Netflix Movies Data Analysis Report

Understanding content trends, audience preferences, and production distribution.

Executive Summary

This report analyzes 9,827 Netflix movie entries to understand content trends and audience preferences. Data underwent rigorous cleaning and statistical transformation to ensure accuracy in evaluating key metrics like Popularity and Genres.

Content Trends

Audience Preferences

Production Distribution

Data Preprocessing & Cleaning Strategy

To derive accurate insights, raw data was refined through several steps, ensuring data integrity and analytical focus.

Data Overview

Initial dataset: 9,827 rows, 9 columns. No missing values or duplicates.
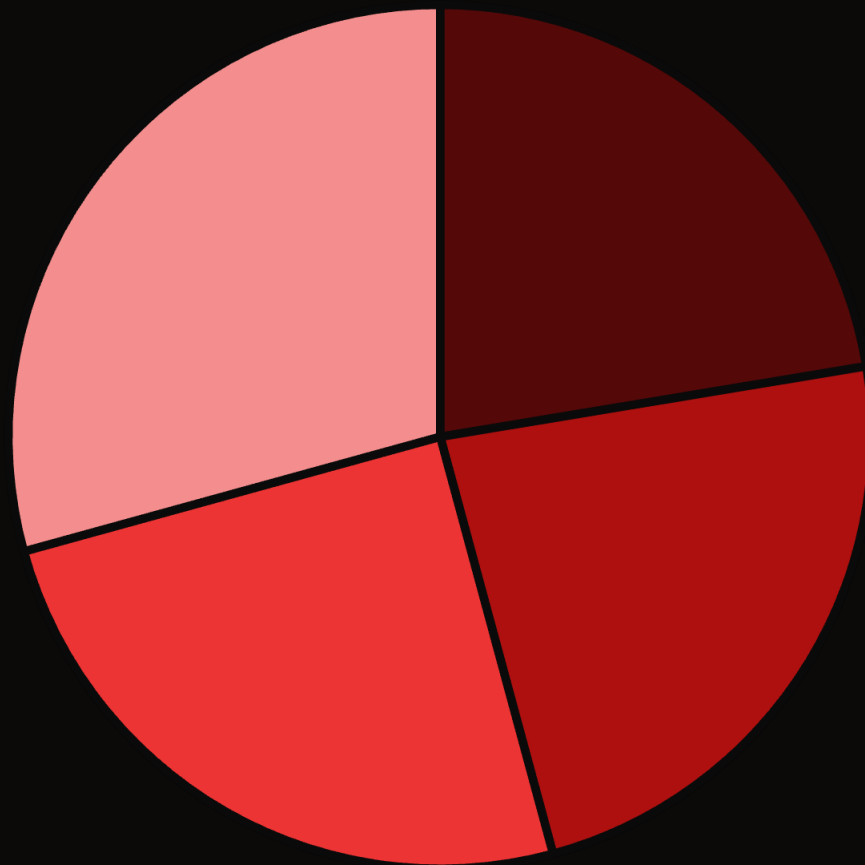
Date Standardization

'Release_Date' converted to datetime; 'Year' extracted for trend analysis.

Noise Reduction

Irrelevant columns ('Overview', 'Original_Language', 'Poster_Url') dropped.

Advanced Categorization

Refined data by segmenting vote averages and expanding genre data for deeper analysis.

Not Popular   Below Average   Average   Popular
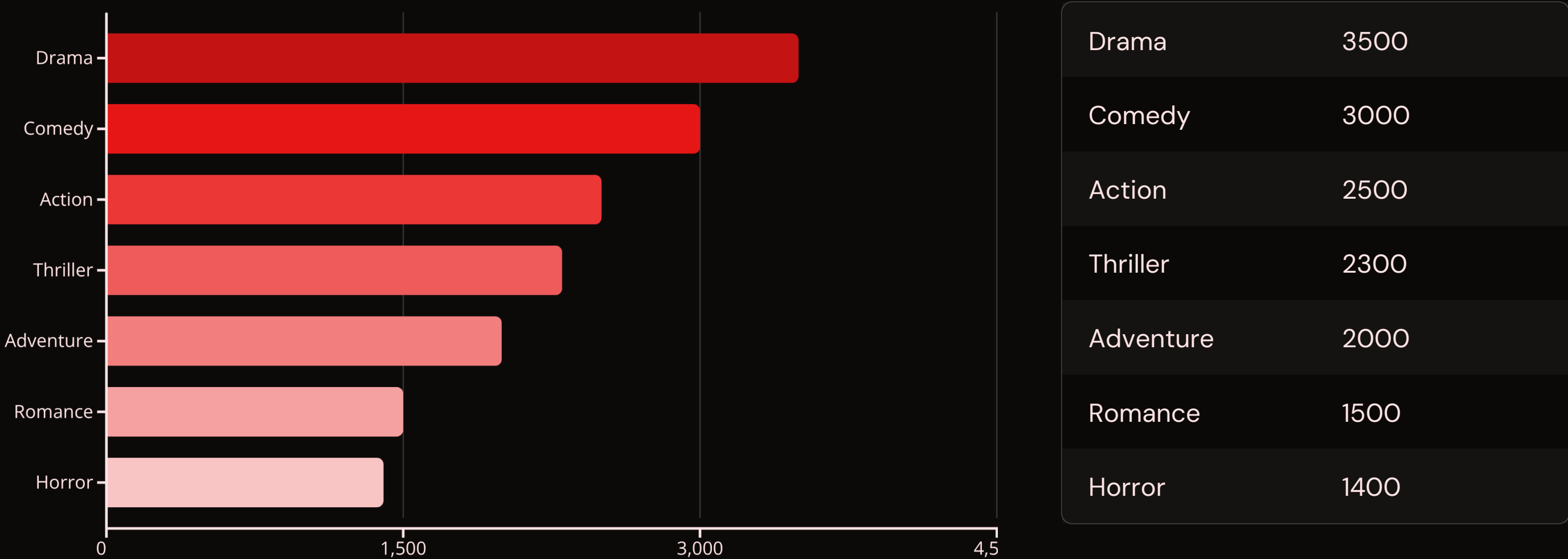
→ **Vote Segmentation**

'Vote_Average' segmented into Not_Popular, Below_Avg, Average, and Popular based on statistical quartiles.

→ **Genre Expansion**

'Genre' column "exploded" to count genre frequency accurately, creating separate rows for each genre.
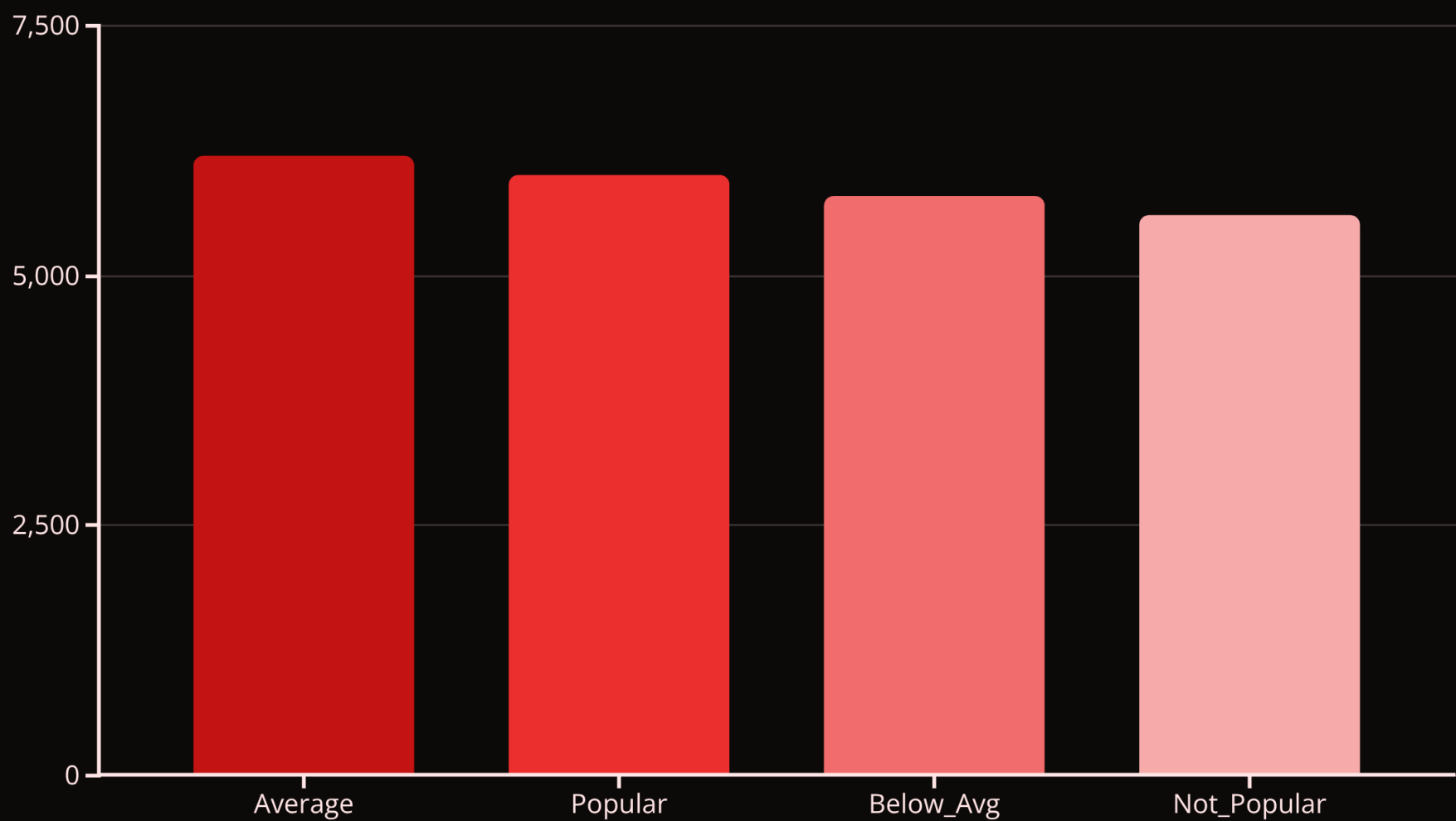
Content Strategy: Most Frequent Genres

Drama is the most dominant genre on Netflix, indicating a strong emphasis on storytelling and emotionally engaging content.

Genre	Value
Drama	3500
Comedy	3000
Action	2500
Thriller	2300
Adventure	2000
Romance	1500
Horror	1400

Audience Engagement: Vote Categories

Analysis of categorized vote averages highlights the distribution of content based on audience reception.

Average	6200
Popular	6000
Below_Avg	5800
Not_Popular	5600

Popularity Extremes: Highest vs. Lowest

Identifying outliers in the dataset reveals movies that performed exceptionally well or poorly.

🏆 HIGHEST POPULARITY

Spider-Man: No Way Home

Genres: Action, Adventure, Science Fiction.

Insight: Audiences prefer high-energy, visually rich, and franchise-driven content.
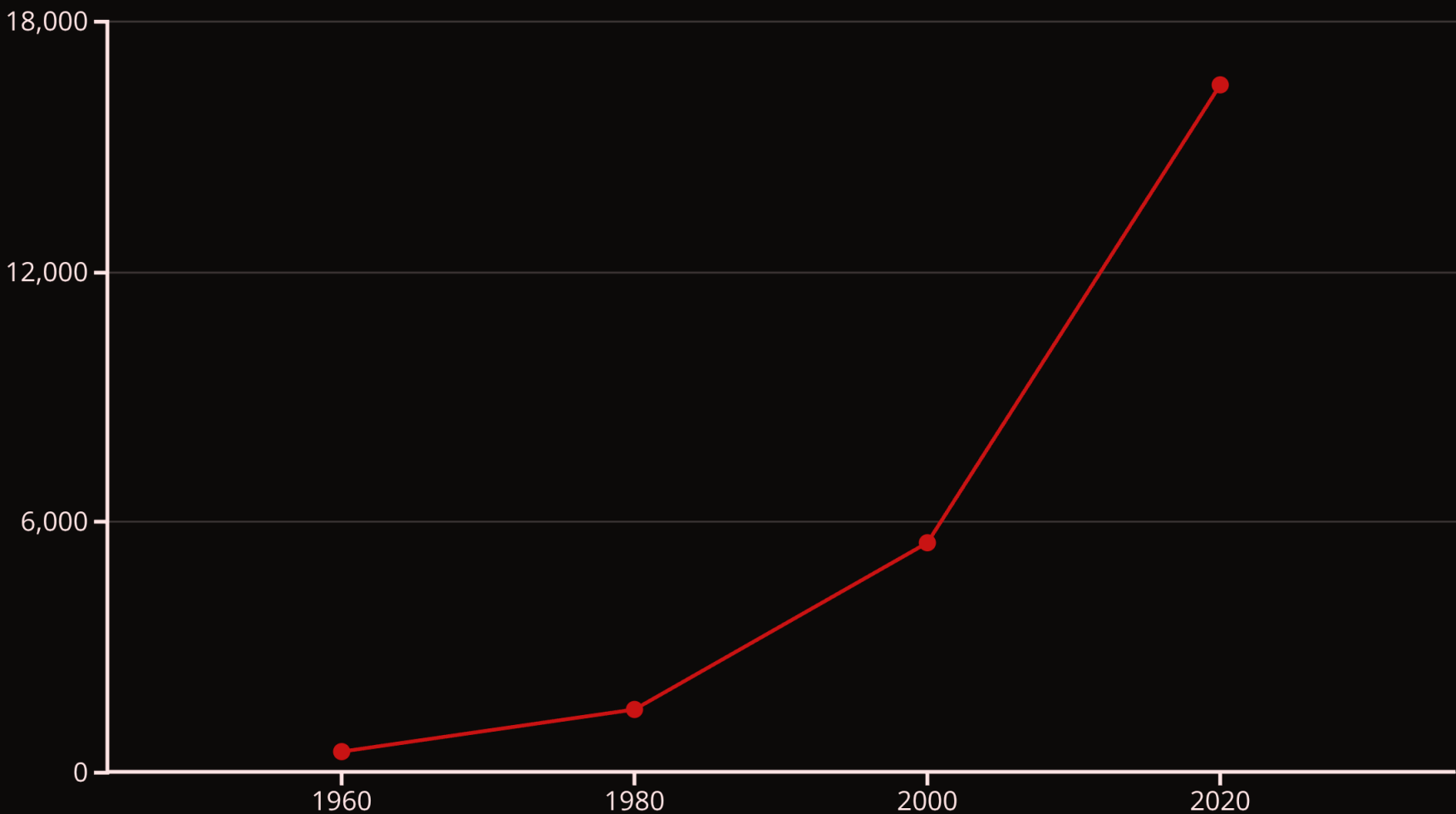
🔬 LOWEST POPULARITY

The United States vs. Billie Holiday / Threads

Genres: Music/Drama/History and War/Drama/Science Fiction.

Insight: Niche genres or heavy themes often have limited mass appeal.

Temporal Trends: Production Volume

A significant surge in content production, with 2020 recording the highest number of movies filmed.

1960	~500
1980	~1500
2000	~5500
2020	~16500

This reflects Netflix's aggressive content expansion strategy.

Business Conclusion

Key takeaways for Netflix's content strategy and growth trajectory.

Content Dominance

Drama leads in volume, but Action/Sci-Fi drives peak popularity.

Engagement Strategy

Balance Drama investment with high-budget Action titles for massive popularity spikes.

Growth Trajectory

Concentration of releases (2018–2020) confirms a strategic pivot towards ramping up original content.

Driving Future Success

Leveraging data insights to shape Netflix's content landscape and audience engagement.