*Film and Behavioral Science*, 2025, 1–4
doi:

# Measuring the Portrayal of Violence in 21st Century Horror

Kory Begley[1]*

[1]Independent Researcher, Bachelor of Science in Data Analytics

## Abstract

Film as a media has been present in culture worldwide for hundreds of years, with horror originating in the mid 1890s. As with everything, horror films have evolved and adapted with mainstream tastes, one of these components being the portrayal of violence. This review looks at kill counts, as counted by the Dead Meat YouTube channel in their YouTube series *Kill Count*, a popular web series that analyzes and counts deaths in horror movies ranging from cult classics to new releases. Throughout this review, descriptive and statistical analyses were performed, looking at total kill counts by release year, as well as breaking down kill counts by gender. Descriptive statistics were used to identify trends, supported by a Pearson correlation coefficient test to assess statistical significance. Despite visible peaks in certain years (2007, 2012, 2019), the results did not indicate a statistically significant correlation between release year and kill counts (with p-values ranging from 0.098 to 0.661). Although the demographic of women showed the strongest linear relationship, it remained weak and statistically insignificant. The statistical test also resulted in a linearity coefficient (0.216, 0.213, 0.380, 0.105), concluding that there was a weak linear relationship between release year and kill counts for the four observed demographics (total kill count, male kill count, female kill count, and other(s) kill count. Ultimately, while descriptive trends suggest fluctuations in on-screen violence, statistical analysis does not support a clear upward trend in kill counts over the past two decades.

**Key words:** film; horror movie; kill count; dead meat YouTube; death count; runtime

## Introduction

Horror movies have been a part of film culture since as far back as 1896, with Georges Méliès' silent film *Le Manoir du Diable*. (The House of the Devil) Continuing into the 1920s-1930s with the Classic Universal Monsters expanding the genre, with further expansion and cult following into the 1990s with the genre-defining film Scream (1996), which brought the slasher/horror genre to the mainstream for young audiences after declining interest from numerous Halloween, Friday the 13th, and Nightmare on Elm Street films.[1]

A primary component of these films is the portrayal of violence, the subject of this article being the measurement of kill counts. In most horror films, death is a staple in showing the strength of the villain or eliciting an emotional response from characters, or even from the audience. However, the question that remains is: *Have horror movies become more violent in the last 20 years?*

This review will explore the kill counts of a multitutde of horror movies over the last 20 years, ranging from 2005-2025, while this will not include older classics like 1996's Scream, or earlier entries in the Halloween, Friday the 13th, and Nightmare on Elm Street franchises, this sample will give a closer look into the evolution of horror movies in the 21st century.

## Data Acquisition, Aggregation and Methodology

The data used to capture the observations made in this review were accumulated through unconventional means but were the most accessible for the timeline of this project. The Dead Meat channel on YouTube has been producing a series aptly titled *Kill Count* where the personality James A Janisse, sometimes alongside other cast members, will go through movies, typically in the horror/thriller genre and provide synopses and background information, while also counting the kills and deaths in the films.[2] The *Kill Count* series is the most cohesive collection of kill counts in horror films, but did not have a readily available database or list. To rectify this, each *Kill Count* video was reviewed and the findings of each film that was released in the observed timeline (2005-2025) were put into a spreadsheet (sample pictured below), and this was then imported into Python as a dataframe.

With the spreadsheet form factor completed, the data were read in Python.

The first step was to explore the data, which, although short-lived due to the data already being fit for the projects needs, led to getting insight on the films with the highest kill counts. (pictured below)

| | movie_title | release_year | run_time_minute | kill_count | male_death | female_death | other_death |
|---|---|---|---|---|---|---|---|
| 2 | The Blackening | 2023 | 97 | 6 | 5 | 1 | 0 |
| 3 | Mr. Crocket | 2024 | 88 | 9 | 9 | 0 | 0 |
| 4 | As Above, So Below | 2014 | 93 | 3 | 2 | 1 | 0 |
| 5 | Smile 2 | 2024 | 132 | 7 | 6 | 1 | 0 |
| 6 | The Substance | 2024 | 140 | 4 | 0 | 4 | 0 |
| 7 | Terrifier 3 | 2024 | 125 | 23 | 15 | 7 | 1 |
| 8 | Fresh | 2022 | 117 | 7 | 1 | 6 | 0 |
| 9 | 28 Weeks Later | 2007 | 100 | 237 | 132 | 38 | 67 |
| 10 | In A Violent Nature | 2024 | 94 | 8 | 6 | 2 | 0 |
| 11 | It's A Wonderful Knife | 2023 | 87 | 14 | 10 | 4 | 0 |
| 12 | Creep | 2014 | 82 | 1 | 1 | 0 | 0 |
| 13 | Thanksgiving | 2023 | 107 | 12 | 7 | 5 | 0 |
| 14 | MaXXXine | 2024 | 104 | 18 | 13 | 5 | 0 |
| 15 | Winnie-The-Pooh: Blood and Honey 2 | 2024 | 102 | 66 | 26 | 33 | 7 |
| 16 | V/H/S/Beyond | 2024 | 114 | 72 | 47 | 15 | 10 |
| 17 | Halloween Ends | 2022 | 111 | 18 | 11 | 7 | 0 |
| 18 | V/H/S/85 | 2023 | 111 | 35 | 22 | 13 | 0 |
| 19 | The Mouse Trap | 2024 | 80 | 10 | 6 | 4 | 0 |

Fig. 1: Sample of the spreadsheet from the Kill Count YouTube series

```
import pandas as pd
import matplotlib.pyplot as plt
from matplotlib import colors as mcolors
import numpy as np
from scipy import stats
import os

os.path.abspath("")

'C:\\Users\\      Documents'

Horror_Data = pd.read_csv('horror_movie_data.csv')
```

Fig. 2: Installing necessary libraries

```
Horror_Data = pd.read_csv('horror_movie_data.csv')

Horror_Data.head(3)
```

| | movie_title | release_year | run_time_minute | kill_count | male_death | female_death | other_death |
|---|---|---|---|---|---|---|---|
| 0 | The Blackening | 2023 | 97 | 6 | 5 | 1 | 0 |
| 1 | Mr. Crocket | 2024 | 88 | 9 | 9 | 0 | 0 |
| 2 | As Above, So Below | 2014 | 93 | 3 | 2 | 1 | 0 |

Fig. 3: Reading in original dataset

```
Horror_Data.sort_values(by=['kill_count'], ascending=False).head(3)
```

| | movie_title | release_year | run_time_minute | kill_count | male_death | female_death | other_death |
|---|---|---|---|---|---|---|---|
| 149 | The Cabin in the Woods | 2011 | 95 | 6870000000 | 3440000000 | 3430000000 | 0 |
| 48 | Emesis Blue | 2023 | 108 | 800054 | 800053 | 1 | 0 |
| 69 | Dude Bro Party Massacre III | 2015 | 91 | 4269 | 15 | 4 | 4250 |

```
Remove_Outliers = Horror_Data.sort_values(by=['kill_count'], ascending=False)
Remove_Outliers = Remove_Outliers[3:]
Remove_Outliers.head(3)
```

| | movie_title | release_year | run_time_minute | kill_count | male_death | female_death | other_death |
|---|---|---|---|---|---|---|---|
| 57 | The Collection | 2012 | 82 | 287 | 32 | 43 | 212 |
| 153 | Brightburn | 2019 | 90 | 274 | 3 | 3 | 268 |
| 7 | 28 Weeks Later | 2007 | 100 | 237 | 132 | 38 | 67 |

Fig. 4: Highest kill count films

The obvious takeaway was that these three films were heavy outliers and, for the sake of a fair data distribution, were removed from the rest of the analysis. With that, the data were sufficiently aggregated and could be analyzed to see the trends over time.

## Horror Movies and Their Relationship with Kill Counts

Getting a broad view of the relationship between horror movies and their kill counts is important to understand two key components.

1) Establish the general trend of how kill counts have changed over time.

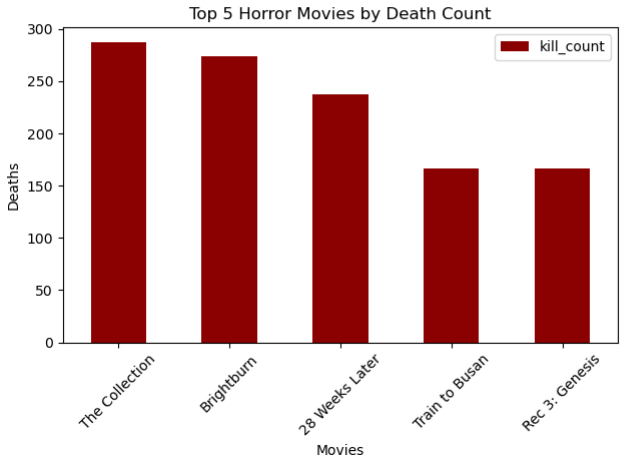


Fig. 5: Top 5 *Kill Count* films

2) Provides additional variables to look at to see how horror movies act on violence (such as gender).

This can be achieved by looking at which films have the highest kill counts (barring the outliers) to get a sense of scale, then looking at the groupings of release years and their kill counts. This view will give a simple look at kill counts compared to release years.

However, these insights can only be taken so far, with the means of data methodology, not every horror movie could be cataloged, and due to the Dead Meat Youtube channel being influenced by following the algorithm and growing their brand, certain release years could be underrepresented, or alternatively, overrepresented.

Already this overview paints a picture to the diversity of films that are included in this set, with the top 5 kill counts having a mix of zombie movies: 28 Weeks Later (2007), Train to Busan (2016), and Rec 3 Genesis (2012), as well as more traditional murderer style horror with The Collection (2012) and Brightburn (2019). The other apparent quality is the range of years in this top 5, covering a 12 year spectrum (2007-2019), with surprisingly, the 2020s being absent. This could be attributed to horror movies of the 2020s being more focused on thrills and personal themes, as opposed to serial killers and mass violence that was popular in the early 21st century.

Looking into kill counts can be taken a step further by breaking it down into 3 groups, this is males, females, and other(s). (others could include animals, aliens, etc) Looking at specific subgroups could reveal trends in certain demographic death, and if showcasing violence against geners has changed over time.

The same sampling issue can persist with this breakdown, with release years having the potential to be over- and under-represented. However, from a descriptive analysis perspective, character deaths pertaining to certain genders do not seem to depict a positive or negative trend over time.

There are peaks in similar years throughout each demographic, which can be seen in 2007, 2012 and 2019 for all 3 demographics.

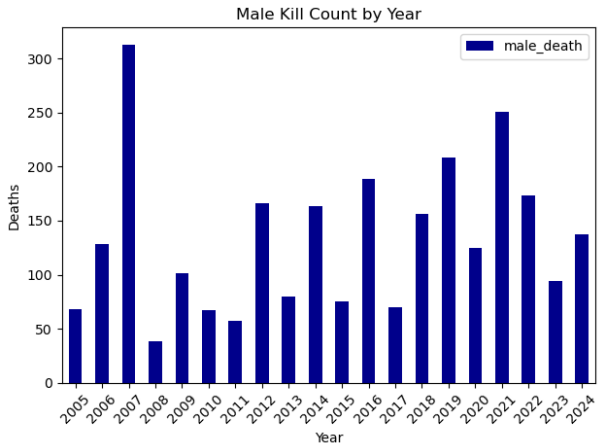


Fig. 6: male kill count death by year

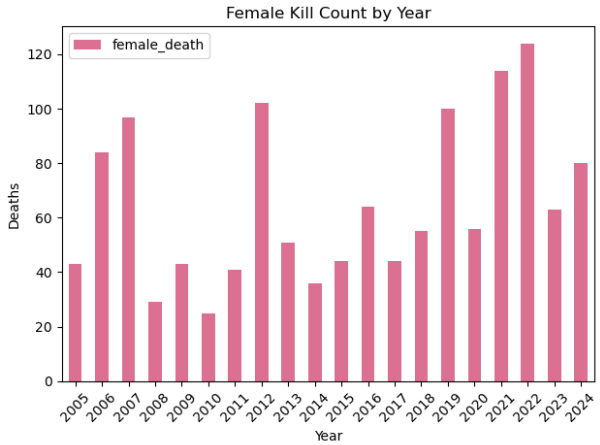


Fig. 7: female kill count death by year

Male and Female can be seen having similar peaks in 2021 and 2022. This can be attributed to the overall kill counts being higher in those years, as there are no release years where males/females/others have a significant total higher than the others.

Pertaining to the hypothesis: *Have horror movies become more violent in the last 20 years?* The descriptive analysis does not provide sufficient evidence to draw a conclusion, and as such a Pearson correlation coefficient was calculated to determine the statistical significance of the change in kill counts over time.

## The Statistical Significance of Kill Count Over 20 Years

In order to keep consistent variables, the same 4 samples of data graphed in the previous section (total kill count, male kill count, female kill count, and other(s) kill count). A Pearson Correlation Coefficient was chosen as it was the most appropriate test for linearity,[3] which would test for the trend (positive, negative or no trend) in kill counts over time from the observed period. The results of each test were as follows:

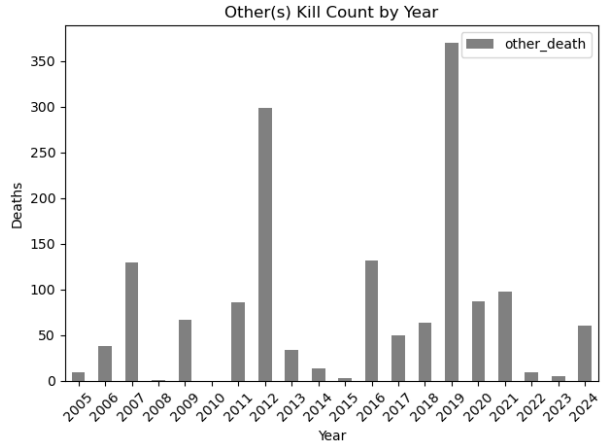


Fig. 8: other(s) kill count death by year

| TotalKC | MaleKC |
|---|---|
| Corr-Coeff = 0.216 | Corr-Coeff = 0.213 |
| p-value = 0.361 | p-value = 0.368 |
| **FemaleKC** | **Other(s)KC** |
| Corr-Coeff = 0.380 | Corr-Coeff = 0.105 |
| p-value = 0.098 | p-value = 0.661 |

By default, the Python Pearson correlation coefficient test results in a two-sided P-value, this was unchanged for the statistical test, as the means of the demographics were not calculated beforehand. With that in mind, the null hypothesis: *There is no relationship between release years and kill counts*, paired with p-values ranging from 0.098 to 0.661, the test fails to reject the null hypothesis. There is no evidence to suggest a statistically significant relationship between the release year and the kill counts at 95% confidence.

In addition, the statistical test provided the linearity, the namesake of the test, a correlation coefficient. This value measures the linear relationship (whether positive or negative) between the two observed values, in this analysis being release years and kill counts. This is calculated from a range of -1 to +1, with -1 being a negative linear relationship, and +1 being a positive linear relationship. The results of this test: (0.216, 0.213, 0.380, 0.105) indicate a lack of a strong linear relationship between the release years and kill counts for each demographic observed.

Of the 4 observed groups, the female kill count has the strongest linear relationship (albeit still a weak relationship), indicating that with further testing and a larger sample size, female kill counts could be a demographic with the most likely statistically significant change over time. On the flip side, unsurprisingly, the other(s) demographic has the weakest linear relationship and the lowest significance. Most films tend to not include deaths that fit this demographic, as it is usually reserved for animals, aliens, or unknown gendered deaths.[2]

Although not applicable to the statistical significance of this report, tertiary tests were performed to make more sense of the data and the landscape of horror movies in the 21st century. This consisted of identifying the films that have the highest ratio of male and female deaths, being

| Highest Male Ratio | Highest Female Ratio |
|---|---|
| *Rec2* | *The Substance* |
| male-death = 13 | male-death = 0 |
| female-death = 0 | female-death = 4 |
| ratio = 1.0 | ratio = 1.0 |

Interestingly, these films cover the entire spectrum of the observed period, Rec2 (2009) being towards the early end of the timeline and The Substance (2024) residing at the latter end of the timeline. Additionally, 2024s The Substance is the only observed film to have a kill count consisting of only women, while there are 12 films observed that only have male deaths. These are Creep (2014), The Strangers(2008), Come to Daddy (2019), Better Watch Out (2016), It (2017), The Lighthouse (2019), Scary Stories to Tell in the Dark (2019), 12 Hour Shift (2020), The Black Phone (2021), Mr. Crocket (2024), Tremors: Shreiker Island (2020) and finally Rec2 (2009).

These deaths range from 1 male death (2014s Creep) to 13 male deaths (2009s Rec2).

The final insight made with this dataset was a look at the films with the highest amount of kills and the lowest amount of kills to calculate on average how many minutes would run between each kill in the film. The results were as follows.

| Highest Deaths per Minute | Lowest Deaths per Minute |
|---|---|
| *The Cabin in the Woods* | *Creep* |
| kill-count = 6870000000 | kill-count = 1 |
| run-time (mins) = 95 | run-time (mins) = 82 |
| deaths-per-minute = 72315789.47 | deaths-per-minute = .012 |

For this final look, the outliers were added back in, in part to show the absurdity of 2011s The Cabin in the Woods. The majority of deaths occurred in the last minutes, yet are still counted for the *Kill Count*. The aforementioned film Creep (2014) had the lowest kill count of the observed films, which was a male, leading to the lowest deaths per minute of runtime.

## Conclusion

Horror movies have been a cultural influence and genre titan in film for over a century, evolving in both substance and medium, going through ebbs and flows culminating in the diverse landscape present in the 2020s. Ranging from low-budget scares to high-budget genre-bender productions, horror films tend to have one thing in common: violence. Although an unconventional and difficult to depict statistic, kill counts in films have been a topic discussed by fans and followers of the Dead Meat Youtube channel.

As analyzed in this report, violence, while seeming to have grown over time, in the past 20 years has evidence to suggest that there is no statistical significance between release years and kill counts in the 21st century. An expansion of this sample size could reveal deeper insights into violence trends in film media, both for total kill counts and demographics, by gender, age, or race.

It is thanks to productions like Dead Meats *Kill Count* that media can be further explored and analyzed, potentially linking the mainstream media to behavior among the population, giving a better understanding of what the mainstream audience will favor and the characteristics that resonate with audiences.[4]

## References

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