Hacking the Box Office
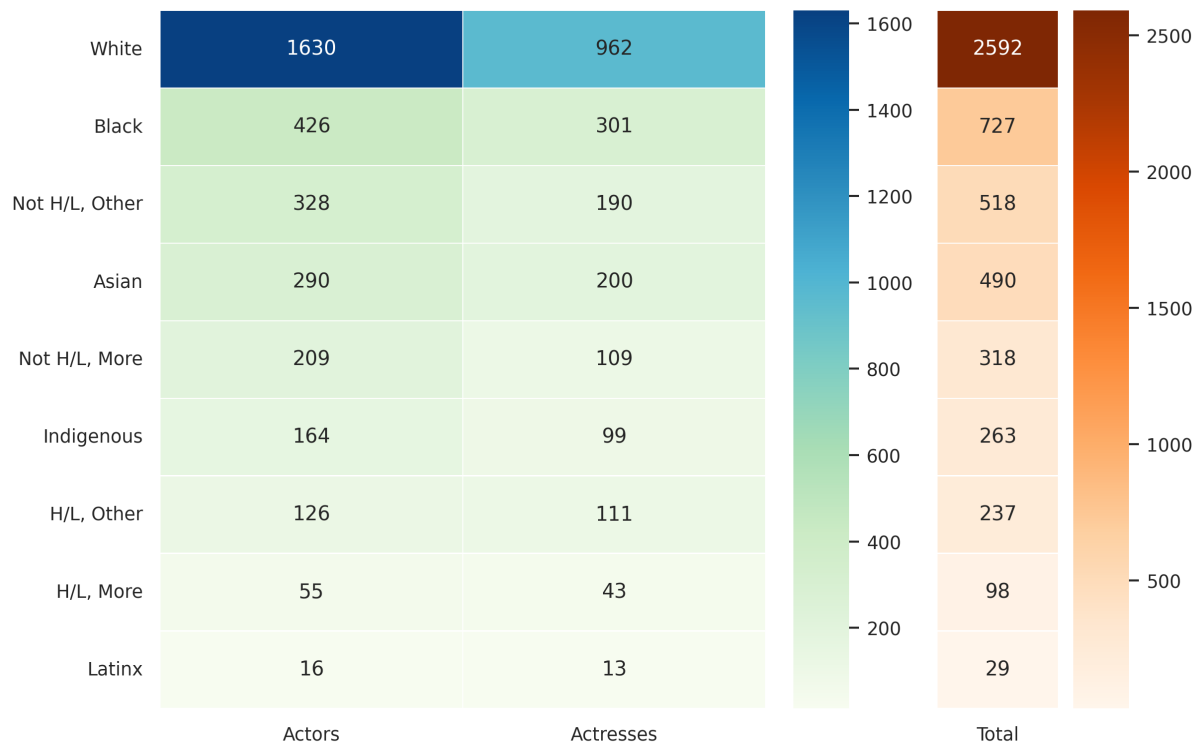## Supplemental Materials

Ngoc Hoang, Maryam Khalili, Alem Shaimardanov, Sashank Silwal
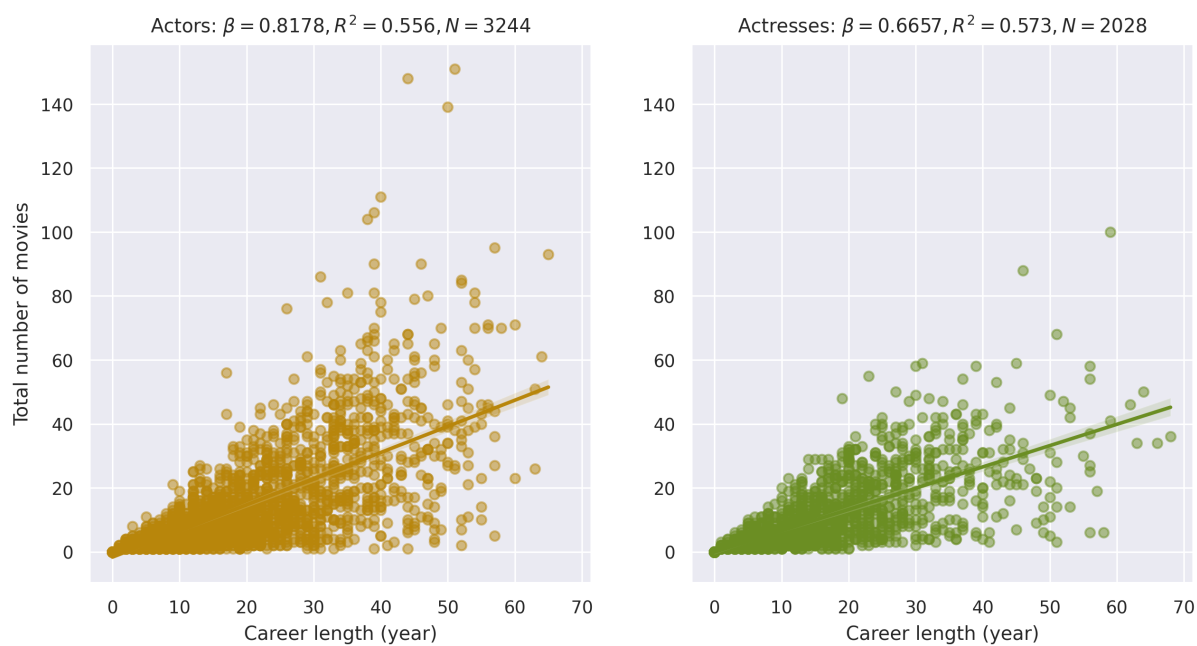
Department of Computer Science, New York University Abu Dhabi

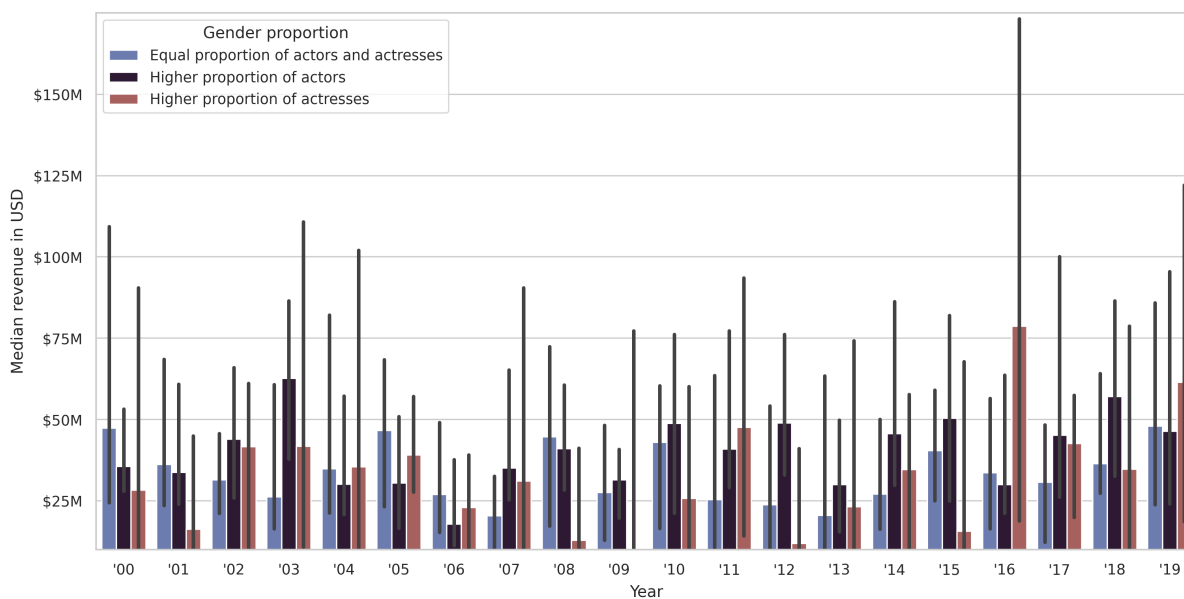| Race	Count
White	2592
Black	727
Not H/L, Other	518
Asian	490
Not H/L, More	318
Indigenous	263
H/L, Other	237
H/L, More	98
Latinx	29

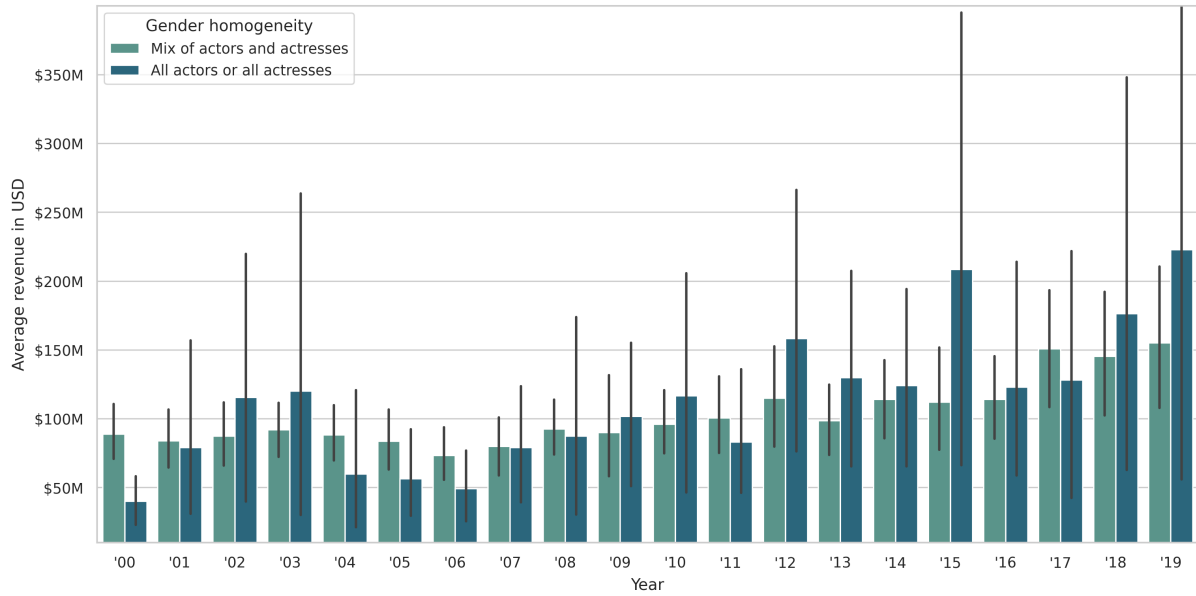Supplementary Table 1: Final count of principal cast members classified into different races.

Supplementary Figure 1: **Counts of actors, actresses, and both in each ethnic group.**
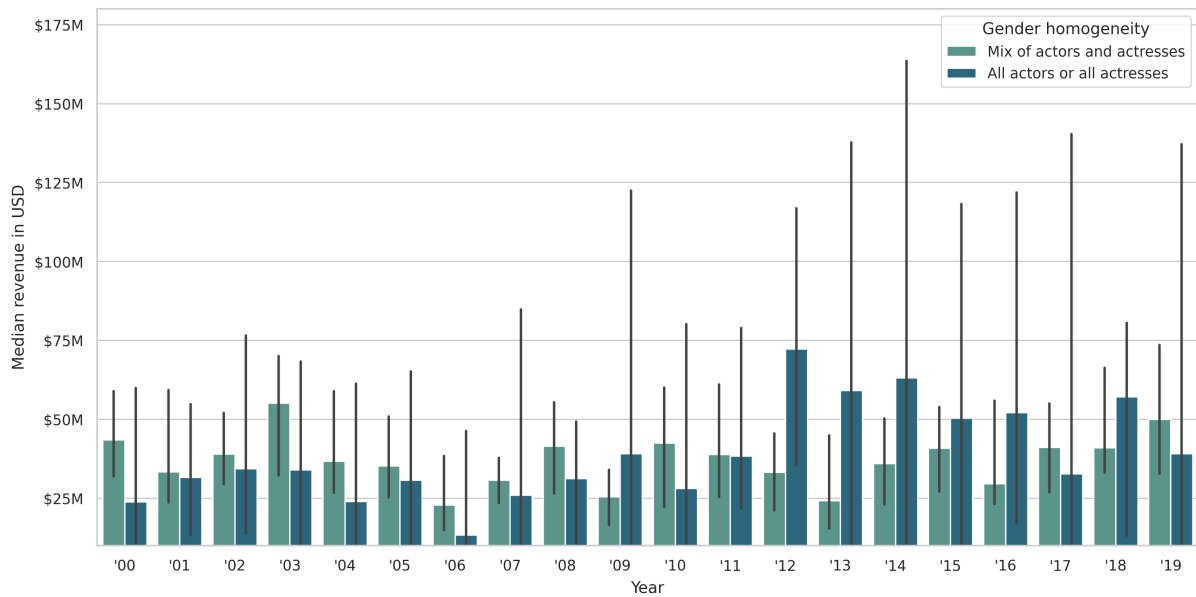
Supplementary Figure 2: **Regression plots of the relationship between career length and total number of movies for each gender.**

Supplementary Figure 3: **Median revenue of movies with regards to gender composition of the cast.**
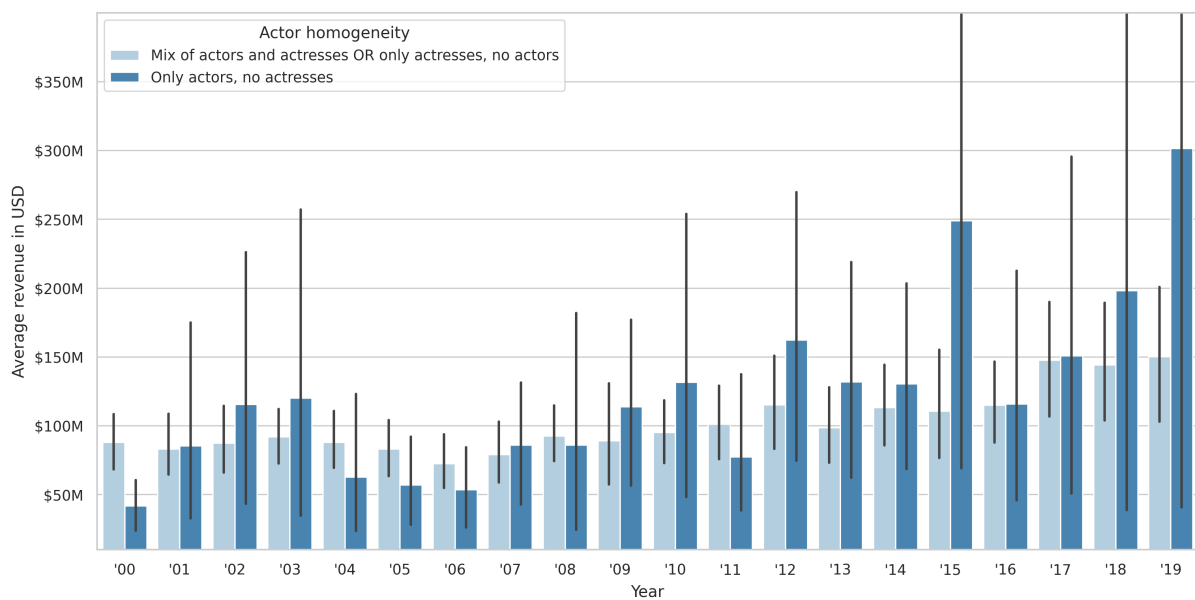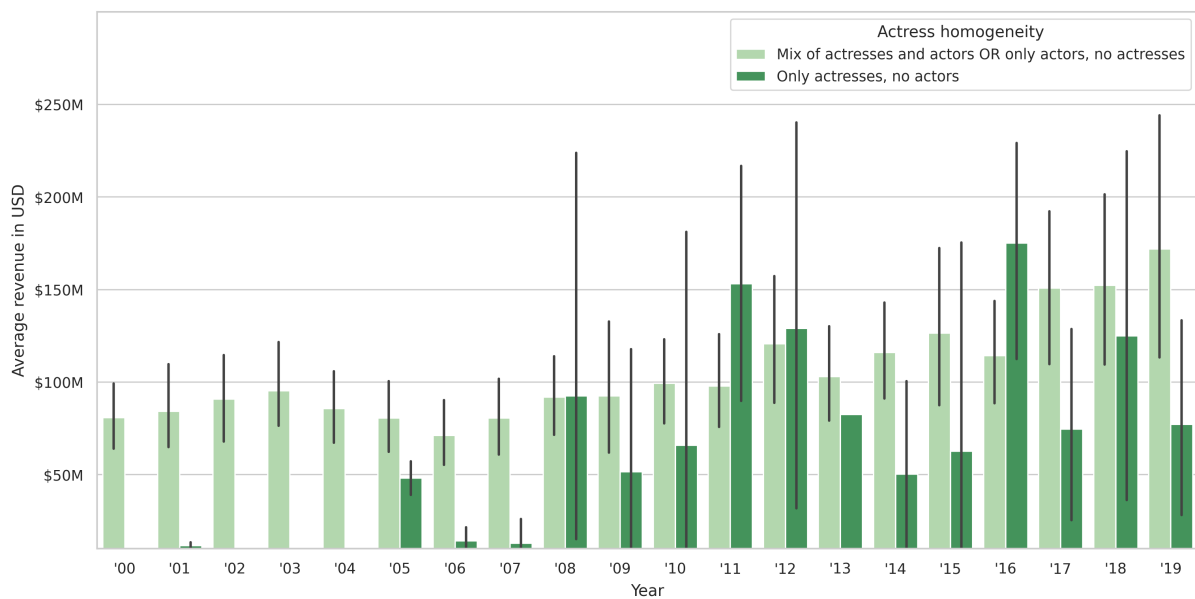
(a)

(b)

Supplementary Figure 4: **Average (a) and median (b) revenue of movies with regards to gender homogeneity of principal cast.** Gender homogeneity reflects whether principal cast of a certain movie includes only actors or only actresses (homogeneous) or a mix of actors and actresses (heterogeneous).
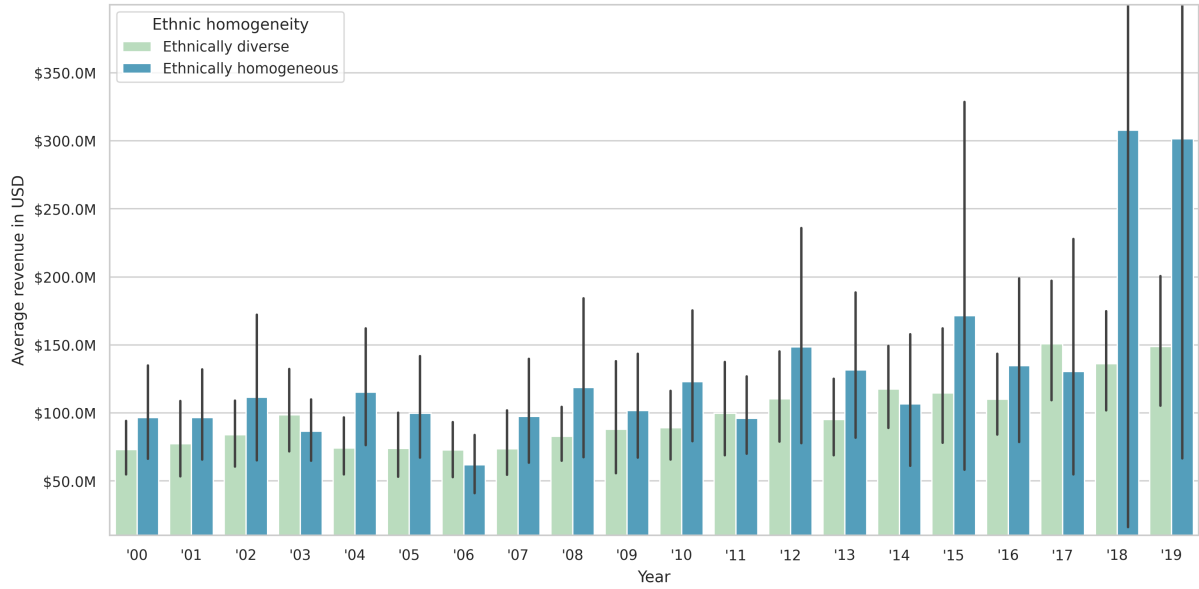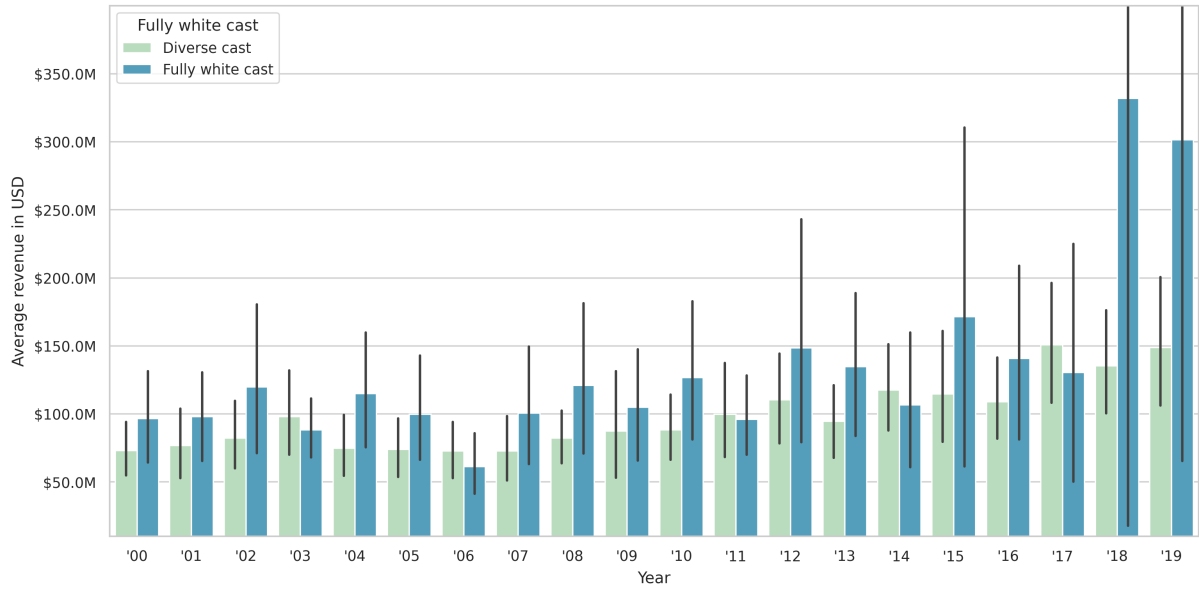
(a)

(b)

Supplementary Figure 5: **Average revenue of movies with regards to actor (a) and actress (b) homogeneity.** Actor homogeneity (a) is studied by dividing movies into two groups: movies with only actors versus movies with a mix of actors and actresses, or only actresses and no actors. Similarly, actress homogeneity (b) is studied by dividing movies into two groups: movies with only actresses versus movies with a mix of actresses and actors, or only actors and no actresses.
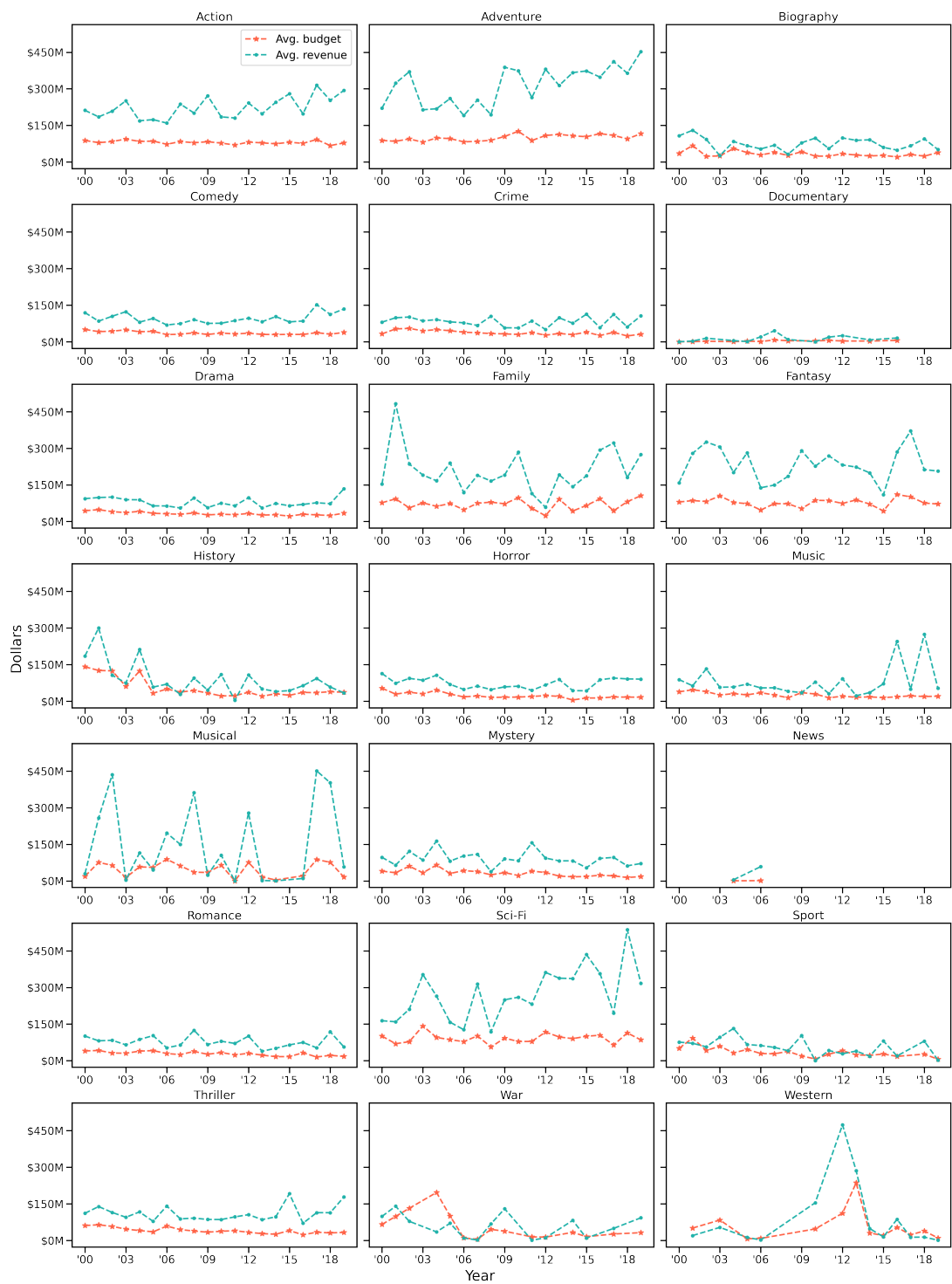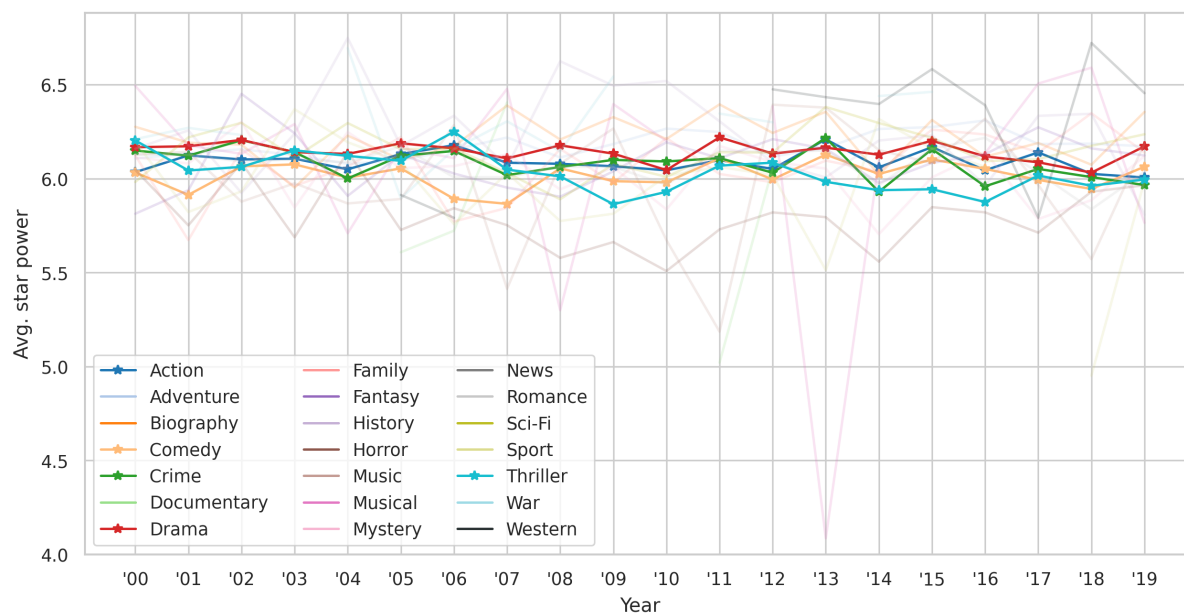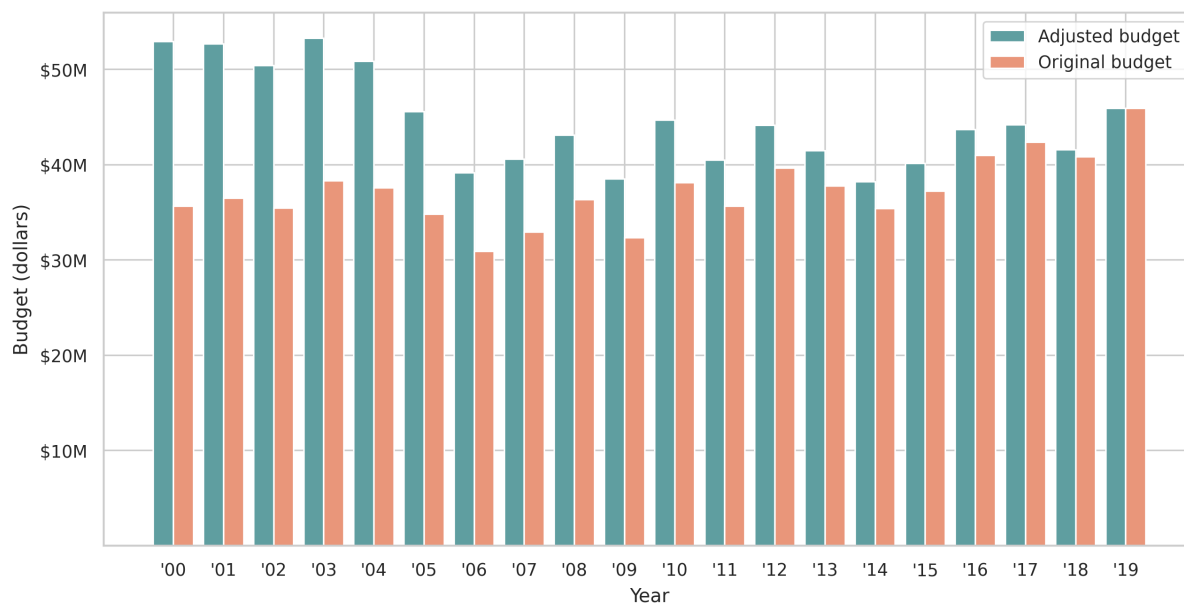
(a)

(b)

Supplementary Figure 6: **Average revenue of movies with regards to ethnicity homogeneity.** (a) Ethnic homodeneity is studied by dividing movies into two groups: movies with diverse cast versus movies with ethnically homogeneous cast (e.g. fully white, fully black, fully Asians, etc.) (b) divides movies into two groups: movies with fully-white cast versus the rest of the movies (movies with a mix of white and non-white cast and movies with fully non-white cast).
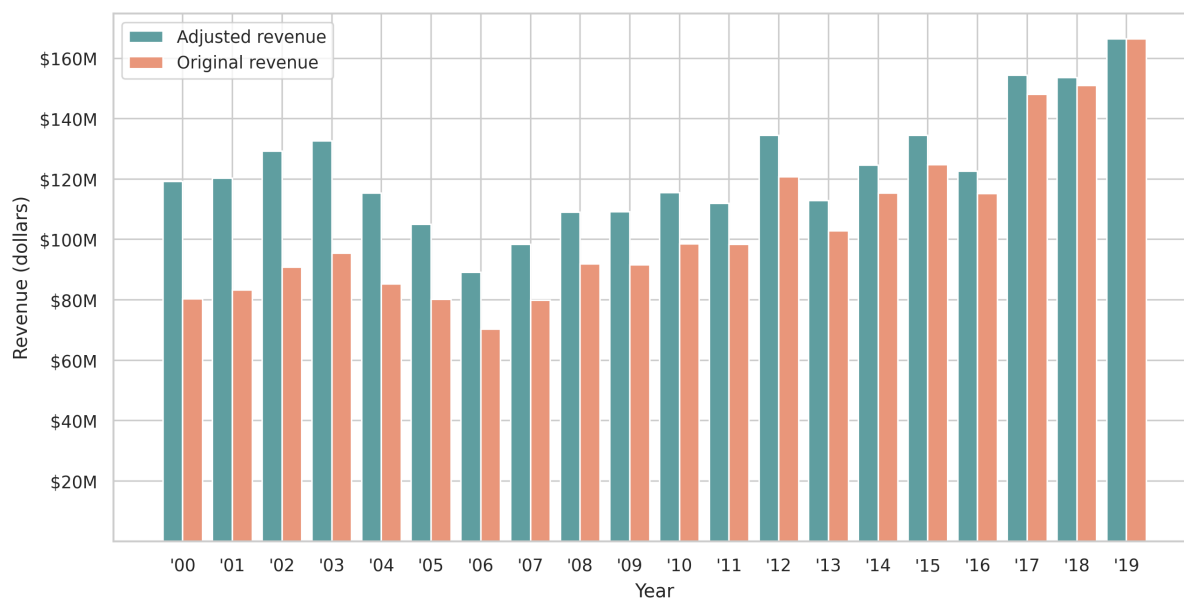
Supplementary Figure 7: **Average budget and revenue by year of movies in all genres.** All values have been adjusted for inflation.

Supplementary Figure 8: **Average star power by year and genre.** Top 5 genres in terms of number of movies are highlighted.

(a) Average original and adjusted budget by year.

(b) Average original and adjusted revenue by year.

Supplementary Figure 9: **Average budget and revenue by year after being adjusted for inflation.** All values are adjusted with 2019 as the baseline.