# Inequality in 1,600 Popular Films: Examining Portrayals of Gender, Race/Ethnicity, LGBTQ+ \& Disability from 2007 to 2022 

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# USCAnnenberg <br> Inclusion Initiative 

# INEQUALITY IN 1,600 POPULAR FILMS 

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## NO PROGRESS FOR GIRLS \& WOMEN ON SCREEN

Prevalence of girls and women as speaking characters across 1,600 films, in percentages


PROGRESS TOWARD PARITY FOR GIRLS \& WOMEN AS LEADS
Of the 100 top films in 2022...


41 films in 2021 and 20 in 2007 depicted a girl or woman as a lead or co lead.

And of those 44 films...
had a female lead/co lead from an underrepresented racial/ethnic group


Excludes films w/ensemble casts

\% OF FEMALES ON SCREEN
COMEDY

## LIMITED PROGRESS FOR PROTAGANISTS OF COLOR IN FILM

Number of films with underrepresented leads or co leads by year

| $\begin{gathered} \text { ALL } \\ \text { UR } \\ \text { LEADS } \end{gathered}$ | 13 | 13 | 17 | 12 | 9 | 13 | 17 | 17 | 16 | 14 | 22 | 27 | 32 | 29 | 37 | 31 | 20\% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { FEMALE } \\ & \text { UR } \\ & \text { LEADS } \end{aligned}$ | 1 | 4 | 4 | 5 | 5 | 3 | 3 | 4 | 4 | 3 | 4 | 11 | 17 | 9 | 16 | 19 | 7\% |

INCLUSION OF RACIAL/ETHNIC GROUPS ON SCREEN IN 2022
Percentage of all speaking characters by racial/ethnic group

percentage of underrepresented characters:
38.3\%
films had NO Black or African
American speaking characters
46
films had NO Hispanic/Latino speaking characters
*Since 2007, the percentage of White speaking characters decreased by 15.9 percentage points and the percentage of Asian characters increased
films had NO Asian speaking characters

## LGBTQ+ CHARACTERS ARE LEFT BEHIND IN FILM

Of 38,726 speaking characters across 900 films..

| MEASURES | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| GAY | 12 | 19 | 36 | 16 | 33 | 45 | 12 | 24 | 43 |
| LESBIAN | 4 | 7 | 9 | 9 | 17 | 10 | 15 | 7 | 27 |
| BISEXUAL | 5 | 5 | 6 | 6 | 8 | 3 | 2 | 7 | 13 |
| TRANSGENDER | 0 | 1 | 0 | 0 | 0 | 3 | 0 | 3 | 5 |




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## 1.9\%

of all speaking characters were depicted with a disability

030 PHYSICAL*
$17 \%$ cognitive.
330 COMMUNICATIVE*

76


## WOMEN BEHIND THE CAMERA IN 2022

Across 1,614 content creators....

DIRECTORS


10 WOMEN DIRECTORS

WRITERS

16.3\%

42 WOMEN WRITERS

PRODUCERS


300 WOMEN PRODUCERS

MEN
WOMEN

COMPOSERS


10 WOMEN COMPOSERS

GENDER FLUIDITY IS HARDLY REPRESENTED IN ENTERTAINMENT

## ONLY composer was <br> ONEnon binary in 2021



THERE
WERE ${ }_{88}$

INDIVIDUAL WOMEN BETWEEN

2007 \& 2022

## DIRECTORS

## WERE



FILMS WERE
DIRECTED

## BY WOMEN

ACROSS
16 YEARS

| Abby Kohn | Jennifer Flackett | Miranda July |
| :---: | :---: | :---: |
| Angelina Jolie | Jennifer Lee ${ }^{+}$ | Nancy Meyers ${ }^{+}$ |
| Anna Boden | Jennifer Yuh Nelson*+ | Natalie Erika James* |
| Anna Foerster | Jessica M. Thompson | Natalie Krinsky |
| Anne Fletcher ${ }^{+}$ | Jessie Nelson | Nia DaCosta* |
| Ashwiny Iyer Tiwari* | Jill Culton | Niki Caro |
| Autumn de Wilde | Jodie Foster | Nora Ephron |
| Ava DuVernay*+ | Julie Anne Robinson | Olivia Newman |
| Betty Thomas | Julie Taymor | Olivia Wilde ${ }^{+}$ |
| Brenda Chapman | Kasi Lemmons*+ | Patricia Riggen* |
| Castille Landon | Kat Coiro | Patty Jenkins ${ }^{+}$ |
| Cate Shortland | Kathryn Bigelow | Phyllida Lloyd ${ }^{+}$ |
| Catherine Hardwicke ${ }^{+}$ | Kay Cannon | Reed Morano |
| Cathy Yan* | Kimberly Peirce | Robin Wright |
| Charise Castro Smith* | Kirsten Sheridan | Rosalind Ross |
| Chinonye Chukwu* | Kitty Green | Roxann Dawson* |
| Chloé Zhao*+ | Lana Wachowski ${ }^{+}$ | Sam Taylor-Johnson* |
| Christy Summerhays | Laura Brousseau | Sanaa Hamri* |
| Diane English | Liesl Tommy* | Sarah Smith ${ }^{+}$ |
| Elaine Bogan | Lilly Wachowski+ | Shari Springer Berman |
| Elizabeth Allen Rosenbaum | Lisa Joy* | Sharon Maguire |
| Elizabeth Banks | Lorene Scafaria | Stacy Title |
| Emerald Fennell | Loveleen Tandan* | Stella Meghie*+ |
| Floria Sigismondi | Lucia Aniello | Susanna Fogel |
| Gail Mancuso | Maria Schrader | Susanna White |
| Gina Prince-Bythewood*+ | Marielle Heller | Thea Sharrock |
| Greta Gerwig ${ }^{+}$ | Meghna Gulzar* | Tina Gordon* |
| Halina Reijn | Melinda Matsoukas* | Trish Sie |
| Hallie Meyers-Shyer | Mimi Leder | Veronika Franz |
| Janicza Bravo* |  |  |

DIRECTORS AND COMPOSERS: FEW WOMEN FILL THESE ROLES

|  | '07 | '08 | ‘09 | '10 | '11 | '12 | '13 | '14 | '15 | '16 | ‘17 | '18 | '19 | '20 | '21 | '22 | overall |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $109$ WOMEN | 3 | 9 | 4 | 3 | 4 | 5 | 2 | 2 | 8 | 5 | 8 | 5 | 12 | 15 | 14 | 10 |  |
| $\begin{gathered} \text { 1,784 } \\ \text { Dirçтовs } \end{gathered}$ | 112 | 112 | 111 | 109 | 108 | 121 | 107 | 107 | 107 | 120 | 109 | 112 | 112 | 111 | 113 | 113 |  |
| $\underset{\substack{\text { wome } \\ \text { wom }}}{\mathbf{n}}$ OUT OF | 0 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 3 | 6 | 9 | 5* | 10 |  |
| $\underset{\text { composers }}{1,830}$ | 107 | 108 | 109 | 115 | 109 | 105 | 114 | 105 | 114 | 121 | 113 | 108 | 118 | 131 | 131 | 122 |  |

## MOST CASTING DIRECTORS ARE WHITE WOMEN

Across 1,600 films the demographic breakdown of casting directors...

17.6\% ARE WHITE MEN

70.2\%

ARE WHITE WOMEN


ARE
UNDERREPRESENTED
MEN

9.8\%

ARE
UNDERREPRESENTED WOMEN

## STORYTELLERS ARE STILL PRIMARILY WHITE AND MALE

Across 1,600 films and 1,784 directors...


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Of the 100 top films in 2022, the number missing girls and women on screen that were...


STRATEGIC SOLUTIONS TO FOSTER SYSTEMIC CHANGE

| COLLECTIVE |
| :---: | :---: | :---: | :---: |
| ACTION | | SET TARGET |
| :---: |
| INCLUSION |
| GOALS |$\quad$| INCLUSION |
| :---: |
| RIDER |$\quad$| SHAREHOLDER |
| :---: |
| ACTIVISM |

# Inequality in 1,600 Popular Films: Examining Portrayals of Gender, Race/Ethnicity, LGBTQ+ \& Disability from 2007 to 2022 

## Annenberg Inclusion Initiative <br> USC

This analysis focuses on representation on screen and behind the camera across the 100 top-grossing fictional films from 2007 to 2022. A total of 1,600 movies have been examined for character portrayal of gender, race/ethnicity, LGBTQ+ and disability. Behind the scenes, we scrutinize hiring of above-the-line personnel (directors, writers, producers) as well as composers and casting directors by gender and race/ethnicity. This is the largest, most rigorous, and comprehensive analysis of identity in popular movies in the history of social science research.

## Key Findings

## Gender

On Screen. A total of 4,218 characters were evaluated for gender identity across the 100 top films of 2022. Only $34.6 \%$ of characters were female-identified. As such, the ratio of speaking characters was 1.89 males to every 1 female. The percentage of girls and women on screen has not changed since 2008 (32.8\%). Clearly, the activism and industry advocacy has failed.

Across the 100 top movies of 2022, only 1 speaking character was coded as gender non-binary.
$15 \%$ of the 100 top films of 2022 featured a gender-balanced cast, which did not differ from 2021 (15\%) or 2007 (12\%).

A full $44 \%$ of the 100 top-grossing movies of 2022 depicted a girl and/or woman in the leading/co leading role. The percentage is not meaningfully different from 2021 (41\%), but 24 percentage points higher than 2007 (20\%). It is important to note that 2022 reflects a 16 -year high.

2022 represents a historic high where $19 \%$ of the films were carried by a girl/woman from an underrepresented racial/ethnic group. Further, this finding reflected a substantial increase from 2007 (1\%). $10 \%$ of films featured a woman 45 years of age or older as a lead/co lead, which is significantly higher from 2007 (1\%). Five percent of the 100 top films depicted a woman of color 45 years of age or older at the time of release. 0 were depicted in 2007.

From 2007 to 2022 , only $23.9 \%$ of all speaking characters 40 years of age or older were women. This translates into a gender ratio of 3.2 older male characters to every 1 older female character. The percentage of women 40 years of age or older has not changed over time. In 2022, only $25.8 \%$ of older characters were women which is not meaningfully different than the percentage in 2007 ( $22.1 \%$ ).

Behind the Camera. A total 1,492 content creators worked as measurable above-the-line personnel across the 100 top films of 2022. Less than one quarter (23.6\%) of directors, writers, and producers were women.

Only 10 (8.8\%) women worked as helmers across the 100 top-grossing movies of 2022. This calculates into a gender ratio of 10.3 male directors to every 1-woman director. The percentage of women directors has not meaningfully changed from 2021 (12.4\%). While the percentage differs from 2007 (2.7\%), the 2022 percentage is roughly equivalent to 2008 ( $8 \%$ ).

The top performing women directors were Anne Fletcher and Lana Wachowski. Both of these women directed 4 films during the 16-year sample time frame. Fifteen women directed 2 movies from 2007 to 2022 (e.g., Ava DuVernay, Catherine Hardwicke, Chloe Zhao, Gina Prince-Bythewood, Greta Gerwig, Jennifer Lee, Jennifer Yuh Nelson, Julie Anne Robinson, Kasi Lemmons, Nancy Meyers, Olivia Wilde, Patty Jenkins, Phyllida Lloyd, Sarah Smith, Stella Meghie).

For comparison purposes, the total number of unique male directors across the sample time frame was 833, with the top performers Tyler Perry (18 movies), Steven Spielberg (14 movies) and Clint Eastwood (12 movies). The gender ratio of unique men directors to unique woman directors was 9.5 to 1 .

Turning to screenwriters, a total of 4,627 individuals were credited across the 1,600 films. In 2022, a meager $16.3 \%$ were women and $83.7 \%$ were men. There was no change in the percentage of women screenwriters from 2021 (16.8\%) to 2022 (16.3\%). A meaningful change from 2007 (11.2\%) did emerge, however.

In 2022, just over a quarter (26.8\%) of all producers were women across the 100 top-grossing films. No difference emerged from 2022 to 2021 (24.8\%), but the percentage of women producers was higher in 2022 than in 2007 (19.7\%).

Pivoting to composers, we were interested in the gender distribution across this traditionally maledominated position. $8.2 \%$ of composers were women across the 100 top-grossing films of 2022, which represents a 16-year high. Twice as many women composed films in 2022 (10) than in 2021 (4 women, 1 non binary) and more than 10 times as many as 2007.

A total of 491 different men but only 32 different women and non binary composers worked across the sample time frame. The top performing male composer was Hans Zimmer, who worked on 44 different films. The top performing woman composer was Deborah Lurie, who worked on only 5 movies. Most women composers only worked on one film. Thus, Hans Zimmer worked almost as many times (44) as all of the women composers hired from 2007 to 2022 (i.e., 49).

In 2022, a full $81.4 \%$ of all casting directors were women and just $18.6 \%$ were men. This is a gender ratio of 4.4 females to every 1 male. A higher percentage of women casters worked in 2022 than in 2021 (70.4\%). However, 2022 was lower than 2007 (86.1\%).

Having a woman director attached to a movie was associated with more female leads/co leads (85.7\% vs. $31.7 \%$ ) and girls/women as speaking characters ( $44.3 \%$ vs. $33.4 \%$ ) than those films without a woman director attached. Women casting directors, however, did not evidence this effect.

## Race/Ethnicity

On Screen. In 2022, a total of 3,802 characters were coded for an apparent race/ethnicity. A full 61.7\% were White, 13.4\% Black, 5.2\% Hispanic/Latino, 15.8\% Asian, 1.5\% Middle Eastern/North African, <1\% American Indian/Alaska Native, <1\% Native Hawaiian/Pacific Islander, and 2.1\% Multiracial/Multiethnic. Together, $38.3 \%$ of all speaking characters were from underrepresented racial/ethnic groups. This statistic is lower but not meaningfully different ( 2.8 percentage points) from U.S. Census (41.1\%).

We examined whether the percentage of White, Black, Latino, Asian, and all other races/ethnicities changed over time. None of the 5 groups differed meaningfully from 2021 to 2022. A few notable deviations appeared from 2007. The percentage of Asian characters on screen has skyrocketed from $3.4 \%$ in 2007 to $15.9 \%$ in 2022. Matter of fact, 2020 (19.6\%) was an all-time high for Asian representation across the 16 -year time frame. The percentage of White characters also decreased over time (77.6\% vs. 61.7\%).
$13.6 \%$ of the U.S. population identifies as Black. Only 16 out of the 100 top-grossing movies of 2022 featured Black characters at proportional representation ( $\pm 2$ percentage points from 13.6\%). 2022 was not different from 2021 (14 films) or 2018 ( 17 films). Fully 40 films in 2022 were at or above U.S. census which was lower than 2021 ( 45 films) and 2018 ( 48 films). Fifteen out of 100 movies erased Black characters completely on screen, which was lower than 2021 ( 20 movies) but not different from 2018 (13 movies).

Few films were at or above proportional representation of Hispanic/Latinos. In 2022, only 3 films featured Hispanic/Latinos as roughly $19.1 \%$ of the cast and 10 were above this benchmark. Erasure was even more vast, as 46 of the 100 top movies rendered Hispanic/Latinos invisible. This number is higher than 2021 but similar to 2018.

Focusing on proportional representation of Asian characters, only 17 films were at or near the U.S. Census benchmark. These number was not different from 2021 ( 21 movies) or 2018 ( 20 movies). More films exceeded proportional representation, however. Fully 31 movies portrayed a higher percentage of Asian speaking or named characters than the U.S. Census. However, this number did not deviate from 2021 (32) or 2018 (27). Thirty-four of the 100 top movies of 2022 completely erased Asians on screen, however. While this number did not differ from 2018, it was significantly higher than 2021.

Intersecting gender and race/ethnicity, we assessed how many movies erased or failed to depict at least one girl/women on screen (saying at least one word) from each of the racial/ethnic groups measured. In 2022, few movies rendered White girls and women absent. The amount of invisibility in 2022 ( 7 movies) has not changed from 2021 ( 6 movies) or 2018 ( 4 movies). 82 out of 1,600 films erased White females on screen.

Turning to Native Hawaiian/Pacific Islanders, 99 movies erased these characters which is comparable to 2021 and 2018. Out of 1,600 movies, female NH/PI characters were missing in 1,579 . Similar findings were observed with American Indian/Alaska Native girls and women on screen, where 1,578 movies erased their presence altogether. MENA girls and women were absent from 95 of 100 films in 2022, which is not different from 2021 (94 films) or 2018 (93 films). Across 1,600 movies, MENA girls/women were invisible in 1,491 films.

Latina erasure is also pronounced. A full 61 movies out of the top 100 rendered Latinas invisible, which was equivalent to 2021 (57) but down from 2007 ( 70 movies). In sum, 1,086 out of 1,600 failed to depict
at least one Latina speaking character on screen. The erasure of Asian girls/women seems to be decreasing, from 54 movies in 2018 to 44 movies in 2022. 982 films erased Asians females across the 16year time frame. Black girls/women were erased from 32 of the 100 top movies of 2022, which is nearly identical to 2018 ( 33 movies) but lower than 2021 ( 37 movies). 685 out of 1,600 movies did not show one Black girl or woman speaking on screen. Finally, multiracial/multiethnic girls and women were missing from 70 films in 2022. This is an increase from 2018 (51). Fully 1,200 out of 1,600 movies erased multiracial/multiethnic girls/women on screen.

Only 31\% of films in 2022 had an underrepresented lead/co lead. This percentage is well below U.S. Census (41.1\%). 2022 (31\%) was significantly lower than 2021 (37\%) but higher than 2007 (13\%). Focusing on girls and women of color, $19 \%$ of movies in 2022 featured an underrepresented female in the leading/co leading role. The percentage was nearly identical to 2021 (16\%) but substantially higher than 2007 (1\%). Of the underrepresented female protagonists in $2022,30 \%$ were Black, $20 \%$ Latina, $10 \%$ Asian, 40\% Multiracial/Multiethnic.

Behind the Camera. A total of 113 directors were attached to the 100 top-grossing films of 2022. Of these, 22 (19.5\%) were from underrepresented racial/ethnic groups and 91 were white (80.5\%). Breaking down the $19.5 \%, 10.6 \%$ were Asian, $3.5 \%$ Black, $1.8 \%$ Hispanic/Latino, and $3.5 \%$ Multiracial/multiethnic. The percentage of underrepresented directors in 2022 (19.5\%) was significantly lower than 2021 (31\%) but higher than 2007 (12.5\%).

Across all 16 years of the sample, 276 distinct directors of color were hired. 248 were men and 28 were women. The top performing male director was Tyler Perry, with 18 movies over the sample time frame. Jaume Collet-Serra directed 8 films while 5 men of color directed 7 movies: Antoine Fuqua, James Wan, Malcolm D. Lee, M. Night Shyamalan, and Tim Story. There were six women of color that tied for top performer each with 2 films helmed across the sample: Ava DuVernay, Chloe Zhao, Gina PrinceBythewood, Jennifer Yuh Nelson, Kasi Lemmons, and Stella Meghie.

Only 92 or $5.2 \%$ of the directors were Black men across the 1,600 top films from 2007 to 2022 . Even fewer Black women ( $<1 \%, n=15$ ) were hired to helm a top-grossing picture. Only 11 specific Black women have sat in the director's chair between 2007 and 2023. Black directors, in comparison to films with non Black directors, depicted more Black leads/co leads ( $100 \%$ vs. $5.9 \%$, respectively) and Black on screen speaking characters ( $51.1 \%, 10.3 \%$, respectively).

Only 2 Hispanic/Latinos were hired to direct across the 100 top-grossing movies of 2022. 2022 was a significant downturn from 2021, when 12 different Latinos were attached to the 100 most popular films. Across 16 years, only 71 directing jobs have been filled with Hispanic/Latinos and 66 of those employment opportunities went to men.

2022 was a strong year for male Asian directors. Twelve different features were helmed by Asian men. Not one Asian woman director was hired, however. 2022 was slightly lower than 2021, where 16 different Asian directors were attached to the 100 most popular movies. Three of the directing gigs in 2021 were filled by two Asian women. When compared to films with non Asian directors, those with Asian helmers have significantly more Asian leads/co leads (73\% vs 0) and Asian speaking characters ( $73.7 \%$ vs. $5.1 \%$ ) on screen.

In 2022, $69.8 \%$ of casting directors were White women, $12.5 \%$ were White men, $11 \%$ underrepresented women, and $6.6 \%$ underrepresented men. Women casting directors of color were more likely than all other male or female casting directors to include non white girls/women on screen as speaking characters.

## LGBTQ+

In 2022, $2.1 \%(n=87)$ of 4,169 speaking or named characters across 100 top-grossing films were LGBTQ+. Of the 86 LGBTQ+ characters, 27 were lesbian, 43 were gay, 13 were bisexual, and 5 were transgender.

More than $40 \%$ of the LGBTQ+ characters (41.4\%) appeared in speaking roles that were inconsequential to the story.

In 2022, there was no change in the percentage of LGBTQ+ speaking characters compared to 2021 (<1\%). The number of speaking characters who were LGBTQ+ more than doubled from 2021 to 2022.

In 2022, 72 of the 100 top films did not feature even one LGBTQ+ speaking or named character on screen. Eighty-four films were missing LGBTQ+ girls/women.

Only 3 films depicted LGBTQ+ characters within 2 percentage points of the proportion of LGBTQ people in the U.S. population (10\%). A total of 16 movies achieved proportional representation of LGBTQ+ characters between 2014 and 2022.

In 2022, $57.5 \%$ of LGBTQ+ speaking characters were male-identified and $42.5 \%$ were female-identified. More than half ( $58.8 \%$ ) of LGBTQ+ characters were White, while $22.4 \%$ were Black, $5.9 \%$ were Hispanic/Latino, $7.1 \%$ were Asian, and $5.9 \%$ were Multiracial/Multiethnic.

Of the LGBTQ+ characters, $43.7 \%$ were young adults (21-39 years old), while $42.5 \%$ were middle-aged or older (age 40-64). There were 9 (10.3\%) teen LGBTQ+ characters in 2022 and 3 (3.4\%) elderly characters. A quarter (26.7\%) of the LGBTQ+ characters were shown as parents or caregivers.

While the highest number of transgender characters across the 900-film sample were observed in 2022, this was a total of 5 characters. Four of the 5 transgender characters in 2022 appeared in one movie (Bros). Only 1 transgender character was inconsequential to the plot, which is an improvement from previous years when all transgender characters were incidental.

A total of 9 films in 2022 featured an LGBTQ+ lead/co lead. This was the largest number of LGBTQ+ leads/co leads across the sample of films, and an increase from 2021 (1 LGBTQ+ led/co led film). None of the leads were transgender.

## Characters with Disabilities

In 2022, 1.9\% ( $n=81$ ) of all speaking characters were shown with a disability. There was no meaningful difference in the percentage of speaking characters with a disability across the 800 films and 8-year timespan of the study.

Most characters ( $82.7 \%, n=67$ ) had a physical disability (e.g., difficulty with mobility, missing limb), while $33.3 \%(n=27)$ had a communicative disability (e.g., difficulty with speech, hearing, vision), and 17.3\% ( $n=14$ ) had a cognitive disability (e.g., depression, dementia, PTSD). Because characters could be shown with more than one disability, these percentages do not total to $100 \%$.

54 of 2022's top 100 movies failed to feature at least one speaking character with a disability, which is higher than both 2021 ( 48 films) and 2015 ( 45 films). 76 movies were missing female-identified characters with a disability, on par with 2021 ( 76 films) and slightly below 2015 (84 films).

Only 1 of the 800 movies included in the over-time analysis reached proportional representation of characters with disabilities in comparison to the U.S. population (27\%). That film was included in the 2021 sample.

Of the characters with disabilities in the top films of 2022, most were male-identified (69.1\%) while 30.9\% were female-identified. Three-quarters (76\%) of characters with disabilities were White and 24\% were from underrepresented racial/ethnic groups.

Looking to age, fewer than 10\% of characters with disabilities were children (6.5\%) or teens (2.6\%), while $31.2 \%$ were young adults (age 21 to 39 ) and $59.7 \%$ were middle aged (age 40-64) or elderly (age 65+).

Only 1 character with a disability in 2022 was LGBTQ+. Out of all 800 films examined, just 10 characters shown with a disability were LGBTQ+. None of those characters was transgender.

A mere 15 characters with a disability ( $34.9 \%$ of all characters with a disability) in 2022 were shown as parents.

In 2022, 14 films featured a lead/co lead character with a disability. Of the 14 films with a lead/co lead featuring a disability, 11 featured a male character and 3 a female character. The majority of films with leads/co leads with a disability ( $n=11$ ) featured a White lead/co lead, while the remaining movies featured 1 Asian lead/co lead, 1 Hispanic/Latino lead/co lead, and 1 Multiracial/Multiethnic lead/co lead. Only 1 lead/co lead with a disability was part of the LGBTQ+ community.

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This analysis focuses on representation on screen and behind the camera across the 100 top-grossing fictional films from 2007 to 2022. A total of 1,600 movies have been examined for character portrayal of gender, race/ethnicity, LGBTQ+ and disability. Behind the scenes, we scrutinize hiring of above-the-line personnel (directors, writers, producers) as well as composers and casting directors by gender and race/ethnicity. To date and historically, this is the largest, most rigorous, and comprehensive analysis of identity in popular movies. ${ }^{1}$

The results are presented below by identity group. We only note differences of 5 percentage points or more between comparison groups to prevent discussing trivial deviations. The findings for 2022 are presented first followed by a comparison to 2021 and 2007.

## Gender

On Screen Prevalence. As shown in Table 1, a total of 4,218 characters were evaluated for gender identity across the 100 top films of 2022. Only $34.6 \%$ of characters were female-identified (see Table 1). As such, the ratio of speaking characters was 1.89 males to every 1 female. Not only is this below U.S. census where girls and women comprise $50.4 \%$ of the population, ${ }^{2}$ but this statistic is not different from 2021 (33.1\%). While meaningfully different from 2007 (29.9\%), the percentage of girls and women on screen in 2022 is very close to 2008 and 2009. So much for progress! It is also important to note that out of more than 4,200 speaking characters across the 100 top movies of 2022 , only 1 was coded as gender non-binary.

We were also interested in the total number of films that featured a gender-balanced cast. A cast is gender-balanced when girls and/or women are featured in 45\%-54.9\% of all speaking roles. As shown in Table 1, 15\% of the 100 top films of 2022 featured a gender-balanced cast. This percentage was not different from 2021 (15\%) or 2007 (12\%). Interestingly, only 7 of the 100 top movies of 2022 depicted casts that tilted female (i.e., $55 \%$ or more of the speaking characters were girls and women).

Table 1
Prevalence of Female Characters On Screen by Year: 2007 to 2022

| Year | \% of <br> Female <br> Characters | \% of <br> Balanced <br> Casts | Ratio of <br> Males to <br> Females | Total <br> \# of <br> Characters | Total <br> \# of <br> Films |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2007 | $29.9 \%$ | $12 \%$ | 2.35 to 1 | 4,379 | 100 |
| 2008 | $32.8 \%$ | $15 \%$ | 2.05 to 1 | 4,370 | 100 |
| 2009 | $32.8 \%$ | $17 \%$ | 2.05 to 1 | 4,342 | 100 |
| 2010 | $30.3 \%$ | $4 \%$ | 2.30 to 1 | 4,154 | 100 |
| 2011 | $31.2 \%$ | $12 \%$ | 2.21 to 1 | 4,508 | 100 |
| 2012 | $28.4 \%$ | $6 \%$ | 2.52 to 1 | 4,476 | 100 |


| 2013 | $29.2 \%$ | $16 \%$ | 2.43 to 1 | 4,506 | 100 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2014 | $28.1 \%$ | $9 \%$ | 2.55 to 1 | 4,610 | 100 |
| 2015 | $31.4 \%$ | $18 \%$ | 2.19 to 1 | 4,370 | 100 |
| 2016 | $31.5 \%$ | $11 \%$ | 2.18 to 1 | 4,590 | 100 |
| 2017 | $31.8 \%$ | $19 \%$ | 2.15 to 1 | 4,454 | 100 |
| 2018 | $33.1 \%$ | $9 \%$ | 2.02 to 1 | 4,422 | 100 |
| 2019 | $34 \%$ | $14 \%$ | 1.94 to 1 | 4,450 | 100 |
| 2020 | $33.5 \%$ | $15 \%$ | 1.98 to 1 | 3,706 | 100 |
| 2021 | $33.1 \%$ | $15 \%$ | 2.02 to 1 | 4,301 | 100 |
| 2022 | $34.6 \%$ | $15 \%$ | 1.89 to 1 | 4,218 | 100 |
| Total | $31.6 \%$ | $12.9 \%$ | 2.17 to 1 | 69,858 | 1,600 |

Note: The 100 top movies in North America based on Box Office Mojo were included in the sample each year. In 2007 and 2009, two films were released as double features and thus the sample sizes for those years was 101. However, we grouped the double features as one film for analysis purposes.

Genre often has been correlated with the prevalence of girls and women on screen. Therefore, we examined the percentage of girls and women across three historically male genres: action/adventure, animation, and comedy. ${ }^{3}$ As shown in Table 2, the percentage of female speaking characters in action/adventure was at an all-time high in 2022 (29.9\%). However, this percentage is not meaningfully different from 2021 (28.8\%) but is up from 2007 (20\%). For animation, a similar trend emerged. Animated movies released in 2022 (32.4\%) did not differ from those released in 2021 (36.1\%) and both were substantially higher than those released in 2007 (20.8\%). No differences appeared in the percentage of girls and women on screen in comedy, with 2022 clocking in at $34.5 \%$ girls and women.

Table 2
Prevalence of Female Characters On Screen by Genre and Year: 2007-2022
\(\left.$$
\begin{array}{|c|c|c|c|}\hline \text { Year } & \begin{array}{c}\text { \% of } \\
\text { Female Characters in } \\
\text { Action/Adventure }\end{array} & \begin{array}{c}\text { \%emale Characters in } \\
\text { Animation }\end{array} & \begin{array}{c}\text { \% of } \\
\text { Female Characters } \\
\text { in Comedy }\end{array}
$$ <br>

\hline 2007 \& 20 \% \& 20.8 \% \& 36 \%\end{array}\right]\)| $26.9 \%$ |
| :---: |
| 2008 |


| 2022 | $29.9 \%$ | $32.4 \%$ | $34.5 \%$ |
| :--- | :--- | :--- | :--- |

Note: For males, subtract the percentage of females within a cell from $100 \%$.

Next, we examined the identity attributes of protagonists driving top-grossing fare. Across the most popular films of 2022, 72 movies had a single lead, 23 had a co lead, and 5 had ensemble leads. Each year, we collapse the first two categories and examine the percentage of movies with girls and women in the leading and/or co leading role. ${ }^{4}$ Table 3 illuminates the percentage of female-identified leads/co leads from four groups across all 1,600 movies.

Table 3
Prevalence of Female-Identified Leads \& Co Leads by Year: 2007-2022

| Year | \% of films w/ <br> Girls \& Women | \% of films w/ <br> Women of Color | \% of films w/ Women <br> 45 Yrs \& Older | \% of films w/WOC <br> 45 Yrs \& Older |
| :---: | :---: | :---: | :---: | :---: |
| 2007 | $20 \%$ | $1 \%$ | $1 \%$ | 0 |
| 2008 | $27 \%$ | $4 \%$ | $4 \%$ | $1 \%$ |
| 2009 | $27 \%$ | $4 \%$ | $4 \%$ | 0 |
| 2010 | $30 \%$ | $5 \%$ | $3 \%$ | 0 |
| 2011 | $23 \%$ | $5 \%$ | $4 \%$ | $2 \%$ |
| 2012 | $24 \%$ | $3 \%$ | $3 \%$ | 0 |
| 2013 | $28 \%$ | $3 \%$ | $7 \%$ | $2 \%$ |
| 2014 | $21 \%$ | $4 \%$ | 0 | 0 |
| 2015 | $32 \%$ | $4 \%$ | $5 \%$ | $1 \%$ |
| 2016 | $33 \%$ | $3 \%$ | $5 \%$ | $1 \%$ |
| 2017 | $32 \%$ | $11 \%$ | $11 \%$ | $1 \%$ |
| 2018 | $39 \%$ | $17 \%$ | $3 \%$ | $4 \%$ |
| 2019 | $43 \%$ | $9 \%$ | $4 \%$ | $1 \%$ |
| 2020 | $36 \%$ | $16 \%$ | $7 \%$ | 0 |
| 2021 | $41 \%$ | $19 \%$ | $10 \%$ | $1 \%$ |
| 2022 | $44 \%$ | $\mathbf{7 \%}$ | $4.9 \%$ | $5 \%$ |
| Total | $31.2 \%$ |  |  | $1.2 \%$ |

Note: For this table, the total number of films with a girl or woman in the lead/co lead are presented. For this measure, we focus on the identity of the character depicted on screen. For race/ethnicity and age, the actor's identity was used to make the judgment. Movies with ensembles were not included in this analysis.

A full $44 \%$ of the 100 top-grossing movies of 2022 depicted a girl and/or woman in the leading/co leading role. The percentage is not meaningfully different from 2021 ( $41 \%$ ), but 24 percentage points higher than 2007 (20\%). It is important to note that 2022 reflects a 16-year high.

Focusing on women of color, 2022 represents a historic high where $19 \%$ of the films were carried by a female from an underrepresented racial/ethnic group. Further, this finding reflected a substantial increase from 2007 (1\%). No differences emerged from 2021 to 2022 for films with women 45 years of age or older leading or co leading the action, independent of whether they were White or from an
underrepresented racial/ethnic group. It is important to note that leads/co leads within these two identity groups increased notably from 2007.

It is clear from our findings that there is still a long way to go on gender equality. While the percentage of films with girls and women at the center has been over $40 \%$ recently, the proportion of female speaking characters continues to resist change.

On Screen Portrayals. Each year, we examine two stereotypes specifically related to gender. The first is age, as females are more likely to have a sell buy date (i.e., 40 years of age) than their male colleagues. ${ }^{5}$ As shown in Table 4, girls (45\%) and female teens (46.9\%) were close to proportional representation ( $50.4 \%$ ) across the 100 most popular movies of 2022. A full $39.7 \%$ of 21 - to 39 -year-old speaking characters were women and only $25.6 \%$ of those 40 years of age or older.

Table 4
Character Age by Gender in Top-Grossing Films: 2022

| Gender | Children <br> $\mathbf{0 - 1 2}$ yrs | Teens <br> $\mathbf{1 3 - 2 0}$ yrs | Young Adult <br> $\mathbf{2 1 - 3 9}$ yrs | Adults $\mathbf{4 0}$ yrs <br> or Older |
| :--- | :---: | :---: | :---: | :---: |
| Males | $55 \%$ | $53 \%$ | $60.3 \%$ | $74.2 \%$ |
| Females | $45 \%$ | $47 \%$ | $39.7 \%$ | $25.8 \%$ |
| Ratio | 1.22 to 1 | 1.12 to 1 | 1.52 to 1 | 2.9 to 1 |

Note: Each column percentage totals to $100 \%$.

Given the gender disparity for older characters, we looked specifically at this age group across all 16 years of the sample. Only $23.9 \%$ of all speaking characters 40 years of age or older were women. This translates into a gender ratio of 3.2 older male characters to every 1 older female character. As shown in Table 5, the percentage of women 40 years of age or older has not changed over time. In 2022, only $25.8 \%$ of older characters were women which is not meaningfully different than the percentage in 2007 (22.1\%).

Table 5
Gender of Characters 40 years of Age and Older: 2007 to 2022

| Year | Males | Females |
| :---: | :---: | :---: |
| $\mathbf{2 0 0 7}$ | $77.9 \%$ | $22.1 \%$ |
| $\mathbf{2 0 0 8}$ | $72.8 \%$ | $27.2 \%$ |
| $\mathbf{2 0 0 9}$ | $75.6 \%$ | $24.4 \%$ |
| $\mathbf{2 0 1 0}$ | $78.2 \%$ | $21.8 \%$ |
| $\mathbf{2 0 1 1}$ | $78.2 \%$ | $21.8 \%$ |
| $\mathbf{2 0 1 2}$ | $79.2 \%$ | $20.8 \%$ |
| $\mathbf{2 0 1 3}$ | $78.4 \%$ | $21.6 \%$ |
| $\mathbf{2 0 1 4}$ | $79.4 \%$ | $20.6 \%$ |
| $\mathbf{2 0 1 5}$ | $75.4 \%$ | $24.6 \%$ |
| $\mathbf{2 0 1 6}$ | $74.3 \%$ | $25.7 \%$ |


| 2017 | $75.4 \%$ | $24.6 \%$ |
| :---: | :---: | :---: |
| 2018 | $75 \%$ | $25 \%$ |
| 2019 | $74.6 \%$ | $25.4 \%$ |
| 2020 | $72.9 \%$ | $29.1 \%$ |
| 2021 | $74.3 \%$ | $25.7 \%$ |
| 2022 | $74.2 \%$ | $25.8 \%$ |
| Total | $76.1 \%$ | $23.9 \%$ |

Note: Only characters 40 years of age or older were included in this analysis.
The second measure often associated with gender is parental status. Studies have routinely shown, including ours, that women are more likely to be depicted in caregiving and domestic roles than men. ${ }^{6}$ In 2022, for both women ( $43.8 \%$ ) and men (32.6\%), the percentage depicted as parents was non meaningfully different from 2021 ( $44.2 \%=$ women; $36.4 \%=m e n$ ). However, for both groups the percentage shown as parents in 2022 was significantly lower than 2007 ( $50 \%=$ women; $51.5 \%=$ men $)$.

Table 6
Gender and Parental Status: 2007 to 2022

| Year | Males | Females |
| :---: | :---: | :---: |
| $\mathbf{2 0 0 7}$ | $51.5 \%$ | $50 \%$ |
| $\mathbf{2 0 0 8}$ | $40.9 \%$ | $52.9 \%$ |
| $\mathbf{2 0 0 9}$ | $43 \%$ | $50.5 \%$ |
| $\mathbf{2 0 1 0}$ | $42.6 \%$ | $49.4 \%$ |
| $\mathbf{2 0 1 1}$ | $37.6 \%$ | $42.4 \%$ |
| $\mathbf{2 0 1 2}$ | $45.2 \%$ | $60.4 \%$ |
| $\mathbf{2 0 1 3}$ | $45.8 \%$ | $51.9 \%$ |
| $\mathbf{2 0 1 4}$ | $42 \%$ | $53.5 \%$ |
| $\mathbf{2 0 1 5}$ | $40.2 \%$ | $44.4 \%$ |
| $\mathbf{2 0 1 6}$ | $33.9 \%$ | $47.5 \%$ |
| $\mathbf{2 0 1 7}$ | $33 \%$ | $40.3 \%$ |
| $\mathbf{2 0 1 8}$ | $34.6 \%$ | $41.3 \%$ |
| $\mathbf{2 0 1 9}$ | $31.3 \%$ | $41.6 \%$ |
| 2020 | $35.7 \%$ | $44.6 \%$ |
| $\mathbf{2 0 2 1}$ | $36.4 \%$ | $44.1 \%$ |
| $\mathbf{2 0 2 2}$ | $32.6 \%$ | $43.8 \%$ |
| Total | $38.4 \%$ | $46.7 \%$ |

Note: Only characters with enough information to judge parental status were evaluated on this measure. Within each cell, the percentage of females or males depicted as parents are reported. Thus, the two cells within year do not add to $100 \%$. For the percent of females who are not shown as parents, subtract a within year cell from $100 \%$.

Together, we can sum up the results in two ways. One, males - unlike their female counterparts -- can play any age on screen. Put differently, very few roles exist for women once they hit 40 years of age. Two, domestic roles (i.e., parenting) are typically characteristic of women in storytelling. Neither of
these findings are new or surprising. We have literally written the same results across the more than 12 times we have released this report publicly. Now, we turn to who might be responsible for these trends by examining who works behind the camera.

Behind the Camera. A total 1,492 content creators worked as measurable above-the-line personnel across the 100 top films of 2022.7 As Illustrated in Table 7, less than one quarter ( $23.6 \%$ ) of these positions were filled with women! Below, we focus on the prevalence of women working in specific above- and below-the- line positions.

Table 7
Content Creators by Gender: 2022

| Position | Males | Females | Gender Ratio |
| :--- | :---: | :---: | :---: |
| Directors | $91.2 \%(n=103)$ | $8.8 \%(n=10)$ | 10.1 to 1 |
| Writers | $83.7 \%(n=216)$ | $16.3 \%(n=42)$ | 5.1 to 1 |
| Producers | $73.2 \%(n=821)$ | $26.8 \%(n=300)$ | 2.7 to 1 |
| Total | $76.4 \%(n=1,140)$ | $23.6 \%(n=352)$ | 3.2 to 1 |

In terms of directors, only 10 (8.8\%) women worked as helmers across the 100 top-grossing movies of 2022. This calculates into a gender ratio of 10.3 male directors to every 1 woman director. As depicted in Table 8, the percentage of women directors has not meaningfully changed from 2021 (12.4\%). While the percentage differs from 2007 ( $2.7 \%$ ), the 2022 percentage is roughly equivalent to 2008 ( $8 \%$ ).

Table 8
Women Directors: 2007 to 2022

| Year | \% of Women Directors | \# of Women Directors | Total \# of Directors |
| :---: | :---: | :---: | :---: |
| 2007 | 2.7\% | 3 | 112 |
| 2008 | 8\% | 9 | 112 |
| 2009 | 3.6\% | 4 | 111 |
| 2010 | 2.8\% | 3 | 109 |
| 2011 | 3.7\% | 4 | 108 |
| 2012 | 4.1\% | 5 | 121 |
| 2013 | 1.9\% | 2 | 107 |
| 2014 | 1.9\% | 2 | 107 |
| 2015 | 7.5\% | 8 | 107 |
| 2016 | 4.2\% | 5 | 120 |
| 2017 | 7.3\% | 8 | 109 |
| 2018 | 4.5\% | 5 | 112 |
| 2019 | 10.7\% | 12 | 112 |
| 2020 | 13.5\% | 15 | 111 |
| 2021 | 12.4\% | 14 | 113 |
| 2022 | 8.8\% | 10 | 113 |
| Total | 6.1\% | 109 | 1,784 |

In total, 109 jobs have been allocated to women directors across the 1,600 top movies. Some of these women worked more than once, however. As such, the total number of individual or distinct women directors reduces from 109 to 88.

The top performing women directors were Anne Fletcher and Lana Wachowski. Both of these women directed 4 films during the 16 -year sample time frame. Fifteen women directed 2 movies from 2007 to 2022 (e.g., Ava DuVernay, Catherine Hardwicke, Chloe Zhao, Gina Prince-Bythewood, Greta Gerwig, Jennifer Lee, Jennifer Yuh Nelson, Julie Anne Robinson, Kasi Lemmons, Nancy Meyers, Olivia Wilde, Patty Jenkins, Phyllida Lloyd, Sarah Smith, Stella Meghie).

For comparison purposes, the total number of unique male directors across the sample time frame was 833, with the top performers Tyler Perry ( 18 movies), Steven Spielberg ( 14 movies) and Clint Eastwood ( 12 movies). The gender ratio of unique male directors to unique female directors is 9.5 to 1 .

Table 9
Women Directors Working Across the 1,600 Top Grossing U.S. Films: 2007-2022

| Abby Kohn | Jennifer Flackett | Nancy Meyers* (2) |
| :---: | :---: | :---: |
| Angelina Jolie | Jennifer Lee* (2) | Natalie Erika James |
| Anna Boden | Jennifer Yuh Nelson* (2) | Natalie Krinsky |
| Anna Foerster | Jessica M. Thompson | Nia DaCosta |
| Anne Fletcher* (4) | Jessie Nelson | Niki Caro |
| Ashwiny Iyer Tiwari | Jill Culton | Nora Ephron |
| Autumn de Wilde | Jodie Foster | Olivia Newman |
| Ava DuVernay* (2) | Julie Anne Robinson* (2) | Olivia Wilde* (2) |
| Betty Thomas | Julie Taymor | Patricia Riggen |
| Brenda Chapman | Kasi Lemmons* (2) | Patty Jenkins* (2) |
| Castille Landon | Kathryn Bigelow | Phyllida Lloyd* (2) |
| Cate Shortland | Kay Cannon | Reed Morano |
| Catherine Hardwicke* (2) | Kimberly Peirce | Robin Wright |
| Cathy Yan | Kirsten Sheridan | Rosalind Ross |
| Charise Castro Smith | Kitty Green | Roxann Dawson |
| Chinonye Chukwu | Lana Wachowski* (4) | Sam Taylor-Johnson |
| Chloe Zhao* (2) | Laura Brousseau | Sanaa Hamri |
| Christie Summerhays | Liesl Tommy | Sarah Smith* (2) |
| Diane English | Lilly Wachowski | Shari Springer Berman |
| Elaine Bogan | Lisa Joy | Sharon Maguire |
| Elizabeth Allen Rosenbaum | Lorene Scafaria | Stacy Title |
| Elizabeth Banks | Loveleen Tandan | Stella Meghie* (2) |
| Emerald Fennell | Lucia Aniello | Susanna Fogel |
| Floria Sigismondi | Maria Schrader | Susanna White |
| Gail Mancuso | Marielle Heller | Thea Sharrock |
| Gina Prince-Bythewood* (2) | Meghna Gulzar | Tina Gordon |
| Greta Gerwig* (2) | Melina Matsoukas | Trish Sie |
| Halina Reijn Meyers-Shyer | Mimi Leder | Veronika Franz |
| Janicza Bravo | Miranda July |  |
|  |  |  |

Note: Each name with an asterisk indicates that the director worked more than once during the sample time frame. The total number of top grossing movies directed per person across the 16 year sample are in parentheses.

Turning to screenwriters, a total of 4,627 individuals were credited across the 1,600 films (see Table 10). In 2022, a meager $16.3 \%$ were women and $83.7 \%$ were men. There was no change in the percentage of women screenwriters from 2021 (16.8\%) to 2022 (16.3\%). A meaningful change from 2007 (11.2\%) did emerge, however. Overall, very little growth in the percentage of women writers has been documented across the 16 -year sample.

Table 10
Women Writers: 2007 to 2022

| Year | \% of Women Writers | \# of Women Writers | Total \# of Writers |
| :---: | :---: | :---: | :---: |
| 2007 | 11.2\% | 35 | 314 |
| 2008 | 14.1\% | 36 | 255 |
| 2009 | 13.3\% | 38 | 285 |
| 2010 | 11.3\% | 30 | 265 |
| 2011 | 12.2\% | 38 | 312 |
| 2012 | 11.7\% | 33 | 283 |
| 2013 | 7.4\% | 21 | 283 |
| 2014 | 11.4\% | 34 | 298 |
| 2015 | 11.4\% | 30 | 264 |
| 2016 | 12.4\% | 37 | 299 |
| 2017 | 10.4\% | 35 | 338 |
| 2018 | 14.8\% | 47 | 317 |
| 2019 | 19.1\% | 56 | 293 |
| 2020 | 12\% | 31 | 259 |
| 2021 | 16.8\% | 51 | 304 |
| 2022 | 16.3\% | 42 | 258 |
| Total | 12.8\% | 594 | 4,627 |

The next above-the-line role examined was producing. In 2022, just over a quarter (26.8\%) of all producers were women across the 100 top-grossing films. No difference emerged from 2022 to 2021 (24.8\%), but the percentage of female producers was higher in 2022 than in 2007 (19.7\%).

Table 11
Women Producers: 2007 to 2022

| Year | \% of Women <br> Producers | \# of Women <br> Producers | Total \# of <br> Producers |
| :---: | :---: | :---: | :---: |
| $\mathbf{2 0 0 7}$ | $19.7 \%$ | 164 | 832 |
| $\mathbf{2 0 0 8}$ | $19.6 \%$ | 171 | 873 |
| $\mathbf{2 0 0 9}$ | $22.3 \%$ | 195 | 876 |
| $\mathbf{2 0 1 0}$ | $18.6 \%$ | 165 | 885 |
| $\mathbf{2 0 1 1}$ | $21.7 \%$ | 192 | 886 |


| $\mathbf{2 0 1 2}$ | $20.3 \%$ | 181 | 890 |
| :---: | :---: | :---: | :---: |
| $\mathbf{2 0 1 3}$ | $20 \%$ | 208 | 1,042 |
| $\mathbf{2 0 1 4}$ | $20.2 \%$ | 207 | 1,022 |
| $\mathbf{2 0 1 5}$ | $21.9 \%$ | 224 | 1,021 |
| $\mathbf{2 0 1 6}$ | $20.9 \%$ | 218 | 1,045 |
| $\mathbf{2 0 1 7}$ | $21.9 \%$ | 252 | 1,153 |
| $\mathbf{2 0 1 8}$ | $21.2 \%$ | 239 | 1,127 |
| $\mathbf{2 0 1 9}$ | $24.4 \%$ | 275 | 1,125 |
| $\mathbf{2 0 2 0}$ | $24.2 \%$ | 289 | 1,192 |
| $\mathbf{2 0 2 1}$ | $24.8 \%$ | 299 | 1,204 |
| $\mathbf{2 0 2 2}$ | $26.8 \%$ | 300 | $\mathbf{1 , 1 2 1}$ |
| Total | $\mathbf{2 2 \%}$ | $\mathbf{3 , 5 7 9}$ | $\mathbf{1 6 , 2 9 4}$ |

Pivoting to composers, we were interested in the gender distribution across this traditionally maledominated position. As depicted in Table 12, $8.2 \%$ of composers were women across the 100 topgrossing films of 2022, which represents a 16-year high. Twice as many women composed films in 2022 than in 2021 and more than 10 times as many as 2007.

Table 12
Women Composers: 2007 to 2022

| Year | \% of Women <br> Composers | \# of Women <br> Composers | Total \# of <br> Composers |
| :---: | :---: | :---: | :---: |
| $\mathbf{2 0 0 7}$ | 0 | 0 | 107 |
| $\mathbf{2 0 0 8}$ | $1.8 \%$ | 2 | 108 |
| $\mathbf{2 0 0 9}$ | $1.8 \%$ | 2 | 109 |
| $\mathbf{2 0 1 0}$ | $1.7 \%$ | 2 | 115 |
| $\mathbf{2 0 1 1}$ | $0.9 \%$ | 1 | 109 |
| $\mathbf{2 0 1 2}$ | $1.9 \%$ | 2 | 105 |
| $\mathbf{2 0 1 3}$ | $1.8 \%$ | 2 | 114 |
| $\mathbf{2 0 1 4}$ | $1 \%$ | 1 | 105 |
| $\mathbf{2 0 1 5}$ | $0.9 \%$ | 1 | 114 |
| $\mathbf{2 0 1 6}$ | $1.6 \%$ | 2 | 121 |
| $\mathbf{2 0 1 7}$ | $0.9 \%$ | 1 | 113 |
| $\mathbf{2 0 1 8}$ | $2.8 \%$ | 3 | 108 |
| $\mathbf{2 0 1 9}$ | $5.1 \%$ | 6 | 118 |
| $\mathbf{2 0 2 0}$ | $6.9 \%$ | 9 | 131 |
| $\mathbf{2 0 2 1}$ | $3 \%$ | $5^{*}$ | 131 |
| $\mathbf{2 0 2 2}$ | $8.2 \%$ | 10 | 122 |
| Total | $\mathbf{2 . 6 \%}$ | $\mathbf{4 9}$ | $\mathbf{1 , 8 3 0}$ |

Note: In 2021, the asterisk indicates that one of the composers was identified as gender non-binary and four identified as women.

We list all of the women and non-binary composers in Table 13. When we look to gender, a total of 491 different men but only 32 different women and non binary composers worked across the sample time
frame. The top performing male composer was Hans Zimmer, who worked on 44 different films. The top performing woman composer was Deborah Lurie, who worked on only 5 movies. Most women composers only worked on one film. Thus, Hans Zimmer worked almost as many times (44) than all of the women composers hired from 2007 to 2022 (i.e., 49).

Table 13
Women \& Non Binary Composers Working Across the 1,600 Top Grossing U.S. Films: 2007-2022

| Alisa Okehazama | Karen O |
| :---: | :---: |
| Amie Doherty | Laurence Lafond-Beaulne |
| Anna Drubich* (2) | Lesley Barber |
| Anne Dudley* (2) | Lisbeth Scott |
| Camile Poliquin | Mica Levi |
| Chanda Dancy* (2) | Miho Hazama |
| Chelsea Wolfe | Morgan Kibby |
| Claudia Sarne | Nami Melumad |
| Dara Taylor* (2) | Natalie Holt |
| Deborah Lurie* (5) | Parampara Thakur |
| Eiko Ishibashi | Pinar Toprak* (2) |
| Genevieve Vincent | Rachel Portman* (4) |
| Germaine Franco* (4) | Sarah Schachner |
| Hildur Guđnadóttir* (3) | Tamar-kali |
| Isobel Waller-Bridge | Tierney Sutton |
| Jeanine Tesori | Yuki Kajiura |

Lastly, we evaluated the gender of casting directors. ${ }^{8}$ This role, unlike many other behind-the-camera positions, is stereotypically female. In 2022, a full $81.4 \%$ of all casters were women and just $18.6 \%$ were men. This is a gender ratio of 4.4 females to every 1 male. A higher percentage of women casters worked in 2022 than in 2021 (70.4\%). However, 2022 was lower than 2007 ( $86.1 \%$ ).

Table 14
Women Casting Directors: 2007 to 2022

| Year | \% of Women <br> Casting Directors | \# of Women <br> Casting Directors | Total \# of <br> Casting Directors |
| :---: | :---: | :---: | :---: |
| $\mathbf{2 0 0 7}$ | $86.1 \%$ | 136 | 158 |
| $\mathbf{2 0 0 8}$ | $80.2 \%$ | 134 | 167 |
| $\mathbf{2 0 0 9}$ | $85.2 \%$ | 138 | 162 |
| $\mathbf{2 0 1 0}$ | $81.6 \%$ | 129 | 158 |
| $\mathbf{2 0 1 1}$ | $79.1 \%$ | 125 | 158 |
| $\mathbf{2 0 1 2}$ | $76.1 \%$ | 124 | 163 |
| $\mathbf{2 0 1 3}$ | $79.1 \%$ | 136 | 172 |
| $\mathbf{2 0 1 4}$ | $80 \%$ | 128 | 160 |
| $\mathbf{2 0 1 5}$ | $80.5 \%$ | 128 | 159 |
| $\mathbf{2 0 1 6}$ | $83.6 \%$ | 117 | 140 |
| $\mathbf{2 0 1 7}$ | $80.4 \%$ | 119 | 148 |


| 2018 | $85.1 \%$ | 120 | 141 |
| :---: | :---: | :---: | :---: |
| 2019 | $70.4 \%$ | 95 | 135 |
| 2020 | $80 \%$ | 128 | 160 |
| 2021 | $70.4 \%$ | 107 | 152 |
| 2022 | $81.4 \%$ | 114 | 140 |
| Total | $\mathbf{8 0 \%}$ | $\mathbf{1 , 9 7 8}$ | $\mathbf{2 , 4 7 3}$ |

Given the aforementioned findings, it is important to understand how gender behind the camera is related to gender on screen. To this end, we were interested in whether having a female director attached to a movie (no, yes) was associated with having a female lead/co lead (no, yes) as well as the percentage of female speaking characters across the 2022 sample. Figure 1 illuminates the significant associations. Films with women directors attached were far more likely to have girls and women at the center of the story and female speaking characters on screen than films only men directors.

There are at least two explanations for these results. One, women write and direct what they know. As such, they are more likely to tell stories about female protagonists in worlds inhabited by female characters. Two, and more alarming, studio executives and financiers are more likely to green light stories with women directors when their identity matches the lead and narrative of the story. This latter explanation is problematic, as it suggests identity is dictating hiring practices and not talent.

Figure 1
Percentage of Female Leads/Co Leads and Speaking Characters On Screen by Director Gender: 2022


Given the role of casters, we were also interested in how this behind the camera position correlated with the gender of on screen speaking characters. We did not focus on leads, as that hiring decision rests on directors far more than casters. Of those movies in 2022 with a caster attached, no difference emerged between the percentage of girls and women on screen with women (35.4\%) vs. men (33.8\%) as casting directors. Why? Our assumption is that casting directors fill jobs in stereotypical ways and rely on a very small pool of talent rather than thinking about how to portray the world we actually live in. Yes, casting directors are part of the problem and they are largely women.

Taken as a whole, 2022 was not a great year for representation behind the camera. Clearly, this is an industry that cannot create change without the help and consultation of experts. Even with implicit bias training, ERGs, and groups devoted to activism, the same glass ceiling prevents women from being hired in some of the more important roles behind the camera. Next, we will turn to another identity factor that is often marginalized in entertainment: race/ethnicity.

## Race/Ethnicity

Each year, we measure the apparent race/ethnicity of speaking or named characters. This section highlights not only on screen but also behind the camera employment patterns. Particular attention is given to the three largest racial/ethnic groups (i.e., Black, Hispanic/Latino, Asian) and women of color from all underrepresented backgrounds.

On Screen Prevalence. In 2022, a total of 3,802 characters were coded for an apparent race/ethnicity. A full $61.7 \%$ were White, $13.4 \%$ Black, $5.2 \%$ Hispanic/Latino, 15.8\% Asian, 1.5\% Middle Eastern/North African, $<1 \%$ American Indian/Alaska Native, $<1 \%$ Native Hawaiian/Pacific Islander, and $2.1 \%$ Multiracial/Multiethnic. Together, $38.3 \%$ of all speaking characters were from underrepresented racial/ethnic groups. This statistic is lower but not meaningfully different ( 2.8 percentage points) from U.S. Census (41.1\%). ${ }^{9}$

Table 15
Prevalence of Character Race/Ethnicity On Screen by Year: 2007-2022

| Year | White | Black | Latino | Asian | Other |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2007 | $77.6 \%$ | $13.0 \%$ | $3.3 \%$ | $3.4 \%$ | $2.6 \%$ |
| 2008 | $71.2 \%$ | $13.2 \%$ | $4.9 \%$ | $7.1 \%$ | $3.5 \%$ |
| 2009 | $76.2 \%$ | $14.7 \%$ | $2.8 \%$ | $4.7 \%$ | $1.6 \%$ |
| 2010 | $77.6 \%$ | $10.3 \%$ | $3.9 \%$ | $5 \%$ | $3.2 \%$ |
| 2011 | $77.1 \%$ | $9.1 \%$ | $5.9 \%$ | $4.1 \%$ | $3.8 \%$ |
| 2012 | $76.3 \%$ | $10.8 \%$ | $4.2 \%$ | $5 \%$ | $3.7 \%$ |
| 2013 | $74.1 \%$ | $14.1 \%$ | $4.9 \%$ | $4.4 \%$ | $2.5 \%$ |
| 2014 | $73.1 \%$ | $12.5 \%$ | $4.9 \%$ | $5.3 \%$ | $4.2 \%$ |
| 2015 | $73.7 \%$ | $12.2 \%$ | $5.3 \%$ | $4 \%$ | $4.9 \%$ |
| 2016 | $70.8 \%$ | $13.5 \%$ | $3.1 \%$ | $5.6 \%$ | $7 \%$ |
| 2017 | $70.7 \%$ | $12.1 \%$ | $6.2 \%$ | $4.8 \%$ | $6.3 \%$ |
| 2018 | $63.7 \%$ | $16.9 \%$ | $5.3 \%$ | $8.2 \%$ | $6 \%$ |
| 2019 | $65.6 \%$ | $15.7 \%$ | $4.9 \%$ | $7.2 \%$ | $6.6 \%$ |
| 2020 | $58.3 \%$ | $9.5 \%$ | $5.6 \%$ | $19.6 \%$ | $7 \%$ |
| 2021 | $58.8 \%$ | $14.3 \%$ | $8.6 \%$ | $13 \%$ | $5.3 \%$ |
| 2022 | $61.7 \%$ | $13.4 \%$ | $5.2 \%$ | $15.9 \%$ | $3.8 \%$ |
| Total | $70.6 \%$ | $12.9 \%$ | $4.9 \%$ | $7.2 \%$ | $4.4 \%$ |

Note: "Other" was comprised of characters coded Middle Eastern/North African, American Indian/Alaskan Native, Native Hawaiian/Pacific Islander, and Multiracial/Multiethnic.

To gauge change over time, we examined the percentage of White, Black, Latino, Asian, and all other races/ethnicities from 2007 to $2022 .{ }^{10}$ As depicted in Table 15, none of the 5 groups differed meaningfully from 2021 to 2022. A few notable deviations appeared from 2007. The percentage of Asian characters on screen has skyrocketed from $3.4 \%$ in 2007 to $15.9 \%$ in 2022. Matter of fact, 2020 (19.6\%) was an all-time high for Asian representation across the 16 -year time frame. The percentage of White characters also decreased over time ( $77.6 \%$ vs. $61.7 \%$ ).

Pivoting to genre, we were interested in whether characters of color were shown across a variety of genres. To examine this, we first collapsed all characters with a discernable race/ethnicity into one of two categories: White vs. not White. After this, we assessed the percentage of underrepresented characters in animation, action/adventure and comedy.

Table 16 depicts the results. In 2022, the percentage of underrepresented characters in action/ adventure ( $46.8 \%$ ) and animation ( $59.2 \%$ ) were far north of proportional representation. While these percentages did not meaningfully differ from 2021, they were substantially larger than 2007 across both genres (action/adventure=21.6\%, animation=8.1\%). In terms of comedy, 2022 (36.7\%) was significantly higher than $2021(22.5 \%)$ and 2007 ( $23.1 \%$ ). However, the 16 -year high for underrepresented characters in comedy was observed in 2018.

Table 16
Prevalence of Underrepresented Characters On Screen by Film Genre by Year: 2007-2022

| Year | \% of UR characters <br> Action/Adventure | \% of UR characters <br> Animation | \% of UR characters <br> Comedy |
| :---: | :---: | :---: | :---: |
| 2007 | $21.6 \%$ | $8.1 \%$ | $23.1 \%$ |
| 2008 | $32.1 \%$ | $10.5 \%$ | $27.8 \%$ |
| 2009 | $23.4 \%$ | $12.4 \%$ | $24.7 \%$ |
| 2010 | $30 \%$ | $1.5 \%$ | $23.4 \%$ |
| 2011 | $25.2 \%$ | $27.5 \%$ | $26.8 \%$ |
| 2012 | $29.4 \%$ | $5.3 \%$ | $24.1 \%$ |
| 2013 | $26.9 \%$ | $12.4 \%$ | $27.6 \%$ |
| 2014 | $24.9 \%$ | $33.5 \%$ | $27.2 \%$ |
| 2015 | $28.9 \%$ | $13.2 \%$ | $27.3 \%$ |
| 2016 | $27.3 \%$ | $48.5 \%$ | $32.1 \%$ |
| 2017 | $28.1 \%$ | $34 \%$ | $35.6 \%$ |
| 2018 | $40.3 \%$ | $35.2 \%$ | $38 \%$ |
| 2019 | $42.4 \%$ | $41.1 \%$ | $37.5 \%$ |
| 2020 | $47.7 \%$ | $56.2 \%$ | $26.8 \%$ |
| 2021 | $44.2 \%$ | $60.2 \%$ | $22.5 \%$ |
| 2022 | $46.8 \%$ | $59.2 \%$ | $36.7 \%$ |
| Total | $33.2 \%$ | $34 \%$ | $28.3 \%$ |

Note: All non-White characters were collapsed into an "UR" or underrepresented level.
Focusing on the three largest non White racial/ethnic (i.e., Black, Hispanic/Latino, Asian) groups, we were interested in two additional prevalence indicators: proportional representation and invisibility. We
first looked at the number of films that were at or near ( $\pm 2$ percentage points) proportional representation with U.S. Census. Second, we calculated the number of movies that erased or rendered a particular racial/ethnic group completely invisible. Invisibility occurred when not one speaking or named character appeared on screen from a specific racial/ethnic group. These two measures were assessed across 500 of the top films from 2018-2022.

As shown in Table 17, 13.6\% of the U.S. population identifies as Black. ${ }^{11}$ Only 16 out of the 100 top grossing movies of 2022 featured Black characters at proportional representation ( $\pm 2$ percentage points from 13.6\%). 2022 was not different from 2021 ( 14 films) or 2018 ( 17 films). The number of movies above proportional representation is also displayed in Table 17. Extrapolating from this table, fully 40 films in 2022 were at or above U.S. census which was lower than 2021 ( 45 films) and 2018 ( 48 films). Fifteen out of 100 movies erased Black characters completely on screen, which was lower than 2021 (20 movies) but not different from 2018 (13 movies).

Table 17
Proportional Representation and Invisibility of Black Characters Across 500 Films: 2018-2022

| Measures | 2018 | 2019 | 2020 | 2021 | 2022 |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \# of films w/out any Black speaking chars | 13 | 15 | 25 | 20 | 15 |  |  |  |
| \# of films w/proportional representation | 17 | 20 | 14 | 14 | 16 |  |  |  |
| \# of films above proportional representation | 31 | 30 | 20 | 31 | 24 |  |  |  |
| U.S. Census | $13.6 \%$ |  |  |  |  |  | 100 | 100 |
| Total Films Per Year | 100 | 100 | 100 | 100 |  |  |  |  |

Hispanic/Latino representation is featured in Table 18. Few films were at or above proportional representation. ${ }^{12}$ In 2022, only 3 films featured Hispanic/Latinos as roughly $19.1 \%$ of the cast and 10 were above this benchmark. Erasure was even more vast, as 46 of the 100 top movies rendered Hispanic/Latinos invisible. This number is higher than 2021 but similar to 2018.

Table 18
Proportional Representation and Invisibility of Hispanic/Latino Characters Across 500 Films: 2018-2022

| Measures | 2018 | 2019 | 2020 | 2021 | 2022 |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| \# of films w/out Hispanic/Latino speaking chars | 47 | 44 | 52 | 38 | 46 |  |
| \# of films w/proportional representation | 2 | 2 | 0 | 2 | 3 |  |
| \# of films above proportional representation | 4 | 5 | 6 | 10 | 6 |  |
| U.S. Census | $19.1 \%$ |  |  |  |  |  |
| Total Films Per Year | 100 | 100 | 100 | 100 | 100 |  |

Asian representation is illuminated in Table 19. Focusing first on proportional representation, only 17 films were at or near the U.S. Census benchmark. ${ }^{13}$ These number was not different from 2021 (21 movies) or 2018 ( 20 movies). More films exceeded proportional representation, however. As shown in Table 19, fully 31 movies portrayed a higher percentage of Asian speaking or named characters than the U.S. Census. However, this number did not deviate from 2021 (32) or 2018 (27). Thirty-four of the 100
top movies of 2022 completely erased Asians on screen, however. While this number did not differ from 2018, it was significantly higher than 2021.

Table 19
Proportional Representation and Invisibility of Asian Characters Across 500 Films: 2018-2022

| Measures | 2018 | 2019 | 2020 | 2021 | 2022 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| \# of films w/out Asian speaking chars | 32 | 36 | 46 | 28 | 34 |
| \# of films w/proportional representation | 20 | 18 | 16 | 21 | 17 |
| \# of films above proportional representation | 27 | 27 | 27 | 32 | 31 |
| U.S. Census | $6.3 \%$ |  |  |  |  |
| Total Films Per Year | 100 | 100 | 100 | 100 | 100 |

Examining the three largest underrepresented racial/ethnic groups on screen revealed that erasure is real - even post George Floyd's murder and \#stopasianhate. Given these trends, it was important to unpack these analyses to see how women and girls from underrepresented races/ethnicities are faring in entertainment. In Table 20, we explored erasure of women of color across races/ethnicities from 2018 to 2022 ( 500 films). The results reveal the same troubling trends we have been documenting for years. An epidemic of invisibility is pervasive on screen for girls and women of color.

Table 20
Epidemic of Invisibility Facing Girls/Women On Screen by Race/Ethnicity: 2018-2022

| Racial/ <br> Ethnic Group | $\mathbf{2 0 1 8}$ | $\mathbf{2 0 1 9}$ | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ | $\mathbf{2 0 2 2}$ | Total Across <br> $\mathbf{1 , 6 0 0}$ Movies |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| White | $\mathbf{4}$ | $\mathbf{7}$ | 10 | 6 | 7 | 82 |
| H/Latinas | 70 | 71 | 69 | 57 | 61 | 1,086 |
| Black | 33 | 33 | 52 | 37 | 32 | 685 |
| Asian | 54 | 55 | 61 | 52 | 44 | 982 |
| Al/AN | 99 | 97 | 97 | 98 | 100 | 1,578 |
| NH/PI | 97 | 99 | 99 | 98 | 99 | 1,579 |
| MENA | 93 | 92 | 89 | 94 | 95 | 1,491 |
| MR/ME | 51 | 45 | 68 | 66 | 70 | 1,200 |

Note: Each of the racial/ethnic groups are abbreviated for space reasons. H/L=Hispanic/Latinas, AI/AN=American Indian/Alaska Native, NH/PI=Native Hawaiian/Pacific Islander, MENA=Middle Eastern/North African, MR/ME=Multiracial/Multiethnic.

As shown in Table 20, few movies rendered White girls and women absent. Further, the amount of invisibility in 2022 ( 7 movies) has not changed from 2021 (6) or 2018 ( 4 movies). Overall, only 82 out of 1,600 films erased White females on screen. In comparison, females identifying as Native Hawaiian/Pacific Islander and American Indian/Alaska Native are completely missing on screen with no recent signs of improvement across the last 5 years. Few MENA or Multiracial/Multiethnic girls and women appeared on screen. The erasure of girls/women from Hispanic/Latino and Asian communities has decreased from 2018 to 2022. The invisibility of Multiracial/Multiethnic women has increased and the erasure of Black girls and women has not changed from 2018 to 2022.

Moving from all speaking characters, now we turn our attention to leads/co leads driving the plot. Here we were interested in all underrepresented leads/co leads as well as girls/women of color. As shown in Table 21, only $31 \%$ of films in 2022 had an underrepresented lead/co lead. ${ }^{14}$ This percentage is well below ( 10.1 percentage points) U.S. Census ( $41.1 \%$ ). 2022 ( $31 \%$ ) was significantly lower than 2021 (37\%) but higher than 2007 ( $13 \%$ ). Focusing on girls and women of color, $19 \%$ of movies in 2022 featured an underrepresented female in the leading/co leading role. The percentage is nearly identical to 2021 $(16 \%)$ but substantially higher than 2007 ( $1 \%$ ). Of the underrepresented female protagonists in 2022, $30 \%$ were Black, $20 \%$ Latina, $10 \%$ Asian, $40 \%$ Multiracial/Multiethnic.

Table 21
Percentage of Underrepresented Leads/Co Leads Across 1,300 Films: 2007-2022

| Year | \% of UR Leads/ <br> Co Leads | \% of UR Female <br> Leads/Co Leads |
| :---: | :---: | :---: |
| 2007 | $13 \%$ | $1 \%$ |
| 2008 | $13 \%$ | $4 \%$ |
| 2009 | $17 \%$ | $4 \%$ |
| 2010 | $12 \%$ | $5 \%$ |
| 2011 | $9 \%$ | $5 \%$ |
| 2012 | $13 \%$ | $3 \%$ |
| 2013 | $17 \%$ | $3 \%$ |
| 2014 | $17 \%$ | $4 \%$ |
| 2015 | $16 \%$ | $4 \%$ |
| 2016 | $14 \%$ | $3 \%$ |
| 2017 | $22 \%$ | $4 \%$ |
| 2018 | $27 \%$ | $11 \%$ |
| 2019 | $32 \%$ | $17 \%$ |
| 2020 | $29 \%$ | $9 \%$ |
| 2021 | $37 \%$ | $16 \%$ |
| 2022 | $31 \%$ | $19 \%$ |
| Total | $19.9 \%$ | $7 \%$ |

On Screen Portrayal. For on screen portrayal, the relationship between underrepresented characters (White vs. non White) and two contextual variables was assessed: gender (male, female) and parental status (no, yes). The findings for gender are featured in Table 22. Not one racial/ethnic group was depicted reaching gender equality across the 100 top grossing films of 2022. Interestingly, White females were the least likely to be featured in comparison to their White male counterparts (ratio of 2 to 1). Black girls and women, as well as those collapsed into an "other" category, were more likely to be shown than Asian girls and women. However, the latter comparison fell shy of the 5 -percentage point criterion.

Table 22
Percentage of Male \& Female Characters by Racial/Ethnic Grouping in Top-Grossing Films: 2022

| Gender | White | Black | Latino | Asian | Other |
| :--- | :--- | :--- | :--- | :--- | :--- |


| $\%$ of males | $66.3 \%$ | $59.8 \%$ | $62.6 \%$ | $63.4 \%$ | $60.4 \%$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| $\%$ of females | $33.7 \%$ | $40.2 \%$ | $37.4 \%$ | $36.6 \%$ | $39.6 \%$ |
| Ratio | 1.97 to 1 | 1.5 to 1 | 1.68 to 1 | 1.73 to 1 | 1.53 to 1 |

Note: All speaking characters in "other" were Indigenous, Middle Eastern/North African and Multiracial/Multiethnic.

Finally, we examined parental status of characters by race/ethnicity. As shown in Table 23, there were gender differences in 2022 by racial/ethnic group. In terms of males, Asians were more likely to be depicted as parents than White or Black characters, while the difference for Latinos was non-significant. Those from other races or ethnicities were the least likely to be portrayed as parents. For women, White, Asian, and Latina women were more likely than Black women to be parents. Again, Multiracial/Multiethnic women were the least likely to be shown as parents.

Table 23
Percentage of Male \& Female Parents by Racial/Ethnic Grouping in Top-Grossing Films: 2022

| Gender | White | Black | Latino | Asian | Other |
| :--- | :---: | :---: | :---: | :---: | :---: |
| \% male parents | $32.8 \%$ | $35 \%$ | $37.5 \%$ | $43.8 \%$ | $14.3 \%$ |
| \% female parents | $46.2 \%$ | $37.1 \%$ | $42.9 \%$ | $45.3 \%$ | $27.3 \%$ |

Clearly, the prevalence and portrayal of characters from underrepresented racial/ethnic groups is still problematic. While we have seen an increase of Asian representation on screen, many other groups have not changed or decreased in terms of their prevalence in cinematic storytelling. To understand the lack of progress, let's look behind the camera to see who is getting employment opportunities and who is not.

Behind the Camera. A total of 113 directors were attached to the 100 top-grossing films of 2022. Of these, 22 (19.5\%) were from underrepresented racial/ethnic groups and 91 were white ( $80.5 \%$ ). Of these 22 underrepresented directors, 12 were Asian (54.5\%), 4 Black (18.2\%), 4 Multiracial/Multiethnic (18.2\%), and 2 (9.1\%) Hispanic/Latino. If we calculate these percentages out of all directors (White and non White), they drop substantially: White directors $80.5 \%$, Asian $10.6 \%$, Black, $3.5 \%$, Hispanic/Latino 1.8\%, and Multiracial/Multiethnic 3.5\%.

If we look at all underrepresented directors ( $n=276$ ), 2022 (19.5\%) was significantly lower than 2021 (31\%) but higher than 2007 (12.5\%). 248 of those directors were men of color and only 28 were women of color. The top performing male director was Tyler Perry, with 18 movies over the sample time frame. Jaume Collet-Serra directed 8 films while 5 men of color directed 7 movies: Antoine Fuqua, James Wan, Malcolm D. Lee, M. Night Shyamalan, and Tim Story. The top performing women of color were all tied with 2 films apiece, Ava DuVernay, Chloe Zhao, Gina Prince-Bythewood, Jennifer Yuh Nelson, Kasi Lemmons, and Stella Meghie.

Table 24 provides a more detailed look at underrepresented directors by gender over time. Directors were coded into every single racial and ethnic group with which they identified. As such, the numbers are slightly different than the paragraph above where helmers were put into one mutually exclusive level. Only 92 or $5.2 \%$ of the directors were Black men from the 1,600 top films from 2007 to 2022 . Even fewer Black women $(<1 \%, n=15)$ were hired to helm a top-grossing picture. Some women worked twice,
bringing the total number of distinct Black women directors to 11 (Ava DuVernay, Chinonye Chukwu, Gina Prince-Bythewood, Janicza Bravo, Kasi Lemmons, Liesl Tommy, Melina Matsoukas, Nia DaCosta, Sanaa Hamri, Stella Meghie, Tina Gordon).

Table 24
Number of Black, Hispanic/Latino, \& Asian Directors by Gender \& Year: 2007-2022

| Year | Black <br> Men | Black Women | $\begin{aligned} & \mathrm{H} / \mathrm{L} \\ & \text { Men } \\ & \hline \end{aligned}$ | H/L Women | Asian <br> Men | Asian Women | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2007 | 8 | 0 | 3 | 0 | 3 | 0 | 112 |
| 2008 | 5 | 2 | 2 | 0 | 2 | 1 | 112 |
| 2009 | 7 | 0 | 7 | 0 | 1 | 0 | 111 |
| 2010 | 5 | 0 | 2 | 0 | 4 | 0 | 109 |
| 2011 | 2 | 0 | 3 | 0 | 3 | 1 | 108 |
| 2012 | 6 | 0 | 2 | 0 | 2 | 0 | 121 |
| 2013 | 7 | 0 | 5 | 0 | 6 | 0 | 107 |
| 2014 | 4 | 1 | 8 | 0 | 0 | 0 | 107 |
| 2015 | 4 | 0 | 3 | 0 | 6 | 0 | 107 |
| 2016 | 7 | 0 | 2 | 1 | 4 | 1 | 120 |
| 2017 | 5 | 1 | 8 | 0 | 4 | 0 | 109 |
| 2018 | 14 | 1 | 3 | 0 | 4 | 0 | 112 |
| 2019 | 6 | 3 | 2 | 2 | 6 | 0 | 112 |
| 2020 | 3 | 1 | 4 | 0 | 7 | 4 | 111 |
| 2021 | 6 | 3 | 10 | 2 | 13 | 3 | 113 |
| 2022 | 3 | 3 | 2 | 0 | 12 | 0 | 113 |
| Total | $\begin{gathered} 5.2 \% \\ (n=92) \\ \hline \end{gathered}$ | $\begin{gathered} <1 \% \\ (n=15) \end{gathered}$ | $\begin{gathered} 3.7 \% \\ (n=66) \end{gathered}$ | $\begin{gathered} <1 \% \\ (n=5) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 4.3 \% \\ (n=77) \\ \hline \end{gathered}$ | $\begin{gathered} <1 \% \\ (n=10) \\ \hline \end{gathered}$ | 1,784 |

In 2022, we assessed whether Black directors (no, yes) were associated with Black characters on screen. As shown in Figure 2, the relationship was substantial. Black directors, in comparison to films with non Black directors attached, depicted more Black leads/co leads ( $100 \%$ vs. $5.9 \%$, respectively) and on screen speaking characters ( $51.1 \%, 10.3 \%$, respectively). These findings are presumably due to the fact that Black directors are telling more stories that reflect their experiences. It is also the case that studios and financiers may be more willing to underwrite content where the director's identity and the lead characters identity match. Similar to the argument raised earlier, this latter explanation is problematic and doesn't reflect the range of opportunities afforded to White directors.

Focusing on Hispanic/Latinos, few work behind the camera as directors. As shown in Table 24, only 2 were hired across the 100 top-grossing movies of 2022. 2022 was a significant downturn from 2021, when 12 different Latinos were attached to the 100 most popular films. Overall, only 71 directing jobs have been filled by Hispanic/Latinos. Only five Hispanic/Latino women have directed a top-grossing film across the 16 -year time frame (e.g., Charise Castro Smith, Janicza Bravo, Melina Matsoukas, Roxann Dawson, Patricia Riggen). Because only 2 films featured a Hispanic/Latino director in 2022, the analysis looking at the relationship between helmer identity and on screen portrayals of Hispanic/Latinos could not be executed.

Figure 2
Percentage of Black Speaking Characters On Screen by Director Race: 2022


In terms of Asian directors, 2022 was a strong year for male helmérs. Twelve different features across the 100 top movies were directed by Asian men. Not one Asian woman director was hired, however. 2022 was slightly lower than 2021, where 16 different Asian directors were attached to the 100 most popular movies. Three of the directing gigs were filled by two women: Chloe Zhao (Nomadland, Eternals) and Lisa Joy (Reminiscence). 2022 and 2021 were notably higher than 2007 where only 3 Asian men directed movies.

Is there a relationship between the presence of an Asian director (no, yes) and the prevalence of Asian leads and speaking characters? The answer is yes! When compared to films with non Asian directors, those with Asian helmers have significantly more Asian leads/co leads ( $73 \%$ vs 0 ) and speaking characters ( $73.7 \%$ vs. $5.1 \%$ ) on screen. These findings are consistent with those of women and Black directors and speak to how identity may influence the stories told and casting decisions made.

While the above analyses focus on directors, we were also interested how often casters from underrepresented racial/ethnic groups were working across the 100 most popular films. To this end, we sorted casting directors into one of four identity groups: White women, White men, underrepresented women, underrepresented men. In 2022, $69.8 \%$ of casters were White women, $12.5 \%$ were White men, $11 \%$ underrepresented women, and $6.6 \%$ underrepresented men. These statistics are markedly off U.S. Census where $30 \%$ of the population is White men, $30 \%$ White women, $20 \%$ underrepresented men, and $20 \%$ underrepresented women.

Pertaining to change, there were more White women casting directors in 2022 (69.8\%) than 2021 ( $58.4 \%$ ) but less than 2007 ( $78.7 \%$ ). For White men, the percentage in 2022 ( $12.5 \%$ ) was lower than 2021 (20.8\%) but did not change from 2007 (13.4\%). While the percentage of underrepresented males has increased from $2007(<1 \%)$ to $2022(6.6 \%)$, no differences in the short- or long-term for underrepresented women were observed. These latter findings are problematic, as underrepresented
women casters were more likely in 2022 to depict girls and women on screen from non White racial/ethnic groups than casting directors who are not underrepresented women ( $55.1 \%$ vs. $33.5 \%$ ).

Table 25
Underrepresented Status \& Gender of Casting Directors by Year: 2007-2022

| Year | White <br> Men | UR <br> Men | White <br> Women | UR <br> Women |
| :---: | :---: | :---: | :---: | :---: |
| 2007 | $13.6 \%$ | $<1 \%$ | $78.7 \%$ | $7.1 \%$ |
| 2008 | $18.3 \%$ | $1.8 \%$ | $72 \%$ | $7.9 \%$ |
| 2009 | $15 \%$ | 0 | $76.9 \%$ | $8.1 \%$ |
| 2010 | $16.6 \%$ | $1.9 \%$ | $76.4 \%$ | $5.1 \%$ |
| 2011 | $17.7 \%$ | $3.2 \%$ | $72.2 \%$ | $7 \%$ |
| 2012 | $23.3 \%$ | $<1 \%$ | $68.7 \%$ | $7.4 \%$ |
| 2013 | $18.7 \%$ | $2.3 \%$ | $70.2 \%$ | $8.8 \%$ |
| 2014 | $16.2 \%$ | $3.8 \%$ | $68.8 \%$ | $11.3 \%$ |
| 2015 | $19 \%$ | $<1 \%$ | $72.2 \%$ | $8.2 \%$ |
| 2016 | $15 \%$ | $1.4 \%$ | $71.4 \%$ | $12.1 \%$ |
| 2017 | $19.7 \%$ | 0 | $67.4 \%$ | $12.9 \%$ |
| 2018 | $12.1 \%$ | $2.9 \%$ | $72.1 \%$ | $12.9 \%$ |
| 2019 | $27.4 \%$ | $2.2 \%$ | $54.1 \%$ | $16.3 \%$ |
| 2020 | $14.7 \%$ | $4.5 \%$ | $71.8 \%$ | $9 \%$ |
| 2021 | $20.8 \%$ | $7.4 \%$ | $58.4 \%$ | $13.4 \%$ |
| 2022 | $12.5 \%$ | $6.6 \%$ | $69.8 \%$ | $11 \%$ |
| Total | $17.6 \%$ | $2.4 \%$ | $70.2 \%$ | $9.8 \%$ |

Behind the camera progress has largely stalled save one group. Asian directors are at an all time high in 2021 and 2022, which can account for the significant on screen increases pertaining to Asian speaking characters. Past that, there has really been little to no progress. Up next, we focus on our third historically marginalized identity group: the LGBTQ+ community.

## LGBTQ+

In 2014, we began measuring how often and in what context LGBTQ+ characters are shown on screen. In $2022,2.1 \%(n=87)$ of 4,169 speaking or named characters across 100 top-grossing films were LGBTQ+. Of the 87 LGBTQ+ characters, 27 were lesbian, 43 were gay, 13 were bisexual, and 5 were transgender. ${ }^{15}$ More than $40 \%$ of these characters $(41.4 \%, n=36)$ appeared in speaking roles that were inconsequential to the story.

Table 26 shows the frequency of LGBTQ+ speaking characters over time. In 2022, there was no change in the percentage of LGBTQ+ speaking characters compared to 2021 ( $<1 \%$ ). The number of speaking characters who were LGBTQ+ more than doubled from 2021 to 2022. Compared to 2014, there were more than four times the number of LGBTQ+ characters in 2022. However, the large sample size of characters each year means that even these numerical increases did not result in a difference of 5 percentage points or more.

Table 26
Prevalence of LGBTQ+ Speaking Characters Across 900 Top Grossing Films: 2014-2022

| Measure | $\mathbf{2 0 1 4}$ | $\mathbf{2 0 1 5}$ | $\mathbf{2 0 1 6}$ | $\mathbf{2 0 1 7}$ | $\mathbf{2 0 1 8}$ | $\mathbf{2 0 1 9}$ | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ | $\mathbf{2 0 2 2}$ | Total | \% |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lesbian | 4 | 7 | 9 | 9 | 17 | 10 | 15 | 7 | $\mathbf{2 7}$ | 105 | $<.3 \%$ |
| Gay | 12 | 19 | 36 | 16 | 33 | 45 | 12 | 24 | 43 | 239 | $<1 \%$ |
| Bisexual | 5 | 5 | 6 | 6 | 8 | 3 | 2 | 7 | 13 | 55 | $<0.2 \%$ |
| Transgender | 0 | 1 | 0 | 0 | 0 | 3 | 0 | 3 | 5 | 12 | $<0.5 \%$ |
| Total \# of LGBTQ <br> Characters | 21 | 32 | 51 | 31 | 58 | 61 | 29 | 40 | 87 | 409 |  |
| Total \% of LGBTQ <br> Characters | $<1 \%$ | $<1 \%$ | $1.1 \%$ | $<1 \%$ | $1.3 \%$ | $1.4 \%$ | $<1 \%$ | $<1 \%$ | $2.1 \%$ | $1.1 \%$ |  |

Invisibility and proportional representation of LGBTQ+ characters was alsó examined. In 2022, 72 of the 100 top films did not feature even one LGBTQ+ speaking or named character on screen. Eighty-four films were missing LGBTQ+ girls/women. See Table 27. Turning to proportional representation, only 3 films depicted LGBTQ + characters within 2 percentage points of the proportion of LGBTQ people in the U.S. population (10\%). ${ }^{16}$ A total of 16 movies achieved proportional representation of LGBTQ+ characters between 2014 and 2022.

Turning to the nature of LGBTQ+ portrayals, in 2022,57.5\% ( $n=50$ ) of LGBTQ+ speaking characters were male-identified and $42.5 \%(n=37)$ were female identified. More than half ( $58.8 \%$ ) of LGBTQ characters were White ( $n=50$ ), while $22.4 \%(n=19)$ were Black, $5.9 \%(n=5)$ were Hispanic/Latino, $7.1 \%(n=6)$ were Asian, and $5.9 \%(n=5)$ were Multiracial/Multiethnic. Of the LGBTQ+ characters, $43.7 \%(n=38)$ were young adults (21-39 years old, while 42.5\% ( $n=37$ ) were middle-aged or older (age 40-64). There were 9 (10.3\%) teen LGBTQ+ characters in 2022 and $3(3.4 \%)$ elderly characters. A quarter $(26.7 \%, n=12)$ of the LGBTQ+ characters were shown as parents or caregivers.

Examining transgender portrayals in particular was important. While the highest number of transgender characters across the 900 -film sample were observed in 2022, this was a total of 5 characters. Four of the 5 transgender characters in 2022 appeared in one movie (Bros). Only 1 transgender character was inconsequential to the plot, which is an improvement from previous years when all transgender characters were incidental.

Table 27
Proportional Representation and Invisibility of LGBTQ Characters Across 900 Films: 2014-2022

| Measures | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \# of films w/out LGBTQ speaking chars | 86 | 82 | 76 | 81 | 76 | 78 | 86 | 77 | 72 |
| \# of films w/proportional representation | 1 | 0 | 1 | 2 | 2 | 2 | 2 | 3 | 3 |
| LGBTQ people in U.S. Population | $10 \%$ |  |  |  |  |  |  |  |  |
| Total Films Per Year | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

A total of 9 films in 2022 featured an LGBTQ+lead/co lead. This was the largest number of LGBTQ leads/co leads across the sample of films, and an increase from 2021 ( 1 LGBTQ+ led/co led film). As only

21 films between 2014 and 2022 had an LGBTQ+ lead/co lead, this means that $42.8 \%$ of all films with an LGBTQ lead/co lead appeared in just one year. None of the leads were transgender.

Table 28
Number of LGBTQ Leads/Co Leads by Year

| Year | \# of LGBTQ Leads/Co Leads | \% of LGBTQ Leads/Co Leads | \# of Films |
| :---: | :---: | :---: | :---: |
| $\mathbf{2 0 1 4}$ | 2 | $2 \%$ | 100 |
| $\mathbf{2 0 1 5}$ | 0 | 0 | 100 |
| $\mathbf{2 0 1 6}$ | 1 | $1 \%$ | 100 |
| $\mathbf{2 0 1 7}$ | 2 | $2 \%$ | 100 |
| $\mathbf{2 0 1 8}$ | 2 | $2 \%$ | 100 |
| $\mathbf{2 0 1 9}$ | 2 | $2 \%$ | 100 |
| $\mathbf{2 0 2 0}$ | 2 | $2 \%$ | 100 |
| $\mathbf{2 0 2 1}$ | 1 | $1 \%$ | 100 |
| $\mathbf{2 0 2 2}$ | 9 | $9 \%$ | 100 |
| Total | 21 | $2.3 \%$ | 900 |

For the LGBTQ+ community, 2022 was a year in which little changed on screen. Although there was a numerical increase in LGBTQ+ leads/co leads, the percentage of LGBTQ speaking characters remained stagnant. Nearly three-quarters of 2022's top movies were missing LGBTQ+ characters altogether, and this rose to 84 movies when examining how many films lacked LGBTQ+ women. Film continues to minimize and marginalize the stories of the LGBTQ+ community-and change is needed. In the next section, we turn to another group that is often invisible on screen: people with disabilities.

## Disability

Since 2015, cataloguing the presence and nature of representation for characters with disabilities has been a focus of this report. In 2022, $1.9 \%(n=81)$ of all speaking characters were shown with a disability. Most characters ( $82.7 \%, n=67$ ) had a physical disability (e.g., difficulty with mobility, missing limb), while $33.3 \%(n=27)$ had a communicative disability (e.g., difficulty with speech, hearing, vision), and $17.3 \%$ ( $n=14$ ) had a cognitive disability (e.g., depression, dementia, PTSD). Because characters could be shown with more than one disability, these percentages do not total to $100 \%$.

Table 29
Prevalence of Characters w/Disabilities Across 500 Top Grossing Films: 2015-2022

| Measure | $\mathbf{2 0 1 5}$ | $\mathbf{2 0 1 6}$ | $\mathbf{2 0 1 7}$ | $\mathbf{2 0 1 8}$ | $\mathbf{2 0 1 9}$ | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ | $\mathbf{2 0 2 2}$ | Total |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \% of speaking chars | $\mathbf{2 . 4 \%}$ | $2.7 \%$ | $2.5 \%$ | $1.6 \%$ | $2.2 \%$ | $1.8 \%$ | $2.1 \%$ | $1.9 \%$ | $2.2 \%$ |
| \# of speaking chars | 105 | 124 | 112 | 69 | 101 | 66 | 93 | 81 | 751 |

There was no meaningful difference in the percentage of speaking characters with a disability across the 800 films and 8 -year timespan of the study. See Table 29. More than half of 2022's top 100 movies failed to feature at least one speaking character with a disability, which is higher than both 2021 ( 48 films) and 2015 ( 45 films). Moreover, 76 movies were missing female-identified characters with a disability, on par with 2021 ( 76 films) and slightly below 2015 ( 84 films). As shown in Table 30, only 1 of the 800 movies
included in the over-time analysis reached proportional representation of characters with disabilities in comparison to the U.S. population (27\%). That film was included in the 2021 sample. ${ }^{17}$

Table 30

## Proportional Representation and Invisibility of Characters w/Disabilities

 Across 800 Films: 2015-2022| Measures | $\mathbf{2 0 1 5}$ | $\mathbf{2 0 1 6}$ | $\mathbf{2 0 1 7}$ | $\mathbf{2 0 1 8}$ | $\mathbf{2 0 1 9}$ | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ | $\mathbf{2 0 2 2}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \# of films missing speaking chars <br> w/disability | 45 | 38 | 41 | 58 | 48 | 63 | 48 | 54 |
| \# of films w/proportional <br> representation | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| Disability in the U.S. population | $27 \%$ |  |  |  |  |  |  |  |
| Total Films Per Year | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

Of the characters with disabilities in the top films of 2022, most were male-identified ( $69.1 \%, n=56$ ) while $30.9 \%$ ( $n=25$ ) were female-identified. Three-quarters ( $76 \%, n=57$ ) of characters with disabilities were White and $24 \%(n=18)$ were from underrepresented racial/ethnic groups. Looking to age, fewer than $10 \%$ of characters with disabilities were children ( $6.5 \%, n=5$ ) or teens ( $2.6 \%, n=2$ ), while $31.2 \%$ ( $n=24$ ) were young adults (age 21 to 39 ) and $59.7 \%$ ( $n=46$ ) were middle aged (age 40-64) or elderly (age $65+$ ). Only 1 character with a disability in 2022 was LGBTQ+. Out of all 800 films examined, just 10 characters shown with a disability were LGBTQ + . None of those characters was transgender. A mere 15 characters with a disability ( $34.9 \%$ of all characters with a disability) in 2022 were shown as parents.

Table 31
Number of Leads/Co Leads w/Disabilities by Year

| Year | \# of Leads/Co Leads with a <br> Disability | \% of Leads/Co Leads <br> with a Disability | \# of Films |
| :---: | :---: | :---: | :---: |
| $\mathbf{2 0 1 5}$ | 10 | $10 \%$ | 100 |
| $\mathbf{2 0 1 6}$ | 15 | $15 \%$ | 100 |
| $\mathbf{2 0 1 7}$ | 14 | $14 \%$ | 100 |
| $\mathbf{2 0 1 8}$ | 9 | $9 \%$ | 100 |
| $\mathbf{2 0 1 9}$ | 19 | $19 \%$ | 100 |
| $\mathbf{2 0 2 0}$ | 11 | $11 \%$ | 100 |
| $\mathbf{2 0 2 1}$ | 9 | $9 \%$ | 100 |
| $\mathbf{2 0 2 2}$ | 14 | $14 \%$ | 100 |
| Total | 101 | $12.6 \%$ | 800 |

The number of films with a lead or co lead with a disability was also assessed. In 2022, 14 films featured a lead/co lead character with a disability (see Table 31). Of the 14 films with a lead/co lead featuring a disability, 11 featured a male character and 3 a female character. The majority of films with leads/co leads with a disability ( $n=11$ ) featured a White lead/co lead, while the remaining movies featured 1 Asian lead/co lead, 1 Hispanic/Latino lead/co lead, and 1 Multiracial/Multiethnic lead/co lead. Only 1 lead/co lead with a disability was part of the LGBTQ+ community. There was no meaningful change in
the percentage of films with a lead/co lead with a disability in 2022 compared to 2021 (9 films) or 2015 ( 10 films). The high point for films with a protagonist with a disability was in 2019 (19 films).

## Conclusion

The Annenberg Inclusion Initiative conducts the most comprehensive, longitudinal investigation into inclusion on screen and behind the camera in film. Each year, we assess how the industry moves closer to-or away from-inclusion, and present where progress is needed. The report now covers 16 years and 1,600 top-grossing films. In this section, we summarize the major results of the study and offer a set of solutions to advance equality in the film industry.

## Girls and Women Can Lead, but Little Other Progress in Top Films

In 2022, girls and women were the focus of 44 of the 100 top-grossing films. This was more than double the number of female-identified protagonists in 2007 but revealed little change from 2021 ( 41 films). While film producers and executives may have come to recognize the value of telling stories focused on girls and women, the data overall suggest that this does not extend to casting across all speaking characters. Girls and women still comprised roughly a third of all characters on screen, and those characters were primarily younger than 40 . After years of advocacy and activism, the film industry still views girls and women as filling a limited slice of the world.

Behind the camera, there is also still little to celebrate. Though the years in which only 2 women worked as directors remain in the past, fewer than $10 \%$ of directors were women in 2022. The high point for women directors came in 2020-a year of box office turmoil. Even as the number of women directors reach the double digits, there is still a significant gap to close for women in this leadership role. Similar trends emerged for women writers. The percentage of women in this role reached a zenith in 2019 at only $19.1 \%$, and subsequently fell to $16.3 \%$ in 2022, a percentage not meaningfully different than 2007. For women producers and composers, however, there have been significant gains since 2007. In both positions, 2022 was a 16 -year high point for women. Yet, there is little to celebrate as women still filled only a quarter of producer roles and less than $10 \%$ of composing positions. Ensuring that the access and opportunity afforded to women behind the camera continues to increase will be essential to creating meaningful long-term change.

## Representation for Racial/Ethnic Groups Needs Revision

This year's report offers insights into the representation of characters from specific racial/ethnic groups both before and after the protests and commitments made in 2020. Though the percentage of White characters decreased non-significantly from 2019 to 2022, the only significant increase in representation observed was for Asian characters. For all underrepresented characters, however, there were gains observed in action/adventure and animated films. Looking to proportional representation, fewer than half the films in 2022 featured Black characters in proportion to the U.S. population, while 48 movies depicted Asian characters in line with or above population metrics. The results for Hispanic/Latino characters, however, remained bleak; only 9 films in 2022 reached or exceeded proportional representation.

Invisibility also remains an issue for characters from underrepresented racial/ethnic groups, particularly girls and women of color. Thirty-two films featured no Black/African American female characters, while 61 were missing Hispanic/Latinas, and 44 were devoid of Asian girls/women. When we look beyond these groups, there was no representation of American Indian/Alaska Native female characters in 2022. 99 films were missing Native Hawaiian/Pacific Islander girls/women and 95 films were missing Middle Eastern/North African female characters. A total of 70 movies did not feature any Multiracial/Multiethnic girls/women in 2022. Each year we report on the complete erasure of women of color from storytelling and the numbers change very little. Yet, addressing the disparities in casting for underrepresented girls and women is one of the fastest ways to increase the portrayal of underrepresented groups overall. Such a lack of progress prompts the question of whether Hollywood wants to change (which, it does not seem to want to do) or whether it would rather rely on platitudes and promises instead of making progress.

Behind the camera, little has changed for directors from underrepresented racial/ethnic groups. Out of all directors in 2022, $10.6 \%$ were Asian, $3.5 \%$ were Black, $1.8 \%$ were Hispanic/Latino, and $3.5 \%$ were Multiracial/Multiethnic. Only 3 women of color worked on 2022's top movies as directors-the same number as in 2008. The lack of progress behind the camera for directors of color, and women of color in particular, is a key indicator that the promises and posturing companies made in 2020 contributed little to overall change.

## LGBTQ Representation is Left Behind

We first reported on the prevalence of LGBTQ characters when examining the top films of 2014. In that time, there has been no meaningful increase in the percentage of LGBTQ characters in top movies. Numerical shifts do suggest that LGBTQ characters are included more often in films than they were in the recent past. Nearly three-quarters of films did not feature an LGBTQ character, and 84 were missing LGBTQ girls/women. Yet these figures reflect a decrease from the 86 movies in 2014 missing an LGBTQ character and the 96 that were devoid of LGBTQ girls/women. 2022 saw a significantly higher number of lesbian characters (27) than 2021 (7) or even the previous high point, 2018 (17 characters). 2022 also saw the inclusion of the highest number of transgender characters (5) across the 9 years studied. Notably, four of the five transgender characters filled supporting roles. However, at the same time, just one movie (Bros) was responsible for $80 \%$ of the transgender portrayals in 2022.

While some indicators may seem to suggest that LGBTQ representation is on the rise, others reflect that little has changed. More than half of LGBTQ characters were male-identified, and nearly two-thirds were White. Few teens or elderly characters were shown as LGBTQ, and the majority of LGBTQ characters were not parents or caregivers. Thus, the image of the LGBTQ community in popular film is one that when not defaulting to invisibility - continues to advance a portrait of White, male, adult characters. The spectrum of voices affiliated with the LGBTQ community continues to be left out of top films.

## Characters with Disabilities are Consistently Missing in Film

There has been no change in the representation of characters with disabilities since this community was included in our reporting across top films from 2015. This means that across 800 movies, a mere $2.2 \%$ of speaking characters were shown with a disability-including just $1.9 \%$ of the speaking characters in 2022. More than half of the films from 2022 were missing characters with disabilities altogether, and
three-quarters ( 76 movies) did not depict a female-identified character with a disability. Only 1 movie out of 800 examined showcased characters with disabilities in proportion to the U.S. population. Film continues to be a place that renders a quarter of the population invisible on screen.

When characters with disabilities did appear on screen, they were predominantly male, White, and adult. Only 1 character with a disability in 2022 was LGBTQ, and one-third of characters with disabilities were parents. Most characters were shown with physical disabilities. These findings do more than illuminate what is lacking in film. They reflect that storytellers have a narrow and limited conception of who people with disabilities are and how prevalent this population is. People with disabilities fill the worlds of our workplaces, our families, and our public spaces-yet remain invisible in the imaginary worlds created by filmmakers.

## Solutions for Change

Annually, we offer solutions that industry leaders can use to create change. Given the lack of progress across many data points in this investigation, it is unclear if the same leaders have read or listened to these suggestions. We suspect they do not read this far into the report. However, we once again present two tactics that must be utilized to increase inclusion in top films and refer interested readers to our prior investigations for additional solutions.

## Embrace Process that Create Different Outcomes

Even as the entertainment industry grapples with its future during the WGA and SAG-AFTRA strikes in 2023, some processes are very much stuck in the past. These are the very methods that result in biased outcomes and perpetuate inequality. Previously, we have put forward the idea that studios create target inclusion goals to identify where they want to see change. We have also recommended the idea that content creators embrace the idea to "Just Add Five" female-identified characters (representing different racial/ethnic groups, the LGBTQ community, and people with disabilities). Both tactics are designed to address the implicit biases that drive casting decisions and have resulted in skewed data for years. By thinking about the numerical representation of different groups, producers and executives will be able to determine whether there has been actual change rather than estimating progress based on feelings, a few notable examples, or wishful thinking.

At the core of these ideas is the need for executives and filmmakers to examine the way that processes such as casting, greenlighting films, hiring for production, and even marketing are designed to or have relied on exclusionary practices. For example, the language that is used to justify hiring (e.g., looking for "fit," or a "muscular" director), the little time afforded for crewing up a production, or even the perceptions of audiences that still affect marketing. By relying on "business as usual" the entertainment industry defaults to processes that have done little to open access and opportunity to individuals from all backgrounds. It is imperative that these procedures be re-examined and re-designed if different and more equitable outcomes are to occur.

## Use Criteria to Guide Decision-Making

To counter subjective decisions that result in biased outcomes, one strategy is to utilize clear criteria in hiring and casting practices. Our previous reports and other writing have extensively covered how
objective decision-making is powered by identifying clear criteria for success and using these criteria in the review of applicants or potential hires. Yet, this practice has largely gone unused.

Companies must create criteria for each position they are evaluating, then agree upon the criteria collectively, and use it in the review process-including interviewing and auditions. This is an essential way to reduce the impact of psychological factors, such as social dominance orientation, that can drive biased decision-making. Criteria is especially important in an industry in which all too often jobs go to frequent collaborators, friends, or other familiar individuals rather than to the person who best meets the identified skills and qualifications to complete a task. By being explicit about what is needed to be successful, companies can avoid both implicit and explicit biases that result in few opportunities for people from marginalized communities and replicate the same trends we see across film each year.

These two solutions are broad in nature and encompass more specific tactics that we have written about and discussed before. At the core however, the goal is to encourage companies and individual decision-makers to rely more on objective metrics and equitable process when hiring and casting. Doing so can circumvent biases that consistently result in not only skewed data points, but the consistent exclusion of talented people from all backgrounds.

## Limitations

All research has limitations that must be acknowledged. Each year we discuss one specific limitation of this longitudinal study. By analyzing popular and theatrically released content, our work summarizes trends across the most widely seen films with the highest potential for revenue. This limits our ability to make claims about streaming films or other forms of entertainment-though our work in other studies does provide an indication of how inclusive some platforms or content might be. In this study we also must acknowledge that due to the coronavirus pandemic, the theatrical market in 2020 and 2021 was notably different from the years before and the subsequent recovery in 2022. Films included in the samples for those years may differ in crucial ways (smaller budgets, independent distributors) from those in previous years or in 2022. For that reason, we have cautiously discussed trends in those years to avoid overstating progress in an atypical set of films.

Overall, this report once again demonstrates that entertainment industry leaders have not fulfilled their goals for greater inclusion in film. As the industry grapples with its future, confronting the ways its past has marginalized and excluded talented people in the past is essential to charting a new path. Business as usual cannot continue-at least, it cannot continue if film hopes to showcase the multitude of diverse voices and perspectives that will and have captured the attention of audiences around the world. It's time for change.

## Footnotes

1. The footnotes in this report closely mirror or even contain exact phrasing of notes used in our report published in 2020. This was done to not only ensure that details were provided consistently but in areas where absolutely nothing has changed, we use templated language. No one seems to be reading the footnotes anyway. Information regarding study methodology (sample, units of analysis, measures) is available in previous reports at the Annenberg Inclusion Initiative website: https://annenberg.usc.edu/research/aii. Footnotes for this paper highlight information relevant to 2020-22. Other details on conceptualization of measures are available in prior studies.

Each year our sample is pulled from Box Office Mojo. For 2020-22, we captured this information once box office was closed and no remaining films in theaters could impact domestic revenue. Only fictional films were included in the analysis. Any deviation in this report from our Inclusion in the Director's Chair study was due to changes in the list of films pulled for that study and this one.

Our unitizing and reliability coefficients per measures are calculated every year. Given that they replicate what we have found in the previous 12 years of doing this study, we have chosen to not report the statistics here. Please email us for information on unitizing reliability as well as variable reliability using the Potter \& Levine Donnerstein (1999) formula.

It is important to note that each film was coded by 3 coders and unitizing and reliability were calculated per movie. This is necessary as film, unlike TV, features so many more speaking characters that only utter one or a few words. When we finished the 3 years reported on for this update (2020, 2021, 2022), the first author noticed that the total number of speaking characters was lower than previous years. As such, the entire leadership team of the Annenberg Inclusion Initiative "quality checked" the last 300 movies (watched a fourth time) to pick up any characters or coding decisions that may have been missed or misjudged by the research assistants. While this significantly increased the total number of speaking characters per year from 2020-2022, the percentages hardly budged. This is standard protocol and a procedure we have instituted yearly for this report.
2. U.S. Census Bureau (2023). Quick Facts. Retrieved August 10, 2023 from https://www.census.gov/quickfacts/fact/table/US/SEX255219\#SEX255219
3. Genre distinctions were made by using Box Office Mojo and IMDbPro descriptors.
4. 18 actors drove the storylines of 5 ensemble films. Eleven (61.1\%) actors were male and 7 (38.9\%) were female.
5. See Smith, S.L., Choueiti, M., Pieper, K., Yao, K., Case, A., \& Choi, A. (2019). Inequality in 1,200 Popular Films: Examining Portrayals of Gender, Race/Ethnicity, LGBT \& Disability from 2007 to 2018. Annenberg Inclusion Initiative. http://assets.uscannenberg.org/docs/aii-inequality-report-2019-0903.pdf
6. See Smith, S.L., Choueiti, M., Pieper, K., Case, A., \& Choi, A. (2018). Inequality in 1,100 Popular Films: Examining Portrayals of Gender, Race/Ethnicity, LGBT \& Disability from 2007 to 2017. Annenberg Inclusion Initiative. http://assets.uscannenberg.org/docs/inequality-in-1100-popular-films.pdf
7. For measures examining positions behind the camera, all above the line information was pulled from IMDbPro.com per film. The information was gathered per person using database information from
our previous studies as well as online sources (e.g., Variety Insight, Studio System). In cases where judgments were difficult or impossible to ascertain (i.e., no online information about identity), we contacted the individual in question or members of their creative team (e.g., agent).
8. Casting directors were obtained using IMDbPro.com. In situations where IMDbPro did not list a casting director, film credits were examined. Only individuals credited as 'casting director' or given the credit 'casting by' were included. Across 1,600 films, 33 movies did not credit a casting director and were excluded from analyses. Judgements for gender and race/ethnicity were gleaned from Annenberg Inclusion Initiative databases and online sources (e.g., Variety Insight, Studio System), as well as direct contact with casting directors or their teams. We were unable to confirm the racial/ethnic identity of 24 casting directors out of 2,473 . These were excluded from analyses related to race/ethnicity.
9. U.S. Census Bureau (2023).
10. The percentage of each race/ethnicity across 16 years is presented in Table 32 below. Percentages sum to 100 in each row, with some deviation due to rounding.

Table 32
Prevalence of Character Race/Ethnicity On Screen by Year: 2007-2022

| Year | White | Black | Latino | Asian | AI/AN | NH/PI | MENA | Multiracial |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2007 | $77.6 \%$ | $13.0 \%$ | $3.3 \%$ | $3.4 \%$ | $0.1 \%$ | $0.1 \%$ | $2.4 \%$ | $<0.1 \%$ |
| 2008 | $71.2 \%$ | $13.2 \%$ | $4.9 \%$ | $7.1 \%$ | $0.2 \%$ | $0.4 \%$ | $2.8 \%$ | $0 \%$ |
| 2009 | $76.2 \%$ | $14.7 \%$ | $2.8 \%$ | $4.7 \%$ | $0.2 \%$ | $0.1 \%$ | $1.2 \%$ | $<0.1 \%$ |
| 2010 | $77.6 \%$ | $10.3 \%$ | $3.9 \%$ | $5.0 \%$ | $0.4 \%$ | $0.1 \%$ | $2.6 \%$ | $0 \%$ |
| 2011 | $77.1 \%$ | $9.1 \%$ | $5.9 \%$ | $4.1 \%$ | $0.4 \%$ | $0.4 \%$ | $0.7 \%$ | $2 \%$ |
| 2012 | $76.3 \%$ | $10.8 \%$ | $4.2 \%$ | $5.0 \%$ | $0.2 \%$ | $<0.1 \%$ | $3.3 \%$ | $0 \%$ |
| 2013 | $74.1 \%$ | $14.1 \%$ | $4.9 \%$ | $4.4 \%$ | $0.3 \%$ | $0.0 \%$ | $1.1 \%$ | $1 \%$ |
| 2014 | $73.1 \%$ | $12.5 \%$ | $4.9 \%$ | $5.3 \%$ | $0.1 \%$ | $<0.1 \%$ | $2.9 \%$ | $1 \%$ |
| 2015 | $73.7 \%$ | $12.2 \%$ | $5.3 \%$ | $3.9 \%$ | $0.3 \%$ | $0.3 \%$ | $0.7 \%$ | $4 \%$ |
| 2016 | $70.8 \%$ | $13.5 \%$ | $3.1 \%$ | $5.6 \%$ | $0.1 \%$ | $0.7 \%$ | $3.4 \%$ | $3 \%$ |
| 2017 | $70.7 \%$ | $12.1 \%$ | $6.2 \%$ | $4.8 \%$ | $0.5 \%$ | $0.1 \%$ | $1.7 \%$ | $4 \%$ |
| 2018 | $63.7 \%$ | $16.9 \%$ | $5.3 \%$ | $8.2 \%$ | $<1 \%$ | $0.4 \%$ | $1.5 \%$ | $4 \%$ |
| 2019 | $65.6 \%$ | $15.7 \%$ | $4.9 \%$ | $7.2 \%$ | $0.4 \%$ | $0.2 \%$ | $1.6 \%$ | $4 \%$ |
| 2020 | $58.3 \%$ | $9.5 \%$ | $5.6 \%$ | $19.6 \%$ | $0.2 \%$ | $0.2 \%$ | $3.4 \%$ | $3 \%$ |
| 2021 | $58.8 \%$ | $14.3 \%$ | $8.6 \%$ | $13.0 \%$ | $0.1 \%$ | $0.2 \%$ | $1.3 \%$ | $4 \%$ |
| 2022 | $61.7 \%$ | $13.4 \%$ | $5.2 \%$ | $15.9 \%$ | $0.1 \%$ | $0.1 \%$ | $1.5 \%$ | $2 \%$ |

11. U.S. Census Bureau (2023).
12. U.S. Census Bureau (2023).
13. U.S. Census Bureau (2023).
14. 18 actors drove the storylines of 5 ensemble films. 17 were White and 1 was Black/African American.
15. Information and context presented on screen led research assistants to identify five transgender characters. While there may have been additional transgender actors across the sample, those portrayals lacked sufficient information for research assistants to regard the depictions as transgender characters.
16. Powell, L. (2021). We Are Here: LGBTQ+ Adult Population in United States Reaches At Least 20 Million, According to Human Rights Campaign Foundation Report. Retrieved December 20, 2022 from https://www.hrc.org/press-releases/ we-are-here-lgbtq-adult-population-in-united-states-reaches-at-least-20million-according-to-human-rights-campaign-foundation-report
17. U.S. Census Bureau (2018). Americans with Disabilities: 2014. Retrieved August 27th, 2020 from: https://www.census.gov/library/publications/2018/demo/p70-152.html

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Annenberg Inclusion Initiative Student Research Team


