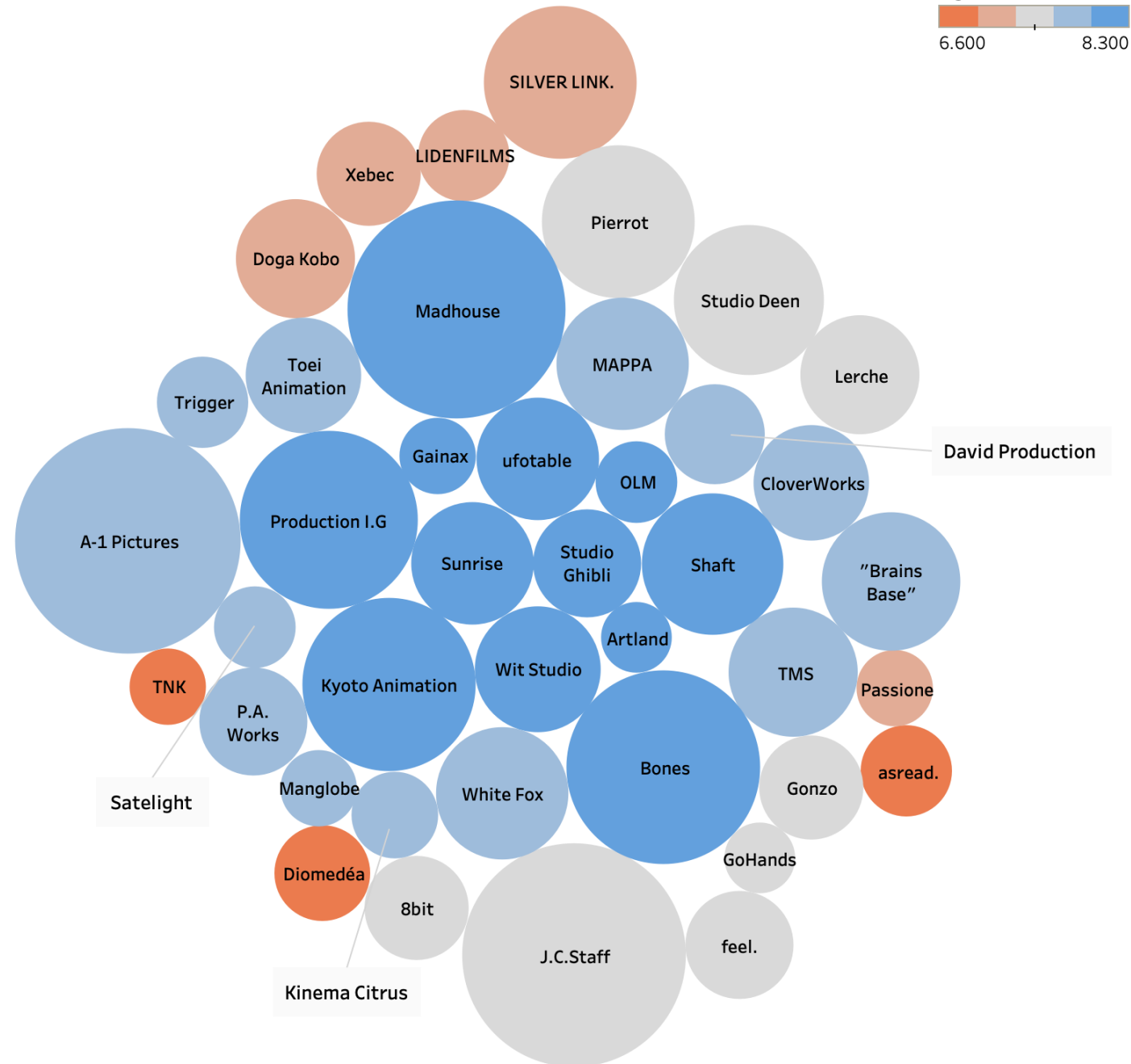
From the first plot, we can notice that **Spring and Fall seasons have more shows with a higher average rating** unlike the two other seasons.

The second plot compares by years. Interestingly, the **average rating has been slightly decreasing with a recent rebound** while the **number of titles have been showing a slight decreasing trend**.

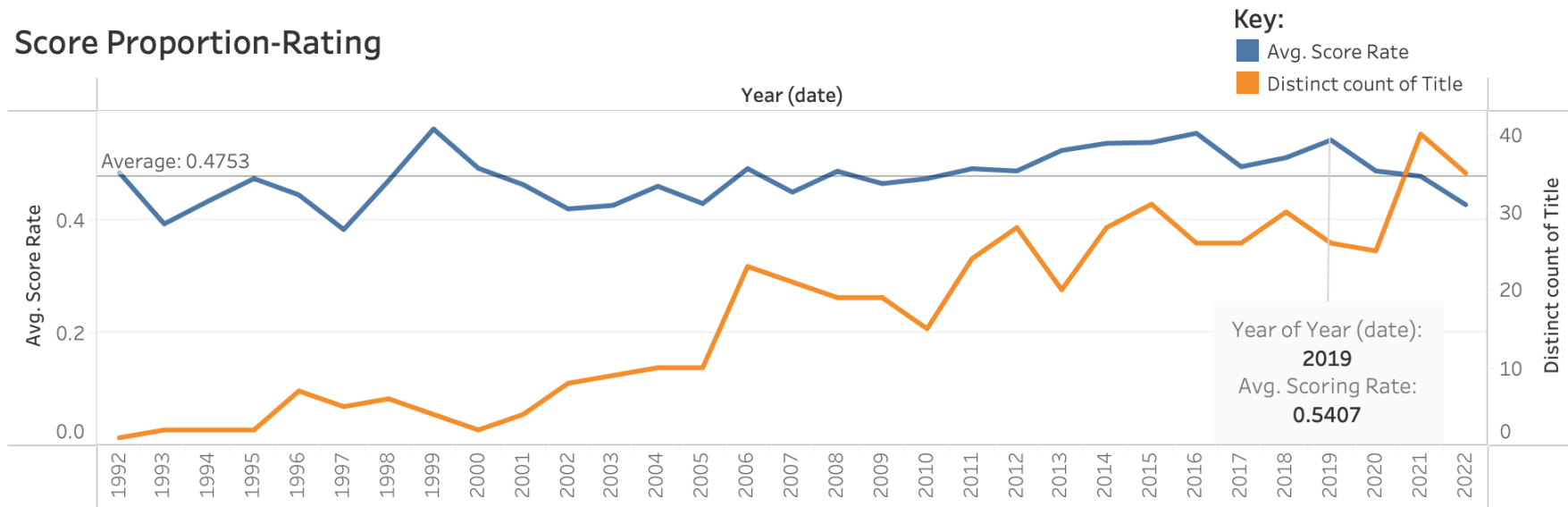
Genre Counts and the Average Ratings



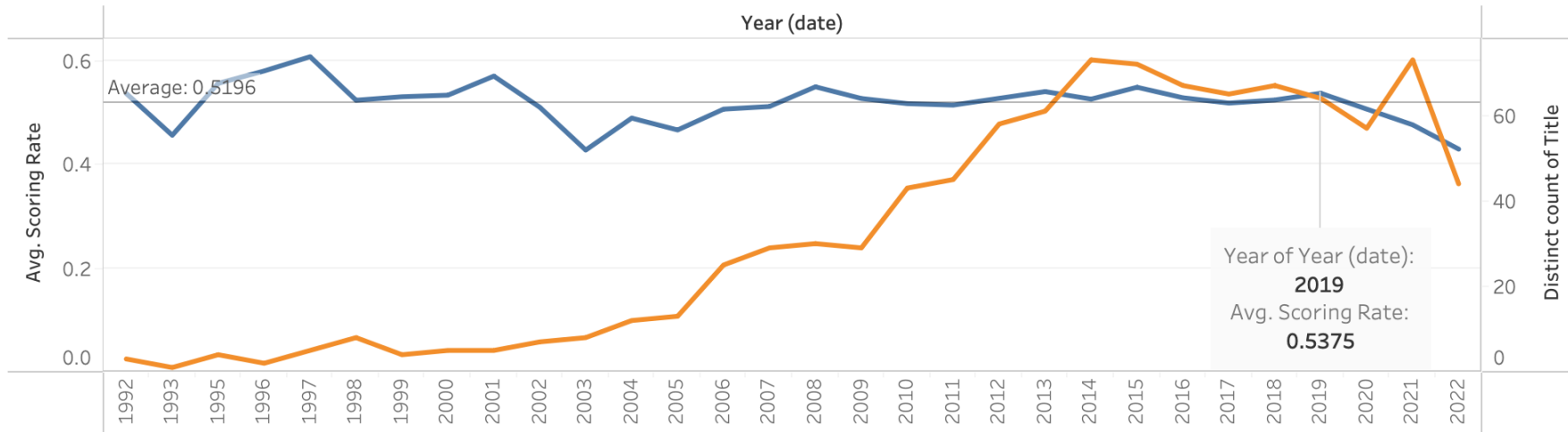
Number of Titles by Studio and the Average Rating



Score Proportion-Rating



Score Proportion-Popularity



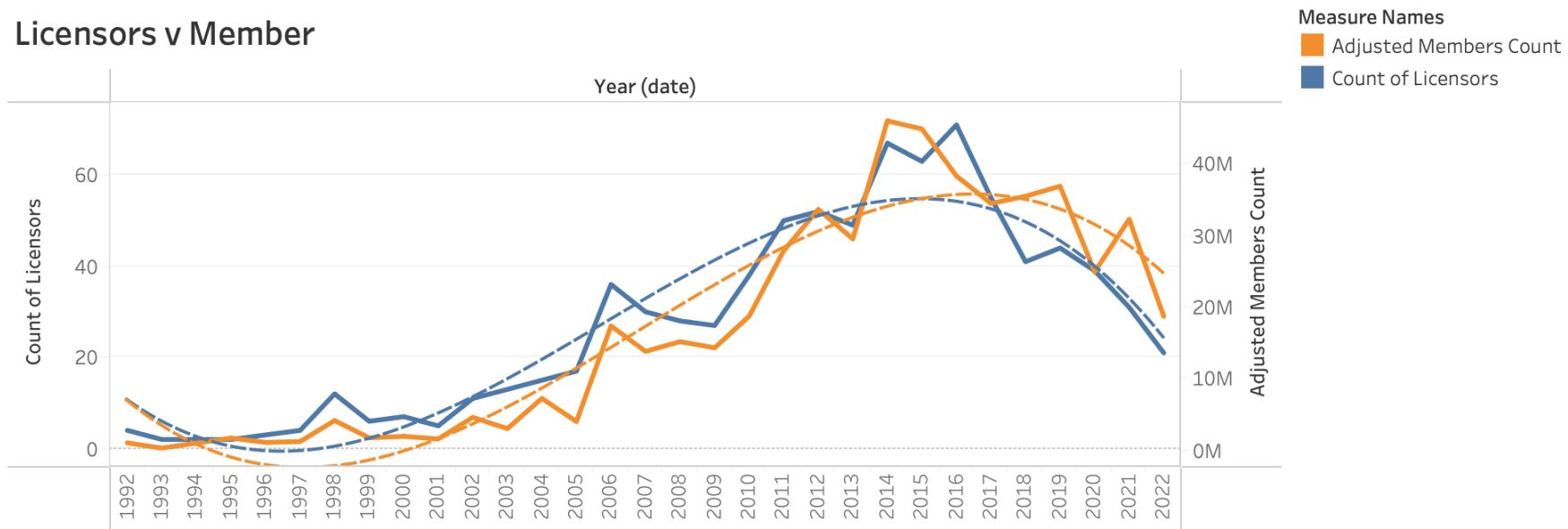
Definition: Score Rate = Proportion of Members that Scored

Summary: There is a trend where recent shows are facing a decreasing scoring rate regardless of the popularity or rating.

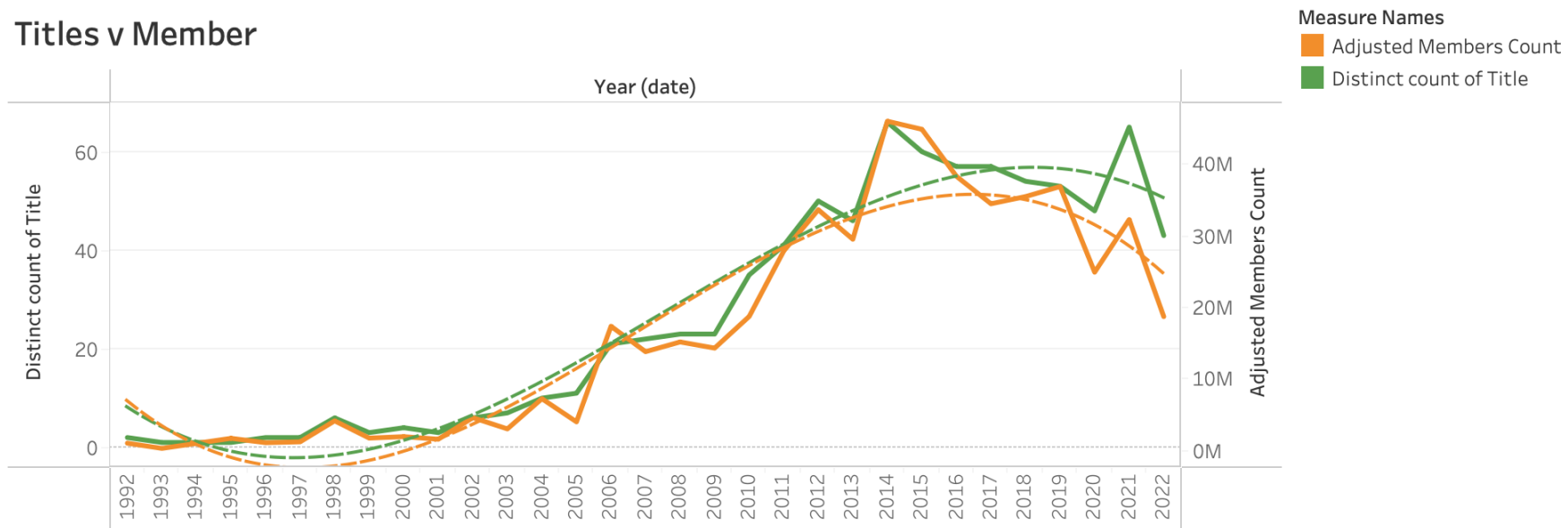
There has been an interesting recent trend where the proportion of members who have given scores have been facing a decreasing trend. By looking at the trends for the highest rated shows, there has been a rapid increase of highly rated shows, yet a decreasing number of people who have rated these shows. From the Popularity list, we can see that although there are less popular shows in recent years, there is still a decreasing trend in the scoring rate.

Both plots are showing similar behaviors. **Though, this result may have been influenced by recency bias.**

Licensors v Member



Titles v Member



The two plots above show the number of Licensors or Titles compared with the number of total members of the top 1000 shows. We can notice that there is an increasing number of shows, licensors, and members as the Years went by. **On 2014, the number of members hit a peak, following a decreasing trend ever since.** The number of titles and licensors have also been following a similar trend. **However, there was a sudden increase of members and titles from 2020 to 2021.**

This sudden increase of popular shows may be due to COVID giving the producers and animators extra time to work on the shows, resulting in larger audience size. Interestingly the sudden increase is not reflected in the number of licensors for the titles.