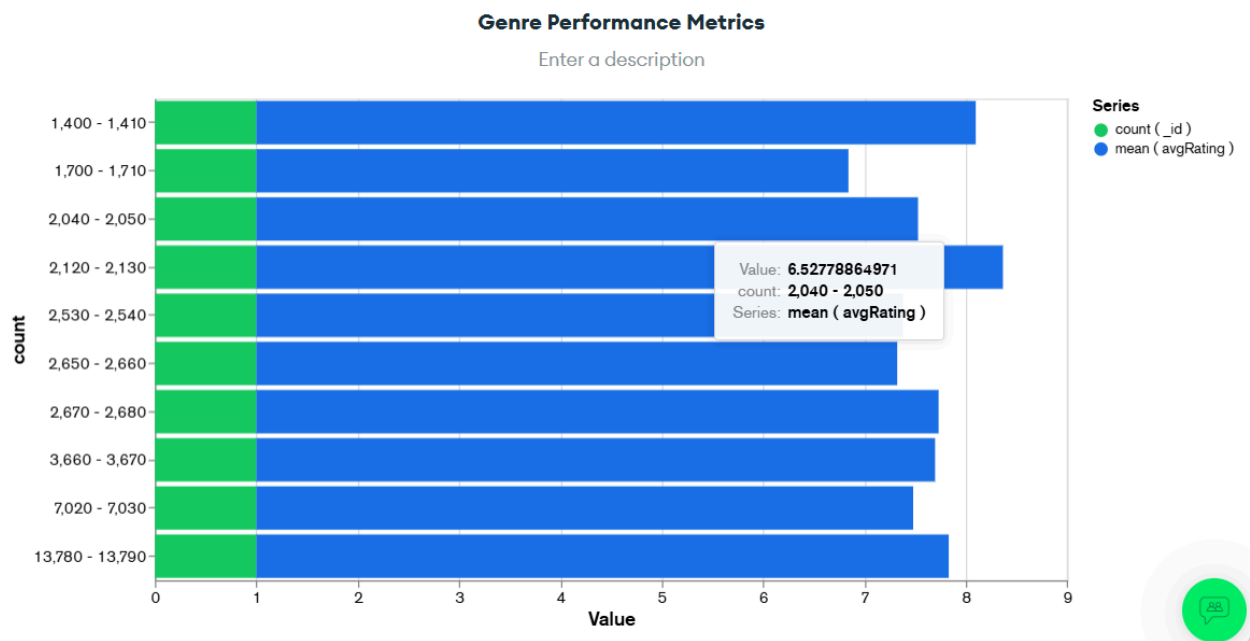# 📊 1. Genre Performance Metrics (Stacked Bar Chart)

Goal: See the most popular genres & their average IMDb rating

Visual Setup

- **Chart Type: Stacked Bar Chart**
- **X-Axis:** `_id` (Genre)
- **Y-Axis:** `count` (Number of Movies)
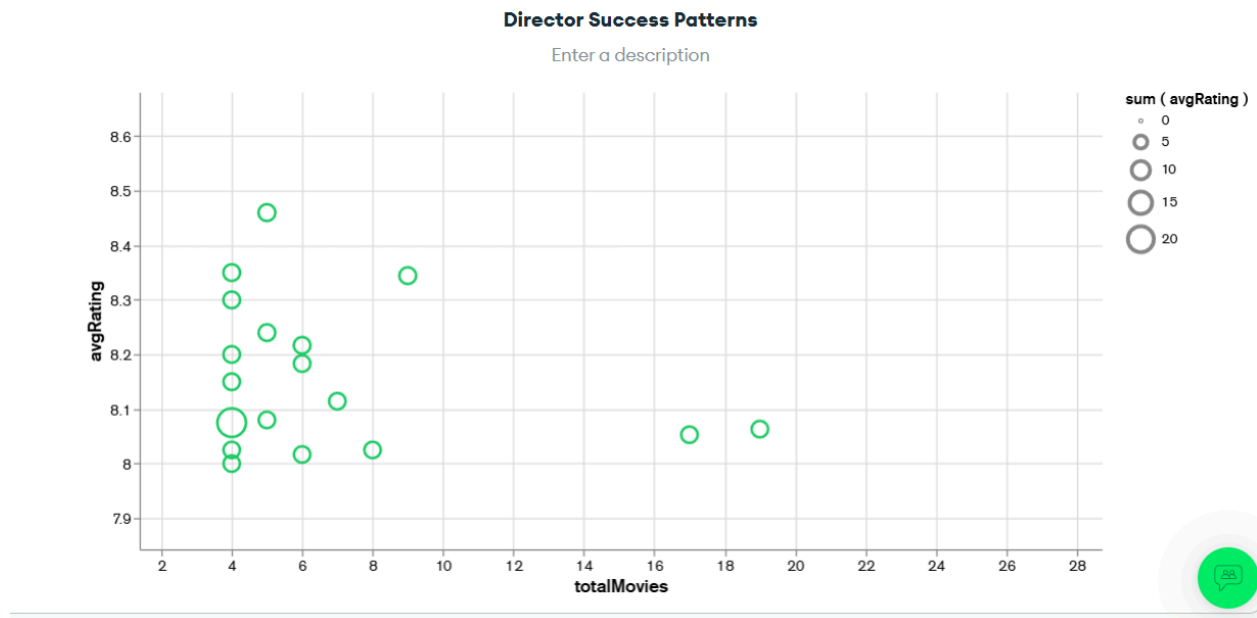- **Stacked by:** `avgRating` (Average IMDb Rating)

Genre Performance Metrics

Enter a description

Series
- 🟢 count (_id)
- 🔵 mean (avgRating)

Value: **6.52778864971**
count: **2,040 - 2,050**
Series: **mean (avgRating)**

🟠 2. Director Success Patterns (Bubble Chart)

🎯 **Goal: Identify successful directors based on movie count & rating**

- **Chart Type: Bubble Chart**
- **X-Axis:** `totalMovies` (Total Movies Directed)
- **Y-Axis:** `avgRating` (Average IMDb Rating)
- **Bubble Size:** `avgAwards` (Average Award Wins/Nominations)
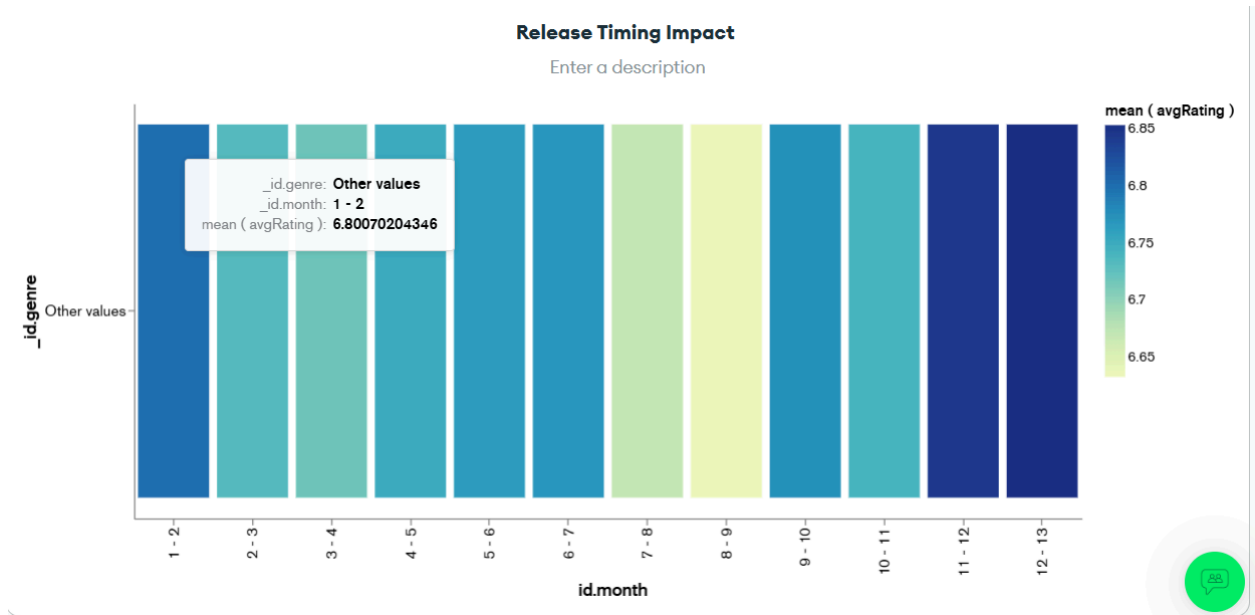- **Filter:** Total Movies > 3

Director Success Patterns

Enter a description

🔥 3. Release Timing Impact (Heatmap)

🎯 Goal: Find out which months perform best for certain genres

✅ **Visual Setup**

- **Chart Type: Heatmap**
- **X-Axis:** `_id.month` (Month of Release)
- **Y-Axis:** `_id.genre` (Genre)
- **Color Gradient:** `avgRating` (Average IMDb Rating)

Release Timing Impact

Enter a description

mean (avgRating)

_id.genre: **Other values**
_id.month: **1 - 2**
mean (avgRating): **6.80070204346**

_id.genre

Other values

id.month

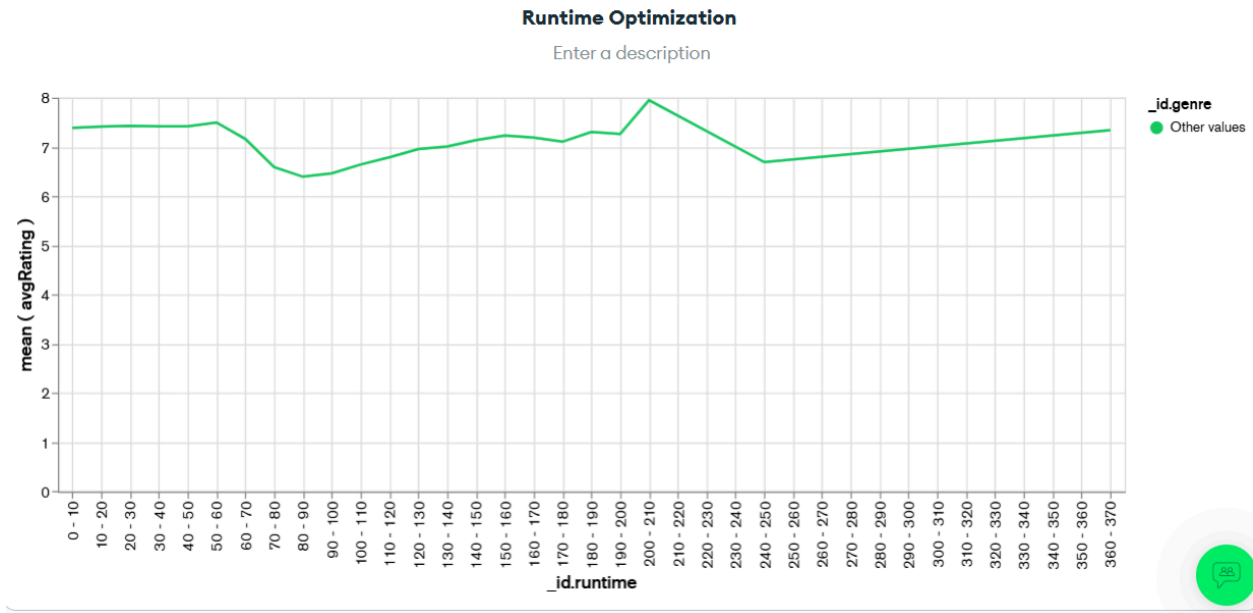📈 # 4. Runtime Optimization (Line Chart)

🎯 **Goal: Find the ideal runtime for high-rated movies**

✅ **Visual Setup**

- **Chart Type: Line Chart with Markers**
- **X-Axis:** `_id.runtime` (Runtime Category)
- **Y-Axis:** `avgRating` (Average IMDb Rating)
- **Series:** `_id.genre` (Different genres for trends)
- **Sort by:** Runtime Category Order

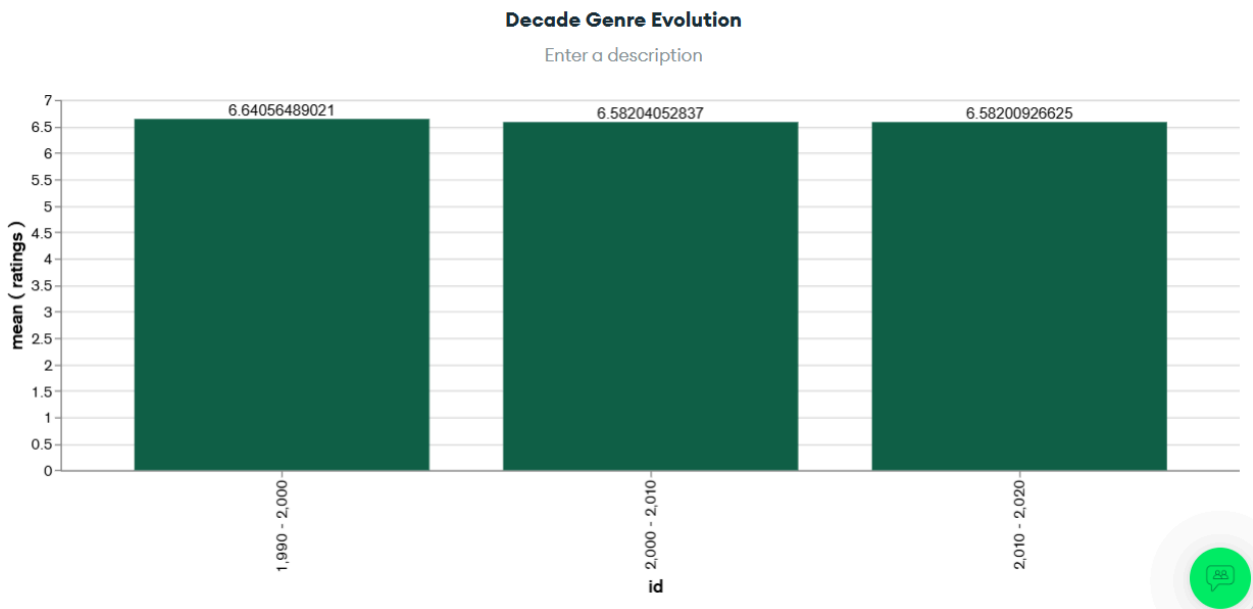# ⏳ 5. Decade Genre Evolution

🎯 **Goal: See how movie genres evolved over time**

✅ **Visual Setup**

- **Chart Type: Stacked Area Chart**
- **X-Axis:** `_id.decade` (Decade)
- **Y-Axis:** `count` (Number of Movies)
- **Stacked by:** `_id.genre` (Genre)

Decade Genre Evolution

Enter a description

Decade Genre Evolution

Enter a description
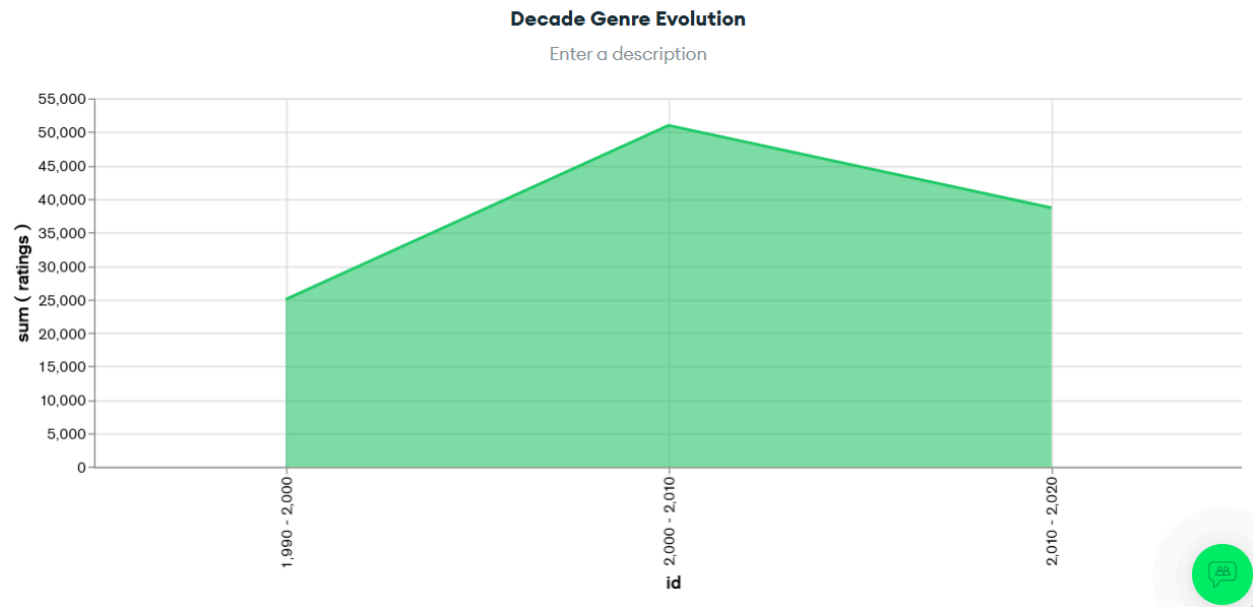
📦 6. Rating Distribution by Year

🎯 **Goal: See how movie ratings have varied from 1990-2020**

✅ **Visual Setup**

- **Chart Type: Box Plot**
- **X-Axis:** `_id` (Year)
- **Y-Axis:** `ratings` (IMDb Ratings)
- **Additional Stats:** Min, Max, Average

🌎 7. Country Production Analysis (Bar Chart)

🎯 **Goal: Find out which countries produce the most movies**

✅ **Visual Setup**

- **Chart Type: Bar Chart**
- **X-Axis:** `_id` (Country)
- **Y-Axis:** `count` (Number of Movies)
- **Sort by:** `count` (Descending)

📌 **Expected Look**

A **vertical bar chart** showing **top film-producing countries**.
🌍 **Is Hollywood still #1? Check the numbers!**

(Example reference)

📡 8. Genre Rating Comparison (Radar Chart)

🎯 **Goal: Compare how different genres rate on IMDb**

✅ **Visual Setup**

- **Chart Type: Radar Chart**
- **Categories:** `_id` (Genre)

- **Value:** `avgRating` (Average IMDb Rating)

📌 **Expected Look**

A **spider-web chart** showing **rating spread across genres**.
🤔 **Which genre consistently gets high ratings?**

(Example reference)

📊 9. Ratings vs. Runtime (Scatter Plot)

🎯 **Goal: Find any relationship between movie runtime & ratings**

✅ **Visual Setup**

- **Chart Type: Scatter Plot**
- **X-Axis:** `runtime`
- **Y-Axis:** `rating`
- **Point Label:** `title`

📌 **Expected Look**

A **scatter plot** showing how runtime impacts rating.
⏳ **Do longer movies get better ratings?**

(Example reference)

📉 10. IMDB Votes vs. Rating (Scatter Plot with Trend Line)

🎯 **Goal: Understand if more votes correlate with better ratings**

✅ **Visual Setup**

- **Chart Type: Scatter Plot with Trend Line**
- **X-Axis:** `votes`
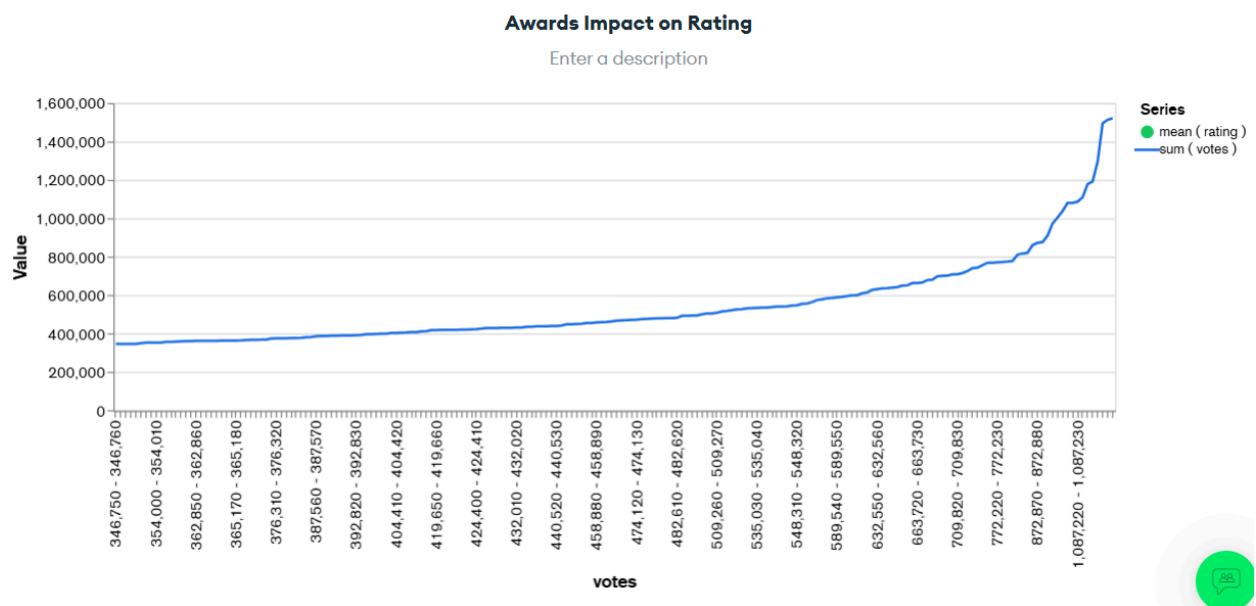- **Y-Axis:** `rating`

- **Sort by:** `votes` (Descending)

🏆 11. Awards Impact on Rating (Grouped Bar Chart)

🎯 Goal: Do more awards lead to higher ratings?

✅ Visual Setup

- **Chart Type: Grouped Bar Chart**
- **X-Axis:** `_id.awards`
- **Y-Axis:** `avgRating`
- **Grouped by:** `_id.genre`

Awards Impact on Rating

Enter a description

Chart title: **Awards Impact on Rating**

Y-axis: mean (rating), scale 0 to 10

X-axis: votes

Tooltip:
votes: **357,600 - 357,610**
mean (rating): **7.9**

X-axis labels:
346,750 - 346,760
347,810 - 347,820
354,000 - 354,010
359,900 - 359,910
362,850 - 362,860
363,660 - 363,670
365,170 - 365,180
369,160 - 369,170
376,310 - 376,320
378,340 - 378,350
387,560 - 387,570
390,190 - 390,200
392,820 - 392,830
399,060 - 399,070
404,410 - 404,420
408,170 - 408,180
419,650 - 419,660
421,010 - 421,020
424,400 - 424,410
430,140 - 430,150
432,010 - 432,020
438,740 - 438,750
440,520 - 440,530
451,710 - 451,720
458,880 - 458,890
468,020 - 468,030
474,120 - 474,130
480,920 - 480,930
482,610 - 482,620
495,740 - 495,750
509,260 - 509,270
527,520 - 527,530
535,030 - 535,040
541,110 - 541,120
548,310 - 548,320
575,620 - 575,630
589,540 - 589,550
600,180 - 600,190
632,550 - 632,560
642,890 - 642,900
663,720 - 663,730
699,510 - 699,520
709,820 - 709,830
743,760 - 743,770
772,220 - 772,230
811,260 - 811,270
872,870 - 872,880
1,004,800 - 1,004,810
1,087,220 - 1,087,230
1,294,640 - 1,294,650