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# An Exploration of Billboard's Top 100

**STATS-STARS**

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# Motivation and Importance

## Research Question:

How has the popularity of different music **genres**, along with **gender** trends, changed over time?

## Motivations:

- **Popular music is a microcosm of society.** Trends in music popularity reflect deep patterns of access, power, and visibility.
- **Music doesn't just entertain.** It shapes identity, influences social norms, and shows whose stories are being valued at what point in time. Understanding these trends helps see progress and inequalities in society.
- **As avid music fans ourselves** we wanted to investigate the popular Billboard 100 songs throughout the years and how they differ with genre and gender.

# Our Data: Billboard Hot 100 Number Ones



## DATA SOURCE

This database contains data about every song that has ever been number one on the **Billboard Hot 100** between August 4, 1958 and January 11, 2025.

## KEY VARIABLES

1. **weeks\_at\_number\_one**: collective (Consecutive and Non-Consecutive) weeks at number one
2. **date**: first week to hit number one
3. **cdr\_genre**: genre as assigned by Chris Dalla Riva and Vinnie Christopher (two musical artists)
4. **artist\_male**: numerical rating for if the artist were a male or a group of males/people of other genders at the time of the release.

## DERIVED VARIABLES

1. **gender**: gender calculated categorically depending on artist\_male rankings
2. **era**: date years separated into key
3. **top\_five\_genres** (for each era): splicing top 5 genres
4. **gender\_percent**: looking at how many songs had a specific type of gender out of the total songs

# What We Found

## GATEKEEPER ERA

(1958-1980)

- DJs & radio stations were sole marketers and controlled streaming
- Physical vinyl sales and air time impacted charts

## DIGITAL DISRUPTION ERA

(1999-2012)

- Napster, iPod, and iTunes allowed for individual song streaming
- Pop-rap, R&B, and EDM exploded

## MTV & BLOCKBUSTER ERA

(1981-1998)

- Music now came with music videos
- Creation of MTV, Walkmans, and CDs

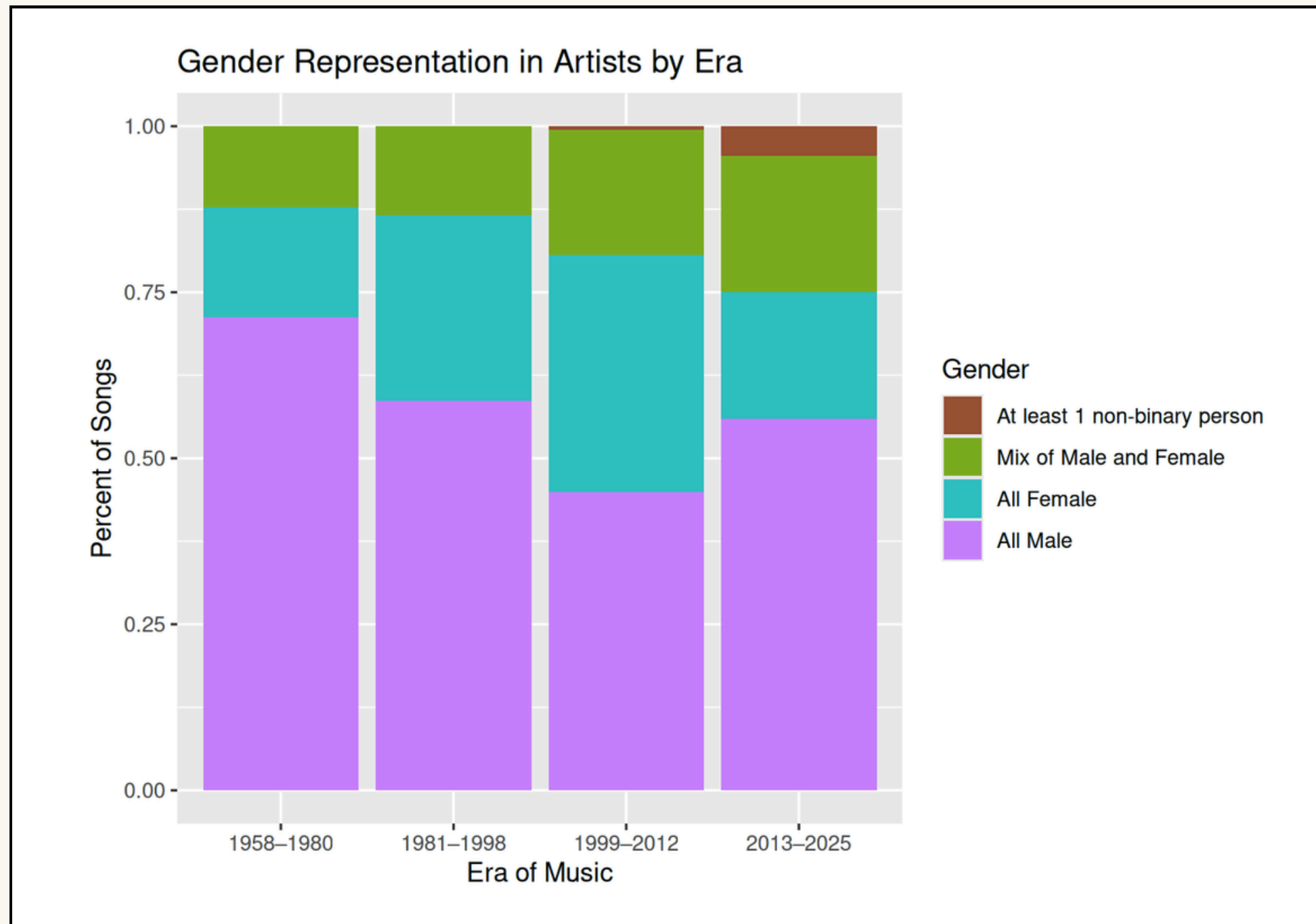
## STREAMING & SOCIAL MEDIA ERA

(2013-2025)

- Algorithm listening and platform streaming began
- Billboard added streaming as a variable for chart calculations



# Gender Trends



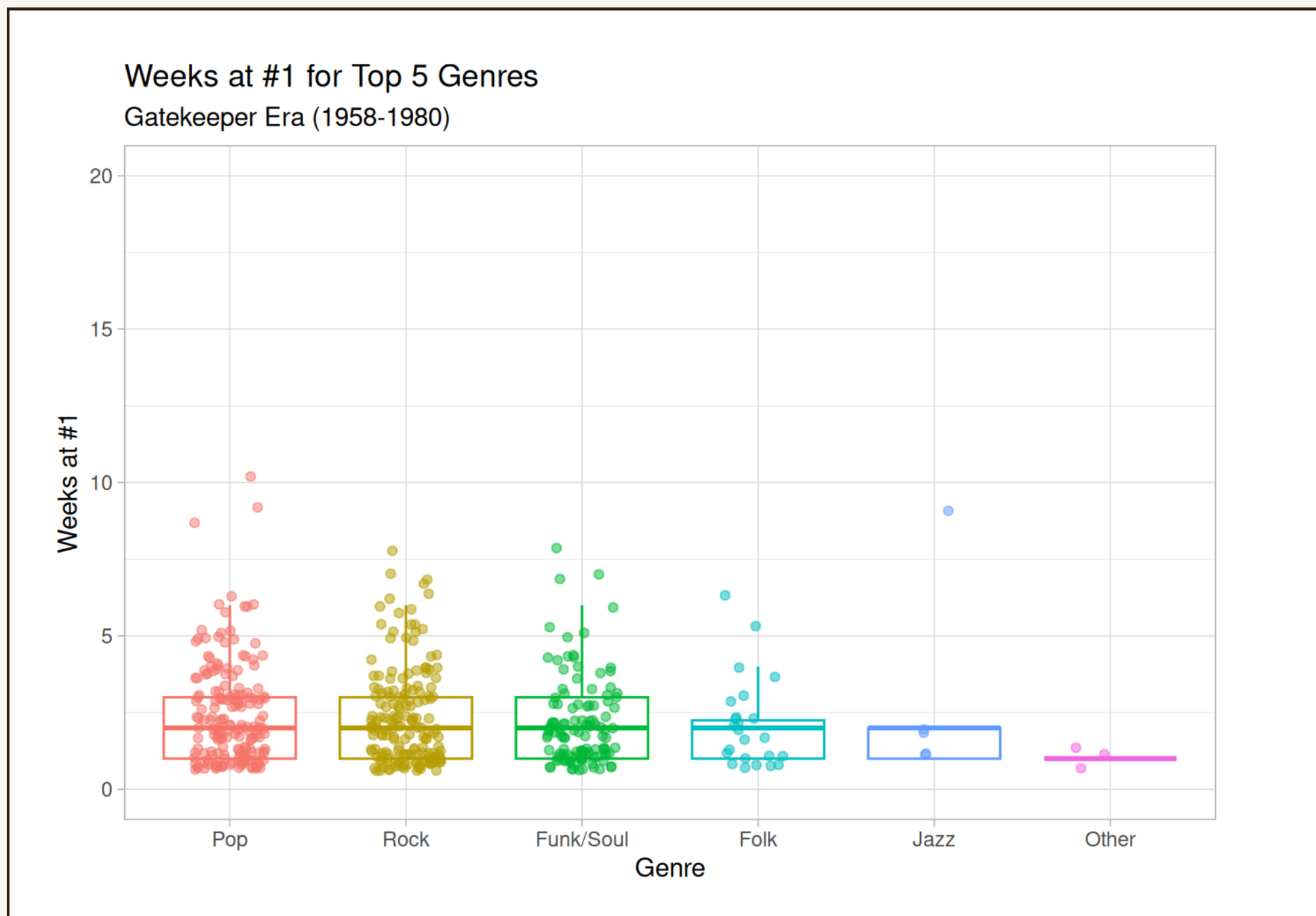
## KEY OBSERVATIONS

- **Gatekeeper Era (1958-1980)** had the highest percent of all male artist groups, **71.6%** of the top 100 songs
- **Songs with at least one non-binary person** appeared in the Digital Disruption Era and increased during the Streaming and Social Media Era
- Over the eras, the percentage of artist groups with **all genders has risen** increasingly

## IMPLICATIONS

- The rise of artists in groups with people of multiple **genders has risen**
- In the **Gatekeeper Era**, the **lack of representation** in the music industry led to a lower percent of all-female and mixed gender groups
- The **increase in gender representation** has led to a more diverse group of artists

# Gatekeeper Era (1958-1980)



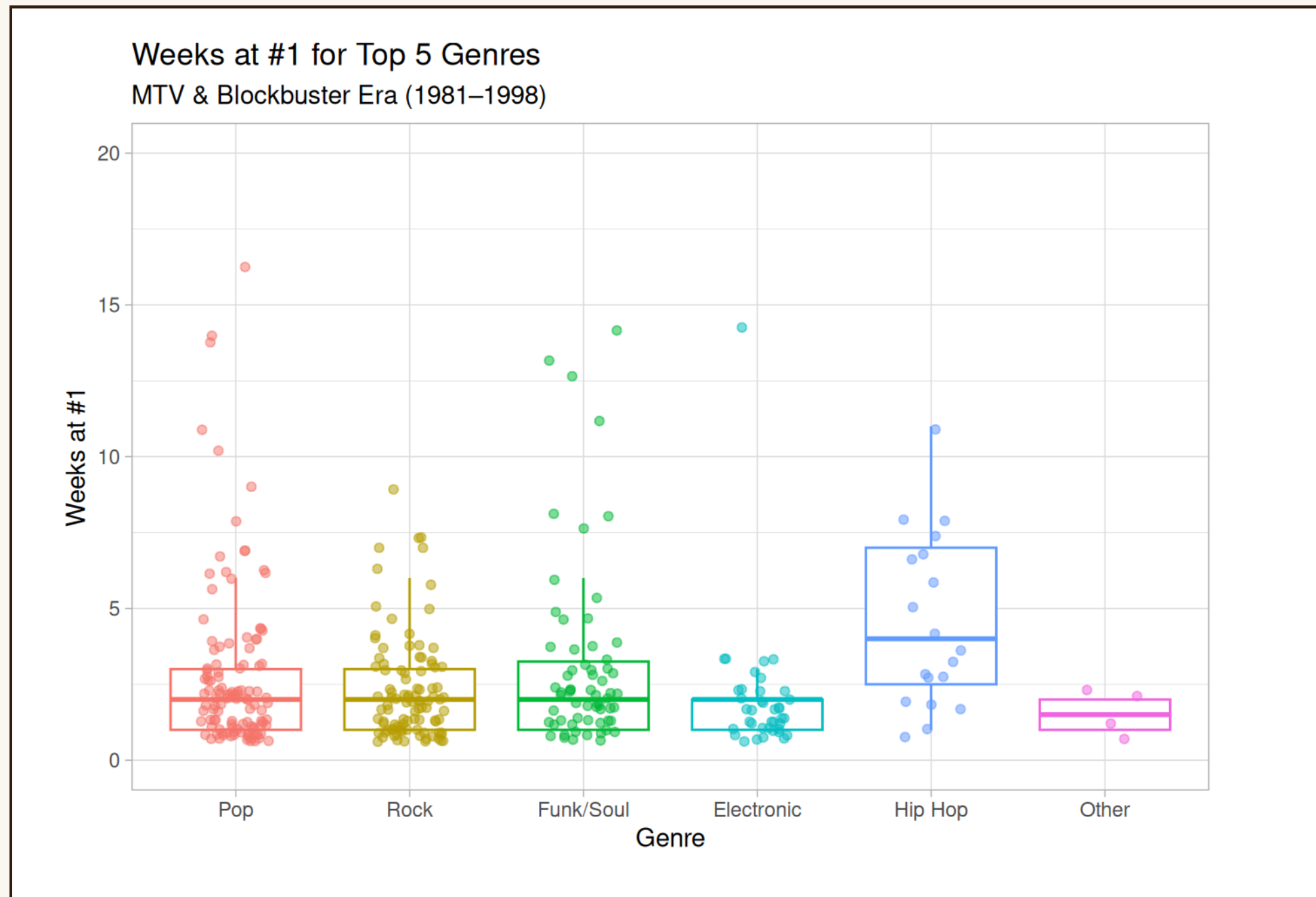
## KEY OBSERVATIONS

- **Short #1 runs** dominate across genres, around **1–3 weeks**, indicating **high turnover** and **limited chart longevity**
- **Pop** has the widest spread, **Rock and Funk/Soul** are consistent, and **Folk and Jazz** have **fewer, shorter hits**
- Within the same genre, performance varies; success was **hit-specific**, not **genre-guaranteed**

## IMPLICATIONS

- Strong **gatekeeping** (radio, labels, and distributors) **limited longevity**, and songs **cycled quickly** to promote new releases
- Hit success was **volatile**; popular genres **couldn't consistently** produce long-lasting hits, as **novelty was favored**

# MTV & Blockbuster Era (1981-1998)



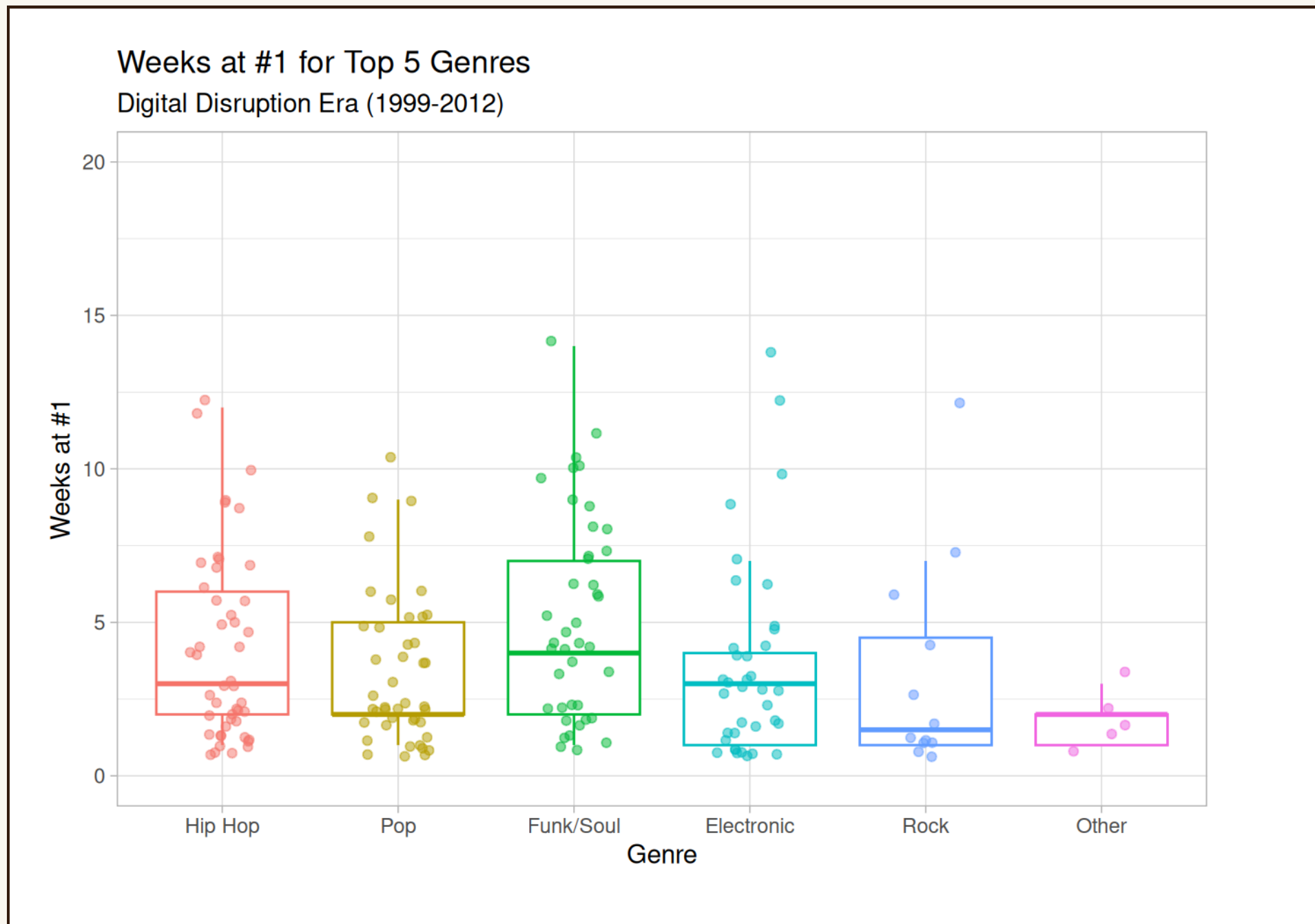
## KEY OBSERVATIONS

- **Pop, Rock, and Fun/Soul** remained the top 3 genres
- The top 4 genres have very similar medians and spreads, all of which are relatively low
- While **Hip Hop** is on the trailing end of the popular genres, the songs spent **more weeks at number one**
- **Electronic music** made its way to the top 5 genres.

## IMPLICATIONS

- Music videos (if a hit) would be **replayed** and thus stick around on the **charts for longer**
- **Fewer songs** were competing for attention
- The creators of MTV were previous listeners of the **1970s Rock Radio**, an extremely **segregated** affair.
- After 8 years, “**Yo! MTV Raps.**” was the first show dedicated solely to Rap (and therefore Black) musicians”

# Digital Disruption (1999-2012)



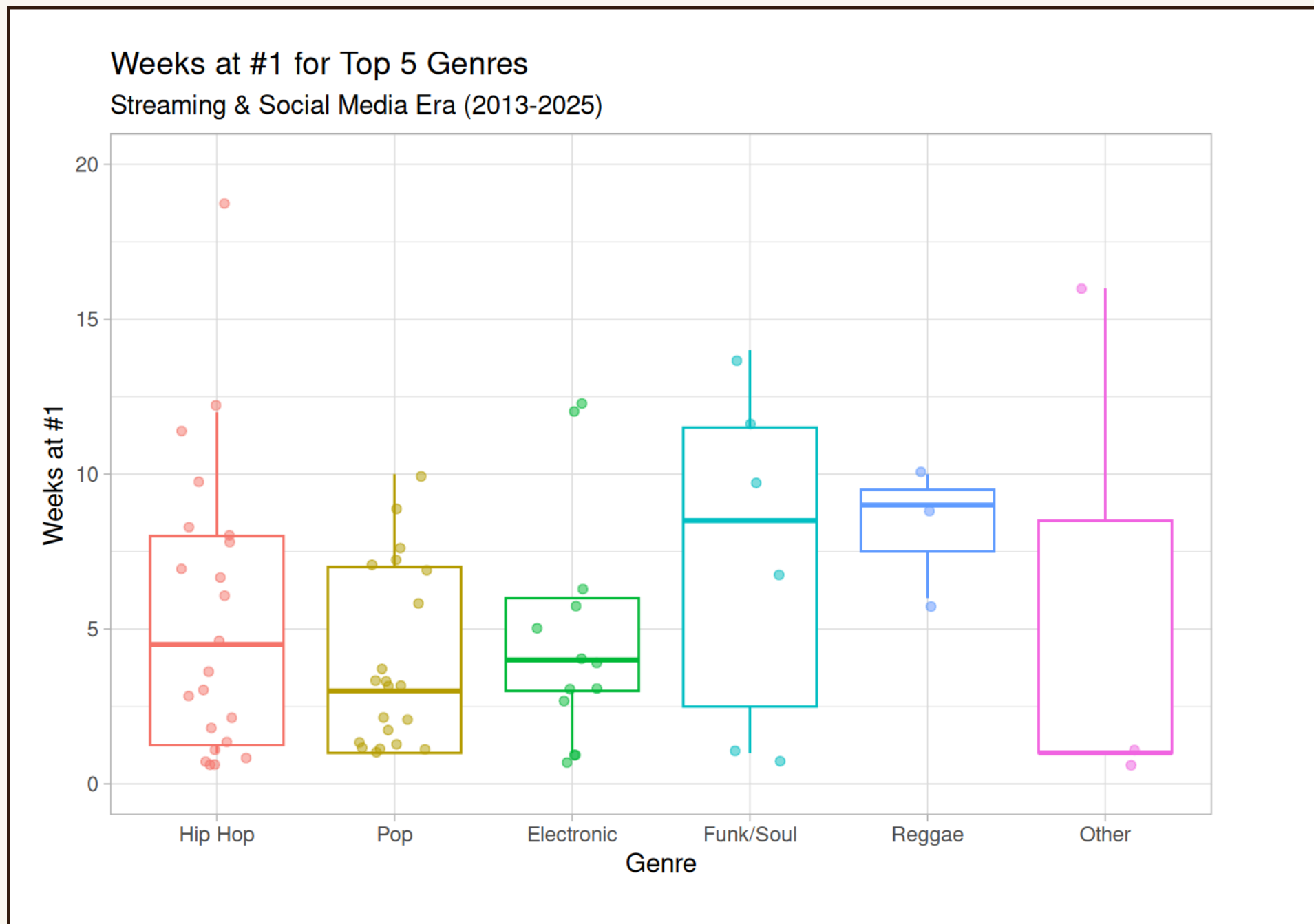
## KEY OBSERVATIONS

- **Hip Hop** is the genre with the **highest popularity** during this era
- **Pop** is the **second most popular** genre, having fallen from the top for the first time.
- **Rock** moved to the **5th-highest** popularity
- **Funk/Soul** has the highest median, meaning songs tend to stay at number one for more weeks

## IMPLICATIONS

- **Pop's** decline from the top spot suggests that the change from **radio to MP3s, iTunes, etc.** gave listeners more choice
- **Rock's** drop to **5th place** signals a shift in youth culture away from guitar-driven music
- **Hip Hop (including rap)** had been historically limited by radio gatekeeping. Digital distribution allowed Hip Hop to reach new audiences and rise in popularity.

# Streaming and Social Media (2013-2025)



## KEY OBSERVATIONS

- **Hip Hop** and Pop remained the most popular genres, mirroring trends from the Digital Disruption (1999-2012)
- **Reggae** has appeared as one of the **top five genres** for the **first time**, signifying a new pull to more globally influenced styles
- **Funk/Soul** and **Reggae** have the **highest median** weeks at number one, signifying an overall trend for songs to stay popular for **multiple weeks**

## IMPLICATIONS

- **Streaming** and **social media** have shifted song selection to listeners, resulting in songs staying at number one for **more weeks** than in earlier eras.
- Compared to earlier eras, **weeks at number one** are **less concentrated**, reflecting a more **genre-diverse** industry.

# Discussion & Critiques

## KEY FINDINGS

- As eras progress, there are **fewer data points** on the graphs because songs are topping the charts for **more weeks**. Now, **listeners control** what songs they listen to and when.
- Beginning in the **Digital Disruption Era**, **Hip-Hop** became the genre with the **most #1 hits**, marking a **structural shift** in mainstream music driven by **digital access**, changing audience preferences, and broader cultural influence.
- Over time, the **variability in time spent** as a #1 hit has **increased**. Streaming platforms and social media have introduced a **more decentralized market**, producing both **short-lived viral hits** and **long-running chart-toppers**.
- The “**Other**” genre category becomes **more prominent**, with both the **frequency** and **variability** of **#1 hits increasing**, suggesting a **rise in non-traditional** and **genre-blending** music.

## CRITIQUES

- Changes in Billboard’s **methodology** over time make **cross-era comparisons imperfect**, as each era **measures differently**.
- **Earlier eras** were shaped by radio and label **gatekeeping**, while **later eras** reflect **user-driven streaming**, making **trends** partially a **result of measurement systems** rather than **audience preference**.
- Genre **labels** are **broad**, potentially **masking** important **subgenres**, while **multi-genres** are forced into a **single category**, **oversimplifying** trends.
- The **Billboard Hot 100** is **U.S.-focused**, **limiting** insights into **global music trends**, especially in the streaming era.
- **Only #1 songs** are **analyzed**, **ignoring broader chart performance**, which may **overemphasize** extreme successes rather than overall trends.

# Sources

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