



See June 2021:

Looking Back and Moving Forward

The State of Representation in Popular
Television from 2016 to 2020

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Executive Summary

1

Women Reach Parity in Minor Roles for Popular Programming

In 2016, women/girls were just 37.8% of minor characters, but in 2020 women/girls as minor characters jumped to 52.7%.

5

Sharp Increase in Disabled Representation

In 2020, 19.4% of leads/co-leads were disabled characters, an increase from 2016 when there were no disabled leads/co-leads.

2

More Women Are Seen and Heard

From 2016 to 2020 female characters' screen time increased by 8.4% and female characters' speaking time increased by 7.0%.

6

Just 24.8% of Leading Characters Are 50+

From 2016 to 2020, characters 50+ were less than a quarter of leads/co-leads in popular programming.

3

More Black, Indigenous, People of Color in Supporting Roles

In 2020, 40.4% of all supporting characters in popular programming were BIPOC, compared to 32.2% in 2016.

7

Characters With A Large Body Type Are Rarely Shown

For all years analyzed, less than 10% of lead/co-lead characters in popular programming had a large body type.

4

No LGBTQIA+ Leads or Co-Leads

There were no LGBTQIA+ leads/co-leads from 2016 to 2020 in the most popular programming.

Key Findings

According to our analysis of the most popular broadcast and cable scripted television shows from 2016 to 2020 for all markets, we find:

- From 2016 to 2020 female characters' screen time increased by 8.4% and female characters' speaking time increased by 7.0%.
- On average, women/girls were 26.9% of leading characters — with a low of around 17% in 2018, and a high of nearly 40% in 2019.
- On average, BIPOC characters were 15.1% of leads/co-leads — with a low of 10.0% in 2018, and a high of 19.6% in 2017.
- There were no LGBTQIA+ leads/co-leads for the time frame analyzed.
- We found marked improvement in the representation of disabled characters as leads/co-leads over time — in 2020, 19.4% of leads/co-leads were disabled characters¹, an increase from 2016 when there were no disabled leads/co-leads.
- On average, 24.8% of leads/co-leads are characters aged 50+ — with a low of 7.8% in 2017, and a high of 60.0% in 2016.
- On average, 5.7% of leads/co-leads had a large body type — from a low of 0.0% in 2016, to a high of 7.8% in 2017.
- For minor roles², in 2020 female characters achieved parity for the first time in the Institute's history:
 - ▷ In 2020, female characters were nearly 53.0% of all minor characters, compared to 37.8% in 2016.
- Representation of BIPOC characters in supporting and minor roles has dramatically improved over time:
 - ▷ In 2020, BIPOC characters were 40.4% of all supporting characters compared to just 32.2% in 2016.
 - ▷ In 2020, BIPOC characters were nearly 51.0% of all minor characters, up from 37.8% in 2016.

Introduction

Since 2004, the Institute has led the movement to systemically drive equity, inclusion and diversity in family media and entertainment. The Institute has advocated for greater inclusion in entertainment media through cutting-edge research and advocacy, and is the first research organization to examine representation of six key identities: gender, race/ethnicity, LGBTQIA+, disability, age (50+), and large body type. For this study we have analyzed the inclusion of characters with these six identities for the past five years in the most popular broadcast and cable scripted television shows.

As we reported in our 2019 See Jane report, female leads and co-leads in popular children's television increased substantially over the past decade - from 42.0% in 2008 to 52.0% in 2018³. However, to maintain progress the Industry should remain diligent about casting women and girls in leading roles. As the 2020 See Jane report revealed, 45.0% of leading characters in 2019 were women/girls, a decrease from 2018⁴.

For our 2021 See Jane report we expand from children's programming to analyze whether underrepresented groups are seen in popular television programming for all ages, over the past 5 years. By looking back over the past five years, we can identify trends, highlight progress, and also shine a light on where we need to keep pushing the Industry to improve in programming for all ages.

Our analysis includes television programming consumed during the COVID-19 pandemic. According to an analysis from the Motion Picture Association⁵, due to the pandemic the number of original scripted TV programs across broadcast, cable, premium pay and streaming dropped for the first time since they started tracking. For instance, in 2020 there were 493 scripted programs, down from the record high 532 programs in 2019, with many productions moved to 2021 or 2022. The production delays likely influenced the shows that were produced and therefore consumed.

In order to advance global culture change and move forward, it is critical that we see representations of characters in media that reflect the public. As the findings of this report indicate, inclusion of

underrepresented groups in popular content varies over time and depends upon character prominence. Although there are efforts in the industry to tell more diverse stories and greenlight programming that better reflects the public, our findings suggest that the most popular programming on cable and television is still dominated by white male characters, especially at the lead/co-lead level.

Methodology

We focus on the highest ranked scripted television shows according to Nielsen to better understand inclusion and representation in shows that reach the largest audience. Insights for this category of programming are crucial to understanding the stories that get told and consumed in entertainment media. With respect to representation, we analyze the inclusion of characters for the following identities: gender, race/ethnicity, LGBTQIA+, disability, age (50+), and large body type.

To collect our data we employ content analysis, an approach that is ideal for systematic, objective analysis of content communicated through video. This work is performed by expert human coders who undergo training and interrater reliability assessment to ensure reliable data collection at the character level. For this study, we examined characters in the ten most popular broadcast and cable scripted television shows each year from 2016 to 2020 for all markets, according to Nielsen rankings. We analyzed a representative sample of shows based on the number of episodes for each show for the respective season. Our dataset includes a total of 1,987 characters from the ten most-watched cable and broadcast shows per year, over the full timespan. This includes 158 leading/co-leading characters, 1,187 supporting characters, and 642 minor characters. The most prominent characters who drive the storyline in an episode are classified as leads or co-leads. Characters who are not leads but contribute to the storyline are classified as supporting characters. Characters that appear only briefly are coded as minor characters.



More Women Appear in Minor Roles

Findings

We summarize our major findings for character representation by gender, race/ethnicity, sexuality (LGBTQIA+), disability, age (50+), and body type (large body type) from 2016 to 2020 in the ten most popular broadcast and cable scripted television shows, per year.

Women/girls make up 51% of the U.S. population⁶, but in analyses of this kind we see that women/girls infrequently reach parity onscreen. According to our analysis, over the last five years the representation of women/girls as leads/co-leads in the top ten broadcast and cable scripted television shows has been below parity, despite the progress women/girls have made as leads in children's programming⁷. On average, female characters were 26.9% of all leads/co-leads in popular programming from 2016 to 2020 (Chart 1).

Representation of female characters in supporting roles has been steadier — between 39.0% and 45.0% for the years we examine. The greatest share of female characters in supporting roles occurred in 2019, when 45.0% of supporting roles were played by women/girls.

One upward trend we observe is female characters in minor roles. In 2016, female characters were 37.8%

of characters shown, but in 2020 their representation jumped to 52.7%. Thus, female characters are better represented in minor roles, compared to their representation as leads/co-leads, and supporting characters. The share of female leads/co-leads would need to double to achieve parity with their male counterparts given their representation in 2020. Put simply, in popular programming stories about men/boys are still being viewed at three times the rate of stories about women/girls in 2020.

The stories we see affect how we come to understand people, and also how we think about ourselves. For example, *The Hunger Games* films and *Brave*, both of which feature girls who do archery, led to an increase in girls taking up archery⁸. This is just one example of role model effects in action, and it is why stories told not only about women and girls, but from their point of view, are important. Indeed, the "male gaze," a now common term used to describe media content created through a male lens, has dominated popular film and television for decades. But increasingly, the entertainment industry is developing programming that subverts the male gaze, writing stories told from the point of view of women and girls. That said, the most popular broadcast and cable scripted television shows from 2016 to 2020 are still more likely to feature the stories of male leads/co-leads, by a wide margin.

CHART 1

Prominence of Female Characters in Popular Television Programming, 2016-2020

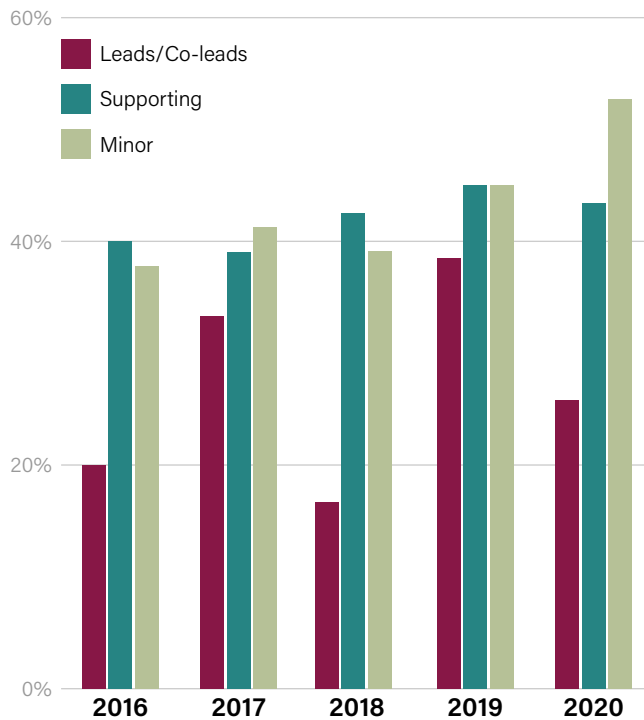
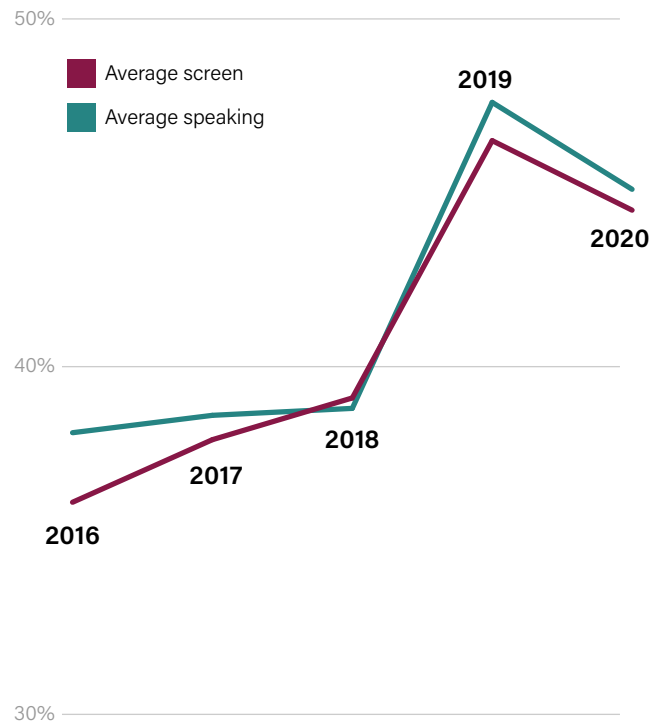


CHART 2

Screen Time and Speaking Time of Female Characters



Screen Time and Speaking Time

Using the Geena Davis Inclusion Quotient (GD-IQ), we also analyze the overall screen time and speaking time of female characters to see how their inclusion on these metrics has changed over the last five years. The GD-IQ is the first automated software tool to measure screen and speaking time in media content (see Appendix A). The GD-IQ analyzes all female characters seen and heard on screen (not just prominent characters). The findings show steady improvements for female characters' screen and speaking time, and are presented in Chart 2.

From 2016 to 2020, female characters' screen time increased by 8.4% and female characters' speaking time increased by 7.0%.

Female characters accounted for 36.1% of all *screen time* in 2016, but in 2019 that number jumped more than 10 points to 46.5%. In 2020, we saw a small decline to 44.5% of all screen time, but still an improvement from 2016, 2017, and 2018.

We also saw an increase in female characters' *speaking time* over this time period. In 2016, female characters' accounted for 38.1% of all speaking time, but in 2019 that number improved nearly 10 points, to 47.6%. In 2020 we saw a slight decline from this high, when female characters accounted for 45.1% of speaking time. These findings show that female characters' screen and speaking time has improved since 2016.



More Black, Indigenous, People of Color in Supporting Roles

In the United States, Black, Indigenous, People of Color (BIPOC) constitute over 40.0% of the population⁹, but historically are underrepresented in film and television. In this section, we examine race and representation in terms of character prominence, and compare the representation of BIPOC characters to white characters.

We find that overall, BIPOC characters are underrepresented as leads/co-leads. On average, BIPOC characters made up 15.1% of all leads/co-leads, therefore white leads/co-leads outnumber BIPOC leads/co-leads 5 to 1 (Chart 3).

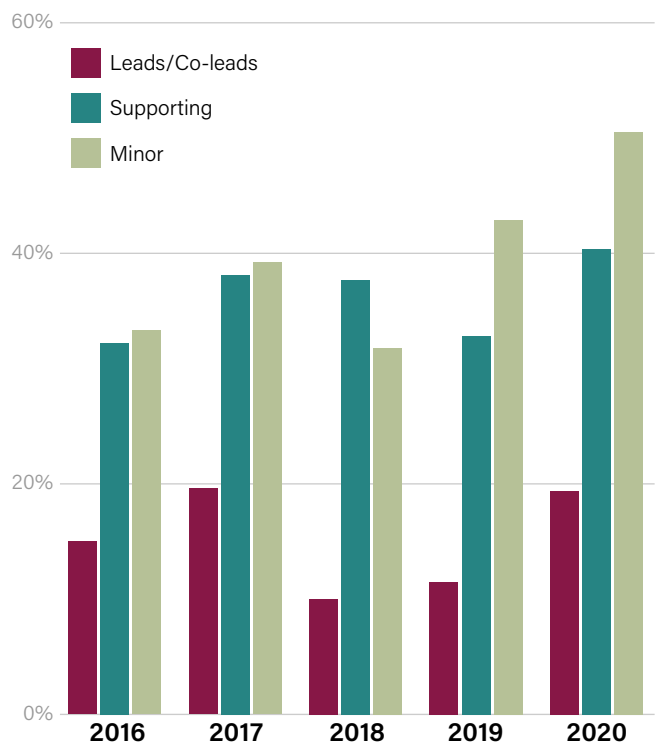
For supporting roles, BIPOC representation has remained fairly steady at around one-third or more of all characters from 2016 to 2019, and 40.4% in 2020, reaching parity. In minor roles, representation of BIPOC characters has largely been increasing, climbing from 33.3% to 50.5% between 2016 and 2020. BIPOC representation in minor roles achieved parity in 2019 and 2020.

The stories watched by television viewers feature BIPOC characters as supporting or minor characters less commonly as leads/co-leads maintaining the tendency for entertainment media to understate BIPOC representation in society at large. As our data show, there has been progress made in supporting and minor roles for BIPOC characters in recent years, however,

there is much to be done to highlight racially diverse perspectives by increasing representation of BIPOC leading and co-leading characters.

CHART 3

Prominence of BIPOC Characters in Popular Television Programming, 2016-2020



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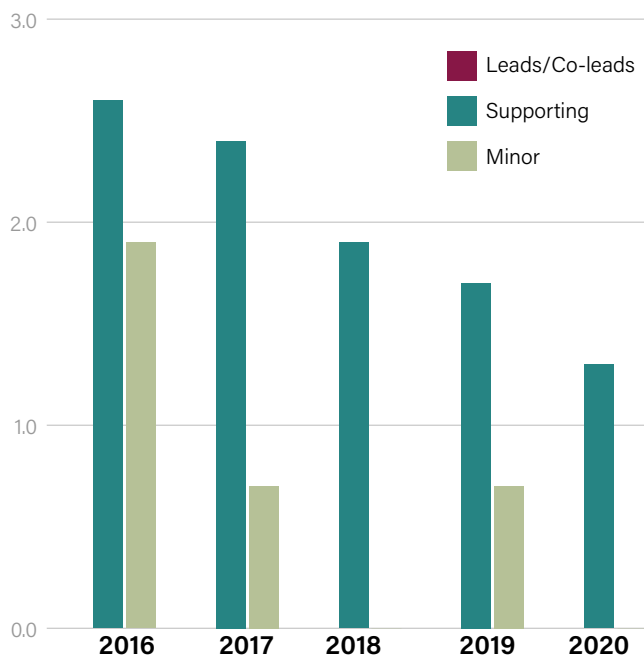


No LGBTQIA+ Leads or Co-Leads

While 5.6% of the U.S. population identify as LGBTQIA+¹⁰ there continues to be very little LGBTQIA+ representation in mainstream television. For this analysis, we compare LGBTQIA+ characters to non-LGBTQIA+ characters.

CHART 4

Prominence of LGBTQIA+ Characters in Popular Television Programming, 2016-2020



We identify LGBTQIA+ characters as characters who are queer, often signaled by a romantic relationship, sexual interest, and/or self-identification. Our analysis includes recurring characters who are queer, even though their sexuality may not be the subject of each episode in the series. As shown in Chart 4, LGBTQIA+ leads/co-leads are non-existent in the most popular broadcast and cable scripted television shows over the past five years.

We also see a decrease in LGBTQIA+ supporting characters over the past five years, with 2.6% of all supporting characters in 2016 identified as LGBTQIA+, but just 1.3% of all supporting characters in 2020 identified as LGBTQIA+. We also see that LGBTQIA+ characters are absent as minor characters. These findings show that LGBTQIA+ individuals remain nearly invisible in mainstream television, despite making up 5.6% of the U.S. population.



Sharp Increase in Disabled Representation

Disabled people are nearly 19.0% of the U.S. population¹¹, but are their stories the subject of the most popular broadcast and cable scripted television shows? Our analysis considers characters with physical, cognitive, communication, as well as mental health disabilities, to be disabled¹².

Although there were no disabled leads/co-leads in 2016, the representation of disabled characters as leads/co-leads has steadily improved since then, reaching its peak in 2019 with 23.1% of leads/co-leads having a disability. While this is something to celebrate, our previous studies found that disabled characters are more likely than non-disabled characters to die¹³. Therefore, to ensure that the inclusion of disabled characters represents true progress, the storylines written for disabled characters should subvert stereotypes about disabled people.

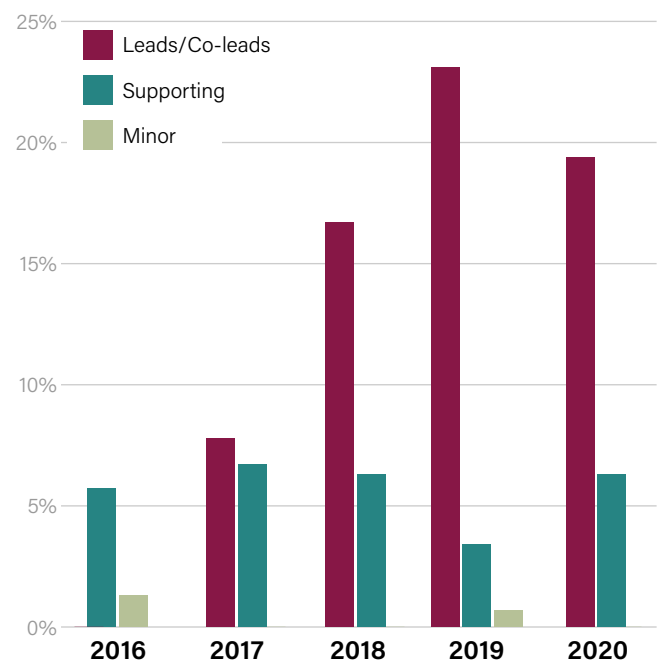
Disabled representation at the supporting character role is largely steady, but below parity, varying from a high of 6.7% of all supporting roles in 2017, to a low of 3.4% of all supporting roles in 2019.

Minor characters rarely have a disability. However, this is likely a function of their limited character development, and therefore we do not learn of their disabilities as viewers, unless they are visibly disabled.

The steady increase in disabled leads/co-leads suggests a concerted effort and willingness to portray stories about characters with disabilities in popular programming.

CHART 5

Prominence of Disabled Characters in Popular Television Programming, 2016-2020





Just 24.8% of Leading Characters are 50+

The share of the U.S. population who are aged 50 and older is around 34.0%¹⁴. But according to reports, characters in film and television aged 50 and older are often invisible or they are featured in stereotypical roles.¹⁵

Our analysis of representations of characters 50+ in the most popular broadcast and cable scripted television shows finds much variation across the last five years, however typically we do not observe parity for older adults (Chart 6). The share of leads/co-leads who are 50+ reached 60.0% in 2016, but was just 7.8% in 2017. This is a sharp drop between 2016 and 2017. The number of characters 50+ as leads/co-leads increased again after 2017, but fell in 2020 to 16.1%.

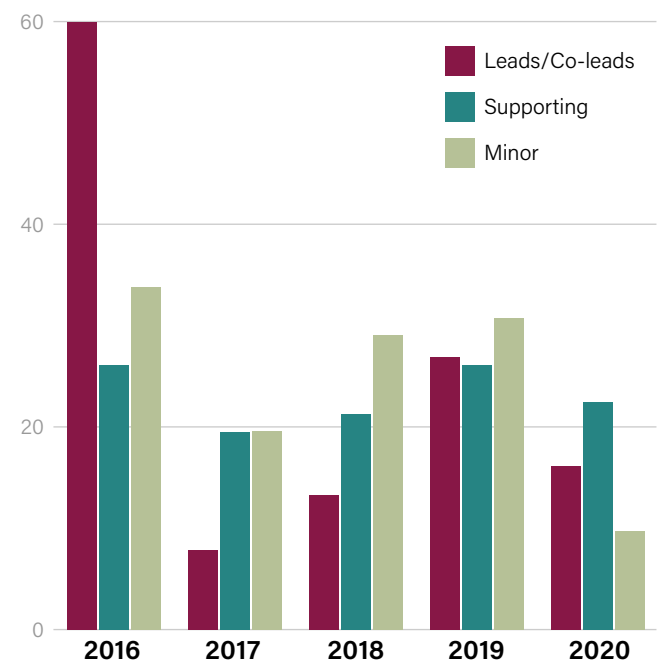
Turning to supporting roles, the share of supporting characters who are 50+ reached a peak of 26.1% in 2016 and 2019, and a low in 2017 with 19.5%, but overall has remained largely steady over the past five years.

For minor roles, the share of 50+ characters has varied considerably from year to year. The share of 50+ characters in minor roles was its lowest in 2020 at 9.7% and at its highest in 2016 at 33.8%.

It is critical to include the perspectives of 50+ characters in order to reflect the experiences of an aging American population, and these numbers suggest there is much room for improvement.

CHART 6

Prominence of 50+ Characters in Popular Television Programming, 2016-2020



Characters With A Large Body Type Are Rarely Shown

Nearly 40.0% of U.S. adults have a large body type according to a recent report from the Centers for Disease Control and Prevention¹⁶. For the purpose of this analysis, we group characters into large body type (somewhat or very large) and non-large body type.

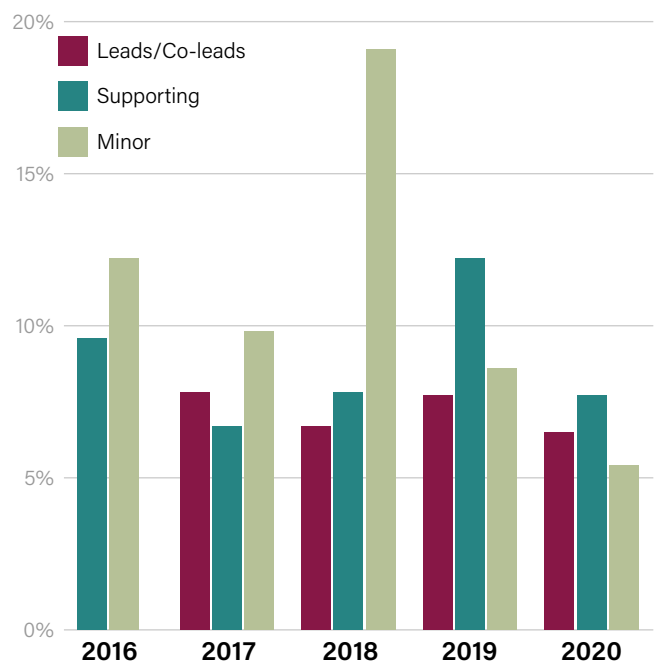
Our analysis finds that characters with a large body type are rarely driving the story as leads/co-leads — in 2016 and 2020 no leading/co-leading characters had a large body type, and from 2017 through 2019, they were less than 8.0% of all leads/co-leads.

Characters with a large body type were most often shown in supporting or minor roles. As shown in Chart 7, the share of supporting characters with a large body type was between 6.7% (2017) and 12.2% (2019), and the share of minor characters with a large body type was between 5.4% (2020) and 19.1% (2018).

The data suggests that representations of those with a non-large body type are still favored in the most popular broadcast and cable scripted television shows. Characters with a large body type are portrayed infrequently overall and their representation dropped for every category of prominence from 2019 to 2020. Offering fresh, new stories with characters who have a large body type is crucial for pushing the needle forward on diversity and inclusion in television.

CHART 7

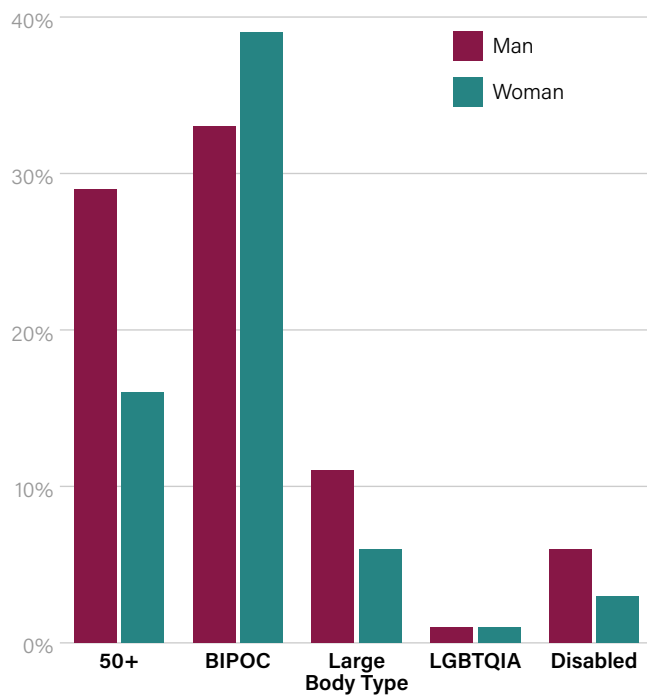
Prominence of Characters with Large Body Types in Popular Television Programming, 2016-2020



Older Men Outnumber Older Women On-Screen

CHART 8

Gender Intersectional Profile of All Characters, 2016-2020



We also analyze the intersection of gender and race, sexual orientation, disability, body type, and age for all years in the analysis (2016-2020). This gender-intersectional profile reveals some interesting insights about which women/girls appear on screen. For instance, female characters are less likely to be 50+ compared to male characters (16% of female characters compared to 29% of male characters). Interestingly, despite being underrepresented compared to men on screen, women 50 and older outnumber men 50 and older in the US population (19% compared to 17%)¹⁷.

Our finding about age and gender is consistent with numerous reports that male actors' careers peak much later in life than female actors' careers¹⁸. Women/girls are also more likely than men/boys to be BIPOC characters (39% compared to 33%). For comparison, men/boys and women/girls of color each makeup 20% of the US population respectively¹⁹.

Gender differences are also apparent in large body type representation on screen — 11% of male characters have large body types compared to just 6% of female characters. Characters who identified as LGBTQIA+ were equally likely to be male as female (1% of female and male characters). However, 6.4% of women/girls in the U.S. identify as LGBT, compared to 4.9% of boys/men in the U.S.²⁰ Therefore, more LGBTQIA+ women/girls should be shown on screen. Male characters are

more likely to have a disability, compared to female characters (6% compared to 3%), even though the female population with disabilities is 19.8% and the male population with disabilities is 17.4%²¹. Taken together, this intersectional lens reveals that male characters are more likely than female characters to be 50 and older, have a large body type, and have a disability.

The push for inclusive content is valuable for many reasons, according to a survey conducted by Nielsen in May 2021²²:

- For historically excluded populations, content inclusive of their identity group makes them more likely to watch.
- Over half of AAPI, Native, and Black people feel there is not enough representation of their identity group on TV.
- When they did find inclusive content, more than a third of BIPOC respondents felt representation of their identity group was inaccurate.



Recommendations

The Institute continues to push for more inclusive content and diverse stories through cutting-edge research, education and advocacy. We are also inspired by the social movements surrounding diversity, equity, inclusion, and accessibility initiatives, especially in the past year. To bring more diverse and authentic stories to the big screen, we provide recommendations on how the industry and we at the Geena Davis Institute on Gender in Media can work toward more inclusive and diverse representations in television.

Measure Progress Over Time

It is important to gather data to assess who is being represented on screen. The status of on-screen representation in entertainment media continues to evolve, so it is necessary to track trends over time, including intersectional representation. Collecting data shows us the progress that has already been made and helps the Industry stay accountable.

Vary the Marginalized Identities Depicted On-Screen

Efforts to diversify representations in entertainment media have mainly focused on increasing the number of women/girls and Black, Indigenous, People of Color that we see on-screen. The inclusion of people who identify as LGBTQIA+, people with disabilities, older adults, and people with a large body type is also key to making content more diverse and inclusive. Representation of intersectional identities is also important as it represents the complexity of individuals (e.g. feature queer women, BIPOC with disabilities) The more identities represented on screen, the broader the audience appeal.

Incorporate Storylines of Underrepresented Groups into Content for General Audiences

In order to genuinely reflect our world, we need diverse narratives and experiences on-screen. The more perspectives included in the stories made for general audiences, the more we can expand the ways that stories are told. Celebrate and share content that pushes the needle forward to ensure more diverse and inclusive content is the norm, not the exception.

REPRESENTATION PITFALLS:

Common Tropes to Avoid

While advocating for the inclusion of diverse perspectives in entertainment media is important, assessing the quality of on-screen representation is also crucial. At the Institute, we regularly analyze the quality of representations in television and film, and in so doing have identified pervasive tropes that are common in television programming. In storytelling, a trope is shorthand for a concept that the audience will recognize and understand instantly. While not all tropes are harmful, we present a list of common tropes for content creators to avoid, surrounding the six identities under analysis:

GENDER

Gender Tropes

- The Lovesick Lady: A female character who is “boy crazy” and whose life revolves around attracting, getting, or keeping a man.
- The Mean Girl: A female character who is often popular, pretty, and mean to other girls.
- The Meathead: A male character who is an incompetent jock/athlete.
- The Rational Man: A male character who is emotionally unavailable to the people in his life, and who uses logic in every situation.

RACE

Latinx Tropes

- Non-English Speaker: A female or male character is shown as speaking only Spanish and not able to speak English, or only speaks “broken” English.
- The Spicy Sexpot: A Latina character who is shown in revealing clothing and is flirtatious.
- The Help: A Latina character portrayed as a cook, maid or nanny, usually in service to a white family.
- The Laborer: This Latino character works in a job that centers around manual labor (e.g construction, gardening, hauling).

Black Tropes

- Strong Black Woman: A Black female character who is stronger than other characters around her and is able to endure trials and tribulations that would break weaker characters.
- The Angry Black (Woman/Man): This Black (often female) character is angry, loud, and aggressive.
- The Absent Father: A Black male character that is rarely involved in the life of their children or is not present.

Indigenous Tropes

- The Magical Medicine Man/Woman: This (mostly male but sometimes female) character comes to the aid of white characters by the use of supernatural or quasi-mystical means.
- The Proud Warrior: Indigenous characters who seek battle and bloodshed because their culture teaches that this is a source of personal honor.
- The Stoic: An Indigenous character who speaks few words and is emotionally flat.
- The Maiden: An indigenous female character who is young and beautiful, but also exotic and mysterious, who becomes the love interest of a prominent white man in the story. She is often very quiet and shown as a calming caretaker.

Middle Eastern Tropes

- The Primitive: A Middle Eastern character shown in places without modern technology, living in a dilapidated house, in a desert, or wearing shabby clothing.
- The Oppressed Woman: A female character who is oppressed by her culture, her husband, and/or other family members, and lacks agency to make her own decisions freely.
- The Terrorist: This male character is depicted as plotting or executing violence, whether as a "lone wolf" or part of a network.
- The Tycoon: A male character who is extraordinarily wealthy, wears expensive clothing, drives pricey cars, lives in luxurious houses, or flies in private planes.

East Asian Tropes

- The Tiger Mom: An overbearing mom who expects perfection.
- The Model Minority: A female or male character presented as excelling at school, work, and other aspects of life.
- The Dragon Lady: A female character who is powerful, deceitful, domineering, or mysterious.
- The Yakuza Crime Boss/Worker: This Asian (often male) character belongs to a gang or organized criminal group.

South Asian Tropes

- The Controlling Parent: An immigrant parent who has very strict rules for their child. These strict rules are typically presented as unreasonable, culturally backwards, and make it difficult for the child to navigate U.S. culture.
- Quirky Shop Owner: A male character who owns a corner store, chain, or other business; typically quirky in some manner.
- The Shy Nerd: A male character who is both nerdy and shy, and may work in a STEM profession.

Southeast Asian Tropes

- The Nail Tech: This (often female) character is portrayed as an owner or technician at a nail salon. They are often only seen in the salon setting, speak very little or "broken" English, and have very stereotypical American English names.
- The Masseur/Masseuse: This (often female) character works at a massage parlor and engages in sex work to bring in extra money. They are often highly sexualized, extremely beautiful, and "exotic."
- The Addict: A male who is depicted as addicted to alcohol and/or gambling.
- The Sex Worker: A female character is seductive, submissive, and likely works as a sex worker.

Pacific Islander Tropes

- The Surfer: A character who surfs, loves the beach and ocean, and is always in or near the water.
- The Hula Girl/Fire Breather: A character who wears grass skirts, leis, and flowers and often performs for white tourists, as opposed to for cultural reasons. This character is *only* seen in their hula garb, even during their everyday life.
- The Wild Samoan: A Pacific Islander character who is large in stature and is potentially aggressive and may speak in grunts and growls.

LGBTQIA+

LGBTQIA+ Tropes

- The Runaway Queer: A queer character who is disowned by their family due to their LGBTQIA+ identity. They often find a new home and “chosen family” after coming out and moving away.
- The Flaming Queen: A gay character who is feminine and flamboyant. Often shown with bright, costume-esque clothing.
- The Promiscuous Queer: This LGBTQIA+ character engages in casual sex for narrative shock value.
- The Queer Victim: The LGBTQIA+ character that is only briefly mentioned or seen, because they are violently killed, often due to a hate crime aimed at their identity.

DISABILITY

Disability Tropes

- The Savant: A character is depicted as low functioning as a result of a physical, cognitive or communication disability, but with detailed knowledge in some specialized field or with special abilities in a field (e.g. mathematics or music).
- The Sentimental: A character with eternal optimism about their disability and a “can do” fighter attitude. They are typically cure-focused and do not give up, even when setbacks occur.
- The Bitter Crip: A disabled character depicted as bitter and angry, often in ways related to their disability.

AGE (50+)

Older Person Tropes

- Sugar Daddy: An older adult male character who attracts younger women for romantic purposes through his wealth or gifts.
- The Cougar: An older woman who flirts with, dates, has sex with, or marries younger men.
- Cranky Old Person: An older character who is grumpy, complains often and is sometimes anti-social.

LARGE BODY TYPE

Large Body Type Tropes

- The Sidekick: A character who is a supportive buddy — often best friend to a pretty girl.
- The Loser: A character who is an economic and social failure.
- Mamma Hen: This character with a large body type is a nurturing mother figure; a great listener.
- The Comic Relief: This character with a large body type exists for comic relief.

Appendix A.

The GD-IQ was funded by Google.org. Incorporating Google’s machine learning technology and the University of Southern California’s audio-visual processing technologies, this tool was co-developed by the Institute and led by Dr. Shrikanth (Shri) Narayanan and his team of researchers at the University of Southern California’s Signal Analysis and Interpretation Laboratory (SAIL).

To date, most research investigations of media representations have been done manually. The GD-IQ revolutionizes this approach by using automated analysis, which is not only more precise, but makes it possible for researchers to quickly analyze massive amounts of data, which allows findings to be reported in real time. Additionally, the GD-IQ allows for more accurate analysis, and because the tool is automated, comparisons across data sets and researchers are possible, as is reproducibility. Automated analysis of media content gets around the limitations of human coding. Beyond the significant advantage of being able to efficiently analyze more films in less time, the GD-IQ can also calculate content detail with a level of accuracy that eludes human coders. This is especially true for factors such as screen and speaking time, where near exact precision is possible. Algorithms are a set of rules of calculations that are used in problem-solving. For this report, we employed two automated algorithms that measure screen time by gender and race, and speaking time of characters by their gender.



**Geena Davis
Inclusion Quotient™**

ENDNOTES

1. Our analysis considers characters with physical, cognitive, communication, as well as mental health disabilities, to be disabled.
2. Supporting characters appear in more than one scene and are instrumental to the action of the story. Characters deemed essential to the development of the central or ancillary plots were coded as supporting characters. All other speaking characters were coded as minor characters.
3. Our children's television dataset includes a total of 3,810 leading, supporting, and minor characters in the top 25 television shows of 2018 for younger kids (ages two to six) and the top 25 shows for older kids (ages seven to thirteen). The most watched programs were identified using Nielsen rankings, and include live-action and animation.
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