

**Asymmetrical Academy Awards® 2:
Another Look at Gender in Best Picture Nominated films from 1977 to 2010**

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This study examines the frequency of females in Academy Award® best picture nominated films from 2007 to 2010. To this end, a total of 30 films are content analyzed (see Appendix A). Every independent and discernible speaking character shown on screen is assessed for biological sex.¹ We also examine the gender of directors, writers, and producers working on these prestigious films, in an effort to explore employment patterns behind the camera.² Because this is a follow up study to our earlier research scrutinizing gender across 150 best picture nominated films from 1977 to 2006,³ we can evaluate change over time. Below, we present four key findings. When applicable, only significant and meaningful differences (5% or greater) are reported.

Key Findings

*#1 Females are **Still** Under Represented in Best Picture Nominated Films*

Of 1,425 speaking characters, only 32.6% ($n=465$) are female across the 30 best picture nominated films. Put another way, 67.4% of speaking characters are male ($n=960$). This translates into an on screen ratio of 2.1 males to every 1 female, which is surprising given that females occupy roughly half of the U.S. population.

Table 1
% of Males & Females Working Behind the Camera by Gender

	Directors	Writers	Producers
Males	85.7% ($n=30$)	87.7% ($n=57$)	76.1% ($n=210$)
Females	14.3% ($n=5$)	12.3% ($n=8$)	23.9% ($n=66$)
Ratio	6 to 1	7.1 to 1	3.2 to 1

Not only are females under represented on screen, but they also appear infrequently behind the camera. As shown in Table 1, only 14.3% of all directors ($n=35$) are

female. Those individuals include: Loveleen Tandan, *Slumdog Millionaire* (2008); Kathryn Bigelow, *The Hurt Locker* (2009); Lone Scherfig, *An Education* (2009); Lisa Cholodenko, *The Kids are All Right* (2010); and Debra Granik, *Winter's Bone* (2010). Females also comprised 12.3% of writers and 23.9% of producers. These two percentages are remarkably similar to those we have obtained looking at 100 top-grossing films in 2007, 2008, and 2009.⁴

While Table 1 examines the gender of *individuals*, we also examine the percentage of *films* with one or more women working in these key gate-keeping positions. Only 16.7% of the best picture nominated films featured at least one female director, 23.3% featured one or more female writers, and 93.3% featured one or more female producers. Using multiple indicators, the findings above illuminate that females are still undervalued in film making.

*#2 Speaking Characters are **Still** Stereotyped On Screen*

Besides gender, we also assess the apparent race/ethnicity and age of speaking characters. Of those speaking characters evaluated for race, a vast majority are white (78%). This finding is consistent with other research documenting a white washed landscape of TV and cinematic content.⁵ 11.6 percent of characters are Black, 7.0% are Asian, and 1.9% are Hispanic. This last percentage is unexpected, given that Latinos/Hispanics purchased 26% of all movie tickets domestically in 2010.⁶ Finally, 1.5% of speaking characters are from other ethnicities (e.g., American Indian, Pacific Islander, Middle Eastern, Other).

We also examine the apparent age of all speaking characters on screen by gender. The analysis revealed that these two variables are related.⁷ A higher percentage of females than males (16.9% vs. 8.9%, respectively) are depicted between 13- and 20-years of age. This trend reverses for characters 40- to 64-years of age. A full 40.5% of males but only 29% of females fall within this age bandwidth. These trends reinforce that youthfulness is differentially valued by gender and emphasize a sell by date (i.e., 40 years of age) for many females in film. Less than a 5% difference was observed by gender for 0-12 year olds, 21-39 year olds, or those 65 years of age or older.

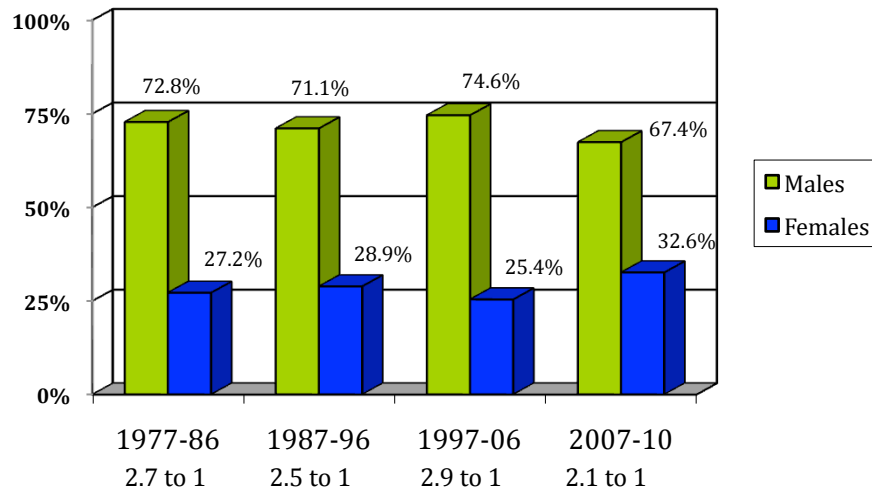
#3 Gender Imbalance has Changed Over Time!

To assess change over time, we merged the current content analysis of speaking characters with our previous investigation of 150 best picture nominated films from 1977-2006. The coding of gender did not change from study to study. However, some differences occurred in how we set up the unitizing of speaking characters between the two investigations.⁸ As such, the over time data should be interpreted cautiously.

Prior to analysis, the 180 films were put into four separate groups based on nomination year: (1) 1977-1986 ($n=50$), (2) 1987-1996 ($n=50$), (3) 1997-2006

($n=50$), and (4) 2007-2010 ($n=30$). As demonstrated in Figure 1, the percentage of female characters in best picture nominated films differs by time. In fact, the percentage of girls and women on screen is the highest it has been since the late seventies/early eighties! Further, the percentage of female speaking characters is 7.2% higher in current films (32.6%) than those nominated between 1997 and 2006 (25.4%).

Gender Prevalence by Time Epoch
Figure 1



We also looked to see if the percentage of females working as directors, writers, and producers has changed over time.⁹ Looking at Table 2, a few notable patterns emerge. The most recent best picture nominated films (2007-2010) have nearly as many female directors as those spanning almost 30 years prior (1977-2006)! As a point of comparison, less than 1% of directors were African American.¹⁰

Table 2
Female Employment Patterns by Time Epoch

	% of Female Directors	% of Female Writers	% of Female Producers
1977-1986	2% ($n=1$)	17% ($n=18$)	16% ($n=28$)
1987-1996	5.9% ($n=3$)	8.8% ($n=10$)	18.7% ($n=42$)
1997-2006	3.9% ($n=2$)	15.2% ($n=17$)	22.8% ($n=88$)
2007-2010	14.3% ($n=5$)	12.3% ($n=8$)	23.9% ($n=66$)

Note: Within epoch, the percentages are based on total number of employees whose gender could be ascertained online. 50 films are evaluated in each epoch from 1977 to 2006 whereas 30 films are evaluated from 2007 to 2010. Statistical analyses are not computed on the percentages within employment category by epoch of time.

In terms of writers, the percentage of female screenwriters *decreased* from 1977-1986 to 1987-1996 and then *increased* in 1997-2006. A small but positive increase

has occurred in the percentage of female producers across the three decades of content.

#4 Females Behind-the-Scenes Matter

Given the above trends, we wanted to examine the relationship between gender of behind-the-scenes employees and gender of speaking characters on screen. In our previous report, we found that the percentage of female speaking characters was higher in best picture nominated films with female directors (41.2%) than those with no female directors (26.8%).¹¹ A marginally significant trend was revealed for producer gender and character gender as well. But, the difference was less than 5% and thus deemed not meaningful. No relationship between screenwriter gender and character gender was observed.

We put the 2007-2010 best picture nominated films to the same test. For directors, a non significant relationship emerged.¹² Films with female direction featured roughly the same percentage of girls and women on screen (32.2% of characters are female) as those films with only male direction (32.7% of characters are female). Almost every film in the sample featured at least one or more female producers (93.3%). Given the lack of variation, we could not run analyses on the association between producer gender and character gender.

However, a significant association was observed for writer gender and character gender.¹³ Best picture nominated films with one or more female screenwriters depicted a higher percentage of female characters on screen (44%) than did those best picture nominated films written solely by male screenwriters (29.3%). These findings are a shift from our earlier results, with female writers instead of directors associated with higher percentages of on screen females.

These data suggest that writers may be the ones responsible for the increase of girls and women onscreen -- in this set of films. This makes sense given the industry adage, "write what you know." It may also be the case that studio executives or financiers feel more comfortable hiring female screenwriters to pen female-driven properties. Clearly, further research is needed to understand the organizational complexities of hiring practices associated with the development and production of male and female storylines in film.

Conclusion

Overall, this report assesses the prevalence of females in recent best picture nominated films and evaluates change over time. Our results suggest that the gender needle has moved in two specific arenas. First, the percentage of female speaking characters is the highest it has been across more than three decades of Academy Award® best picture nominated movies. Second, the number of best picture nominated films with female direction in the last four years ($n=5$) is almost equivalent to the number of best picture nominated films with female direction

across almost 30 years ($n=6$). These are major steps toward greater gender equality in film.

Our findings show, however, that the key to diversifying gender portrayals on screen may be held in the hands of female writers. Best picture nominated films penned by female screenwriters depict more girls and women on screen than those penned only by male screenwriters. Yet working female screenwriters in film are not only few in number (see Table 1 & 2), but their median earnings are reportedly less than white male screenwriters.¹⁴

Given the above trends, on-going monitoring of gender representation on screen and behind the camera is needed. While some of the results in this report suggest a small step toward gender equality, other results reveal that females are still grossly underrepresented and undervalued in film.

Notes

1. Only overt, discernible, and independent speaking characters were evaluated in the present study. These characters were coded for *gender* (male, female), *apparent race/ethnicity* (White, Black, Hispanic, Asian, American Indian/Alaskan Native, Native Hawaiian/Pacific Islander, Middle Eastern, Other), and *age* (0-5 years, 6-12 years, 13-20 years, 21-39 years, 40-64 years, 65+ years). The films ($n=30$) were assessed by research assistants (RAs) at the Annenberg School for Communication & Journalism at the University of Southern California. Many of the movies ($n=21$) were coded for Smith and Choueiti's yearly longitudinal content analysis of gender on screen and behind the camera in 100 top-grossing films. For that project, unitizing agreement and variable reliability (Potter & Levine-Donnerstein 1999 formula) is computed after 3-6 RA's *independently* evaluate each film. After reliability is calculated, the RAs discuss their disagreements in a group context often with the project manager (Choueiti). In rare instances when the RAs were not available (summer), the project manager watched the film/scene in question and was the final arbiter of disagreements.

Across the 21 films, all but 4 had 70% or more of the characters coded by all but one RA. Percentage of unitizing agreement for those 4 films ranged from 62.5% to 69.1%. Using the Potter & Levine-Donnerstein (1999) approach for multiple coders, the median reliability coefficients for all three variables per film (sex, age, race/ethnicity) were above .70 except for two *age* coefficients (*Milk*=.65, *Toy Story 3*=.65) and two *race/ethnicity* coefficients (*Slumdog Millionaire*=.60, *Toy Story 3*=.66).

Nine additional films had to be evaluated for this project. Two or three veteran RAs coded each movie. The unitizing agreement was 70% or above for all 9 films (*range* 70%-97%). In terms of variable coding, coefficients were above .70 (using Scott's Pi or Potter & Levine-Donnerstein's formula) for all variables except *age* on two of the nine films (*The Hurt Locker*, .675; *A Serious Man*, .65). After reliability, disagreements were resolved via discussion between the project manager and at least one coder. Given the complexity of coding motion picture content, the unitizing agreements and reliability coefficients from the 30 films were quite good.

2. Ascertaining the *gender* (male, female, can't tell) of behind-the-scenes workers was accomplished in two steps. First, a list of every director, writer, and producer was retrieved from the inbaseline studio system (<http://www.inbaseline.com/>). Then, the gender of each of these individuals was coded using a variety of online sources (i.e., IMDb.pro, inbaseline, Rotten Tomatoes) and search engines (i.e., Google, Bing). As a departure from our previous investigation, we looked up the gender of *all* producers. This included executive producers, co executive producers, producers, co producers, and associate producers. Producers listed as a part of Broadway shows were not included (see *On Golden Pond*, *Dangerous Liaisons*), however. For the previous study, we only examined the gender of producers and executive producers.

Given this new approach, we had to go back and evaluate the gender of the additional producers of every best picture nominated film from 1977 to 2006. To this end, we printed out the credits for each film using inbaseline. Because credits can change via online sources, we reevaluated the gender of all directors, writers, and producers across the 150 films. In this process, we discovered changes had occurred to a few of the credits since our last study. Also, a series of errors were made in the previous investigation. These errors had

very little impact on behind-the-scenes percentages by gender (<1%). Further, the errors did not change the results of previous statistical analyses.

A total of 1,648 behind-the-scenes employees were coded for gender. Of these, only 3 names (all associate producers) could not be verified as either male or female from online sources. As such, those entries were excluded from analysis bringing the final total to 1,645. In a few instances, BabyNames.com was used to confirm the gender of stereotypically male or female names.

3. Smith, S.L., Choueiti, M., Granados, A., & Erickson, S. (2008). *Asymmetrical Academy Awards®? A Look at Gender Imbalance in Best Picture Nominated Films from 1977 to 2006*. Annenberg School for Communication & Journalism. Los Angeles, CA. Paper available: <http://annenberg.usc.edu/Faculty/Communication%20and%20Journalism/SmithS.aspx>

4. Smith, S. L., Choueiti, M., & Gall, S. (2011). *Gender Inequality in Popular Films: Examining On Screen Portrayals and Behind-the-Scenes Employment Patterns in Motion Pictures Released between 2007-2009*. Annenberg School for Communication & Journalism. Los Angeles, CA. Paper available: <http://annenberg.usc.edu/Faculty/Communication%20and%20Journalism/SmithS.aspx>

5. See Powers, S., Rothman, D.J., & Rothman, S. (1996). *Hollywood's America: Social and Political Themes in Motion Pictures*. Boulder, CO: Westview Press. Smith, S.L., & Cook, C. A. (2008). *Gender Stereotypes: An Analysis of Popular Films and TV*. Geena Davis Institute for Gender and Media. Los Angeles, CA. Gerbner, G. (1997). Gender and Age in Prime Time Television. In S. Kirschner & D. A. Kirschner (Eds), *Perspectives on Psychology and the Media* (p. 69-94). Washington DC: APA.

6. Motion Picture Association of America (n.d.). *Theatrical Market Statistics*. Author.

7. Prior to analysis, the *age* variable was collapsed into 5 levels (instead of 6) by combining 0-5 year olds and 6-12 year olds. Chi-square analysis of *gender* (male, female) by *age* (0-12, 13-20, 21-39, 40-64, 65+), $X^2(1,381, df=4) = 29.35, p < .05, \phi = .15$.

8. In the recent study and as a part of our larger longitudinal work, we made a few shifts in the coding process from our earlier investigations. First, coders use cast lists and closing credits to facilitate the unitizing of speaking characters. Second, multiple RAs evaluate each film and reliability is computed on a per film basis. After reliability is calculated, the RAs meet to discuss their disagreements. We believe that these changes increase the precision of unitizing speaking characters but should not impact the percentage of males or females shown on screen. For *race* and *age*, the value labels (i.e., age added a "40-64" category; race added an "other" category) have been altered between the earlier study (1977-2006) and the current one (2007-2010).

Reliability for the 1977-2006 best picture nominated films (n=150) is presented in our previous report. All films were coded on either VHS or DVD format and are listed in Appendix A by year of nomination. It must be noted that for one film (i.e., *Beauty and the Beast*), the rerelease was coded rather than the original.

The chi-square analysis of *character gender* (male, female) by *time* (1977-1986, 1987-1996, 1997-2006, 2007-2010) was significant, $X^2(8,258, df=3) = 23.93, p < .05, \phi = .05$.

9. As noted in footnote 2, the percentages for producer gender include executive producers, co executive producers, producers, co producers, and associate producers. Three of these categories were not evaluated in the previous study.
10. In addition to gender, we examined the race/ethnicity of directors. Consistent with our other research on behind-the-camera patterns, we were interested in the number of Black or African American directors across the 180 films in our sample. To this end, we examined a photo of each director. Additionally, we looked up the ethnicity of each director on inbaseline. In 28 instances, the ethnicity was not listed and we made a judgment based on the photo of the director.
11. The three analyses reported in our earlier study are as follows: *director gender* by *character gender*, $X^2(6,833, 1) = 21.315, p < .01, \phi = .06$; *writer gender* by *character gender*, $X^2(6,833, 1) = 2.05, p = .15, \phi = .02$; *producer gender* by *character gender*, $X^2(6,833, 1) = 3.29, p < .10, \phi = .02$; corrected *producer gender* by *character gender*, $X^2(6,833, 1) = 3.60, p < .10, \phi = .02$.
12. The chi-square for *director gender* by *character gender* was not significant, $X^2(1,425, df=1) = .015, p = .904, \phi = -.003$.
13. The chi-square for *writer gender* by *character gender* was significant, $X^2(1,425, df=1) = 24.75, p < .05, \phi = .13$.
14. Writer's Guild of America, West (2011). *The 2011 Hollywood Writers Report: Recession and Regression*. Los Angeles, CA: Author.

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Appendix A

1977 – Annie Hall*	1989 – My Left Foot	2002 – The Lord of the Rings: Two Towers
1977 – Julia	1990 – Awakenings	2002 – The Pianist
1977 – Star Wars IV	1990 – Dances with Wolves*	2003 – The Lord of the Rings: Return*
1977 – The Goodbye Girl	1990 – Ghost	2003 – Lost in Translation
1977 – The Turning Point	1990 – Good Fellas	2003 – Master and Commander
1978 – Un Married Woman	1990 – The Godfather, Part III	2003 – Mystic River
1978 – Coming Home	1991 – Beauty and the Beast	2003 – Seabiscuit
1978 – Heaven Can Wait	1991 – Bugsy	2004 – Finding Neverland
1978 – The Deer Hunter*	1991 – JFK	2004 – Million Dollar Baby*
1978 – Midnight Express	1991 – The Prince of Tides	2004 – Ray
1979 – All That Jazz	1991 – The Silence of the Lambs*	2004 – Sideways
1979 – Apocalypse Now	1992 – A Few Good Men	2004 – The Aviator
1979 – Breaking Away	1992 – Howards End	2005 – Brokeback Mountain
1979 – Kramer vs. Kramer*	1992 – Scent of a Woman	2005 – Capote
1979 – Norma Rae	1992 – The Crying Game	2005 – Crash*
1980 – Coal Miner’s Daughter	1992 – Unforgiven*	2005 – Good Night, Good Luck
1980 – The Elephant Man	1993 – In the Name of the Father	2005 – Munich
1980 – Ordinary People*	1993 – Schindler’s List*	2006 – Babel
1980 – Raging Bull	1993 – The Fugitive	2006 – Letters from Iwo Jima
1980 – Tess	1993 – The Remains of the Day	2006 – Little Miss Sunshine
1981 – Atlantic City	1993 – The Piano	2006 – The Departed*
1981 – Chariots of Fire*	1994 – Forrest Gump*	2006 – The Queen
1981 – On Golden Pond	1994 – Four Weddings and a Funeral	2007 – Atonement
1981 – Raiders of the Lost Ark	1994 – Pulp Fiction	2007 – Juno
1981 – Reds	1994 – Quiz Show	2007 – Michael Clayton
1982 – E.T. The Extra-Terrestrial	1994 – The Shawshank Redemption	2007 – No Country For Old Men*
1982 – Gandhi*	1995 – Apollo 13	2007 – There Will Be Blood
1982 – Missing	1995 – Babe	2008 – The Curious Case of Benjamin Button
1982 – The Verdict	1995 – Braveheart*	2008 – Frost/Nixon
1982 – Tootsie	1995 – Sense and Sensibility	2008 – Milk
1983 – Tender Mercies	1995 – The Postman (Il Postino)	2008 – The Reader
1983 – Terms of Endearment*	1996 – Fargo	2008 – Slumdog Millionaire*
1983 – The Big Chill	1996 – Jerry Maguire	2009 – Avatar
1983 – The Dresser	1996 – Secrets & Lies	2009 – The Blind Side
1983 – The Right Stuff	1996 – Shine	2009 – District 9
1984 – A Passage to India	1996 – The English Patient*	2009 – An Education
1984 – A Soldier’s Story	1997 – As Good As It Gets	2009 – The Hurt Locker*
1984 – Amadeus*	1997 – Good Will Hunting	2009 – Inglourious Basterds
1984 – Places in the Heart	1997 – L.A. Confidential	2009 – Precious: Based on the Novel ‘Push’ by Sapphire
1984 – The Killing Fields	1997 – The Full Monty	2009 – A Serious Man
1985 – Kiss of the Spider Woman	1997 – Titanic*	2009 – Up
1985 – Out of Africa*	1998 – Elizabeth	2009 – Up In the Air
1985 – Prizzi’s Honor	1998 – Life is Beautiful	2010 – Black Swan
1985 – The Color Purple	1998 – Saving Private Ryan	2010 – The Fighter
1985 – Witness	1998 – Shakespeare in Love*	2010 – Inception
1986 – A Room with a View	1998 – The Thin Red Line	2010 – The Kids Are All Right
1986 – Children of a Lesser God	1999 – American Beauty*	2010 – The King’s Speech*
1986 – Hannah and Her Sisters	1999 – The Cider House Rules	2010 – 127 Hours
1986 – The Mission	1999 – The Green Mile	2010 – The Social Network
1986 – Platoon*	1999 – The Insider	2010 – Toy Story 3
1987 – Broadcast News	1999 – The Sixth Sense	2010 – True Grit
1987 – Fatal Attraction	2000 – Chocolat	2010 – Winter’s Bone
1987 – Hope and Glory	2000 – Crouching Tiger, Hidden Dragon	
1987 – Moonstruck	2000 – Erin Brockovich	
1987 – The Last Emperor*	2000 – Gladiator*	
1988 – Dangerous Liaisons	2000 – Traffic	
1988 – Mississippi Burning	2001 – A Beautiful Mind*	
1988 – Rain Man*	2001 – Gosford Park	
1988 – The Accidental Tourist	2001 – In the Bedroom	
1988 – Working Girl	2001 – Moulin Rouge	
1989 – Born on the 4 th of July	2001 – The Lord of the Rings: Fellowship	
1989 – Dead Poet’s Society	2002 – Chicago*	
1989 – Driving Miss Daisy*	2002 – Gangs of New York	
1989 – Field of Dreams	2002 – The Hours	

*winner of Best Picture Oscar®

