

Re-Distributing Gender in the Global Film Industry: Beyond #MeToo and #MeThree

Deb Verhoeven 

UNIVERSITY OF ALBERTA, EDMONTON
deb.verhoeven [AT] ualberta.ca

Bronwyn Coate

RMIT UNIVERSITY
bronwyn.coate [AT] rmit.edu.au

Vejune Zemaityte¹

DEAKIN UNIVERSITY
vzemaity [AT] deakin.edu.au

Abstract

This article draws on a big cultural dataset of over 130 million global screen times to consider the impact that the gender of a film's director has on the screening prevalence and geographic spread of new release feature films at the cinema. We compare results based on film screenings between December 2012 and May 2015 across a set of forty countries including the United States, France, Germany, Australia, Japan, India, and Brazil. This research is timely in light of renewed attention given to sexism and gender discrimination in the film industry. Rather than focus on the statistical paucity of women in production teams, where discrimination acutely diminishes workplace opportunities, our analysis instead focuses at the other end of the spectrum and identifies gendered patterns in film screenings across the globe. We correlate our findings to the social gender gap analysis undertaken by the World Economic Forum. We hope the research may be used as evidence to support nuanced policy innovations that can result in greater gender equality in the film industry and society more broadly.

Keywords: Film Industry, Gender Gap, #MeToo, #MeThree, Gender Discrimination, Kinomatics, Creative Teams

Introduction

#MeToo has been a powerful event in the film industry for bringing to light the shared nature of women's experiences of misogyny. What might have once been dismissed as subjective anecdote has, through the sheer force of repetition and collective recognition, added up to something much greater. At this moment, the industrial pressure put on individual women to conceal their own subdual has been exposed. And yet each telling is distinct. #MeToo also considers the intersectional feminist acknowledgment that we must and do live courageously with and within difference. Each #MeToo telling paints an overlapping, complex portrait of inexcusable film industry employment practices. Perhaps, in giving accumulated credence to separable experiences, #MeToo echoes a classic feminist clarion call—that the personal is indeed always political.

In part then, what is at stake here is a matter of scale. The relationship between the personal and the political also describes the relationship between the specific and the structural, between the anecdote and the authoritative, and between the example and the evidence. And this suggests, inversely, that if the industry is to ever achieve gender equality, if it is ever to effectively redistribute power, then change must also occur at scale—from the smallest of habits to the widest of policies—and that it is highly unlikely any one solution will suffice.

This article seeks to complement the specific level of #MeToo experiences with analysis derived from a global data collection. We draw on an international dataset of over 130 million cinema showtimes to consider the impact that the gender of a film's director has on the screening prevalence of new release feature films. We compare results based on film screenings that took place between December 2012 and May 2015 across a set of forty countries, including the United States, France, Germany, Australia, Japan, India, and Brazil. Rather than focusing our attention on gender disparities solely at the production level, our analysis focuses at the other end of the spectrum and identifies patterns at the screening level that are indicative of the access that audiences have to films by women. We find that although around 15 percent of films released in our sample period were directed by women, these films made up only 3 percent of global screenings. A galling statistic that has inspired us to use the hashtag #MeThree.

It is a tag that also has considerable value at other levels. As a numerical reference, #MeThree also suggests there is a quantitative dimension that underlies the qualitative accounts of #MeToo and it explicitly recognizes their power as a cumulative accounting of distress in the screen industry. #MeThree also reminds us that studies into gender inequality (including this one) would benefit from a non-binary and intersectional approach to their research. In this context, we are at pains to note that our use of two genders throughout the following analysis is not intended to in any way essentialize or reiterate these dual categories. Our intent is to understand how the uneven distribution of power in the world occurs in terms of social differences and to use the data we have at hand to redress the values that underpin these discriminations.

Our research has three contributions to make to current commentary about the persistence of male domination in the film industry. First, that although this is a global problem, the extent of male domination varies across different jurisdictions and repair may therefore also require targeted and cooperative solutions rather than a singular, universal proposition.

Second, that simply adopting an “add women directors and stir” approach will not be enough since male-dominated gatekeeping occurs at many points in the lifecycle of films directed by women. And finally, that power inequalities in the film industry are the expression of, and contribute to, wider inequitable social relations. We find evidence of a positive correlation between estimations of a socio-economic gender gap at the national level and the level of audience access to films directed by women in those countries.

Our purpose in collating and analyzing distribution statistics is to provoke industrial actions for the equitable opportunity and improved workplace conditions for women filmmakers and provide the baseline for measuring the success or failure of remedial policies at the jurisdictional level. We are motivated not by demonstrating the film industry’s “countability” but by insisting on its *accountability*. Our study is driven by our conviction that there is a way to move beyond using data to describe the extent of a problem and instead work with data that can indicate where, when, and how to intervene. The mathematical, the statistical, and the quantitative are all pivotal to understanding the operations of contemporary power. New forms of evidence and innovative analytic techniques are the critical weapons in a revitalized feminist arsenal.

We are mindful that aggregate statistics are not an end in themselves. The purpose of our global analysis is not to simply argue for the *numerical* equability of women in the production industry, which is generally accepted as a desirable aspiration, but instead to better understand how to redress the dominating behaviors of men. As #MeToo so painfully reminds us—using data to address profound and long-term gender inequalities is ultimately about improving the lived experiences of women who aspire to work productively in the film industry and who have been persistently prevented from doing so.

Measuring Gender Inequality in the Film Industry

Recent research shows that on many measures the creative workforce remains fundamentally unequal in a number of structural dimensions, including race, class, and gender.² In relation to gender diversity in the film industry, the majority of these studies rely on data describing distinct geo-political jurisdictions resulting in a rich body of national analyses that is also reiterated by film policy enquiries at this same level.³ While far less prevalent, there are some studies which extend beyond the national to provide a limited multi-national perspective⁴ or a sub-national analysis.⁵

We present a descriptive analysis of film titles released and screened around the globe for their diversity in terms of the director’s gender. Our research is distinctive for two reasons. First, it draws on a large global database of cinema exhibition or “showtime” data from the Kinomatics database and therefore operates beyond the level of the national. Second, by looking at exhibition data, we see a very different picture of diversity than the one suggested by the raw number of release titles directed by women. Our analysis reveals a remarkable universal snapshot of male domination across film industries of different stripes. And yet there are nuances too.

We focus our study on the performance of films directed by women. Directors are a useful litmus test for the statistical measurement of industry inclusion. Across the globe, the number of women film directors has barely moved over lengthy periods. A major study of women directors in the United Kingdom found that between 2004 and 2015, just 13.6 percent of working film directors were women and that there had been no meaningful improvement in the representation of women film directors during this entire time.⁶ Martha Lauzen's annual study of women's participation in the Top 250 domestic box-office earning films shows that women accounted for 11 percent of directors in 2017, which is the same percentage they occupied in 2000.⁷

One explanation provided for the stubborn domination of male film directors is that directing is considered a senior role, and employment applications in this category therefore face a higher than usual risk assessment which results in homophily at industrial scale. This, combined with the widespread belief that women are riskier than men as creative team members, has the effect of disproportionately diminishing the chance a woman has of being hired in this role.⁸ This observation is reiterated by data from the United States industry, which shows that male directors start their careers comparatively earlier than women, work much later into their life, and enjoy repeated opportunities to direct, whereas women predominantly suffer the "one and done" phenomenon.⁹ This lessened chance a woman has of being hired as a director is obscenely amplified when looking at the struggles that under-represented women have in occupying this role. Analysis of women directors in the 1,100 most popular films released in the United States between 2007 and 2017 showed that of the forty-three unique women directors (4.3 percent of all directors in the study), thirty-six were white, four were black/African American, two were Asian, and one was Hispanic/Latina.¹⁰

Examination of policy interventions focused explicitly on improving the participation of women in creative teams show that these do not meaningfully improve the situation for women directors. The Australian film industry's *Gender Matters* policy suite is a salient example of how generic participation targets for creative teams (producer, writer, director, and protagonist) are "gamed" by the industry. *Gender Matters* (launched in October 2016) is premised on the aspiration that half of all creative teams will be at least 50 percent women by the end of the 2018/2019 funding year. This equates to an effective overall target of 25 percent (half of half). Screen Australia's *Gender Matters* target of 25 percent is, in fact, lower than historical precedents for women's participation. For example, the total percentage of women's participation in creative teams between July 1990 and June 2009 was 33 percent (284 women–867 men).¹¹ Statistics collected between 2012 and 2017 show that figure to be almost unchanged at 35 percent (230 women–670 men).¹² Yet, on a decade-by-decade basis, the percentage of women directors in Australia has fallen since the 1990s.¹³ Instead of improving creative team participation for women across all roles, we find that Screen Australia's targets are being met by disproportionately stacking creative teams with women producers.

In a creative team-based reckoning, roles such as producer that can be easily multiplied per production are used to absorb the overall numerical demand for more inclusive employment practices. Because the role of feature film director is almost without exception filled by a single person, there is no opportunity to lift the participation of women without removing a role for male creative or increasing the number of productions. Figure 1 graphically demonstrates how the number of women producers in government-funded features in Australia more than doubled between 2016/2017 and 2017/2018 leading to Screen Australia's claim that their participation target (women occupying 50 percent of half the creative teams) has now

been met. Calculated on a per film basis (and therefore accounting for annual changes in production activity), women producers remained steady at 0.85 per production in 2015/2016 and in 2016/2017 before increasing dramatically to 1.4 in 2017/2018. Directorial and writing roles for women also increased across the reporting period, both in aggregate terms and relative to production levels albeit on a more equivocal basis. But tellingly, the ratio of producer roles relative to other team members increased over the period, presumably to accommodate the influx of additional women producers (0.85 producers for every other creative in 2014/2015 and up to 1.05 producers per other creative in 2017/2018). As *Gender Matters* is a “just add women and stir” initiative, the total number of men in creative roles has remained consistent over the past two years of activity and on a per project basis actually climbed higher across the reporting period before dropping slightly in the most recent year of data.

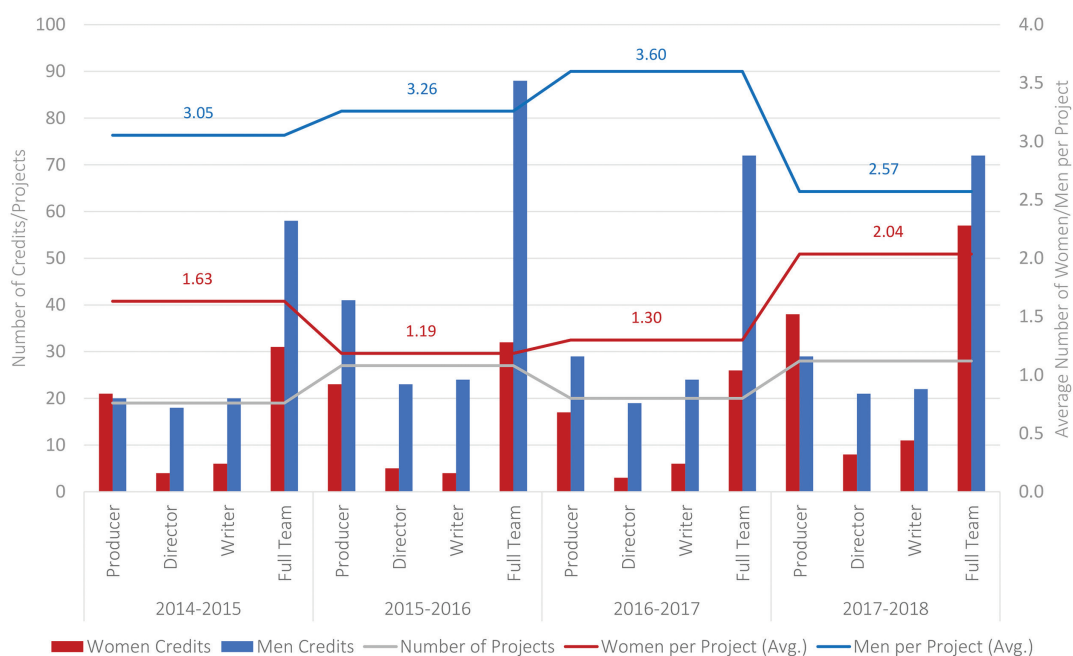


Figure 1. Screen Australia feature film production funding from 2014 to 2018, count of creative team credits by gender, count of funded projects, and the average number of women and men involved per project. Data extracted from Screen Australia reports.¹⁴

Re-Distributing Women— From #MeToo to #MeThree

Although the comparative dearth of women directors is well documented, less analysis has been undertaken of the relative access audiences have to films directed by women. A significant study released in 2016 by the website *Slated*, found that of the 1,591 feature films released theatrically on at least one screen in the United States between 2010 and 2015, films directed by women faced a distribution gap. The lack of theatrical exposure for women directors was most pronounced in films with budgets of less than US\$25 million (i.e., non-Studio films).

Films directed by men in this budget range were shown on three times as many screens as films directed by women. This statistic is aggravating because women directors are more likely to be working in this budget range than with larger budgets.¹⁵

Perhaps the most visible dissent about the limited exposure of films directed by women has occurred in non-theatrical outlets such as the high-profile protests that occurred at many of the world's A-list film festivals in 2018. At the 2018 Cannes International Film Festival, for example, eighty-two women filmmakers, actors, and lobbyists (the same number as the number of women directors nominated for awards throughout the entire seventy-one-year history of the event) staged a red-carpet rally. Similar protests have occurred at other key festivals such as Venice and Toronto. And although some of these events have adopted diversity charters (more data transparency around film selection processes, more women on festival boards), they continue to defer to peer-based determinations of "merit" rather than adopt active interventions for equality of inclusion.

Newly available datasets provide an opportunity to understand these intersecting systems of gatekeeping that operate to constrain the advancement and visibility of women directors. For example, data describing internationally released films screening theatrically around the world from December 2012 to May 2015 reveal that women working as solo directors or in women-only teams helmed 15 percent of all the new release movies that screened in that period. This is higher than the percentage of films directed by women in many key filmmaking centers at this time; in Hollywood, for example, women only directed 7 percent of the top 250 grossing films.¹⁶ From a purely numerical perspective then, our findings appear to be comparatively positive.

But it is not the full picture. If we look beyond the supply side (how many films by women directors) to the exposure side of the industry (how many times these filmmakers' movies were screened to audiences in a cinema), the data are telling and terrible. Films directed by women constituted only 3 percent of all the screenings that occurred within our global sample.

When we break the data down to look at the screenings of films directed by women at a country level, we can see how filmmaker gender is distributed unevenly around the globe. In South America and the United Kingdom, only slightly over 2 percent of screenings were of films directed by a woman, while in North America and Asia the situation is only slightly improved with just under 3 percent of screenings by sole women directors. In Scandinavia, the situation is markedly better but still falls far short of parity with around 7 percent of screenings devoted to films directed by women. In almost every jurisdiction, the proportion of films directed by women exceeds the percentage of screenings (the four exceptions being India, Japan, Philippines, and Vietnam).

What this suggests is that strategies that are limited to "just add women directors and stir" are doomed to fail without additional consideration of corresponding acts of gatekeeping, such as when negative assessments of aesthetic value, or adverse adjudications of market potential are used to argue against women's participation. Anna Serner, CEO of the Swedish Film Institute, has noted how consciously redefining highly gendered industry precepts such as "merit" and "risk" in the decision-making process, combined with methodical statistical verification, triggered her industry's recent success in women's participation: "We do the counting every month but we do the counting after taking the decisions."¹⁷

The Kinomatics Dataset

The data used in this analysis are sourced from the Kinomatics Global Showtime database that contains information on screenings, cinemas, and movies for all showtimes of all films in all cinema venues in forty-eight countries from December 1, 2012 to May 30, 2015.¹⁸ During this thirty-month period, information on over 338 million screenings for 96,000 movies screened in 33,000 venues across forty-eight countries was collected by a third-party company World Wide Media. The Internet Movie Database (IMDb) is used as a supplementary data source for information on film characteristics including their origin, whether they are a co-production, their release date information and, importantly for this study, to verify details on films' directorial teams.¹⁹

In order to study the effect of gender on global cinema distribution and screenings, a number of criteria were used to select an appropriate sample for analysis. First, only films released between December 1, 2012 and December 31, 2013, were included so that each new release feature could be tracked for at least seventeen months, capturing the whole, or at least the majority a film's global run. Given differences in release strategies that impact how films are screened over time, we wanted to control for this effect and ensure that only films with a complete or near complete screening history were included as this may be relevant, if, for instance, films directed by women more frequently have a staggered release as opposed to a wide or general release.

A second criterion is that only films that visited at least two countries from the dataset are included. This ensures that films included within the sample share the important characteristic of being internationally distributed. As we are interested in uncovering evidence on global distribution patterns of films according to the director's gender, as well as how this manifests at national levels expressed in terms of screening volumes, it was essential to ensure that only films being internationally distributed were included within the sample.

The third criterion is designed to ensure that only commercial releases as distinct from films screened solely at film festivals are included. As such, films included within the sample had at least twenty screenings and exhibited for at least seven days to be classified as a conventional theatrical release.

All films satisfying these three selection criteria are included within our sample. A resulting sample comprising 3,424 unique feature films, including co-productions as well as features originating from 124 different countries screening across the 40 countries, is used for the analysis.²⁰ The sample is described in Table 1. Given the extensive data and sample size this study draws from, summary statistics are in themselves important in aiding understanding and providing a reliable snapshot at a point in time to reflect patterns of film distribution and associated screenings.

Unlike previous studies, this one uses a far more extensive sample, particularly in its coverage of many countries, to understand the international flow and movement of film. Our dataset covers forty countries comprising some of the world's largest cinema markets, including the United States, France, Germany, India, Japan, the United Kingdom, and Australia as well as emergent cinema markets such as Vietnam, Indonesia, and South Africa, which are

Table 1. Sample Summary of Countries Covered Including Film and Screening Counts.

Country	No. of films	No. of screenings	Country	No. of films	No. of screenings
Argentina	696	1,167,190	Netherlands	817	946,091
Australia	1,099	3,567,274	New Zealand	581	715,789
Belgium	829	621,833	Norway	651	259,691
Brazil	954	2,859,173	Peru	352	562,559
Bulgaria	182	197,088	Philippines	297	639,271
Canada	1,391	3,460,288	Portugal	500	685,760
Chile	435	554,602	Singapore	475	168,823
Columbia	519	919,127	South Africa	484	1,122,797
Finland	456	220,358	South Korea	636	2,098,459
France	1,176	7,518,524	Spain	823	4,620,745
Germany	1,274	4,771,905	Sweden	458	503,821
Greece	481	284,502	Switzerland	992	490,983
India	276	2,610,138	Taiwan	532	1,003,639
Indonesia	598	645,877	Thailand	347	360,910
Ireland	635	704,810	Ukraine	447	590,535
Israel	825	453,008	United Arab Emirates	550	596,905
Italy	960	3,031,303	United Kingdom	3,502	5,868,774
Japan	860	5,670,749	United States	2,276	58,131,468
Luxembourg	459	39,180	Venezuela	322	309,982
Mexico	834	8,356,620	Vietnam	189	213,723

typically much less studied. In this sense, the dataset provides a “global” perspective, rather than a simple bi-lateral or restricted multi-lateral perspective between a limited set of countries. Indeed, bearing in mind that the forty countries covered represent around 3.49 billion people or almost half of the world’s population in 2015, this sample is broadly representative of global film diffusion despite differences that are observed at the country level.

A further benefit of our sample is that it provides a far more extensive set of films for analysis meaning that our findings are not restricted to a particular segment of the film market, such as high grossing blockbusters. This is a particularly important feature for a study such as this given that differences in women’s participation rates may vary across distinct segments of the film market. By including a variety of film types with different distribution strategies and that enjoy different fortunes at the cinema, we can glean insights into inclusive and exclusive patterns of distribution for women directors across a range of film exhibition practices.

As previously mentioned, another feature of the sample is that rather than use box office, it is based principally around the amount of screenings films receive at the cinema in each of the

forty countries covered. It comes as no surprise that the use of screening as a variable has rarely been employed given that the availability of detailed showtime information is limited. Analysis based on the unique screening data at such an extensive level via the Kinomatics Project means that the insights from this article make an important contribution by revealing data on the distribution of films directed by women and the prevalence of screenings these receive.

Comparing Country-Level Showtime Data to Reveal New Evidence of Discrimination Against Women Directors

While a variety of sources provide insight into discrimination faced by women within the film industry, most quantitative evidence relies on film level data. We provide evidence showing that the situation faced by women worsens considerably when translated to screenings. Table 2 provides evidence on the differences in film and screening levels for new release features involving women in the directorial team. As revealed in all but four cases (Japan, Philippines, India, and Vietnam) the low share of screenings for films including a woman director provides evidence that discrimination exists across all levels of the industry including distribution and exhibition.

Table 2 and Figure 2 show that while films involving women directors remain woefully under-represented at the cinema across all countries, there are notable differences in how dire the situation is. In particular, it is of interest to consider whether the countries where women's representation is relatively high are notably different, particularly in terms of policy and gender equality, compared to those countries where representation is the lowest. Evidence from the countries where better outcomes are observed may provide insight into measures and policy directions that can assist in lifting women's access within the industry. To do this, we compare the countries where screenings of films directed by women, including in mixed directorial teams, exceed 10 percent (Norway, Philippines, South Korea, Netherlands, Germany, France, Finland, Sweden, and Japan) to ones in which the women directors' representation sits below 6 percent (Indonesia, Thailand, Columbia, Mexico, Vietnam, Greece, and Taiwan). Interestingly, most of the countries where there is greater acceptance of films directed by women also have national policy frameworks addressing gender equality within their domestic screen industries. This represents an area worthy of further exploration and testing in research particularly in relation to exceptions.

The evident drop-off in screening shares allocated to films directed by women highlights the need for policy action that extends beyond measures solely concerned with the inclusion of women in production teams. Our research findings imply that the shortage of finance for women filmmakers has repercussions for their success through the entire life-cycle of filmmaking—from development all the way through to exhibition. Analysis has shown that women-driven films generally provide a better return on investment (relative to budget) and that where all other factors level, women would not represent any greater fiscal risk than male directors.²¹ This points to the fact that the disadvantage faced by women directors is not based on economic grounds, but is the result of interlocking systems of male gatekeeping that cumulatively act to prevent films by women getting wider exposure.

Table 2. Shares of Films and Film Screenings for New Release Features Which Include a Woman As Part of the Directorial Team.

Country	Films			Screenings			Country	Films			Screenings		
	No. involving a woman director	% involving a woman director	No. involving a woman director	% involving a woman director	No. involving a woman director	% involving a woman director		No. involving a woman director	% involving a woman director	No. involving a woman director	% involving a woman director	No. involving a woman director	% involving a woman director
Argentina	125	18.0	96,124	8.2	124	15.2	Netherlands	124	15.2	102,513	10.8		
Australia	176	16.0	216,325	6.1	81	13.9	New Zealand	81	13.9	54,010	7.5		
Belgium	136	16.4	53,425	8.6	113	17.4	Norway	113	17.4	26,680	10.3		
Brazil	15	8.2	12,733	6.5	45	12.8	Peru	45	12.8	36,502	6.5		
Bulgaria	193	20.2	232,075	8.1	24	8.1	Philippines	24	8.1	66,364	10.4		
Canada	258	18.5	220,140	6.4	56	11.2	Portugal	56	11.2	46,975	6.9		
Chile	64	14.7	40,059	7.2	43	9.1	Singapore	43	9.1	10,714	6.3		
Columbia	75	14.5	49,599	5.4	64	13.2	South Africa	64	13.2	67,944	6.1		
Finland	86	18.9	27,062	12.3	77	12.1	South Korea	77	12.1	225,100	10.7		
France	221	18.8	913,661	12.1	127	15.4	Spain	127	15.4	303,074	6.6		
Germany	227	17.8	549,089	11.5	82	17.9	Sweden	82	17.9	65,393	13.1		
Greece	65	13.5	15,941	5.6	180	18.1	Switzerland	180	18.1	42,212	8.6		
India	16	5.8	43,734	6.8	52	9.8	Taiwan	52	9.8	56,969	5.7		
Indonesia	47	7.9	105,205	4.0	20	5.8	Thailand	20	5.8	15,385	4.3		
Ireland	91	14.3	52,422	7.5	43	9.6	Ukraine	43	9.6	47,872	8.1		
Israel	164	19.9	37,139	8.2	52	9.5	United Arab Emirates	52	9.5	39,836	6.7		
Italy	160	16.7	210,038	6.9	573	16.4	United Kingdom	573	16.4	412,955	7.0		
Japan	88	10.2	763,960	13.5	413	18.1	United States	413	18.1	4,736,951	8.1		
Luxembourg	69	15.0	3,691	9.4	52	16.1	Venezuela	52	16.1	23,404	7.6		
Mexico	142	17.0	456,595	5.5	9	4.8	Vietnam	9	4.8	11,733	5.5		

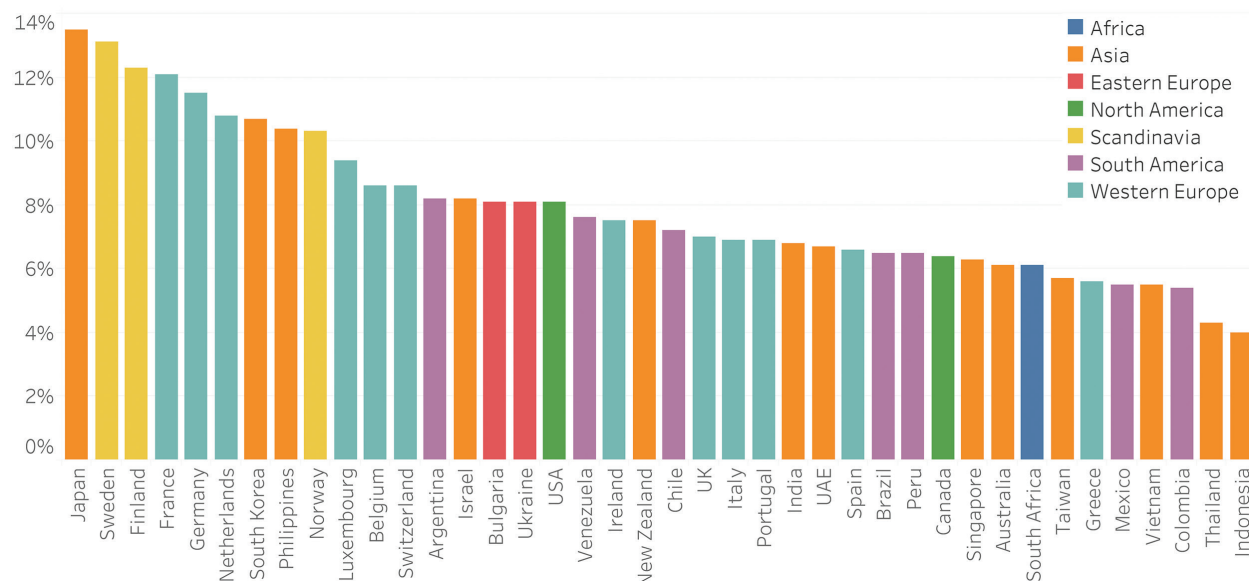


Figure 2. Shares of film screenings for new release features which include a woman as part of the directorial team for forty sample countries, colored by geographical region.

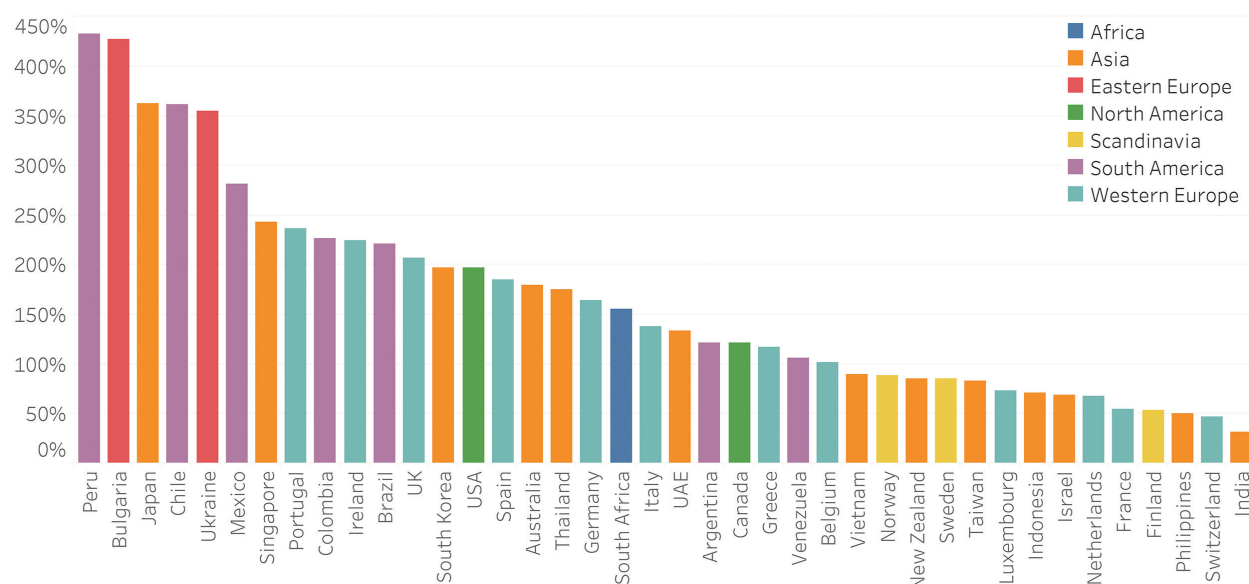


Figure 3. Increase in the shares of film screenings for new release features when both women-only and mixed-gender directorial teams are considered in contrast to women-only teams for 40 sample countries, colored by geographical region.

We also have evidence presented in Table 3 and Figure 3 on the directorial team at a detailed level that reveals how the outcomes for women are considerably improved once men become willing to work with women on their team. For instance, in Japan, screenings of films by women rise markedly (by 362 percent) when directorial teams involve women with only 2.9 percent of screenings comprising features directed by women-only compared to 10.6 percent

Table 3. Comparison of Film Screenings at a Country Level According to the Composition of the Directorial Team.

Country	% share of screenings for films directed solely by men or men-only teams	% share of screenings for films directed solely by women or women-only teams	% share of screenings for films directed by mixed-gender teams	% share of screenings for films involving women directors (sole, women-only and mixed teams combined)
Argentina	91.8	3.7	4.5	8.2
Australia	93.9	2.2	3.9	6.1
Belgium	91.4	4.3	4.3	8.6
Brazil	93.5	1.3	5.2	6.5
Bulgaria	91.9	2.5	5.6	8.1
Canada	93.6	2.9	3.5	6.4
Chile	92.8	1.6	5.7	7.2
Columbia	94.6	1.7	3.7	5.4
Finland	87.7	8.0	4.3	12.3
France	87.9	7.8	4.3	12.2
Germany	88.5	4.3	7.2	11.5
Greece	94.4	2.6	3.0	5.6
India	93.2	4.0	2.8	6.8
Indonesia	96.0	3.1	1.0	4.0
Ireland	92.5	2.3	5.2	7.5
Israel	91.8	4.9	3.3	8.2
Italy	93.1	2.9	4.0	6.9
Japan	86.5	2.9	10.6	13.5
Luxembourg	90.6	5.4	4.0	9.4
Mexico	94.5	1.4	4.0	5.5
Netherlands	89.2	6.5	4.4	10.8
New Zealand	92.5	4.1	3.5	7.5
Norway	87.7	5.4	4.8	10.3
Peru	93.5	1.2	5.3	6.5
Philippines	89.6	6.9	3.5	10.4
Portugal	93.1	2.0	4.8	6.9
Singapore	93.7	1.8	4.5	6.3
South Africa	93.9	2.4	3.7	6.1
South Korea	89.3	3.6	7.1	10.7
Spain	93.4	2.3	4.3	6.6
Sweden	86.9	7.5	5.6	13.1
Switzerland	91.4	5.8	2.8	8.6
Taiwan	94.3	3.1	2.6	5.7

Country	% share of screenings for films directed solely by men or men-only teams	% share of screenings for films directed solely by women or women-only teams	% share of screenings for films directed by mixed-gender teams	% share of screenings for films involving women directors (sole, women-only and mixed teams combined)
Thailand	95.7	1.5	2.7	4.3
Ukraine	91.9	1.8	6.3	8.1
United Arab Emirates	93.3	2.9	3.8	6.7
United Kingdom	93.0	2.3	4.7	7.0
United States	91.9	2.7	5.4	8.1
Venezuela	92.4	3.7	3.9	7.6
Vietnam	94.5	2.6	2.9	5.5
TOTAL	91.8	3.1	5.1	8.2

of screenings for films involving mixed gender directorial teams. As Table 3 shows, mixed directorial teams provide women directors with vastly increased exposure, which suggests remedial policies might be more effectively focused on getting men to work cooperatively with women rather than policies focused on simply increasing the number of women directors who will be relegated to the margins of distribution. To the extent that successful male directors are more frequently associated with bigger budgeted projects and wider releases, they offer a key to creating pathways for women to get a foothold and break into this particular segment of the industry. Policies that focus on adding more women without consideration of “down-the-line” gatekeeping are likely to result in reiterating the current two-tier structure within the industry in which men continue to dominate the most lucrative aspects of the business and women are effectively relegated to the edges.

The Cinema Gender Gap Indexes and Their Relationship to the Global Gender Gap Index

To investigate whether the gender inequality experienced and observed in film industries around the globe relates to gender inequality more generally, we took the Global Gender Gap Index²² developed by the World Economic Forum (WEF) and evaluated it against our data. Table 4 lists the Global Gender Gap Index and its four sub-indexes, namely Economic Participation and Opportunity, Educational Attainment, Health and Survival, and Political Empowerment for each of the countries included within the dataset. The Global Gender Gap Index provides a framework for capturing a range of gender-based disparities across the four listed fundamental categories. While it is used to enable tracking across countries to measure progress toward gender equality over time, we are interested to observe whether a country's progress toward overall gender equality is related to the “gender gap” in the number of films directed by women that achieve a theatrical release as well as access to films directed by women within country's cinemas.

Table 4. Global Gender Gap Indexes and Cinema Gender Gap Indexes for the Sample Countries. Note—Data for Global Gender Gap Indexes from The Global Gender Gap Report.²³ The Report Does Not Include Taiwan.

Country	Global Gender Gap Indexes					Cinema Gender Gap Indexes		
	Overall	Econ ...	Edu ...	Health ...	Polit ...	Film	Screening	
Argentina	0.72	0.59	1.00	0.98	0.31	0.17	0.04	
Australia	0.74	0.79	1.00	0.97	0.19	0.16	0.02	
Belgium	0.77	0.74	0.99	0.98	0.37	0.16	0.05	
Brazil	0.69	0.66	1.00	0.98	0.14	0.07	0.03	
Bulgaria	0.71	0.71	0.99	0.98	0.16	0.20	0.01	
Canada	0.74	0.80	1.00	0.98	0.20	0.19	0.03	
Chile	0.67	0.54	1.00	0.98	0.14	0.14	0.02	
Columbia	0.72	0.73	1.00	0.98	0.17	0.14	0.02	
Finland	0.84	0.77	1.00	0.98	0.62	0.19	0.09	
France	0.71	0.67	1.00	0.98	0.19	0.19	0.09	
Germany	0.76	0.71	0.98	0.98	0.36	0.18	0.05	
Greece	0.68	0.65	1.00	0.97	0.10	0.14	0.03	
India	0.66	0.45	0.86	0.93	0.39	0.05	0.04	
Indonesia	0.66	0.59	0.96	0.97	0.13	0.07	0.03	
Ireland	0.78	0.75	1.00	0.97	0.41	0.13	0.02	
Israel	0.70	0.69	0.99	0.97	0.16	0.21	0.05	
Italy	0.69	0.60	0.99	0.97	0.19	0.17	0.03	
Japan	0.65	0.58	0.98	0.98	0.06	0.09	0.03	
Luxembourg	0.74	0.82	1.00	0.97	0.18	0.15	0.06	
Mexico	0.69	0.55	0.99	0.98	0.25	0.17	0.02	
Netherlands	0.76	0.76	1.00	0.97	0.32	0.14	0.07	
New Zealand	0.78	0.78	1.00	0.97	0.37	0.14	0.04	
Norway	0.84	0.84	1.00	0.97	0.56	0.18	0.06	
Peru	0.68	0.63	0.98	0.97	0.14	0.12	0.01	
Philippines	0.78	0.78	1.00	0.98	0.38	0.07	0.08	
Portugal	0.71	0.67	0.99	0.97	0.18	0.11	0.02	
Singapore	0.70	0.79	0.94	0.97	0.10	0.08	0.02	
South Africa	0.75	0.65	0.99	0.97	0.39	0.13	0.03	
South Korea	0.64	0.50	0.96	0.97	0.10	0.11	0.04	
Spain	0.73	0.65	1.00	0.97	0.28	0.15	0.02	
Sweden	0.81	0.78	1.00	0.97	0.50	0.18	0.09	
Switzerland	0.77	0.77	0.99	0.97	0.36	0.19	0.06	
Taiwan	-	-	-	-	-	0.09	0.03	
Thailand	0.69	0.70	0.99	0.98	0.10	0.05	0.02	
Ukraine	0.69	0.74	1.00	0.97	0.06	0.08	0.02	
United Arab Emirates	0.64	0.47	1.00	0.96	0.12	0.08	0.03	
United Kingdom	0.74	0.73	1.00	0.97	0.27	0.15	0.02	
United States	0.74	0.82	1.00	0.98	0.16	0.18	0.03	
Venezuela	0.71	0.63	1.00	0.98	0.22	0.16	0.04	
Vietnam	0.69	0.70	0.97	0.94	0.12	0.03	0.03	

We developed two Cinema Gender Gap Indexes to measure the gap between men and women in the cinema industry in terms of the number of released films (Film Index) and the volume of screenings that those films receive (Screening Index) in each of the countries (also listed in Table 4). We derive the Film Index as a ratio of the number of films directed solely by women (or women-only teams) to the number of films directed solely by men (or men-only teams), and Screening Index as a ratio of the number of screenings that films directed solely by women (or women-only teams) receive to the number of screenings that films directed solely by men (or men-only teams) get. Excluding films with mixed-gender directorial teams enables us to directly compare the gap between the industry involvement of women and men.

The correlation between the WEF's Overall Gender Gap Index and the Cinema Gender Gap Indexes is 48 percent for Film Index and 57 percent for Screening Index, indicating a moderate positive relationship between the measures. This can be interpreted as meaning that as the overall gender gap closes within a country, the gap between director genders in film releases and screenings closes as well. Therefore, both in terms of the gender gap in the number of films released and the access to those films there is a correlation with the overall gender gap, although this positive relationship is more pronounced when it comes to the gap in accessing films by men and women.

The relationships between the Global Gender Gap Index and the Cinema Gender Gap Indexes are illustrated in Figure 4. Not surprisingly, we observe that the equality between the genders both nationally and within the cinema industries is greater in the Scandinavian countries, namely Norway, Finland, and Sweden, although Norway relatively lags in terms of the equal access to films directed by women. While France, Bulgaria, and Israel, which rank lower on the Global Gender Gap Index, are relatively better positioned in terms of the number of films released by both genders, only France remains at the forefront when equal access to films directed by men and women is considered. In contrast, the opposite is observed for the Philippines, which stands at the forefront in terms of equal access but behind many other countries considering gender equality by the number of released movies. As such, the Philippines is an outlier case that requires further investigation, especially because many other Asian countries rank low on both national and cinema gender equality indexes (together with South America).

When we look at correlations between the four Global Gender Gap sub-indexes and the two Cinema Gender Gap Indexes as presented in Table 5, the relationships between the Film Index and all four sub-indexes prove to be significant, while the Screening Index shows a notable correlation only with the Political Empowerment Index. This shows that the gap in terms of the number of films directed by men versus women relates to all four pillars of gender equality in a given country. However, the gap between the genders in terms of access to films directed by men and women relates exclusively to gender equality measured in terms of *political empowerment*, and this relationship is slightly stronger than that with the overall Global Gender Gap Index. To put it another way, while the number of films directed by women and men released into the country's market becomes more equal when the economic, education, health, and political equality between the genders increases, audiences obtain increasingly equal access to movies directed by women and men only when the political equality of gender rises. This finding could suggest that policy interventions that broadly benefit society in terms of gender equality and specifically political equality will also enable

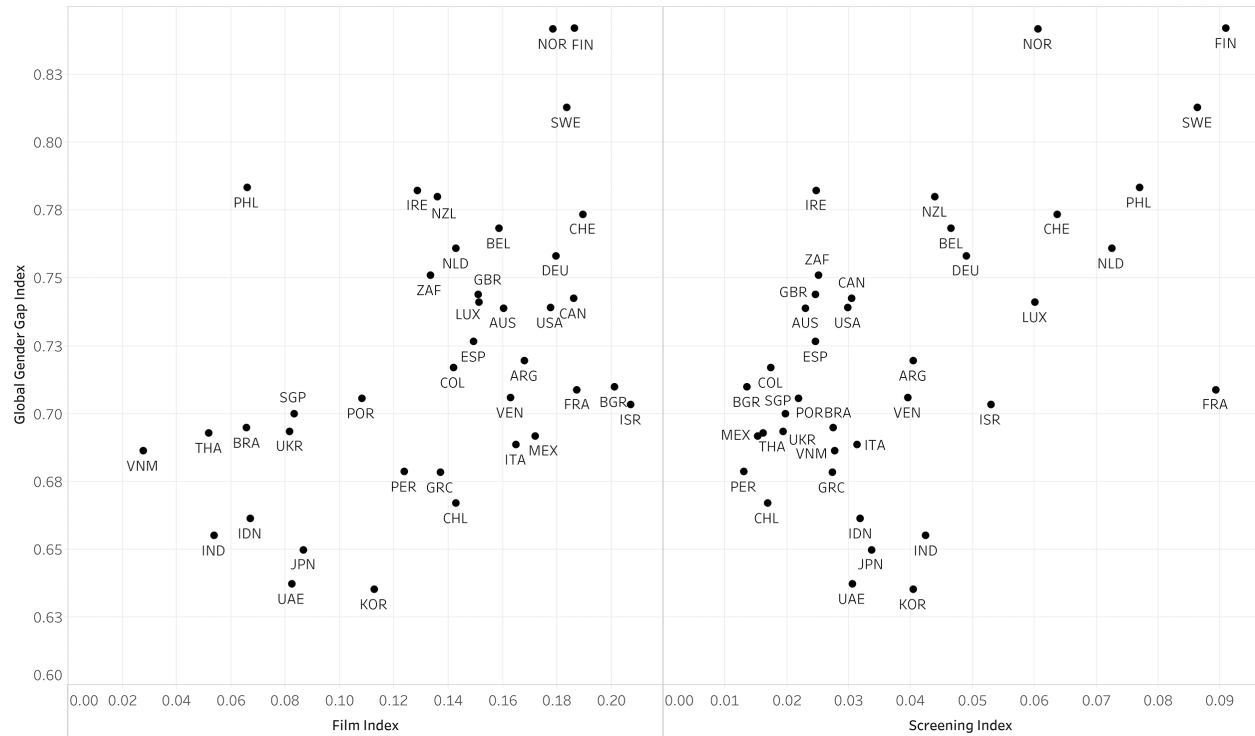


Figure 4. Relationships between the Global Gender Gap Index and the Cinema Gender Gap Indexes. Note—Taiwan is omitted as it does not receive the Global Gender Gap Index.²⁴

Table 5. Pearson Correlation Results Between Cinema and Global Gender Gap Indexes. Note—Taiwan Is Omitted As It Does Not Receive the Global Gender Gap Index.²⁵

Index/Index		Global Gender Gap Indexes				
		Overall	Econ . . .	Edu . . .	Health . . .	Polit . . .
Cinema Gender Gap Indexes	Film	.484**	.324*	.442**	.476**	.372*
	Screening	.569***	.307	.089	.061	.604***

* $p < .05$. ** $p < .01$. *** $p < .001$.

audiences to have more equitable access to films directed by women. The evidence we find shows this is an area deserving of further research and modeling.

Conclusion

This article is concerned with understanding differences in the acceptance and reception that films directed by women receive globally and specifically within different countries. We identify patterns of injustice based on analysis of film industry data and broader social equality indexes.

#MeToo has been a powerful force for bringing to light how prejudicial “personal” experiences were in fact shared. Our study of gender inequality in the global film industry shows that the evidence of widespread discrimination is clear and overwhelming, and pervasively multi-layered. Women directors have collectively experienced significant and multiple barriers to industry entry and sustainable success in a way that men have not.

Policies designed to “improve” women filmmakers through remedial skills training are not the answer and have the effect of suggesting that women themselves are the cause of their own statistical failure. Individual women are not the architects or the operators of their own industry-wide inequality. Male domination of the world’s film industries will not decline until there is a different distribution of the film industry’s resources.

Our findings strongly suggest that if we approach statistical evidence from a feminist perspective, different solutions will emerge. Feminist thinking rests on the premise that social and political concerns are always at the forefront of our relationship to data. By demonstrating the correlation between film industry statistics and wider measures of social and economic inequality we hope to prompt further research into the overlapping systems of male domination and redress industrial “exceptionalism.” The imbrication of social and cultural inequality, the overlapping of national and global inequality requires nuanced policy solutions that tackle both the specific and the systemic simultaneously.

Note on Data Visualizations

In consideration of the range of abilities amongst readers the authors have ensured that the article’s color visualizations are also accompanied by non-visual methods for presenting the data. Colors in these figures were carefully selected for tonal balance in order to minimize visual bias however this may mean they are unreadable by users with colorblindness for example. The authors welcome enquiries from people who require the data to be presented in a non-color format.

¹ Deb Verhoeven is Canada 150 Research Chair in Gender and Cultural Informatics at the University of Alberta. Prior to taking up this position she was Associate Dean of Engagement and Innovation at the University of Technology Sydney (UTS). She is a longstanding activist and impact-focussed researcher working primarily on the Australian screen industries. Her findings are published widely across trade journals, news outlets, policy reports, academic papers and monographs. Bronwyn Coate is a Senior Lecturer in economics at the School of Economics, Finance and Marketing at RMIT University. Bronwyn’s research has involved the application of quantitative modelling techniques to various aspects associated with the arts and creative industries. Recently Bronwyn’s research has focused on the economics of film and media. Vejune Zemaityte is a recent PhD graduate at the School of Communication and Creative Arts at Deakin University. Her research explores the spatial and temporal dimensions of international film distribution through applying computational methods and data visualization to big cultural data. Vejune’s research interests include digital humanities, new cinema history and cultural economics.

- ² Amanda Coles, “What’s Wrong with This Picture? Directors and Gender Inequality in the Canadian Screen-Based Production Industry.” (Report, Canadian Unions for Equality on Screen [CUES], 2016); Martha M. Lauzen, “The Celluloid Ceiling: Behind-the-Scenes Employment of Women on the Top 100, 250, and 500 Films of 2018.” (San Diego, CA, 2018), https://womenintvfilm.sdsu.edu/wp-content/uploads/2019/01/2018_Celluloid_Ceiling_Report.pdf; Katie Milestone, “Gender and the Cultural Industries,” in *The Routledge Companion to the Cultural Industries*, ed. Kate Oakley and Justin O’Connor (London: Routledge, Taylor & Francis Group, 2015), 517–27; Kate Oakley, Daniel Laurison, Dave O’Brien, and Sam Friedman. “Cultural Capital: Arts Graduates, Spatial Inequality, and London’s Impact on Cultural Labor Markets,” *American Behavioral Scientist* 61 (12, November 2017): 1510–31, <https://doi.org/10.1177/0002764217734274>; Dave O’Brien, Daniel Laurison, Andrew Miles, and Sam Friedman, “Are the Creative Industries Meritocratic? An Analysis of the 2014 British Labour Force Survey.” *Cultural Trends* 25 (2, 2016): 116–31, <https://doi.org/10.1080/09548963.2016.1170943>; Elizabeth Prommer and Skadi Loist, “Who Directs German Feature Films? Gender Report: 2009–2013.” (Rostock: Institut für Medienforschung, Universität Rostock, 2015); Stacy L. Smith, Marc Choueiti, and Katherine Pieper, “Inclusion in the Director’s Chair? Gender, Race & Age of Directors across 1.000 Films from 2007–2017” (Los Angeles, CA: USC Annenberg Inclusion Initiative, 2018), <http://assets.uscannenberg.org/docs/inclusion-in-the-directors-chair-2007-2017.pdf>, to name a few.
- ³ Stephen Follows, Alexis Kreager, and Eleanor Gomes, “Cut Out of The Picture: A Study of Gender Inequality Amongst Film Directors in The UK Film Industry.” (Directors UK, 2016); Screen Australia, “Gender Matters: Women in the Australian Screen Industry.” 2016, <https://www.screenaustralia.gov.au/getmedia/f20beab8-81cc-4499-92e9-02afba18c438/Gender-Matters-Women-in-the-Australian-Screen-Industry.pdf?ext=.pdf> and so on.
- ⁴ Such as Aylett, Holly. “Where Are All the Women Directors? Report on Gender Equality for Directors in the European Film Industry.” (EWA Women Directors in Film—Comparative Report, European Women’s Audiovisual Network [EWA], 2016) reports for Europe.
- ⁵ For example, Hannah Ellis-Petersen, “Gender Bias in the Film Industry: 75% of Blockbuster Crews Are Male,” *The Guardian*, July 23, 2014, <https://www.theguardian.com/film/2014/jul/22/gender-bias-film-industry-75-percent-male>, on blockbusters.
- ⁶ Stephen Follows, Alexis Kreager, and Eleanor Gomes, “Cut Out of the Picture: A Study of Gender Inequality Amongst Film Directors in The UK Film Industry.” (Directors UK, 2016).
- ⁷ Martha M. Lauzen, “The Celluloid Ceiling: Behind-the-Scenes Employment of Women on the Top 100, 250, and 500 Films of 2018” (San Diego, CA, 2018) https://womenintvfilm.sdsu.edu/wp-content/uploads/2019/01/2018_Celluloid_Ceiling_Report.pdf.
- ⁸ Follows et al., “Out of The Picture.”
- ⁹ Smith et al., “Gender Equality for Directors.”

- ¹⁰ Ibid.
- ¹¹ Lisa French, "Gender Then, Gender Now: Surveying Women's Participation in Australian Film and Television Industries." *Continuum* 28 (2, 2014): 188–200, <https://doi.org/10.1080/10304312.2014.888040>.
- ¹² Screen Australia, "Feature Filmmakers: Number and Proportion of Male and Female Producers, Directors and Writers of Australian Feature Films, 1970–2017," <https://www.screenaustralia.gov.au/fact-finders/people-and-businesses/gender-industry-wide/feature-filmmakers-1970-2017> (accessed November 15, 2018).
- ¹³ Ibid.
- ¹⁴ Screen Australia, "Funding Approvals in the Archive. Production Approvals," <https://www.screenaustralia.gov.au/funding-and-support/feature-films/funding-approvals/in-the-archive/production-approvals> (accessed February 4, 2019).
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- ¹⁸ The sample used in this study is based on forty countries included in Table 1 rather than all countries within the Kinomatics Global Showtime database as eight countries were excluded following data integrity checks. The countries excluded were Algeria, Austria, China, Czech Republic, Denmark, Hong Kong, Poland, and Slovenia.
- ¹⁹ The Internet Movie Database (IMDb), "Movies, TV and Celebrities." IMDb, IMDb.com, www.imdb.com/.
- ²⁰ A feature film is defined by the Academy of Motion Pictures, Arts and Sciences as any film that runs for forty minutes or longer, Academy of Motion Picture Arts and Sciences, "91st Academy Awards Special Rules for The Short Film Awards." Oscars, http://www.oscars.org/sites/oscars/files/91aa_short_films.pdf (accessed June 15, 2018).
- ²¹ Slated, "Data Exposes Gender Fault Lines." June 29, 2016, <https://filmonomics.slated.com/data-exposes-gender-fault-lines-infographic-a5aee8ee4470>.
- ²² World Economic Forum, "The Global Gender Gap Report 2013." The Global Gender Gap Index (2013).
- ²³ Ibid.
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ORCID iD

Deb Verhoeven  <https://orcid.org/0000-0003-3680-3561>

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