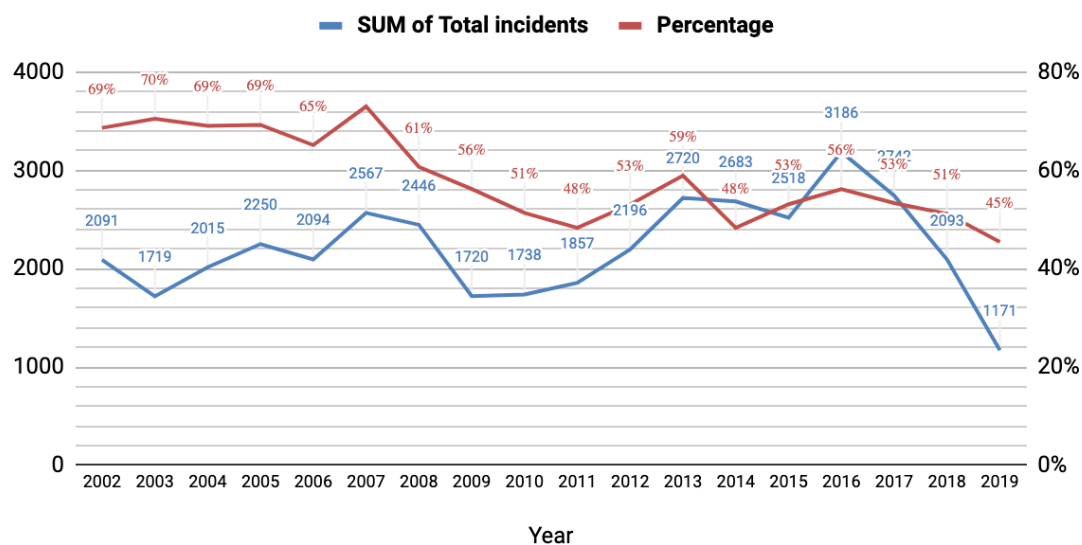I remember while growing up, I was highly allergic to smoke. When the **Prohibition of Smoking in Public Places** law was passed, I could enter public spaces without wheezing my guts out because of the fleeting smoke of the casual passer-by. As a millennial, I don't associate cigarettes with suave and sex appeal; say like how my parents did when they were younger. That makes sense. Global rates of smoking have decreased since the 1980s. This massive change in mindset can be attributed to successful anti-smoking campaigns, corroborated research on the harmful effect of tobacco, increase in taxes on tobacco products, lawsuits and the historic Master Settlement Agreement.

Gone are the days when the lead actors have to deliver their lines in clouds of nicotine. Or are they? The numbers seem to agree.

Considering only top 10 grossing at least for a week in the US.

The number of movies depicting tobacco use is on the decline with a whopping 70% of all movies containing smoke in 2002 to around 42% in 2019. Even the absolute number of smoking incidents across all movies peaked in 2016 and has been decreasing ever since.
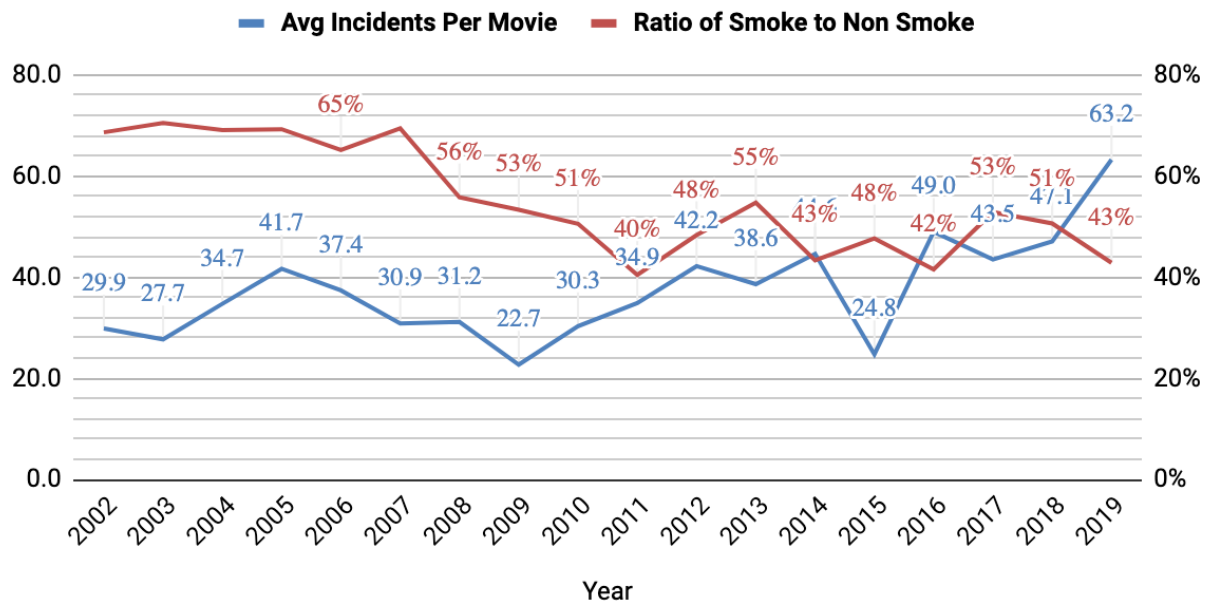
This would be the first sign of the decline of the glamorisation of smoking in Hollywood with fewer movies even adopting to show smoking onscreen.

For the rest of this article, we will focus on movies that contain tobacco. To understand if a movie is pushing smoking to its audience, we have to consider the frequency of tobacco consumption in a movie. It is safe to assume that a movie with only 1-2 instances is far less impressionable than a movie where the main lead is addicted to cigarettes.

This is where things take an interesting turn.

A plot of the average number of smoking incidents per movie since 2002 is as follows:

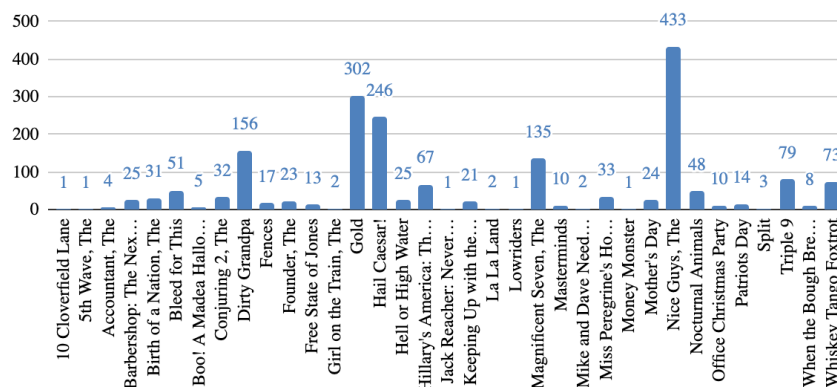## Avg Incidents Per Movie Vs Ratio of Movies Containing Smoke to Smoke Free Movies

— Avg Incidents Per Movie   — Ratio of Smoke to Non Smoke

Ratio vs Avg Incidents Per Movie.

After 2010 (and even after 2016), the number of *'smovies'* (geddit, geddit?) has reduced but the prevalence of smoking per movie is rising.

Let's travel back to 2016. A colourful year. A lot of onscreen smoking (high average) with a drastic increase from 2015 but only 41% of all movies contained any actual tobacco scenes. Let's find out which ones exactly.

Number of Smoking Incidents in Every Movie Released in 2016

SUM of Total incidents

Total Number of Incidents Per Movie Released in 2016

The 'smokiest' movie of that year was the Nice Guys. The Ryan Gosling starrer had 433 smoking incidents. No surprise there that Mr Gosling wanted to kick the habit after this

project. The Nice Guys followed the adventures of two Private eyes as they investigate a death in 1970s Los Angeles.
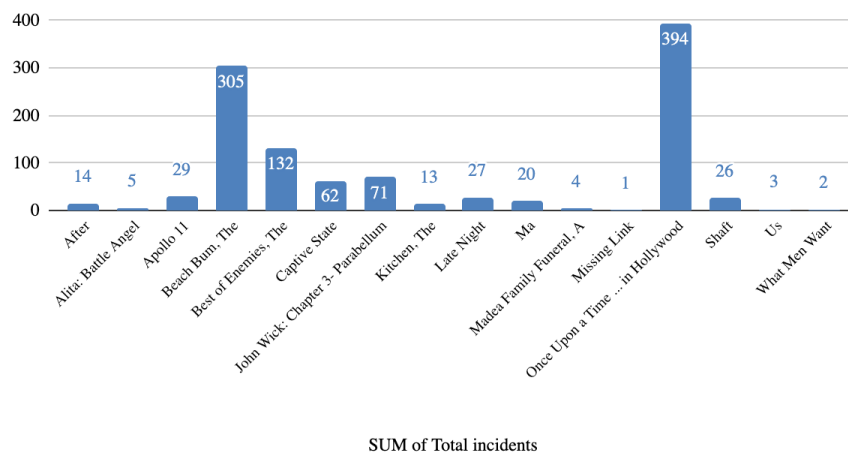
Another high smoking movie in 2016 was Gold. A movie based on a real life story in 1993 Indonesia.

The Magnificent Seven released in the same year and clocking in at 135 incidents was a modern day Western.

I'm beginning to see a pattern here.

We'll look at films from 2019 which has similar behaviour as 2016 to confirm this. Quentin Tarantino's 9th film, Once Upon a Time in Hollywood literally has its plot in its name. (Set in 1950s Hollywood). Serenity and The Best of Enemies are both dramas with the latter being a historical drama.

Number of Smoking Incidents in Every Movie Released in 2019

SUM of Total incidents

Total Number of Incidents Per Movie Released in 2019

To prove our hypothesis that only certain kinds of movies show heavy smoking, let's break down all movies by genre and plot the average number of smoking incidents per movie in that genre. We see that Biographies, History, Dramas have consistently high or increasing numbers. The outliers in the music/musical genres are musical dramas (touché!).

The comedy genre has surprisingly shot up in the number of incidents since 2016 perhaps due to an increasing number of dark-comedies that have been released (Dirty Grandpa, The Nice Guys, Lady Bird etc)

We're falling into a cyclical trap here. Modern day movies end up portraying more incidents of smoking to stay true to the time/person for historical accuracy.

Avg Smoking Incidents Per Movie per Year by Genre

Keyword Association

We can further analyse this by breaking it down by keywords (shown above) to understand what themes revolve around movies that portray a lot of smoking (high average of incidents per movie). The below graph shows the 100 most occurring keywords from all the movies that contained smoking in the dataset. It's of no surprise that the keyword 'cigarette-smoking' has a high frequency and average number of incidents. Keywords that frequently occur in *'smokies'* are, 'murder', 'death', 'blood' and various familial relations (father-son, husband-wife). Other keywords that may suggest mature content like 'f-word', 'drunkennes', nudity (both male and female). Movies that portray mature themes also tend to show smoking (a case of since we're probably gonna be rated R, let's show everything?).

I think smoking has become a prop in modern cinema. It is no longer mass-marketed as a product by billion dollar corporations but is used as a way to increase the authenticity of scenes just as the use of realistic violence, blood and gore.

There is statistical backing that youngsters are indeed inspired by smoking depictions on film. Society has also begun discussions on how violence in media (movies, video games, music etc) is affecting the younger generations. I would like to end the article on a question, how much is too much?