



Gender within film crews

by

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Introduction

Thank you for reading my study of gender within film crews

On my blog I explore data and statistics within the film industry. This started as sharing existing public statistics but quickly grew to include the gathering of new data.

The film industry is heavily influenced by shifting opinions, so I find it useful to delve into the data to see what's true and what's conjecture.

To study gender within film crews, I created a dataset of the 100 highest grossing films at the US Box Office for each year between 1994 and 2013 (a total of 2,000 films). Additionally, in order to see how a film's genre affects gender employment I created a second dataset of the 100 highest grossing films of each genre.

As with all my research, my aim is not to prove a particular point but to see what interesting results the data provides. That said, the figures in this report are so extreme that I challenge anyone to read them and not feel that our industry has a problem with gender equality.

If you would like to know more, offer help/ advice on future research or to just drop me a line, I can be reached at www.stephenfollows.com/contact.

It's always nice to hear from people who enjoy or use my research. I am also open to new collaborations and commercial projects.

Enjoy the results,

Stephen Follows

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About The Author – Stephen Follows



Stephen is a writer and producer who runs the production company Catsnake Film from Ealing Studios. He has produced two feature films and over 100 short films, and his writing has won Virgin Media Shorts, was nominated for a British Independent Film Award and long-listed for a BAFTA.

In addition, Stephen also teaches producing at film schools (NFTS, The Met Film School, Nashville Film Institute), weekend courses (Practical Producer, 7 Step Producer, Guerrilla Filmmakers Masterclass) and bespoke events (BFI, British Council, London Screenwriters Festival).

He blogs about film data every Monday at www.stephenfollows.com

1. Gender split of film crews 1994-2013

Key Findings

- 22.6% of the crew members on the 2,000 highest grossing films of the past 20 years were female.
- In 2013, women accounted for 21.8% of crew members on the 100 highest grossing films.

Headline Result

Figure 1.1 Gender split of crew on the 2,000 highest grossing films, 1994-2013

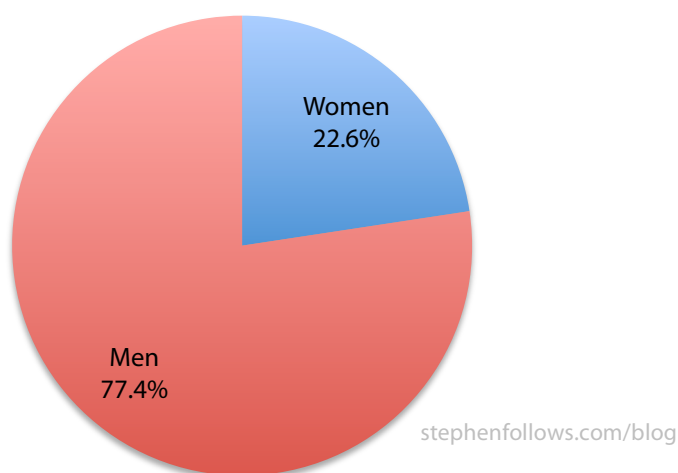


Figure 1.1 shows the gender split of crew members on the 2,000 highest grossing films at the US Box Office between 1994-2013 (top 100 films of each year).

Figure 1.2 Gender split of crew on the 100 highest grossing films released in 2013

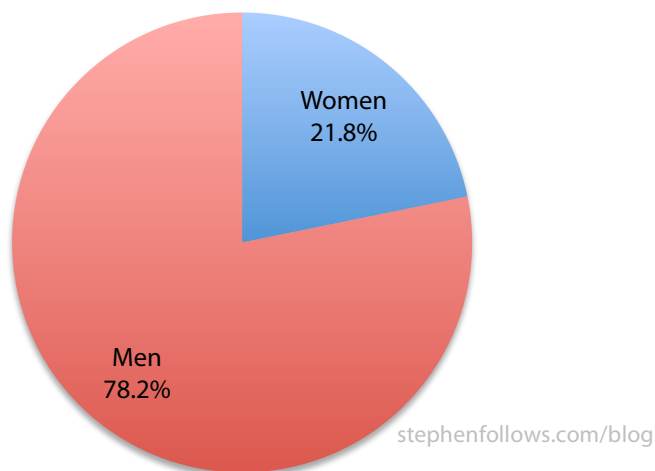


Figure 1.2 shows the gender split of crew members on the 100 highest grossing films at the US Box Office released in 2013.

2. Gender split by filmmaking department

Key Findings

- Of all the departments, the Camera and Electrical department is the most male, with only 5% women.
- The only departments to have a majority of women are Make-up, Casting and Costume.
- Visual Effects is the largest department on most major movies and yet only has 17.5% women

Headline Result

Figure 2.1 Gender split of crew by department of 2,000 highest grossing films, 1994-2013

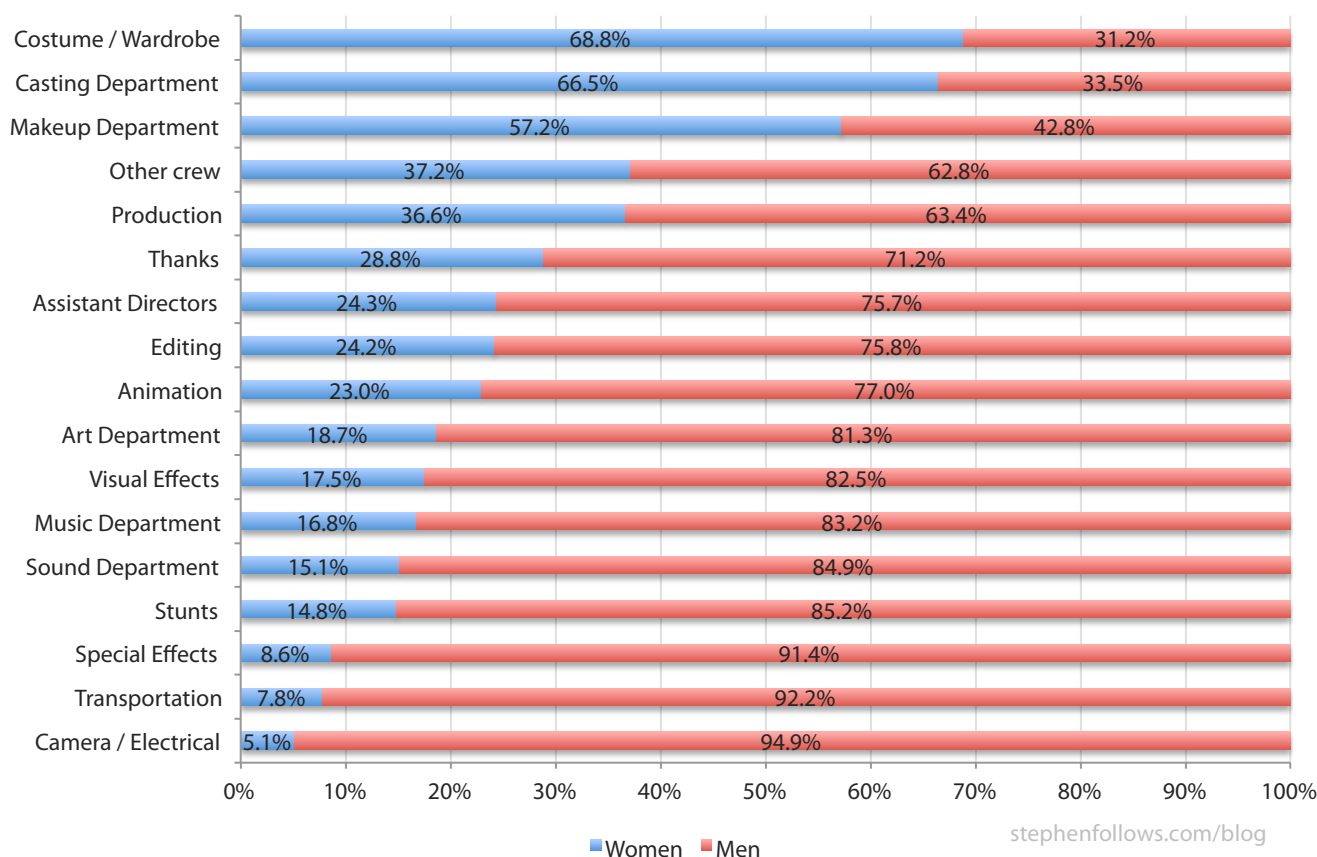


Figure 2.1 shows the gender split of crew members of each major department on the 2,000 highest grossing films at the US Box Office between 1994-2013 (top 100 films of each year). The Assistant Directors department includes additional directors such as 2nd unit directors. Heads of department have not been included as they are charted elsewhere in this report.

3. Gender split in key creative roles

Key Findings

- Casting Directors and Costume Directors are mostly female, whereas all other key creative roles are overwhelmingly male.
- In 2013, less than 2% of the Directors of the top 100 grossing films were women.
- Out of the top 100 films of 2013, only one had a female Composer.

Headline Result

Figure 3.1 Gender split of key creative roles on the 2,000 highest grossing films, 1994-2013

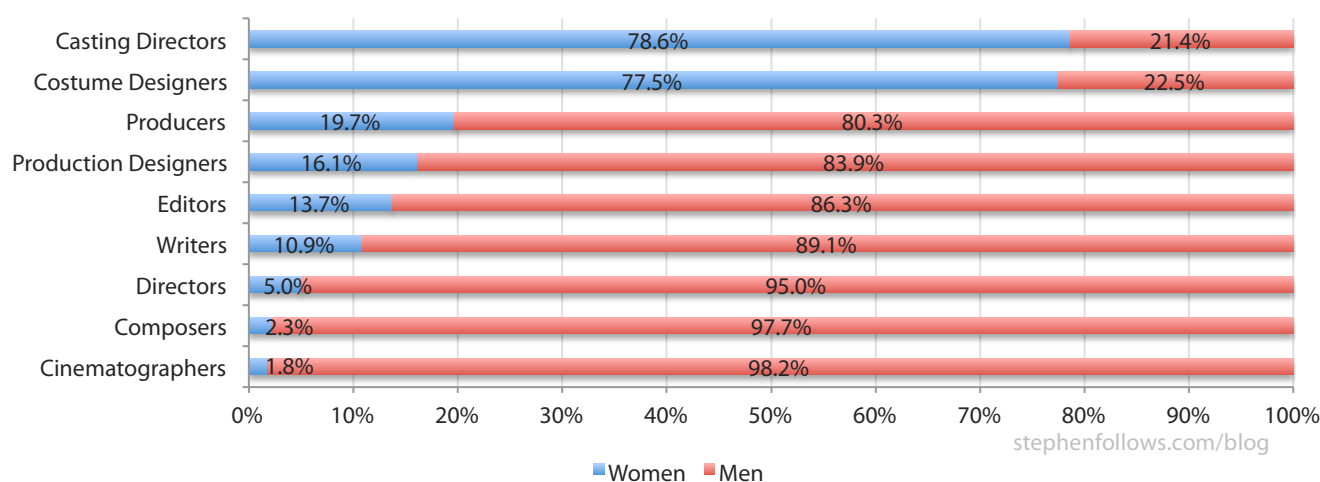


Figure 3.1 shows gender split of key creatives on 2,000 top grossing films at the US Box Office 1994-2013 (top 100 each year).

Figure 3.2 Gender split of key creative roles on the 100 highest grossing films, 2013

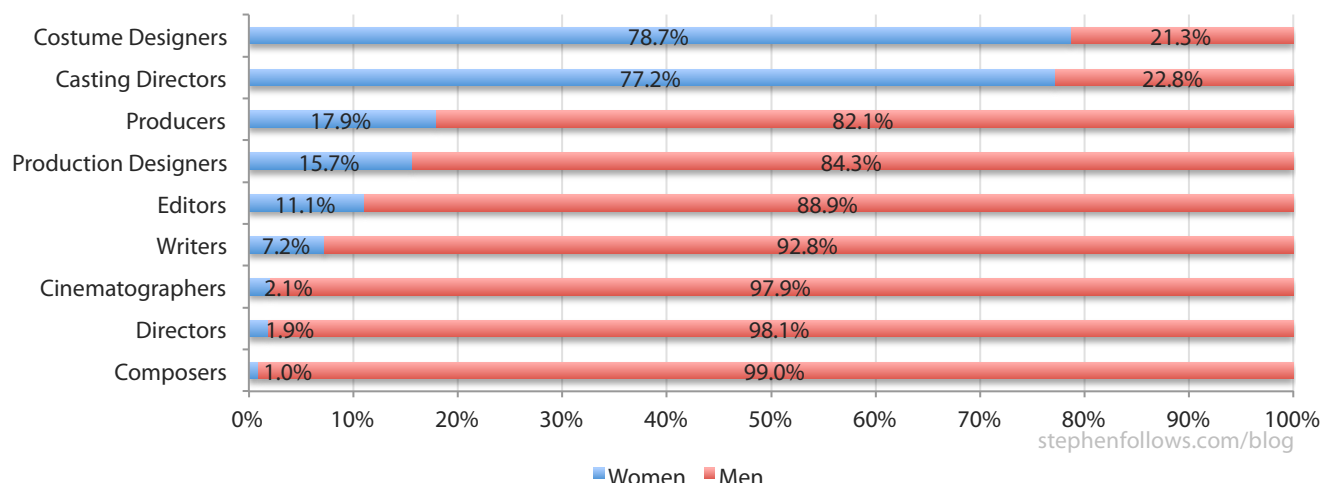


Figure 3.2 shows the gender split of key creative roles on the 100 highest grossing films at the US Box Office during 2013.

N.B. DGA rules state that a film can only have one director, however this does not apply to animated features. This accounts for the non-round number for directors in a dataset of 100 films. In 2013, eight films had two directors.

4. Gender split by film genre

Key Findings

- Musicals and Music-based films have the highest proportion of women in their crews (27%)
- Sci-Fi and Action films have the smallest proportion of women (20% and 21% respectively)

Headline Result

The genres with the highest proportion of women in the crew are extremely similar to the genres that are enjoyed most by female film audiences.

Figure 4.1 Gender split of crews on the 100 highest grossing films in each genre

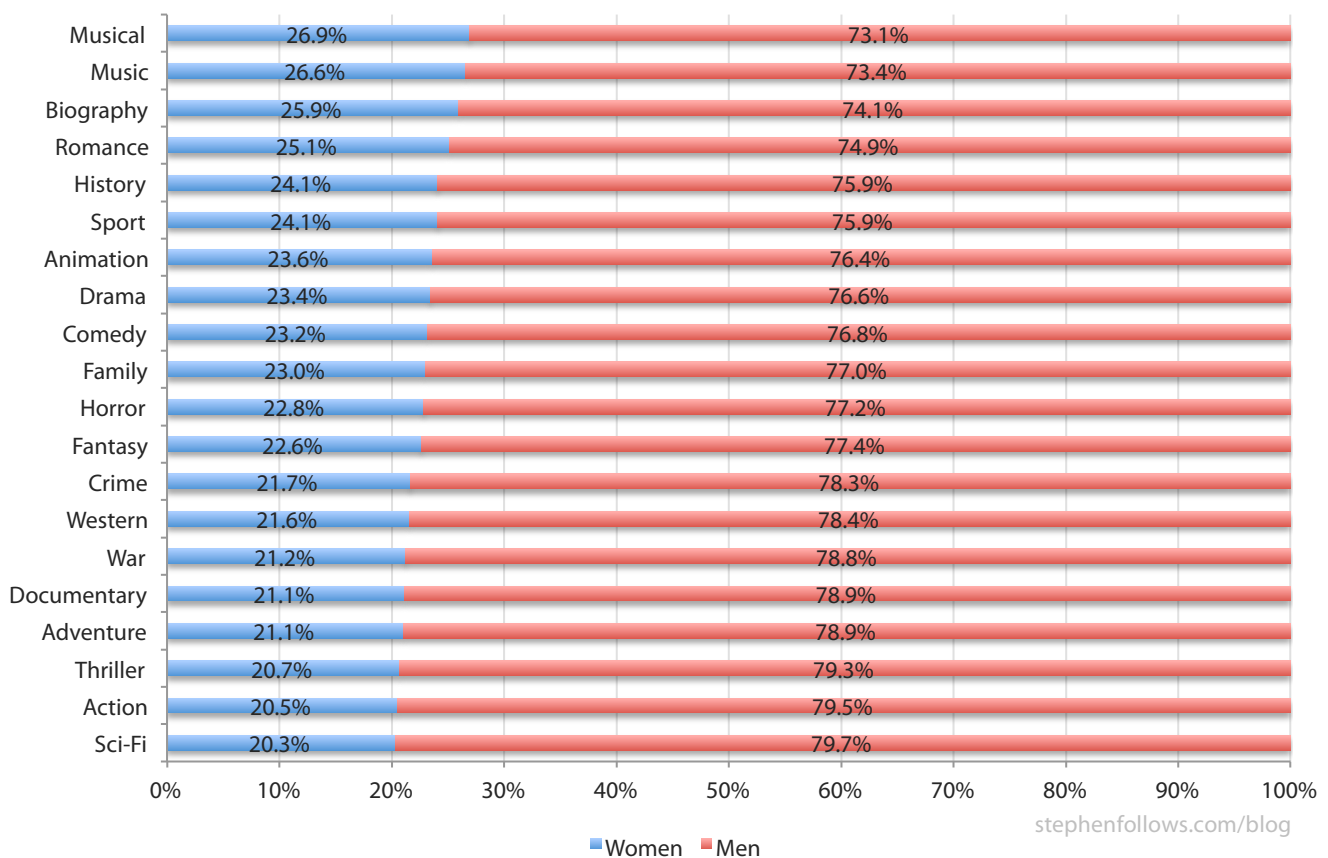


Figure 4.1 shows the gender split of crew members on the 100 highest grossing films of all time for each genre at US box office.

5. What has changed in the past 20 years?

Key Findings

- The overall percentage of female crew members has barely increased between 1994 and 2013
- The 1994 average was 22.7% and by 2013 it had shrunk slightly to 21.8%
- Whilst the overall percentage of women has not increased, the jobs performed by women have changed.
- The percentage of women has grown in Make-up, Art and Costume departments and decreased in the (increasingly technical) fields of editing and animation.
- The three most significant creative roles (Writer, Producer and Director) have all seen the percentage of women fall over the past 20 years.

Headline Result

Figure 5.1 Gender split of crew of the 2,000 highest grossing films, 1994-2013

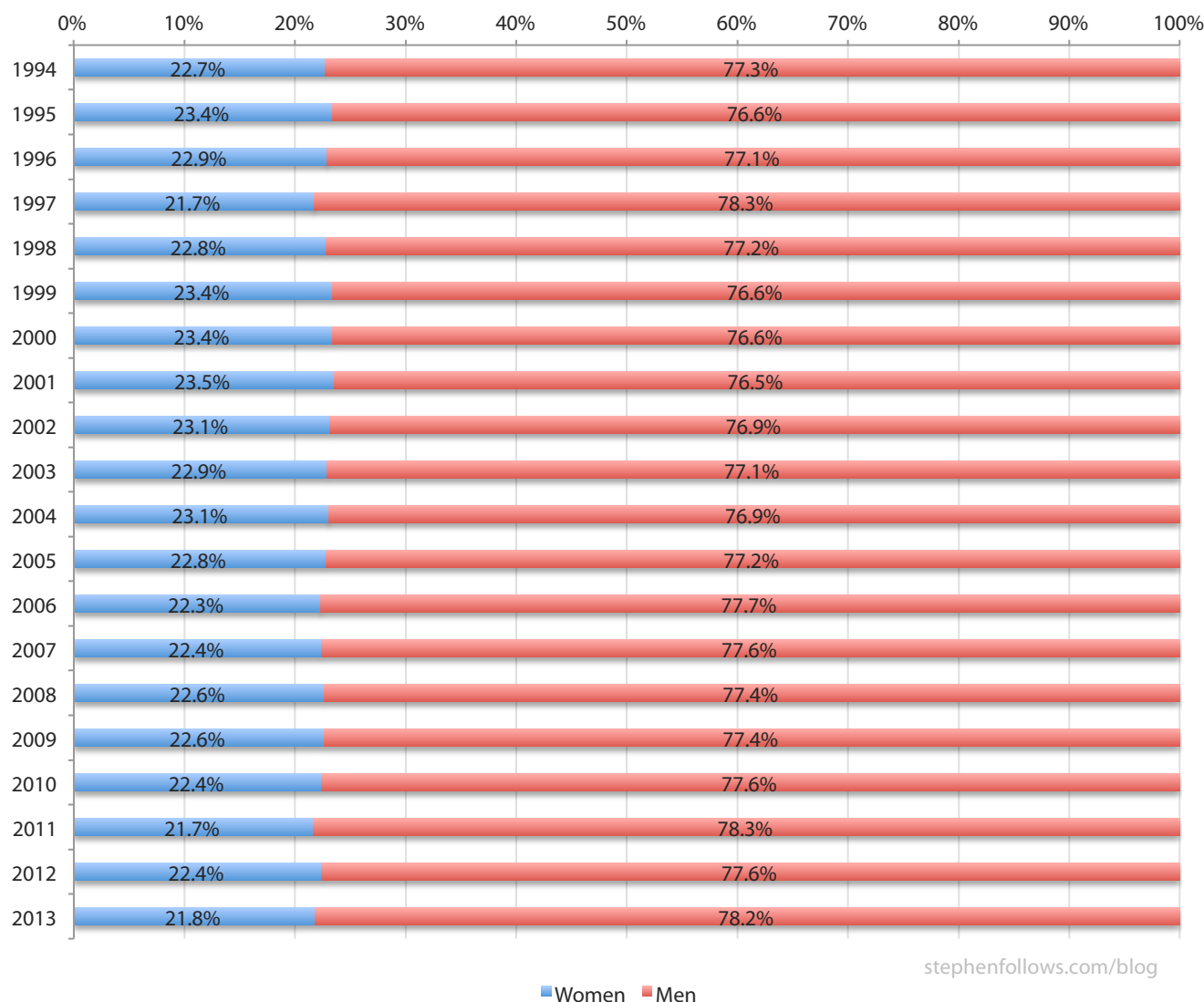


Figure 5.1 shows the gender split of crew members on the 2,000 highest grossing films at the US Box Office between 1994-2013 (top 100 films of each year).

Figure 5.2 Comparison of the gender split for key creative roles on the 100 highest grossing films in 1994 and 2013

stephenfollows.com/blog	1994	2013	Change
Costume Designers	74.7%	78.7%	4.0
Casting Directors	75.0%	77.2%	2.2
Cinematographers	0.0%	2.1%	2.1
Production Designers	13.7%	15.7%	2.0
Editors	10.9%	11.1%	0.2
Composers	2.0%	1.0%	-1.1
Producers	19.5%	17.9%	-1.6
Directors	3.9%	1.9%	-2.1
Writers	11.3%	7.2%	-4.1

Figure 5.2 shows the gender split of key creative roles on the 100 highest grossing films at the US Box Office in 1994 and 2013.

Figure 5.3 Comparison of the gender split for crew members in major departments on the 100 highest grossing films in 1994 and 2013

stephenfollows.com/blog	1994	2013	Change
Make-up	53.5%	60.7%	7.1
Art Department	16.6%	20.3%	3.7
Costume / Wardrobe	65.6%	69.2%	3.5
Music	14.5%	17.9%	3.4
Thanks	23.6%	26.9%	3.3
Transportation	6.4%	9.3%	3.0
Assistant Directors	20.8%	23.2%	2.4
Stunts	13.1%	14.5%	1.4
Special Effects	7.1%	8.5%	1.4
Camera / Electrical	5.0%	5.4%	0.4
Visual Effects	19.3%	17.4%	-1.8
Casting	66.8%	64.6%	-2.2
Other crew	38.4%	35.7%	-2.6
Production	33.8%	31.1%	-2.7
Sound Department	16.8%	12.8%	-4.0
Editing	28.5%	21.4%	-7.1
Animation	34.5%	16.1%	-18.4

Figure 5.3 shows the gender split of crew members in the major filmmaking departments on the 100 highest grossing films at the US Box Office in 1994 and 2013.

Figure 5.4 Gender split of key creative roles on the top 100 films each year, 1994-2013

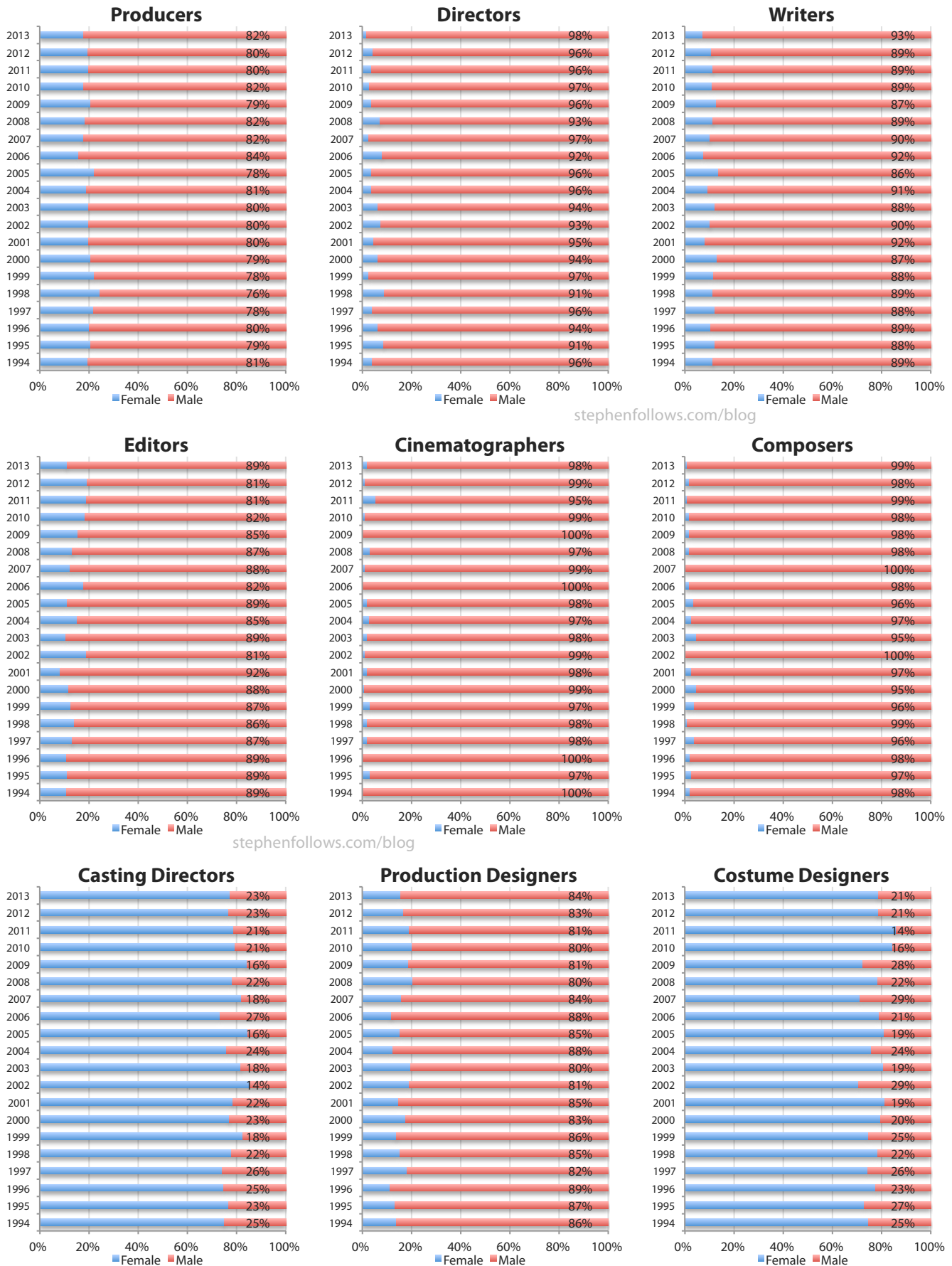


Figure 5.4 shows the gender split of key creatives on the 100 highest grossing films at the US Box Office between 1994 and 2013.

6. Fey-Seagal Scale: The most male / female crews

Using my dataset of the top 2,000 grossing films of the past twenty years, I have created lists of the films that have had the highest scale of men and women in the crew.

I named this system **The Fey-Seagal Scale** after Tina Fey and Steven Seagal, who represent the two ends of the spectrum.



Tina Fey wrote "Mean Girls", which is the 'most female' film on my list and is seen by many as a strong female role model in the entertainment industry. Steven Seagal stars in three of the twenty 'most male' films, as well as directing the 'most male' film "On Deadly Ground", and in the past has been accused of sexual harassment on a number of occasions. The fitting nature of these two faces at either end of the scale amused me and so felt like an appropriate name.



As an aside, if you need a break from all the stats and charts then may I recommend 'Steven Seagal's Feminist Book Club' as written by The Studio Exec <http://www.thestudioexec.com/2013/04/steven-seagals-feminist-book-club.html>.

Figure 6.1 Films highest on the Fey-Seagal Scale (i.e. most female crew members)

Film	stephenfollows.com/blog	% of crew who are female
1	Mean Girls	42%
2	The Sisterhood of the Traveling Pants	42%
3	Honey	42%
4	The Wedding Date	41%
5	The Sisterhood of the Traveling Pants 2	41%
6	Pokemon: Power of One	41%
7	Best in Show	40%
8	Quiz Show	39%
9	Miss Congeniality	39%
10	Something to Talk About	38%
11	Madeline	38%
12	Baby Mama	38%
13	Little Women	38%
14	Piglet's Big Movie	38%
15	Now and Then	37%
16	To Die For	37%
17	Midnight in Paris	37%
18	Girl, Interrupted	37%
19	Waiting to Exhale	37%
20	The Family That Preys	37%

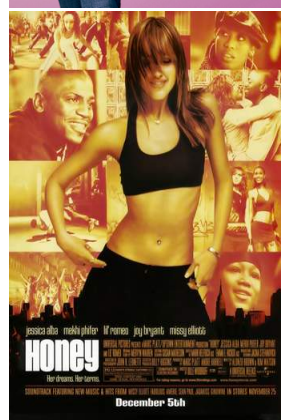


Figure 6.1 shows the films with the highest ratio of women in the crew, from a dataset of the 2,000 highest grossing films at the US Box Office between 1994-2013 (top 100 films of each year). Films with fewer than 100 crew members were excluded, which meant that Fireproof (2008) was not included in this Top 20 list.

Figure 6.2 Films lowest on the Fey-Seagal Scale (i.e fewest female crew members)

Film	stephenfollows.com/blog	% of crew who are female
1	On Deadly Ground	10%
2	Robots	10%
3	TMNT	11%
4	Windtalkers	11%
5	Planes	12%
6	Tales from the Crypt: Demon Knight	12%
7	Lord of Illusions	13%
8	Judge Dredd	13%
9	Cloudy with a Chance of Meatballs	13%
10	Flubber	14%
11	Sudden Death	14%
12	Tomorrow Never Dies	14%
13	The Wild	14%
14	Godzilla	14%
15	Under Siege 2: Dark Territory	14%
16	Se7en	14%
17	Face/Off	14%
18	Hero	14%
19	Exit Wounds	14%
20	The X Files	15%



Figure 6.2 shows the films with the highest ratio of men in the crew, from a dataset of the 2,000 highest grossing films at the US Box Office between 1994-2013 (top 100 films of each year). Films with under 100 crew members were excluded, which meant that the following films were not included in this Top 20 list: *Pokémon: Mewtwo Returns* (1998), *Jonah: A VeggieTales Movie* (2002), *Pokémon: The First Movie - Mewtwo Strikes Back* (1998) and *Open Water* (2003).

7. Does the gender of a crew matter for audiences?

Key Findings

- All of the films that were most popular with men were written and directed by men
- 42% of the films that were most popular with women were written by women
- The films with the highest proportion of men in the audience were Action films
- Over the past decade, the films with the highest percentage of men in the audience were United 93, V For Vendetta and Captain America.
- The films with the highest percentage of women in the audience were Penelope, Jane Eyre and Wild Child.

Do female audiences prefer to watch films made by female filmmakers?

There are many reasons why the under-representation of women in the film industry could be seen as a problem. These include female crew members finding it harder to get hired/paid, employers selecting workers from a pool that is half the size it should be, fewer female role models for aspiring creatives and, of course, justice / equality / fairness.

Another possible reason is a reduced female perspective in stories/characters, so I took on a side project to investigate the question "Do female audiences prefer to watch films made by female filmmakers?"

In order to answer this question we need to ask the following sub-questions...

1. Do men and women go to the cinema in equal numbers?
2. Do men and women watch the same films?
3. What gender are the filmmakers behind the films that each gender prefers?

Q1. Do men and women go to the cinema in equal numbers?

Roughly, yes. The UK population is 51% female and that the average person in the UK visits the cinema 2.7 times a year. There is no difference between the frequency of cinema visits between genders.

Figure 7.1 Percentage of UK population who visit a cinema at least once a year

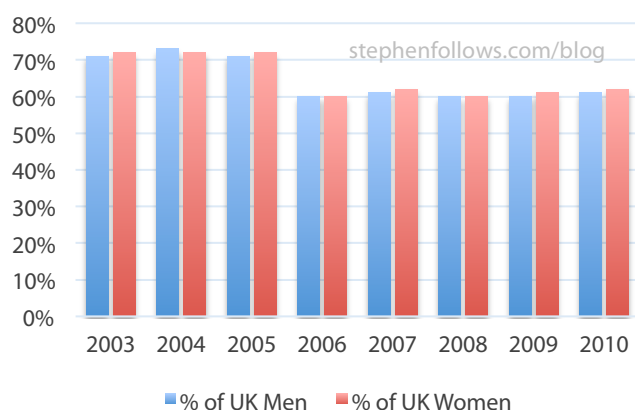
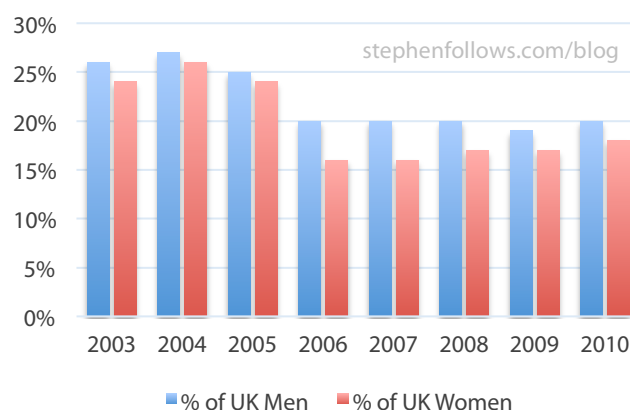


Figure 7.2 Percentage of UK population who visit a cinema at least once a month



Source: BFI/ UKFC Yearbooks, CAVIAR 23 and Quarterly Reports, CAA Film Monitor

Q2. Do men and women watch the same films?

The BFI regularly carry out exit polls on new film releases to discover more about who is watching films in UK cinemas. Taking this dataset for 251 films released between 2003-2012, I have been able to build up a list of the films with the highest proportion of men in the audience and the equivalent for women. This gives us a league table of sorts, revealing the 'Most Male' and 'Most Female' films of the past decade.

Figure 7.3 Films with the 'Most Female' Audience in UK cinemas 2003-12

Film	Male	Female
Penelope	10%	90%
Jane Eyre	14%	86%
Wild Child	15%	85%
Angus, Thongs and Perfect Snogging	16%	84%
Sex and the City	19%	81%
One Day	19%	81%
Bridesmaids	21%	79%
Hairspray	22%	78%
Miss Potter	22%	78%
The Other Boleyn Girl	22%	78%
Marley & Me	22%	78%
The Devil Wears Prada	22%	78%
The Queen	23%	77%
High School Musical 3	24%	76%
Mamma Mia!	25%	75%
Evelyn	26%	74%
Calendar Girls	27%	73%
Sex and the City 2	27%	73%
S Club Seeing Double	28%	72%
Enchanted	29%	71%



Figure 7.3 shows films with the highest percentage of women in the audience for the 251 films featured in BFI exit polls, released in UK cinemas between 2003-12.

Figure 7.4 Films with the 'Most Male' Audience in UK cinemas 2003-12

Film	Male	Female
United 93	89%	11%
V for Vendetta	82%	18%
Captain America: The First Avenger	78%	22%
Green Zone	76%	24%
Resident Evil: Apocalypse	75%	25%
Severance	74%	26%
Dredd	74%	26%
Alien Vs Predator	74%	27%
Layer Cake	73%	27%
Senna	73%	27%
Transformers: Dark of the Moon	73%	27%
Mission: Impossible Ghost Protocol	73%	27%
300	72%	28%
Terminator Salvation	72%	28%
Alexander	72%	28%
Iron Man	71%	29%
Match Point	71%	29%
Dodge Ball: A True Underdog Story	71%	29%
Wrath of the Titans	70%	30%
Shaun of the Dead	70%	31%

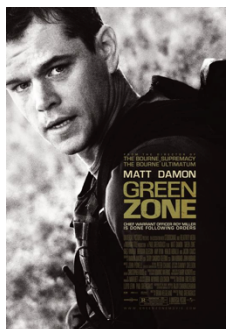


Figure 7.4 shows the films with the highest percentage of men in the audience for the 251 films featured in BFI exit polls, released in UK cinemas between 2003-12.

Q3. What gender are the filmmakers behind the films that each gender prefers?

Once I had compiled these league tables I researched who were the key filmmakers behind these 40 movies. The results tell a clear story...

The 'Most Male' films are written and directed exclusively by men, four out of five of the producers are male and three-quarters of the principal cast (i.e. top seven names) are also men. In total, 83% of the people involved with these films were men.

However, the pattern is not the same for women. While there are far more female filmmakers in the 'Most Female' chart, men are still the majority at 54%.

The only place where women outnumber men is in the principal cast. It should be noted that 42% of the writers for the 'Most Female' chart are women, which is way above the UK average of 12% for all films.

Figure 7.5
Gender of the key creatives for the top 20 films with the 'Most Female' audiences in UK cinemas 2003-12

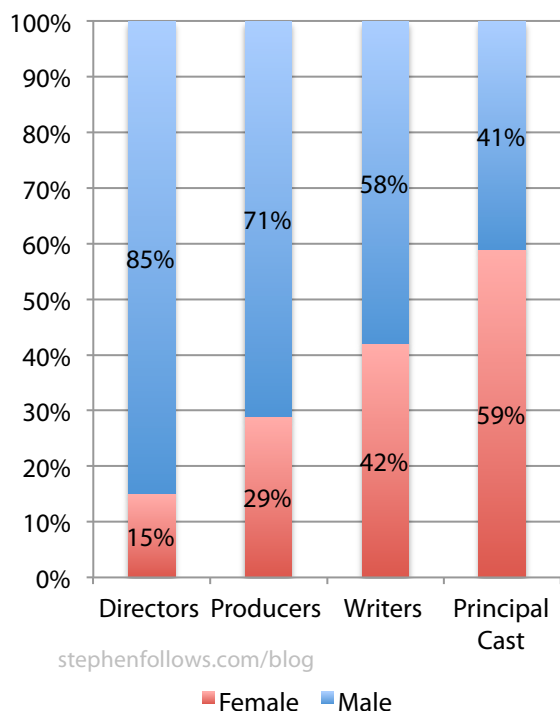


Figure 7.6
Gender of the key creatives for the top 20 films with the 'Most Male' audiences in UK cinemas 2003-12

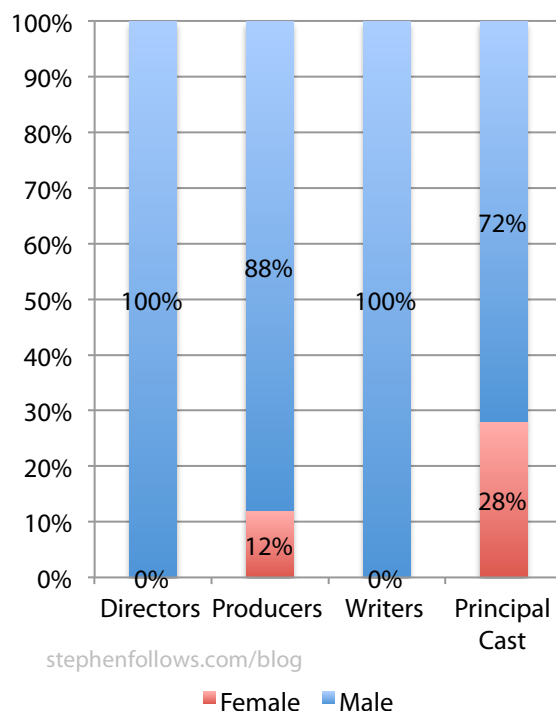


Figure 7.5 shows the gender of the writer, producer, director and principal cast (up to seven people) for the 20 films with the highest percentage of women in the audience (out of the 251 films featured in BFI exit polls, released in UK cinemas in 2003-12).

Figure 7.6 shows the gender of the writer, producer, director and principal cast (up to seven people) of the 20 films with the highest percentage of men in the audience (out of the 251 films featuring in BFI exit polls, released in UK cinemas in 2003-12).

Q4. Which genres do men and women prefer?

Using the audience data above we can see how popular different genres are with each gender.

Figure 7.7 Genres of the top 20 films with the 'Most Female' audiences in UK, 2003-12

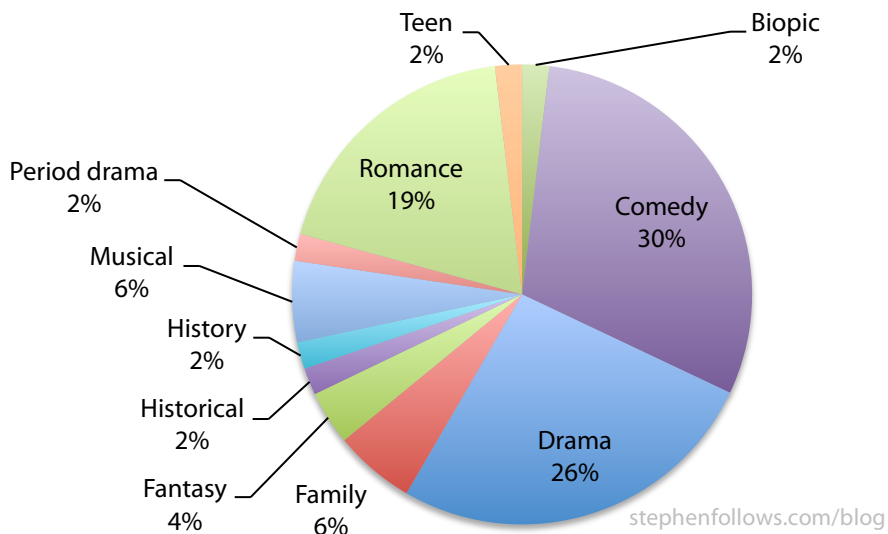


Figure 7.7 shows the genres of the 20 films with the highest percentage of women in the audience of the 251 films featured in BFI exit polls, released in UK cinemas between 2003-12

Figure 7.8 Genres of the top 20 films with the 'Most Male' audiences in the UK, 2003-12

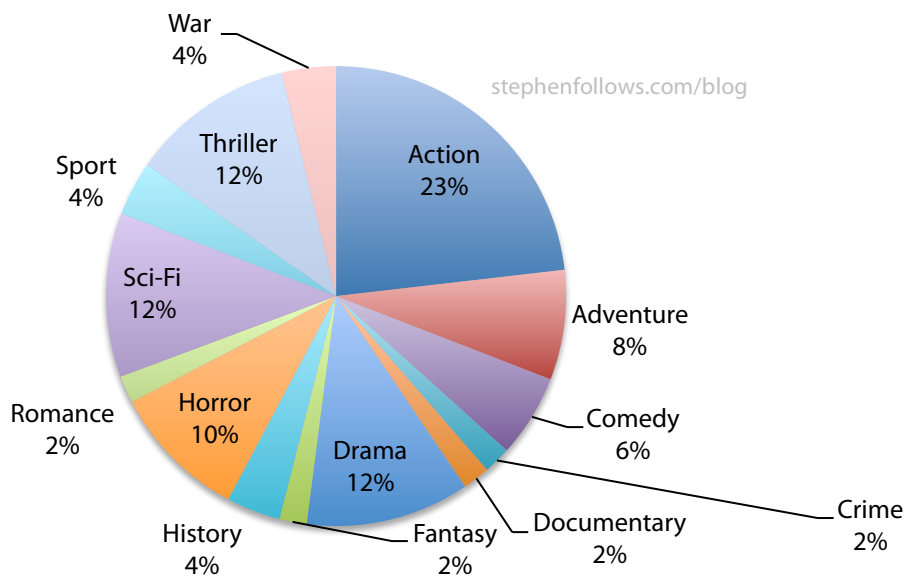


Figure 7.8 shows the genres of the 20 films with the highest percentage of men in the audience for the 251 films featured in BFI exit polls, released in UK cinemas between 2003-12

About This Research

Data Sources

The raw data came from industry sites (including IMDb and Opus), other publicly available data sites (including Wikipedia and official movie websites) and trade publications (including BFI Statistical Yearbooks and CAA Film Monitor).

It was not possible to rely on a single source, as I could not find one place that had accurate enough data. I spoke to IMDb about licencing their database but they were unwilling to do so as my plan was to raise the \$15,000 annual fee via crowd-funding.

Methodology

For this study I used two different datasets...

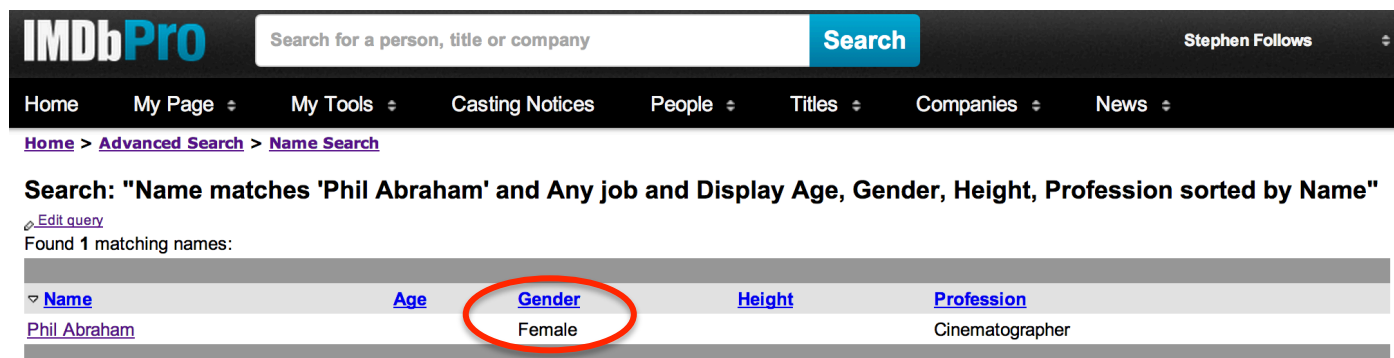
- **'Genre'** – These were the 100 highest grossing films in each genre at the US Box Office. 74% of the films in the genre list were produced after 1995.
- **'Year'** – These were the 100 highest grossing films in each year, at the US Box Office. This means that some well-known but poorly performing films will be excluded. For example, films released in 2013 that fell out of the top 100 grossing films include "Her", "The World's End" and "Don Jon".

For the avoidance of doubt, whenever I refer to 'the crew,' I do not include the cast. I have defined 'crew' as all the people it took to make a film, excluding actors, voice artists, extras and background artistes.

Assessing Gender

The size of this study meant that it would be impossible for me to manually inspect each person's biography and assess their gender. Therefore I found ways of automating this process. In about 45% of cases I was able to find external, verifiable evidence of a person's gender using publicly available data.

I have found that IMDb's 'gender' attribute is only set in some cases, and in a few cases is actually wrong. A case in point is Emmy-award winning director cinematographer of Mad Men and The Sopranos, Phil Abraham, who is listed as a woman.



The screenshot shows the IMDb Pro search interface. At the top, there is a search bar with the text "Search for a person, title or company" and a "Search" button. Below the search bar, there is a navigation menu with links for Home, My Page, My Tools, Casting Notices, People, Titles, Companies, and News. The search results are displayed in a table format. The search query is "Name matches 'Phil Abraham' and Any job and Display Age, Gender, Height, Profession sorted by Name". The results show one matching name: Phil Abraham. The table has columns for Name, Age, Gender, Height, and Profession. The Gender column for Phil Abraham is circled in red and contains the word "Female".

Name	Age	Gender	Height	Profession
Phil Abraham		Female		Cinematographer

For the remaining people I built a program to analyse the probability that they were a man or a woman. This used lists of names and genders as well as the data from the names for which I did know a gender. If at least 90% of people with a certain first name were a man then I assumed that all of the unknown people with that first name were also men. I spot-checked this method a number of times and feel satisfied that it produced suitable accuracy for my needs.

If all these methods failed to assess gender to a high enough degree of certainty then I listed them as 'Unknown gender' in my data. Across all my data, 3% of names were classified as 'Unknown' and I excluded this when calculating the male and female percentages. Given more time or resources I would like to go back and discover genders for the missing 3%, but even if I were to do so it couldn't affect the overall headline figures enough to be significant.

Limitations and Subjective Decisions

Below are some of the limitations to this research, as well as the subjective decisions I made along the way, which could have influenced the results.

- **Reported data** – To perform this kind of analysis I am reliant on the producers, studios and crew members taking the time to display their up-to-date credit details publicly. This means that if someone was uncredited on the film and had not taken to the time to add themselves to a site such as IMDb then I have no way of knowing that they should be included in that film's crew. I feel that this will be a very small number of people as such sites are used by industry professionals as evidence of experience. Furthermore, I see no reason to assume either gender have a higher propensity to under-report their professional credits, so I doubt this factor will affect my results in any significant way.
- **Domestic BO** - I used the US box office gross as it was the most complete box office data available for such a large number of films. Had I used the total worldwide box office (i.e. including all international territories) then it might have given me a slightly different set of films.
- **Inflation** – When referencing box office figures I did not adjust for inflation. This had no effect on the year-based research, although for the genre-based research this would have provided a skew towards more modern films. I feel that this created a more relevant set of films as adjusting for inflation would have produced a list less suitable to today's industry and audience tastes.
- **Genre** – Genre is a loose term and at the margins it fails to be a precise classification. 'Animation' is normally listed as a genre, despite the fact it includes everything from "Finding Nemo" to "South Park". Similarly, many films have multiple genres and some even defy genre classification.

Thanks

This survey would not have been possible without the continued support of Sophie Lifschutz and Alyssa Thorne – thank you both :).

Find Out More

I publish all of my investigations and their findings at <http://www.stephenfollows.com>, where you can also see my previous surveys, research and data.