

# Movie Data Analysis

Data-driven recommendations for film production

# Context

## MICROSOFT

- A household company name
- Extensive resources

# Recommendation #1

## ENTER AT THE TOP

Produce high quality movies that rival the industry's best

# Success Metrics

## REVENUE

Total dollars earned

## RATINGS

User feedback on a 0-10 scale

# Questions

MOVIE GENRES?

Measure by revenue

MOVIE RUNTIME?

Measure by revenue

MOVIE PERSONNEL?

Measure by ratings

# Data

SPANS 2010 - 2018

## **1. IMDB (INTERNET MOVIE DATABASE)**

Genre, personnel, runtime length, ratings

## **2. BOM (BOX OFFICE MOJO)**

Revenue

# Genres?

HOW MUCH WOULD A TYPICAL MOVIE OF A  
CERTAIN GENRE MAKE?

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HOW MUCH REVENUE WOULD A TYPICAL  
MOVIE OF A CERTAIN GENRE MAKE?

**Sci-Fi: 340m**

**Adventure: 320m**

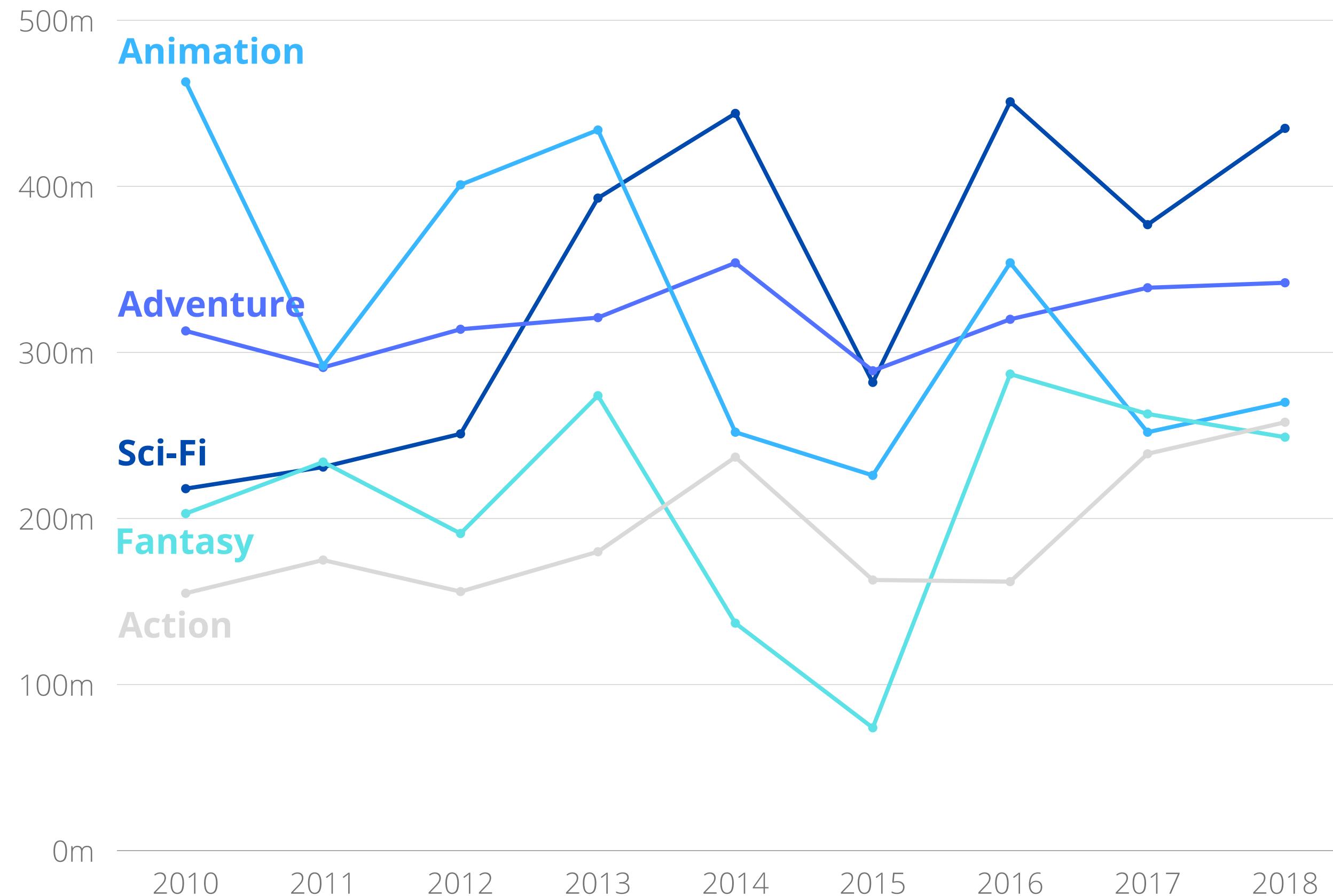
**Animation: 314m**

**Fantasy: 223m**

**Action: 190m**

# Top 5: AVG Revenue 2010-2018

2010-2018 AVG  
**Sci-Fi: 340m**  
**Adventure: 320m**  
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# Top 5: AVG Revenue 2010-2018

Recommendations

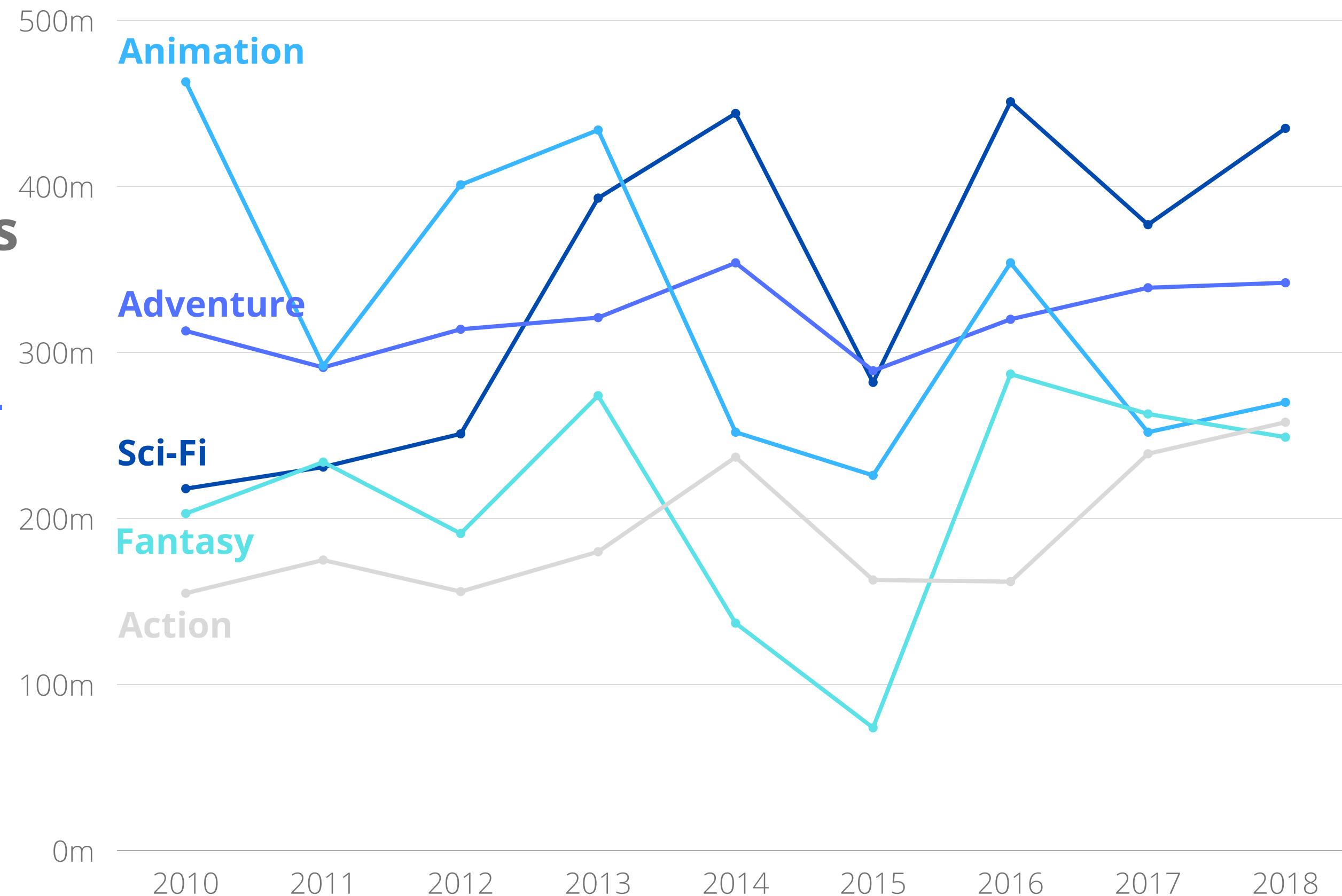
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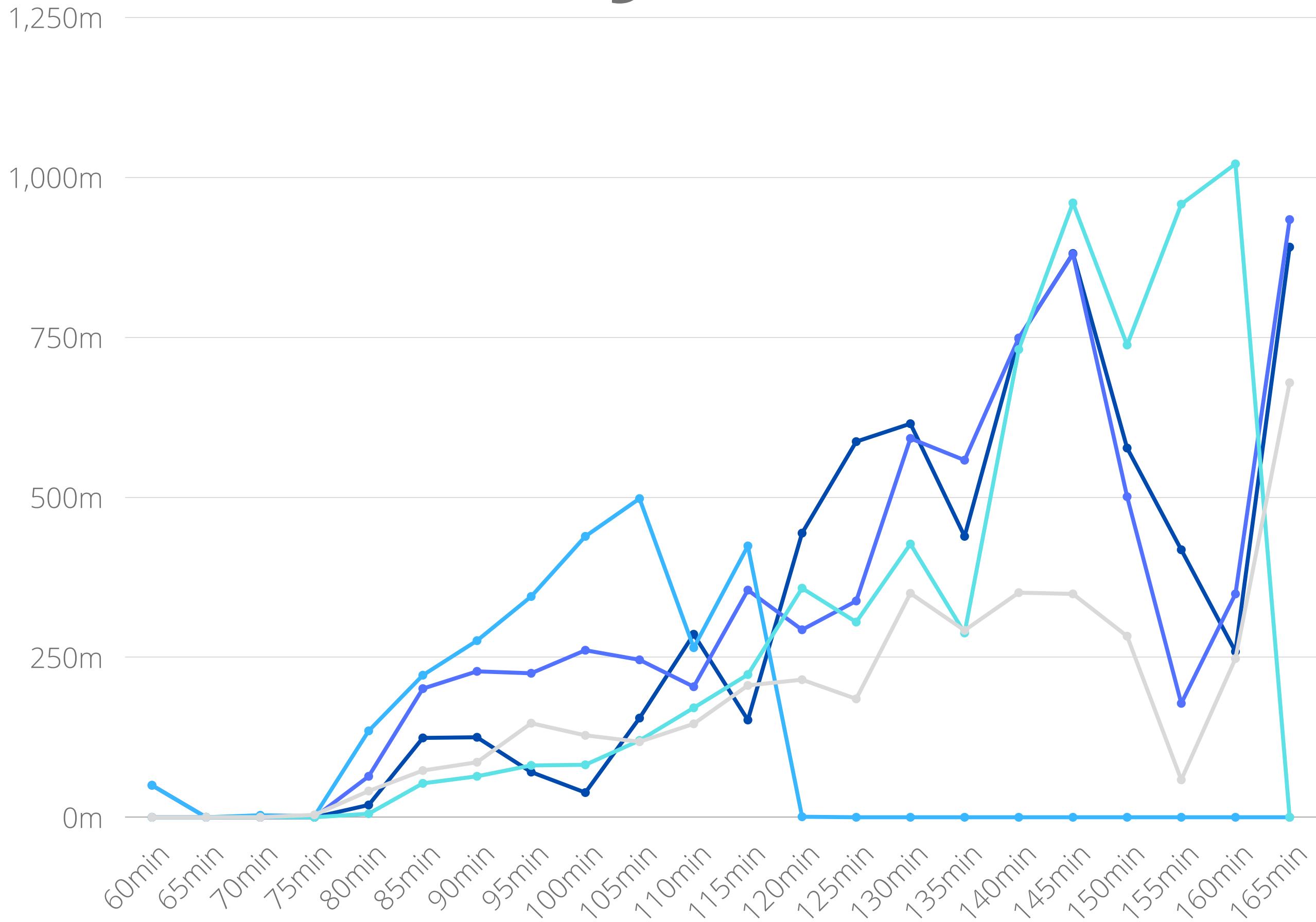


# Runtime?

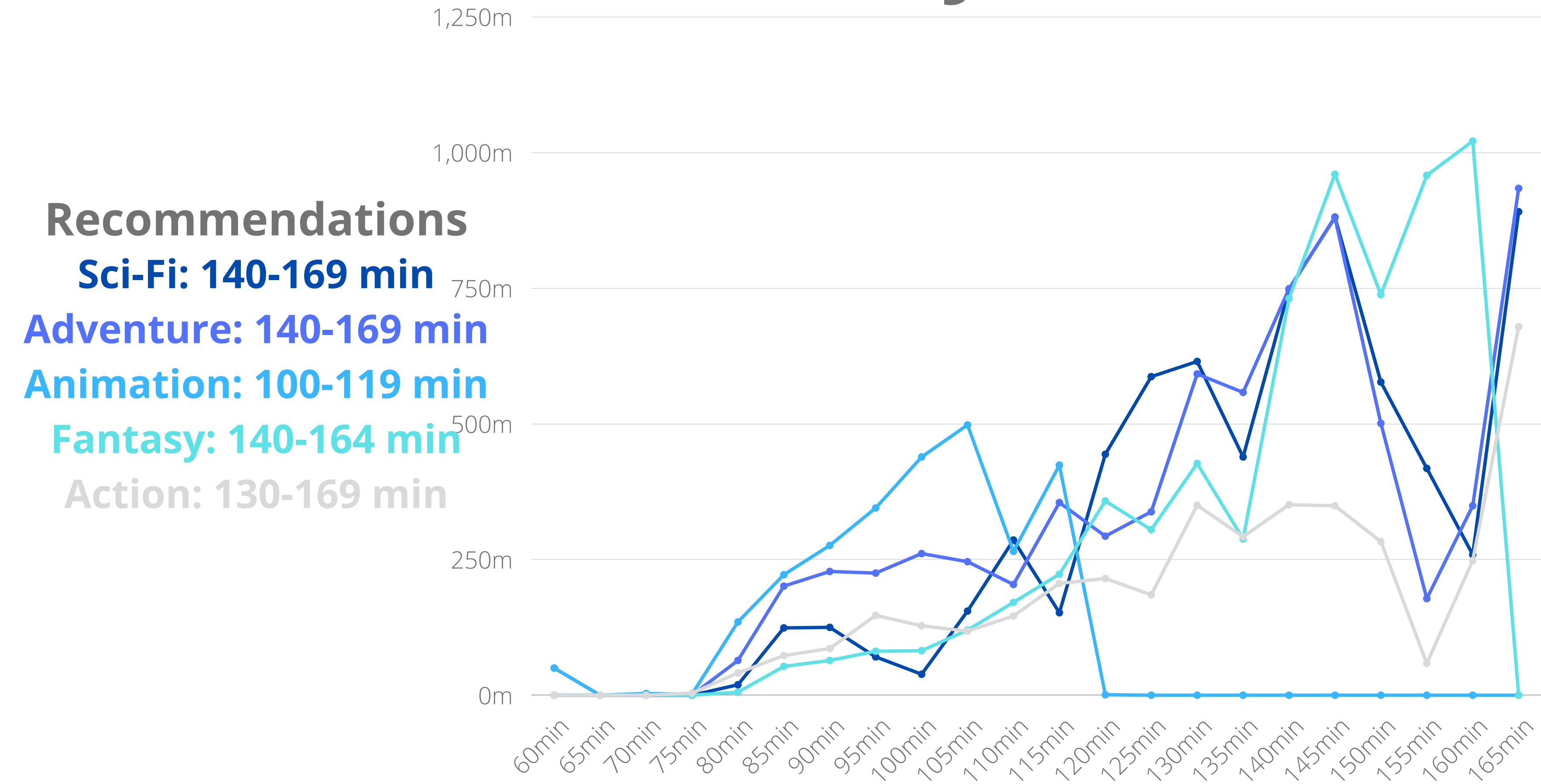
HOW MUCH REVENUE WOULD A TYPICAL  
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# AVG Revenue by Runtime

2010-2018 AVG  
**Sci-Fi: 340m**  
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# AVG Revenue by Runtime



# Personnel

WHAT MOVIE PERSONNEL WILL MAXIMIZE  
IMDB RATINGS?

- Cast
- Directors
- Writers
- Cinematographers
- Composers

# Top 30 Actors by AVG IMDB Rating

Rank	Name	AVG Rating						
1	Sunny Pawar	8.2	11	Adrien Brody	7.83	21	Rami Malek	7.7
2	Rana Daggubati	8.12	12	Sebastian Stan	7.82	22	Ken Stott	7.7
3	Tom Hardy	8.1	13	Lucas Hedges	7.8	23	Jon Bernthal	7.68
4	Murat Arkin	8	14	Ben Affleck	7.8	24	Dave Bautista	7.68
5	Sathyaraj	8	15	Timothée Chalamet	7.8	25	Michael Keaton	7.67
6	Bruce Dern	7.97	16	Jeremy Renner	7.8	26	Nicholas Hoult	7.67
7	Yayan Ruhian	7.87	17	Chadwick Boseman	7.78	27	Irrfan Khan	7.67
8	Prabhas	7.87	18	Ben Mendelsohn	7.75	28	Chris Evans	7.65
9	Mads Mikkelsen	7.87	19	Ryan Gosling	7.73	29	Chris Pratt	7.63
10	Tom Holland	7.85	20	Benedict Wong	7.72	30	Joseph Gordon-Levitt	7.62

# Top 30 Actresses by AVG IMDB Rating

Rank	Name	AVG Rating						
1	Tabu	8.2	11	Brie Larson	7.58	21	Rooney Mara	7.45
2	Danai Gurira	8.2	12	Jessica Chastain	7.58	22	Jennifer Lawrence	7.45
3	Sanya Malhotra	7.95	13	Ana Wagener	7.57	23	Olivia Colman	7.43
4	Marion Cotillard	7.87	14	Anne Hathaway	7.57	24	Viola Davis	7.43
5	Rachel House	7.8	15	Karin Konoval	7.57	25	Octavia Spencer	7.42
6	Emma Stone	7.72	16	Sonoya Mizuno	7.53	26	Evangeline Lilly	7.4
7	Lupita Nyong'o	7.7	17	Mone Kamishiraishi	7.52	27	Sarah Paulson	7.4
8	Farrah Mackenzie	7.63	18	Lucy Boynton	7.5	28	Tilda Swinton	7.38
9	Melissa Benoist	7.63	19	Sally Hawkins	7.5	29	Anushka Sharma	7.37
10	Elizabeth Olsen	7.62	20	Scarlett Johansson	7.47	30	Mindy Kaling	7.37

## Top 30 Directors by AVG IMDB Rating

Rank	Name	AVG Rating						
1	Anthony Russo	8.23	11	Thomas Vinterberg	7.67	21	Jean-Marc Vallée	7.5
2	Joe Russo	8.22	12	Matthew Vaughn	7.67	22	Chad Stahelski	7.47
3	S.S. Rajamouli	8.07	13	Chris Williams	7.63	23	Oriol Paulo	7.47
4	Alper Caglar	7.98	14	Bob Persichetti	7.6	24	Steve McQueen	7.43
5	Asghar Farhadi	7.97	15	Rich Moore	7.6	25	Matt Reeves	7.4
6	Denis Villeneuve	7.95	16	Alessandro Carloni	7.6	26	Ryan Coogler	7.4
7	Dean DeBlois	7.83	17	Nitesh Tiwari	7.58	27	James Wan	7.37
8	Phil Lord	7.77	18	Tom Hooper	7.57	28	David Yates	7.37
9	Christopher Miller	7.77	19	Morten Tyldum	7.53	29	Edgar Wright	7.37
10	Taika Waititi	7.75	20	Dan Scanlon	7.53	30	Drew Goddard	7.37

## Top 30 Writers by AVG IMDB Rating

Rank	Name	AVG Rating					
1	Vijayendra Prasad	8.13	11	Madhan Karky	7.75	21	Wajdi Mouawad 7.53
2	Keith Giffen	8.1	12	Christopher Markus	7.73	22	Stephen McFeely 7.5
3	Steve Englehart	8.1	13	Anthony McCarten	7.7	23	Larry Lieber 7.47
4	Steve Gan	8.1	14	J.K. Rowling	7.7	24	Adrian Molina 7.47
5	Bill Mantlo	8.1	15	Josie Trinidad	7.65	25	Tobias Lindholm 7.43
6	Michael Arndt	7.93	16	Derek Kolstad	7.63	26	Rick Jaffa 7.42
7	Jim Starlin	7.9	17	Taylor Sheridan	7.63	27	Amanda Silver 7.42
8	Cressida Cowell	7.83	18	Josh Singer	7.57	28	Valérie Beaugrand-Champagne 7.4
9	Clark Cheng	7.8	19	Nicolás Giacobone	7.55	29	Michael H. Weber 7.4
10	Damien Chazelle	7.78	20	Herbert Kretzmer	7.53	30	Scott Neustadter 7.4

## Top 30 Composers by AVG IMDB Rating

Rank	Name	AVG Rating						
1	Justin Hurwitz	7.97	11	Steven Price	7.63	21	John Debney	7.33
2	Lorne Balfe	7.85	12	Stephen Rennicks	7.63	22	John Powell	7.33
3	Tyler Bates	7.83	13	Arcade Fire	7.6	23	Joseph Trapanese	7.32
4	Benjamin Wallfisch	7.78	14	Steve Mazzaro	7.6	24	Evgueni Galperine	7.27
5	Alexandre Desplat	7.77	15	Rupert Gregson-Williams	7.57	25	Christophe Beck	7.25
6	Kristen Anderson-Lopez	7.7	16	Nicholas Britell	7.47	26	Craig Armstrong	7.23
7	The Newton Brothers	7.7	17	Marcelo Zarvos	7.4	27	Joseph Bishara	7.22
8	Carter Burwell	7.67	18	Ludwig Göransson	7.4	28	David Buckley	7.2
9	Jon Thor Birgisson	7.67	19	Mowg	7.38	29	Junkie XL	7.2
10	Mark Mothersbaugh	7.63	20	Michael Brook	7.37	30	Fernando Velázquez	7.2

# Top 30 Cinematographers by AVG IMDB Rating

# Summary

## BUSINESS RECOMMENDATIONS

1. Make movies in the following genres: Sci-Fi, Adventure, Animation, Fantasy, and Action. To make the most revenue, focus on Sci-Fi and Adventure.
2. Make movies in the recommended ~30 minute windows to maximize revenue. Make longer movies.
3. Hire personnel associated with the top ratings as voted on by users of IMDb.