CorDarryl Hall, Daniel L. Smith, Frances Genta Romero

Background

- Game of Thrones an immensely popular and equally violent TV series on HBO
- An adaptation of George R. R. Martin's A Song of Ice and Fire fantasy novel series.
- Premiered on HBO in the United States on April 17, 2011
- Concluded on May 19, 2019, with 73 episodes broadcast over eight seasons.
- Trouble is brewing in Westeros
- Control of the Iron Throne holds the lure of great power
- In a land where seasons can be a lifetime…winter is coming and beyond the Great Wall that protects them…a forgotten evil has returned…

Goal of study

- What is the expected survival time of characters on GoT?

- Did survival probability vary by initial alignment and/or whether they switch allegiances?

Data/Methodology

Data

- The Game of Thrones mortality and survival dataset (hereinafter “the dataset”) was created by Drs Reidar P. Lystad & Benjamin T. Brown
- Consists of 359 Important Characters
    - listed in either the opening or closing credits
    - appeared on screen during current events (i.e. excluding flashbacks);
    - not already deceased when first appearing on screen.
    - Additional non-credited characters were included if they interacted with another character in a way that was either crucial to the storyline or character development.
    - Having a speaking role was not an essential requirement because some characters were unable to speak for medical reasons (e.g. acquired brain injury and non-elective glossectomy).

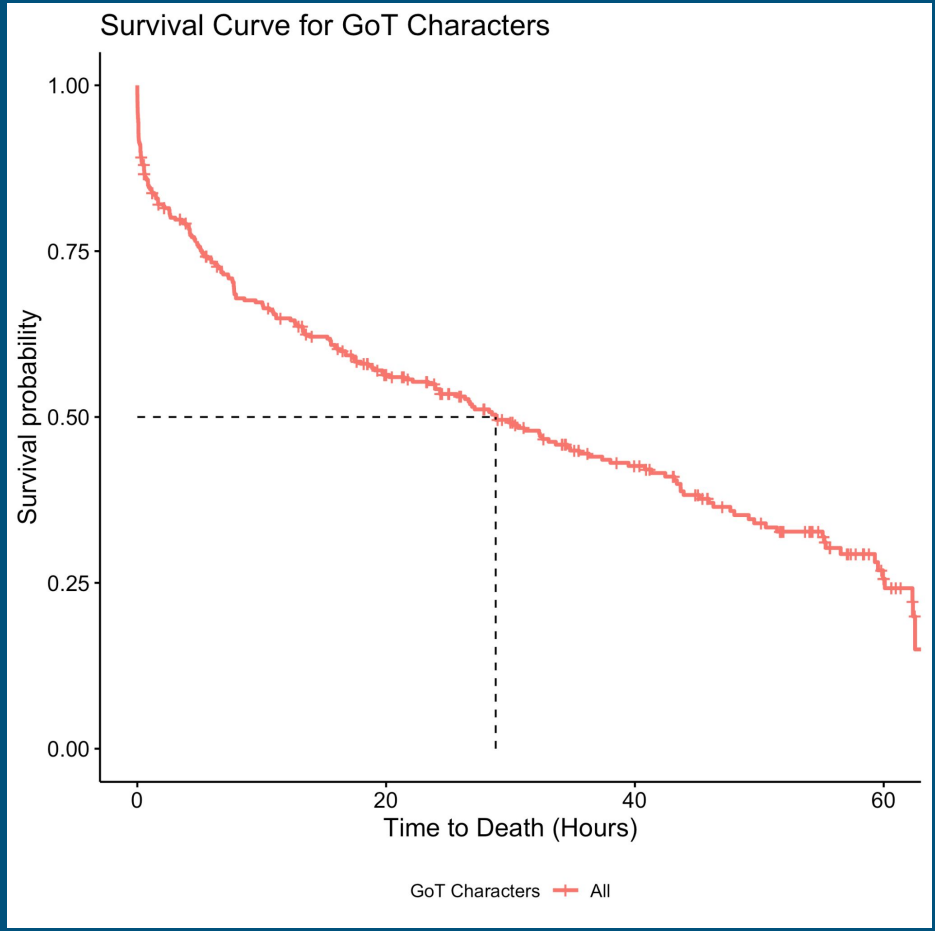
Data/Methodology

Methodology

- The filtered dataset included information about:
  - Character name
  - Mortality (death or censored)
  - Allegiance (House Stark, House Targaryen, etc)
  - Allegiance switching (those who switched allegiances at some point)
  - Total hours character spent on screen
    - Each episode is an hour
    - There are 10 episodes in a season

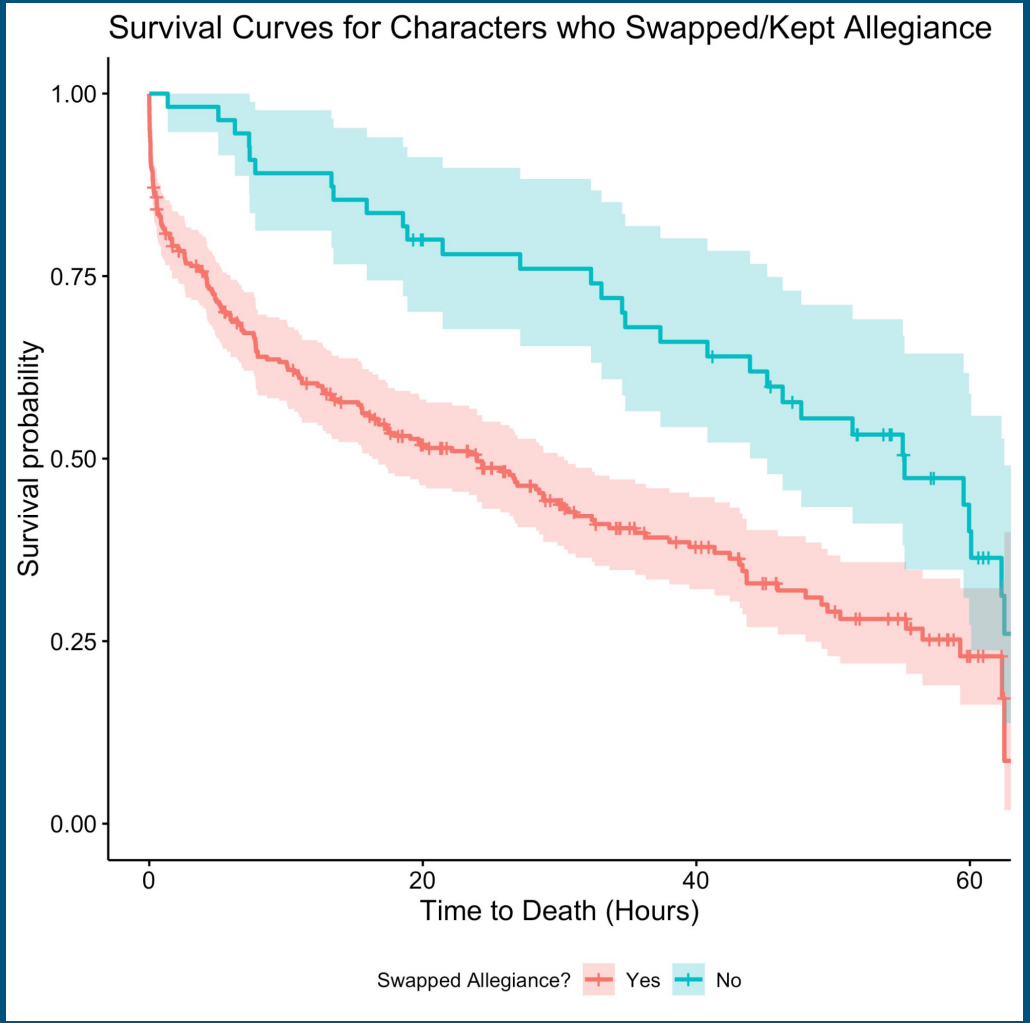
Results

- 359 characters total
- 40% of characters right censored
- Sharp decline in beginning
- Half characters died/censored after 2.5-3 seasons
  - Mean survival time = 22.7 hrs
  - Median survival time = 18.5 hts

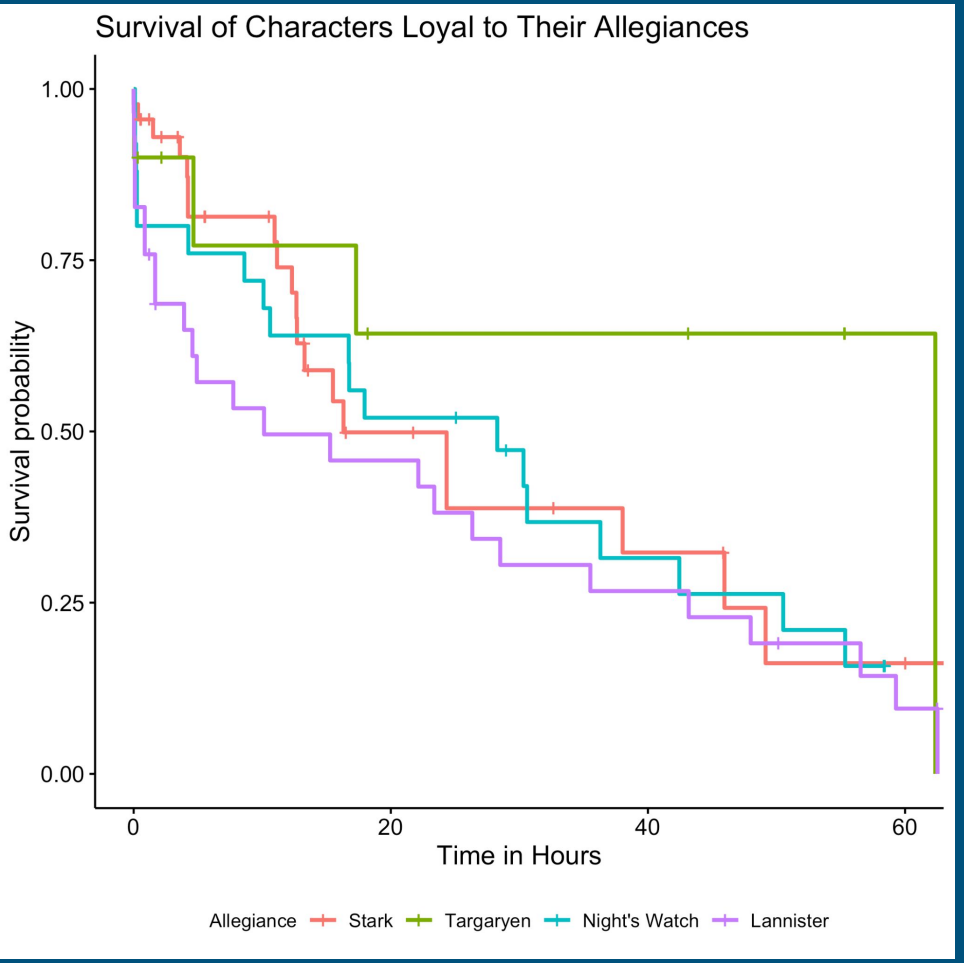


Results

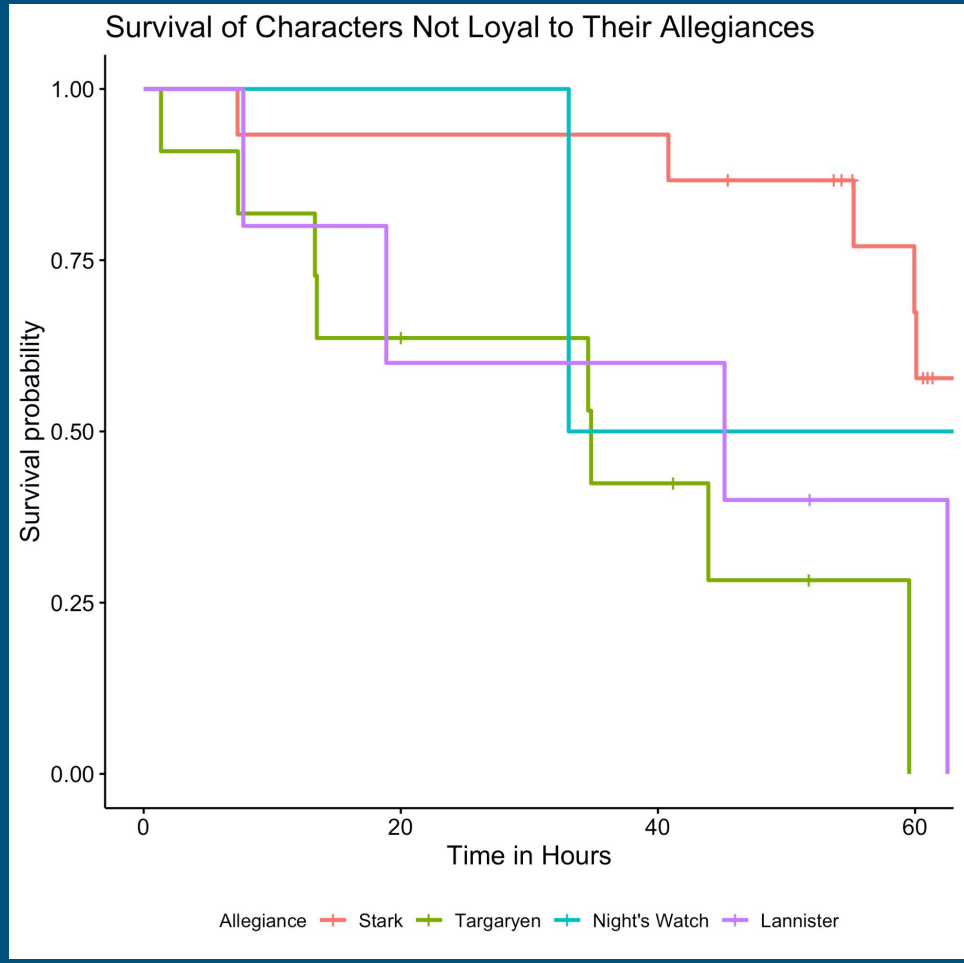
- 15% of the characters swapped allegiance
- Non-traitors consistently maintained a higher survival probability than traitors
- Traitors had a sharp decline at the beginning
- Log rank suggested statistical significance between groups (p = 2e04)
    - Those who kept original allegiance were more likely to survive than traitors regardless of hours spent on screen.



Didn’t reach statistical significance (p=0.2)



Reached statistical significance (p=0.01)



Results

- There was no statistically significant difference between the survival curves for the loyal alliances. Being loyal to a particular group did not increase chances of survival (in relation to at least one other loyal group).
- There was a statistically significant difference between the survival curves for the traitors. Choosing the correct alliance to join *could* increase chances of survival*

Discussion/Conclusion

- Summary:
  - There's a low chance of survival in GoT
  - Swapping allegiance could increase chance of survival compared to remaining loyal
  - Swapping to the correct allegiance matters!
- Possible Covariates/limitations:
  - The characters involvement (plot armor) may affect whether they live or die
  - Death location could affect whether they live or die (by the wall for example)
- Questions that remain unanswered:
  - How does character prominence affect their survival?
- Future Steps:
  - Group characters by prominence, create survival curves, log rank test to compare
- Limitations:
  - Data was censored if character wasn't on screen again. Doesn't include if they were mentioned
  - Many characters not listed as "Important Characters" were not included in the dataset
    - This may have affected the curve