

# Has COVID-19 Changed our Music Patterns?

While on lockdown, due to COVID-19, Virginia Commonwealth University Senior, [REDACTED], became interested in finding the impact of Coronavirus on the world's music preferences. She tracked the worldwide spread of the virus and the top 10 songs across several countries from both pre and post quarantine. The pre-quarantine music data was from January 22, 2020 and the post quarantine data was from April 22, 2020. She extracted multiple measures such as Energy, Danceability and Happiness from every song. These 3 criteria are based on a 100-point scale. The final model produced insights to the world's shift in music preference from pre to post quarantine.

## What is COVID-19?

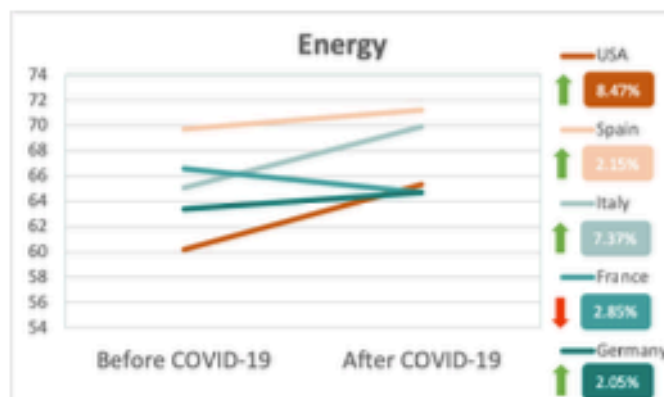
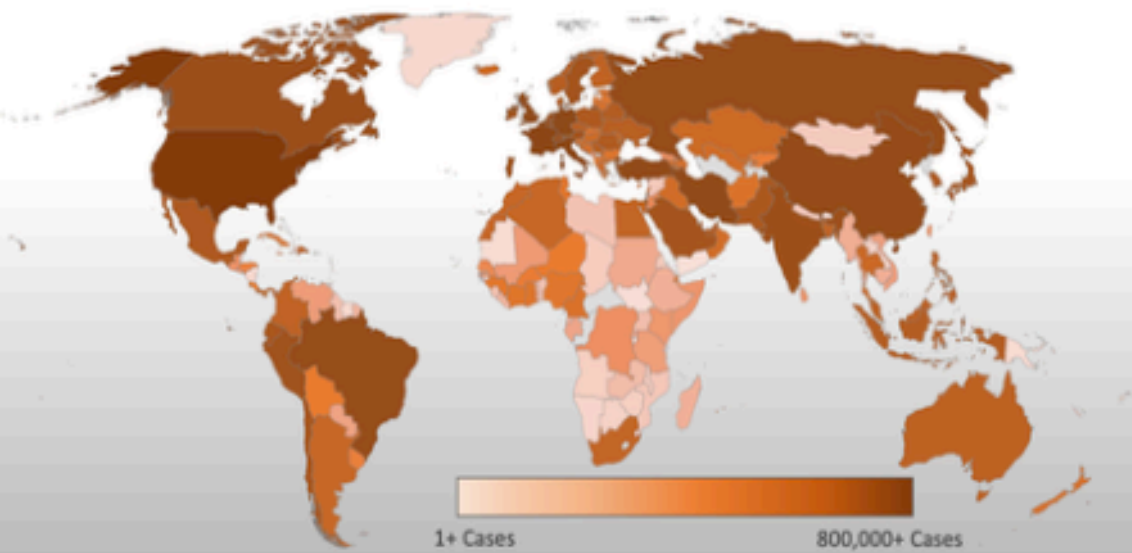
- COVID-19 is a new disease within the Coronavirus family
- Starting in China, COVID has impacted every continent
- Symptoms can range from mild (or no symptoms) to severe illness
- There is currently no vaccine

For more, go to [www.CDC.gov](http://www.CDC.gov)

Top 5 countries  
with the most  
COVID-19 cases

1. USA
2. Spain
3. Italy
4. France
5. Germany

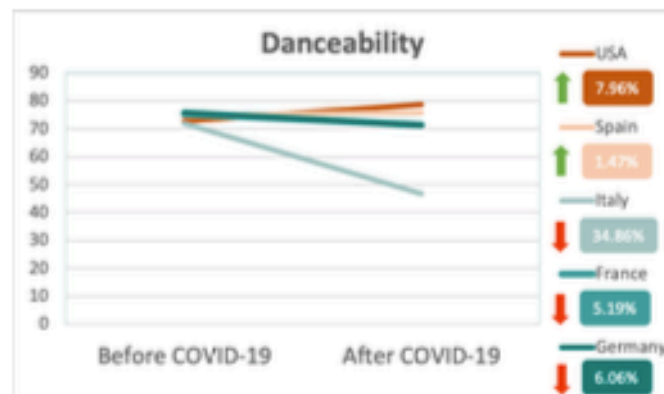
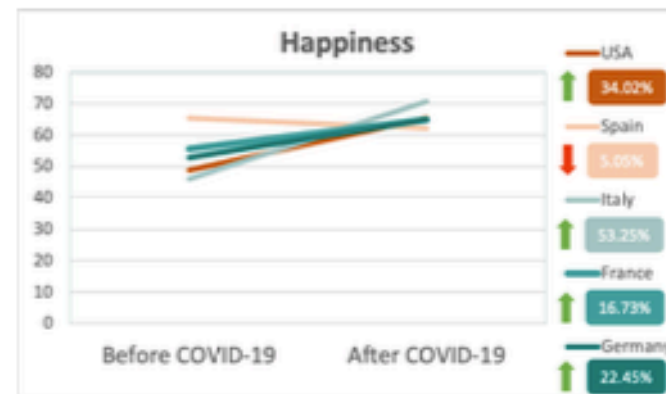
## Worldwide COVID-19 cases as of 4/22/20



"Pump it" by the  
Black Eyed Peas  
scores 93/100  
on Tunebat's  
Energy scale



"Shake it off" by  
Taylor Swift scores  
94/100 on  
Tunebat's  
Happiness scale



"Hollaback Girl"  
by Gwen Stefani  
scores 93/100 on  
Tunebat's  
Danceability scale



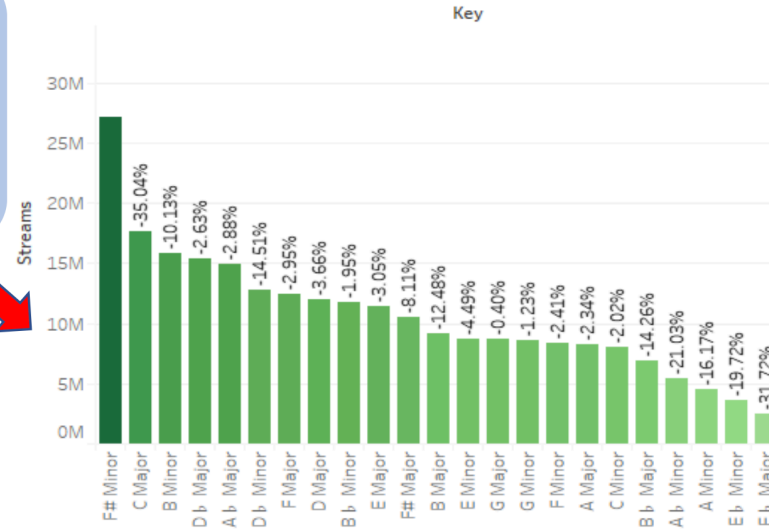
# What are the Ideal Characteristics for a Top 200 Chart Song on Spotify?

My name is [redacted] and in my free time I like to produce music. I was interested in determining the ideal characteristics for a top 200 chart song on Spotify so I can attempt to create a song with all the most desirable elements. Here is what I found:

Juice Wrld's "Lucid Dreams" is written in the most streamed key of **F# Minor**. This key, which is known for its **ambiguous and gloomy characteristics**, is popular because it allows for the song to be **emotionally dynamic**.



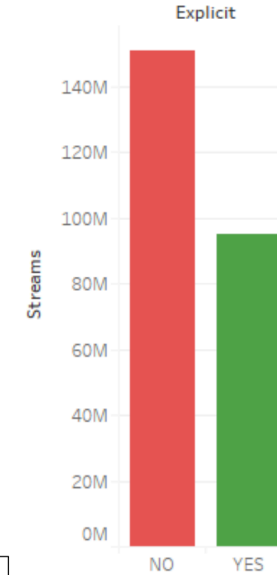
Most Streamed Key on Spotify Top 200



Watch your mouth! "Dynamite" by BTS is the top streaming non explicit song on Spotify.



Is the Song Explicit?

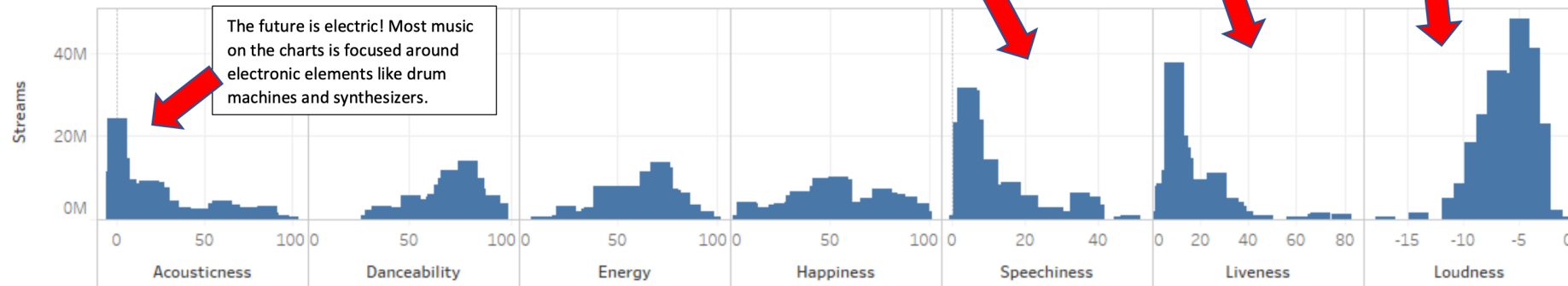


People want to hear you sing! A clear indicator of a hit song is low levels of "Speechiness". Listeners prefer catchy melodic vocals like the soaring vocal style of Ariana Grande.

Your song should sound like it was recorded in a studio! Liveness references how much the song sounds like it is being performed live and consistently scores low on number of streams.

Make it Loud! -5db appears to be the strongest indicator of a highly streamed song. This ensures the track will not be too quiet, but also will not clip.

Song Characteristic Effect on Streams

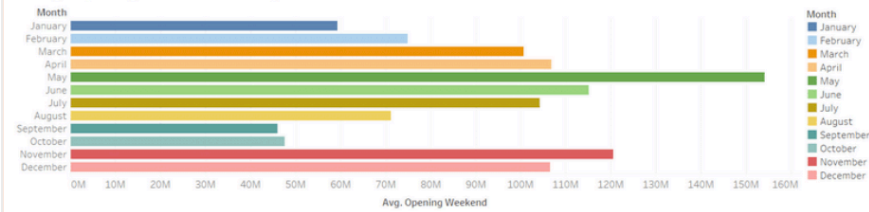


BOX OFFICE MOJO

# WHAT MAKES A MOVIE A TOP MOVIE?

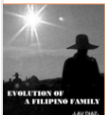
Movies In The Past 10 Years and the factors that put these movies on top whether its genre or length. Lets take a look.

Average Opening Weekend Gross by Month



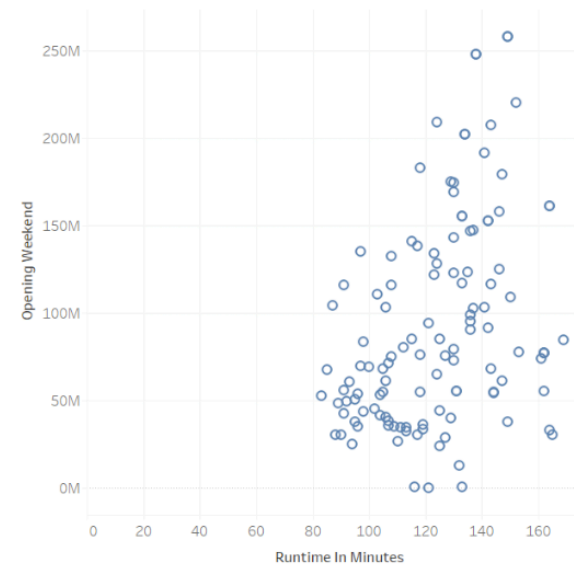
## 1. DID YOU KNOW THIS ABOUT MOVIES?

May is the month with the best average opening weekend. The reason for this is because in the summer, families have more time to take their kids to the movies because school is not in session and the weather is a lot nicer.



**FUN FACT: DID YOU KNOW THAT THE LONGEST MOVIE EVER MADE WAS 10 HOURS LONG? ITS CALLED "EVOLUTION OF A FILIPINO FAMILY"**

Opening Weekend Vs. Runtime in Minutes



## 2. THE LONGER THE MOVIE THE BETTER THE OPENING GROSS?

When making a movie, a director should aim for a movie that lasts about an hour and a half to two hours long. Having a movie that is too short or too long could be detrimental because moviegoers will think the movie is either too short or dragged out.



VISIT: [BOXOFFICEMOJO.COM](https://www.boxofficemojo.com) FOR MORE INFORMATION

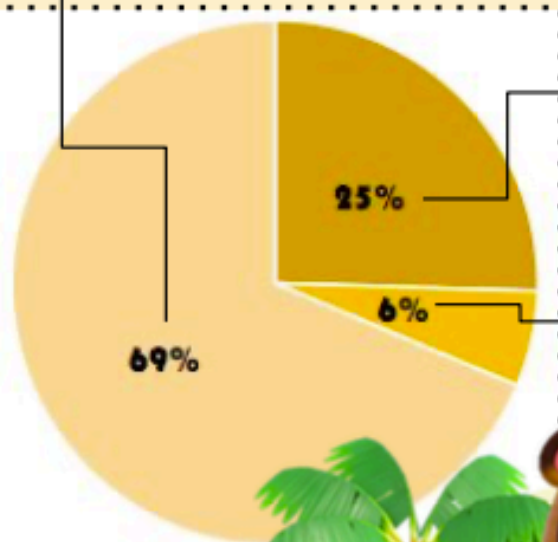




# IS IT WORTH THE HYPE?

My name is [redacted] This visualization represents how 51 gamers responded to the long awaited Animal Crossing: New Horizon video game for the Nintendo Switch.

69% of gamers owned New Horizons for at least 1 week



25% of gamers owned New Horizons for at least 1 month

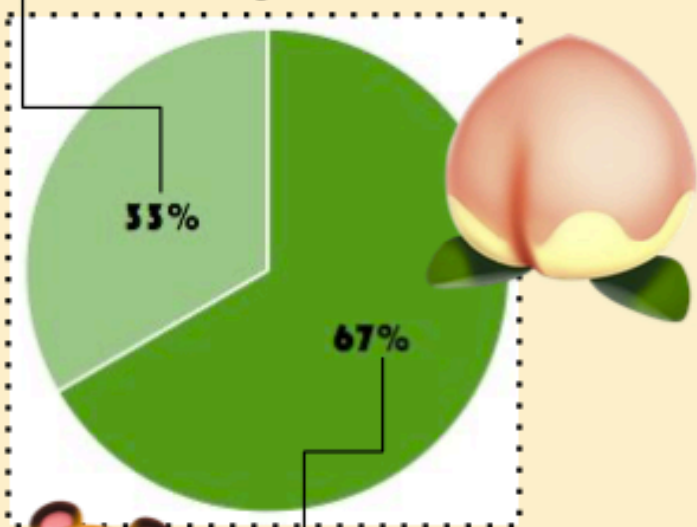
6% of the gamers did not specify ownership



## Length of Ownership Compared to Verified Purchases and Recommendations



33% of the gamers would not recommend game to others



67% of the gamers would recommend game to others

**75%**

of the gamers made verified purchases



# Man of the Series in IPL

REMEMBER I WAS  
LOOKING AT THE IPL DATA  
FROM THEIR OFFICIAL WEBSITE TO  
FIND THAT WHAT MAKES THE MAN  
OF THE SERIES AND HOW IT IS  
IMPACTED?

YES, AND YOU  
ALSO COLLECTED DATA ON  
THE PLAYER POINTS AND  
OTHER ASPECTS OF THE  
GAME LIKE NO. OF 6S, NO. OF  
WICKETS TAKEN ETC.



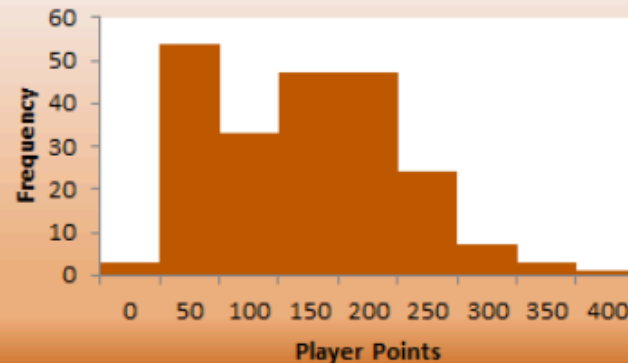
WHAT DID YOU FIND?  
I LOVE TO WATCH IPL AND  
UNDERSTANDING HOW THE  
PLAYER POINTS WORK WILL  
BE REALLY FASCINATING

THEN YOU WOULD  
DEFINITELY LOVE WHAT I  
CAME ACROSS. LET ME  
SHOW YOU.



After I have collected the data, I saw that the player points were very different and not normally distributed.

Histogram for player points



SO, FROM THE GRAPH I SAW  
THAT THE GRAPH WAS RIGHT-SKEWED  
AND ALTHOUGH THE RANGE OF POINTS  
WAS FROM 0 TO 379.5, THE AVERAGE  
WAS ONLY BETWEEN 100 AND 200. THIS  
MADE ME THINK THAT WHAT ARE THE  
FACTORS THAT IMPACT THE PLAYER  
POINT AND BY  
HOW MUCH?



To clear my doubts and to find the impact of the factors impacting the Player Points, I decided to run a Multiple Linear Regression to see that if:

**PlayerPoints= f(MatchesPlayed, WicketsTaken, DotBallsDelivered, 4s, 6s, Catches, Stumping)**

FROM THE MULTIPLE LINEAR REGRESSION IT CAN BE SEEN THAT THE P-VALUE IS VERY SMALL MAKING THE TEST SIGNIFICANT, THE R-SQUARED VALUE TELLS THAT THE MODEL EXPLAINS 96% OF VARIANCE IN THE PLAYER POINTS AND ALL THE VARIABLE IN CONSIDERATION ARE SIGNIFICANT FOR THE MODEL



Coefficients:		
	Estimate	Sig.
(Intercept)	0.00	0.1463
Catches	2.50	<2e-16 ***
Dot.balls	1.00	<2e-16 ***
Matches.played	0.00	0.0265 *
Stumping	2.50	<2e-16 ***
Wickets.taken	3.50	<2e-16 ***
X4s	2.50	<2e-16 ***
X6s	3.50	<2e-16 ***
P-Value	2.20E-16	
Adjusted R-Squared	0.96	



From the above analysis the regression equation becomes:  
**PlayerPoints=0+2.50(Catches)+1(DotBallsDelivered)+0(MatchesPlayed)+2.5(Stumping)+3.5(WicketsTaken)+2.5(48)+3.5(68)**

SO, CAN YOU TELL  
 ME SOMETHING ABOUT THE  
 SALARY AND WHAT IMPACTS  
 THEM. I FEEL THE SALARY  
 THAT ALL THE PLAYERS GET  
 IS VERY DIFFERENT.

YES, THAT'S RIGHT.  
 THE SALARY IS  
 IMPACTED BY A LOT  
 OF THINGS.



Coefficients:		
	Estimate	Sig
(Intercept)	24000930.11	0.00000053 ***
Base.Price	1.02	< 2e-16 ***
Country_dum	-1925674.72	0.461
Retained.Auctioned_Dum	-27923636.88	< 2e-16 ***
Team_num	433366.42	0.269
Year_num	913790.39	0.524
P-Value	2.20E-16	
Adjusted R-Squared	0.808	

What i found was that the salary is impacted by variables likes, what is the base salary, are they an Indian player or an international one, they are retained or not, which team they belong to and which year is in consideration. The test was significant and the model explained 80.8% of variation in Salary. The equation is:

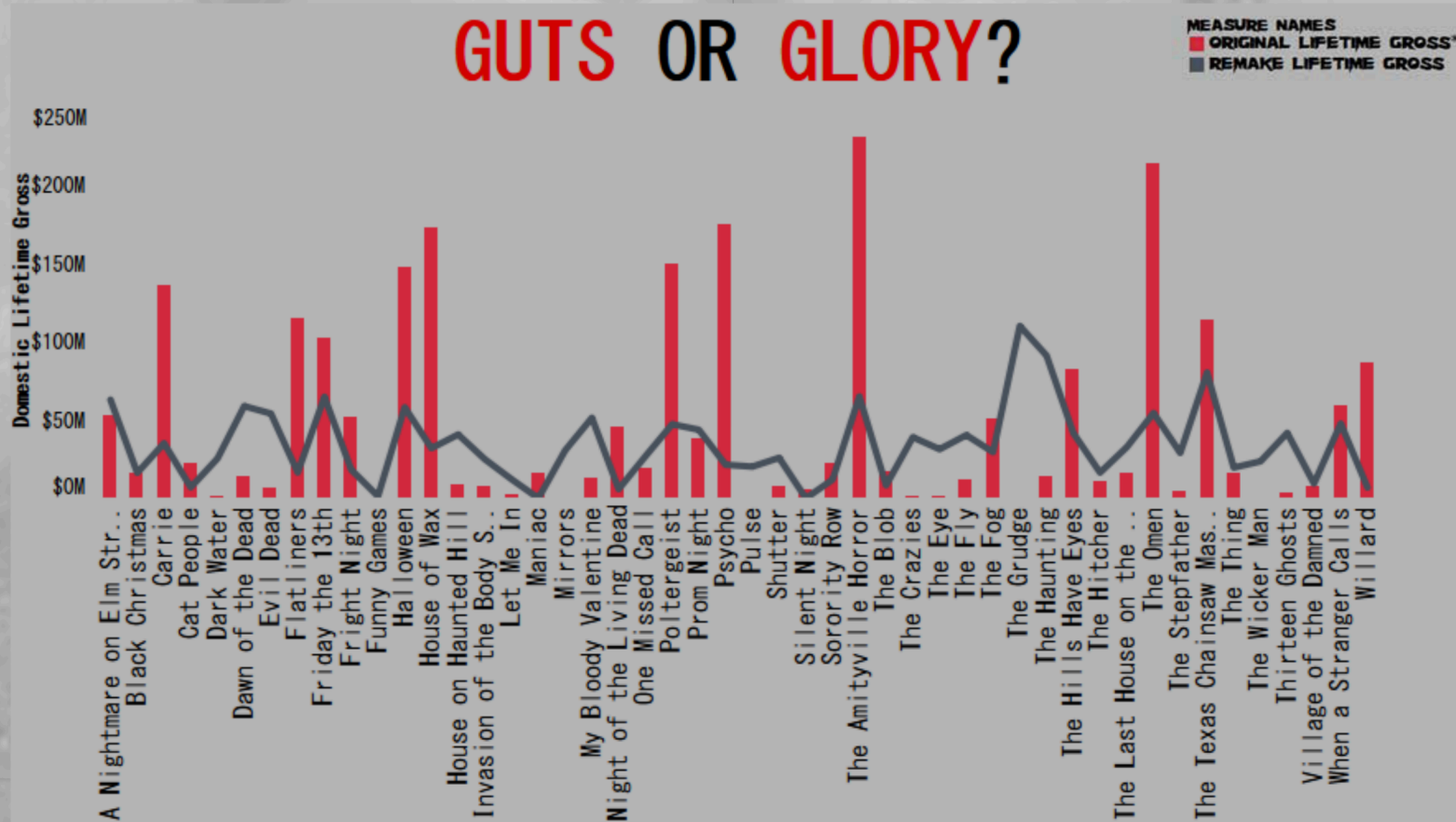
$$\text{Salary} = 2400093.11 + 1.02(\text{Base.Price}) - 1925674.72(\text{Country\_dum}) - 27923636.88(\text{Ret.Auct Dum}) + 43366.42(\text{Team num}) + 913790.39(\text{Year num})$$

# KILL OR BE KILLED

## ORIGINAL HORROR FILMS VS. REMAKES

People have enjoyed watching horror films for decades. In fact, certain horror films were loved so much that they were remade years later.

But how successful are horror film remakes compared to their originals? This infographic looks at both lifetime gross and Tomatometer ratings to find out. Which remakes survive and which remakes die brutally, well, that's for you to find out.



\* Original Lifetime Gross has been adjusted for inflation based on the year the remake version was released.



# HORROR MOVIE REMAKES AS TYPICAL CHARACTERS

