



Equal opportunity through knowledge and research

## ***Boxed In 2015-16: Women On Screen and Behind the Scenes in Television***

**Center for the Study of Women in Television &  
Film, San Diego State University**

*Dr. Martha M. Lauzen*

September 2016

---

---

## ***Key Findings***

**For the last 19 years, *Boxed In* has tracked women’s representation in prime-time television. The study provides the most comprehensive historical record of women’s on-screen portrayals and behind-the-scenes employment in television available. The study examines dramas, comedies, and reality programs appearing on the broadcast networks, basic and pay cable channels, and streaming services.**

- ***Overall, 79% of the programs considered featured casts with more male than female characters. 5% had ensembles with equal numbers of female and male characters. 16% of the programs featured casts with more female than male characters.***

- ***Across platforms, females comprised 39% of all speaking characters.*** This represents a slight decline of 1 percentage point from 2014-15 when females accounted for 40% of all speaking characters.

- ***Females comprised 38% of major characters on broadcast network, cable and streaming programs.*** This represents a decline of 2 percentage points from 2014-15 when females accounted for 40% of major characters.

- ***The percentage of female characters featured on broadcast network programs has not increased over the last decade.*** In 2015-16, women comprised 41% of all speaking characters on broadcast network programs. By comparison, females

accounted for 42% of all characters on broadcast network programs in 2006-07.

- ***The percentage of female characters with speaking roles was highest on broadcast network programs (41%), followed by streaming programs (38%), and cable programs (33%).***

- ***The percentage of major female characters appearing on broadcast network programs has declined since 2010-11.*** Females comprised 43% of major characters on broadcast network programs in 2010-11, 42% in 2014-15, and 41% in 2015-16.

- ***The percentage of major female characters was highest on broadcast network programs (41%), followed by streaming programs (39%), and cable programs (28%).***

- ***Broadcast network programs became more racially and ethnically diverse in 2015-16, with Black female characters achieving a recent historical high.*** 71% of females were White (down 6 percentage points from 77% in 2014-15), 17% were Black (up 2 percentage points from 15%), 5% were Latina (up 2 percentage points from 3%), 5% were Asian (up 1 percentage point from 4%), and 2% were of some other race or ethnicity (up 1 percentage point from 1%).

- ***Characters appearing on broadcast networks were more diverse than those appearing on cable channels and streaming services.*** For example, 71% of female characters on the broadcast networks were White versus 77% on cable and streaming services. 5% of

female characters on broadcast network programs were Latina but only 3% of females on cable and streaming programs were Latina.

• ***Regardless of platform, gender stereotypes on television programs abound.*** Female characters were younger than their male counterparts, more likely than men to be identified by their marital status, and less likely than men to be seen at work and actually working.

• ***Overall, male characters were almost twice as likely as females to be portrayed as leaders.*** 9% of males but only 5% of females were portrayed as leaders.

• ***Across platforms, female characters were more likely than males to have personal life-oriented goals, such as caring for others or being in a romantic relationship.*** In contrast, male characters were more likely than females to have work-oriented goals.

• ***In 2015-16, women comprised 26% of creators, directors, writers, producers, executive producers, editors, and directors of photography working on broadcast network, cable, and streaming programs.*** This represents an increase of 1 percentage point from 25% in 2014-15, and no change from 26% in 2012-13.

• ***The employment of women working in key behind-the-scenes positions on broadcast network programs has stalled, with no meaningful progress over the last decade.*** Women comprised 27% of all individuals working as creators, directors, writers, producers, executive producers, editors, and

directors of photography on broadcast network programs. By comparison, women accounted for 26% of behind-the-scenes individuals working on broadcast network programs in 2006-07.

• ***The percentage of women working in key behind-the-scenes roles was highest on broadcast network programs (27%) and streaming programs (27%), and lowest on cable programs (22%).***

• ***Overall, programs employed behind-the-scenes women in relatively small numbers.*** 60% of programs employed 4 or fewer women in the behind-the-scenes roles considered. In contrast, only 7% of programs employed 4 or fewer men. 1% of programs employed 14 or more women in the behind-the-scenes roles considered. In contrast, 46% of the programs employed 14 or more men.

• ***Across platforms, startlingly high percentages of programs employed no women in the behind-the-scenes roles considered.*** 98% of the programs considered had no women directors of photography, 91% had no women directors, 78% had no women editors, 76% had no women creators, 71% had no women writers, 26% had no women producers, and 26% had no women executive producers.

• ***Overall, programs with at least one woman creator and/or executive producer featured substantially higher percentages of female characters.*** For example, on programs with at least one woman creator, females accounted for 45% of *all speaking characters*. On programs with exclusively men creators, females comprised 36% of all characters. On programs with at least one woman

---

executive producer, females comprised 40% of *all speaking characters*. On programs with exclusively male executive producers, females accounted for 32% of all characters.

• ***Across platforms, programs with at least one woman executive producer and/or creator featured higher percentages of major female characters.*** On programs with at least one woman executive producer, females accounted for 41% of *major characters*. On programs with exclusively male executive producers, females comprised 31% of *major characters*. On programs with at least one woman creator, females accounted for 48% of *major characters*. On programs with exclusively male creators, females comprised 35% of *major characters*.

• ***Regardless of platform, programs with at least one women creator and/or executive producer featured higher percentages of women in other key behind-the-scenes roles.*** For example, on programs with at least one woman creator, women comprised 51% of writers. On programs with exclusively male creators, women accounted for 16% of writers.

---

## Methods

This study examines the portrayal of female characters and employment of women in key behind-the-scenes roles on drama, comedy, and reality programs appearing on the broadcast networks, basic and pay cable channels, and on streaming services from September 2015 through May 2016. The study considers one randomly selected episode of every series. Random selection is a frequently used and widely accepted method of sampling episodes from the population of episodes in a season. The study includes programs featured on ABC, CBS, CW, NBC, Fox, A&E, AMC, Discovery, Freeform, FX, HGTV, History, TBS, TNT, USA, HBO, Showtime, Amazon, Hulu, and Netflix. In 2015-16, the study tracked 3,504 characters and 3,593 behind-the-scenes credits. Over 19 years, *Boxed In* has monitored approximately 29,800 characters and 41,300 behind-the-scenes credits.

Information on behind-the-scenes credits and on-screen portrayals was collected by viewing every episode in the sample at least once in its entirety. The study considers the following behind-the-scenes credits: creators, directors, writers, producers, executive producers, editors, and directors of photography. Every character who was seen speaking at least one line was included in the study. The attributes of each character that were coded include: sex, race, age, prominence of character (major vs. minor), marital status, and occupational status. For the purposes of this study, major characters appeared in more than one scene and were instrumental to the narrative of the story.

In addition, the leadership status of each character was coded. For the purposes of this study, a character was considered a leader if s/he occupied a formal leadership position in an organization, government or group, and his/her instructions and/or behaviors were followed by two or more characters.

The study also noted whether the characters were seen at work and actually working, whether they had clearly identifiable goals and the nature of those goals, and whether their roles were personal or professional in nature.

The findings of the study are divided into three major sections. The first section provides the findings for the broadcast networks, offering historical comparisons for 2015-16 with figures dating from 1997-98. The second section provides the findings for cable channels and streaming services. The third section reports findings for all of the programs considered, including those appearing on the broadcast networks, cable channels, and streaming services.

Each section discusses the on-screen and behind-the-scenes findings, and considers important relationships between women in key behind-the-scenes roles (executive producers and creators) and the representation of female characters and employment of women in other key behind-the-scenes roles.

Copyright © 2015 – All rights reserved.

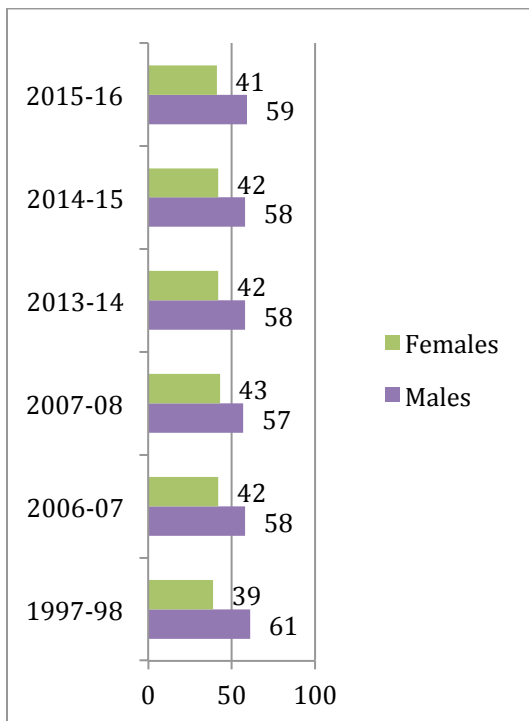
## Findings for Broadcast Networks

### Females On Screen

- In 2015-16, females comprised 41% of all speaking characters appearing on broadcast network programs. This represents a decline of 1 percentage point from 42% in 2014-15, but an increase of 2 percentage points from 39% in 1997-98 (see Figure 1).

- The percentage of female characters with speaking roles in 2015-16 (41%) is 2 percentage points below the historical high of 43% achieved in 2007-08.

Figure 1.  
Historical Comparison of Percentages of Female Characters on Broadcast Network Programs



- Last year, 41% of major characters were female. This represents a decline of 1 percentage point from 42% in 2014-15 and a decline of 2 percentage points from 43% in 2010-11. For the purposes of this study, major characters appeared in more than one scene and were instrumental to the narrative of the story.

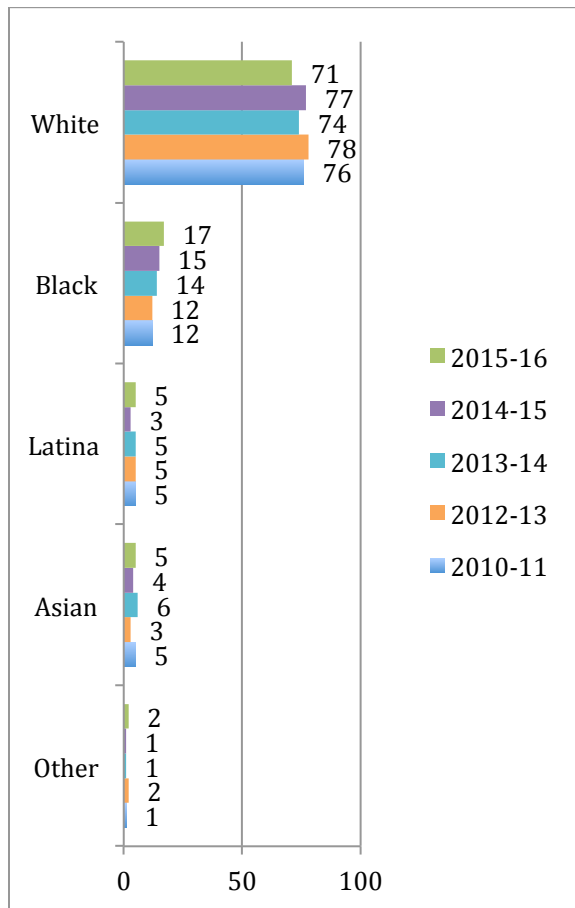
- Programs appearing on ABC featured the highest percentage of female characters (43%), followed by NBC and Fox (41%), CW (40%), and CBS (39%).

- Reality programs featured the highest percentage of female characters (47%), followed by comedies (45%), and dramas (38%).

- Broadcast programs became more racially/ethnically diverse in 2015-16 (see Figure 2). 71% of females were White (down 6 percentage points from 77% in 2014-15), 17% were Black (up 2 percentage points from 15%), 5% were Latina (up 2 percentage points from 3%), 5% were Asian (up 1 percentage point from 4%), and 2% were of some other race or ethnicity (up 1 percentage point from 1%). It should be noted that Black females reached a recent historical high in 2015-16 and that they are the only female characters of color to experience incremental but steady gains over the last few years.

- Female characters continue to be younger than their male counterparts. The majority of female characters were in their 20s and 30s (65%), whereas the majority of males were in their 30s and 40s (61%).

Figure 2.  
*Historical Comparison of Percentages of Female Characters by Race/Ethnicity*



- Female characters experienced a precipitous decline in numbers from their 30s (34%) to their 40s (14%). The percentage of male characters also declined, but it was not as dramatic (from 34% to 27%).
- 42% of male characters were 40 and older but only 25% of female characters were 40 and older.
- Few characters of either sex age into their 60s and beyond. 5% of males but only 2% of females were 60 and above.

- Viewers were more likely to know the marital status of female characters than male characters. The marital status of 50% of female characters but 57% of male characters was unknown.
- Viewers were more likely to know the occupation of male characters than female characters. 37% of females but 24% of males had no clearly identifiable occupation.
- Male characters were more likely than female characters to be seen at work, actually working. 59% of male characters and 44% of female characters were seen in the work setting, actually working.
- Female characters were equally likely to play personal or work-related roles, whereas males were much more likely to play work-related roles. 43% of female characters played personal life-related roles such as wife or mother and 43% of female characters played work-related roles such as attorney or doctor. In contrast, only 25% of male characters played personal life-related roles such as father or husband but 63% played work-related roles.

- 9% of males and 6% of females were portrayed as leaders. Female characters were most likely to play leaders in professions (e.g., head of a law firm) and businesses. For the purposes of this study, a character was considered a leader if s/he occupied a formal leadership position in an organization, government or group, and two or more other characters followed his/her instructions and/or behaviors.

*Women Behind the Scenes*

- In 2015-16, women comprised 27% of all individuals working as creators, directors, writers, producers, executive producers, editors, and directors of photography on broadcast network programs. This represents no change from last year and an increase of 6 percentage points from 21% in 1997-98 (see Figure 3).

*Figure 3.  
Historical Comparison of Women Working Behind the Scenes on Broadcast Network Programs*



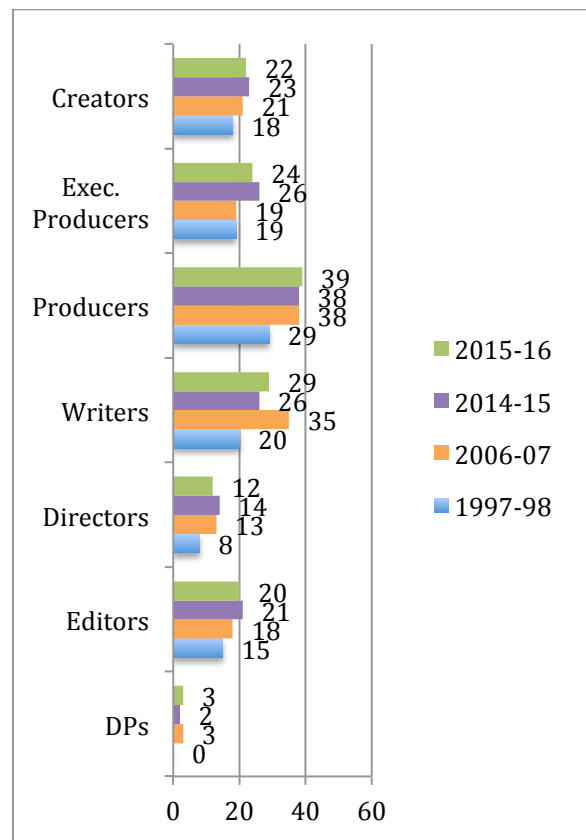
- 52% of the programs employed 4 or fewer women in the roles considered. Only 3% of programs employed 4 or fewer men.

- Only 2% of the programs employed 14 or more women in the roles considered. 54% employed 14 or more men.

- ABC programs had the highest percentage of behind-the-scenes women (30%), followed by CW (29%), NBC (25%), CBS (24%), and Fox (22%).

- Overall, women fared best as producers (39%), followed by writers (29%), executive producers (24%), creators (22%), editors (20%), directors (12%), and directors of photography (3%) (see Figure 4).

*Figure 4.  
Historical Comparison of Percentages of Behind-the-Scenes Employment of Women by Role on Broadcast Network Programs*





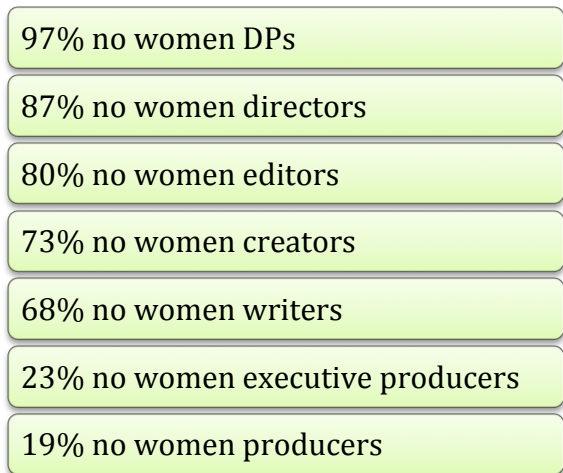


- Women comprised 22% of creators on broadcast network programs. This represents a decline of 1 percentage point from 23% in 2014-15, and an increase of 4 percentage points from 18% in 1997-98.
- Women accounted for 24% of executive producers working on broadcast network programs. This represents a decline of 2 percentage points from 26% in 2014-15, and an increase of 5 percentage points from 19% in 1997-98.
- In 2015-16, women comprised 39% of producers working on broadcast network programs. This represents an increase of 1 percentage point from 38% in 2014-15, and an increase of 10 percentage points from 29% in 1997-98.
- Women accounted for 29% of writers working on broadcast network programs. This represents an increase of 3 percentage points from 26% in 2014-15 and an increase of 9 percentage points from 20% in 1997-98.
- Women comprised 12% of directors working on broadcast network programs last year. This represents a decrease of 2 percentage points from 14% in 2014-15, and an increase of 4 percentage points from 8% in 1997-98.
- In 2015-16, women accounted for 20% of editors working on broadcast network programs. This represents a decrease of 1 percentage point from 21% in 2014-15, and an increase of 5 percentage points from 15% in 1997-98.
- Women accounted for 3% of directors of photography working on broadcast programs last year. This represents an

increase of 1 percentage point from 2% in 2014-15 and an increase of 3 percentage points from 1997-98.

- 97% of the broadcast programs had no women DPs, 87% had no women directors, 80% had no women editors, 73% had no women creators, 68% had no women writers, 23% had no women executive producers, 19% had no women producers (see Figure 5).

*Figure 5.  
Percentages of Broadcast Network  
Programs with No Women in Key  
Behind-the-Scenes Roles*



#### *Important Relationships*

- Programs with at least one woman creator had more women directors and writers than programs with exclusively male creators.
- On programs with at least one woman creator, women accounted for 26% of directors. On programs with exclusively male creators, women comprised 8% of directors.
- On programs with at least one woman

creator, women accounted for 49% of writers. On programs with exclusively male writers, women comprised 19% of writers.

- Programs with at least one woman executive producer featured more female characters and had more women writers than programs with exclusively male executive producers.

- On programs with at least one woman executive producer, females comprised 41% of characters. On programs with exclusively male executive producers, females accounted for 38% of characters.

- On programs with at least one woman executive producer, women comprised 30% of writers. On programs with exclusively male executive producers, women accounted for 19% of writers.

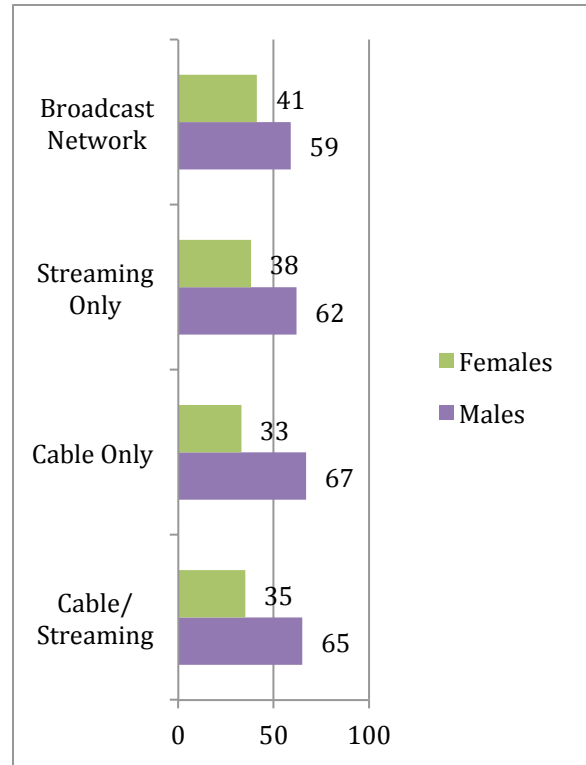
### *Findings for Cable and Streaming Programs*

#### *Females On Screen*

- In 2015-16, females accounted for 35% of *all speaking characters* on cable and streaming programs (33% on cable programs, 38% on streaming programs). By comparison, females comprised 41% of *all speaking characters* on broadcast network programs (see Figure 6).

- Females comprised 33% of *major characters* on cable and streaming programs (28% on cable programs, 39% on streaming programs). For the purposes of this study, *major characters* appeared in more than one scene and were instrumental to the narrative of the story. Females accounted for 41% of

*Figure 6.  
Comparison of Percentages of Female Speaking Characters by Platform*

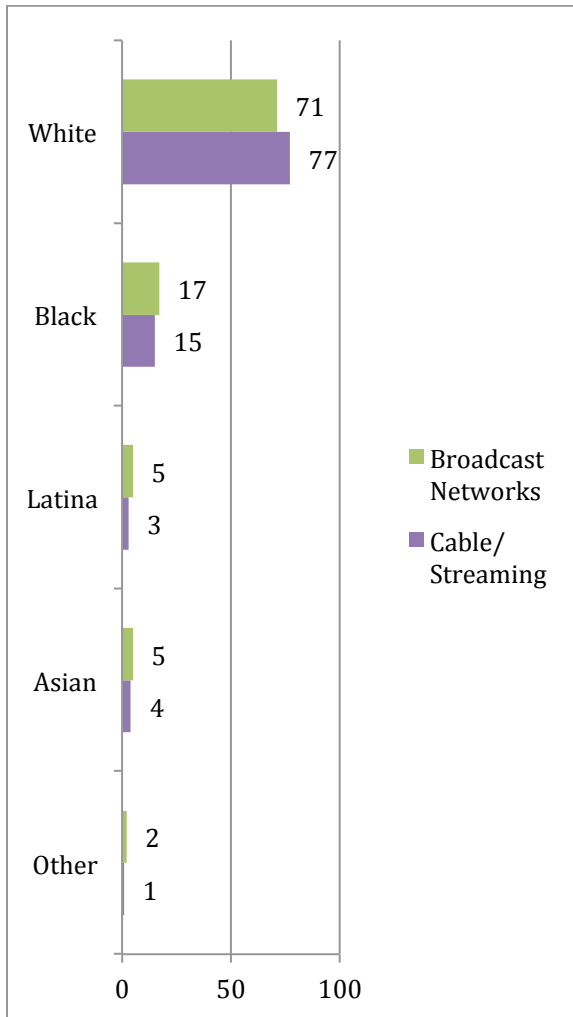


*major characters* on broadcast network programs.

- Regarding race and ethnicity, 77% of females were White, 15% were Black, 3% were Latina, 4% were Asian, and 1% were of some other race or ethnicity. These percentages represent less diverse casts than on the broadcast networks (see Figure 7).

- Female characters were younger than their male counterparts. The majority of female characters were in their 20s and 30s (56%), whereas the majority of male characters were in their 30s and 40s (60%).

Figure 7.  
*Comparison of Racial/Ethnic Diversity  
of Female Characters on Broadcast  
Network vs. Cable/Streaming Programs*



- 54% of male characters but only 36% of female characters were 40 or older.

- Few characters were in their 60s or older. Males were more likely to be in their 60s than females. 9% of male characters but only 5% of female characters were 60 or older.

- Viewers were more likely to know the marital status of female characters than

male characters. 45% of female characters but 38% of male characters had a clearly identifiable marital status.

- Viewers were more likely to know the occupation of male characters than female characters. 73% of male characters but 55% of female characters had a known occupation.

- Males were more likely to be portrayed as leaders than female characters. 8% of males but 3% of females were portrayed as leaders. As leaders, females were most likely to be portrayed as politicians or heads of government agencies.

- Male characters were more likely than females to be seen at work and actually working. 57% of males but 36% of females were seen in a work setting and actually working.

- Female characters were more likely than males to have personal life-related goals (22% vs. 11%). Male characters were more likely than females to have work-related goals (52% vs. 32%).

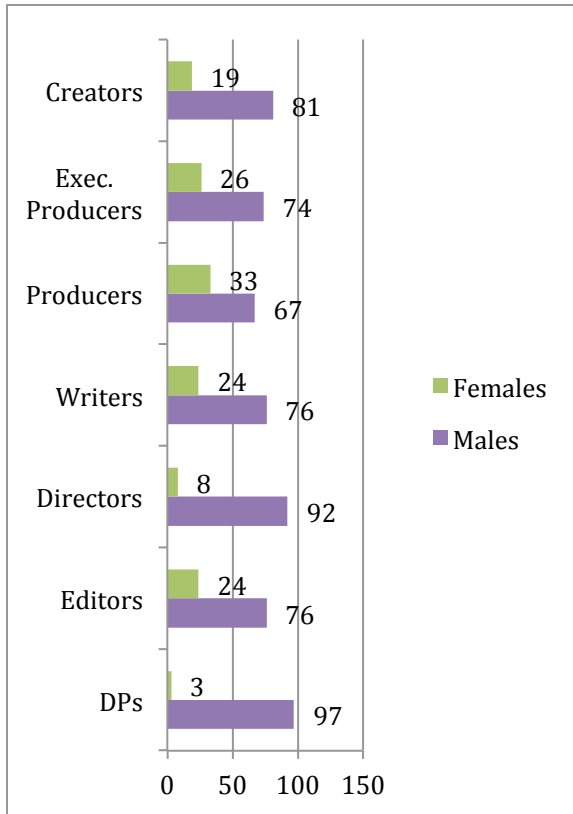
- Female characters were more likely than males to play personal life-oriented roles such as wife or mother (41% vs. 25%). Males were more likely than females to play work-oriented roles (62% vs. 40%).

### *Women Behind the Scenes*

- Women comprised 25% of creators, directors, writers, producers, executive producers, editors, and directors of photography working on cable and streaming programs in 2015-16 (22% on cable, 27% on streaming). For comparison, women accounted for 27% of individuals working in these roles on

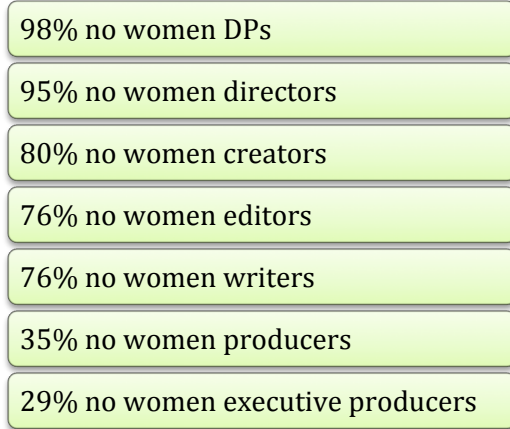
broadcast network programs.

*Figure 8.  
Women and Men in Behind-the-Scenes  
Roles on Cable/Streaming Programs*



- 70% of programs employed 4 or fewer women in the behind-the-scenes roles considered. Only 12% employed 4 or fewer men.
- 1% of programs employed 14 or more women in the behind-the-scenes roles considered. 34% employed 14 or more men.
- Women fared best as producers (33%), followed by executive producers (26%), editors (24%), writers (24%), creators (19%), directors (8%), and directors of photography (3%) (see Figure 8).

*Figure 9.  
Percentages of Cable/Streaming  
Programs with No Women in Key  
Behind-the-Scenes Roles*



- 98% of the programs had no women directors of photography, 95% had no women directors, 80% had no women creators, 76% had no women editors, 76% had no women writers, 35% had no women producers, and 29% had no women executive producers (see Figure 9).

*Important Relationships*

- Programs with at least one woman creator or executive producer featured higher percentages of female characters and writers.
- On programs with at least one woman creator, females comprised 52% of *all speaking characters*. On programs with exclusively male creators, females accounted for 31% of *all speaking characters*.
- On programs with at least one woman creator, women comprised 58% of writers. On programs with exclusively male creators, women accounted for

13% of writers.

- On programs with at least one woman executive producer, women comprised 39% of *all speaking characters*. On programs with exclusively male executive producers, females accounted for 27% of *speaking characters*.

- On programs with at least one woman executive producer, women comprised 27% of writers. On programs with exclusively male executive producers, women accounted for 10% of writers.

### ***Findings for All Programs -- Broadcast Networks, Cable and Streaming Programs***

#### *Females On Screen*

- In 2015-16, females accounted for 39% of *all speaking characters* on broadcast network, cable, and streaming programs. This represents a slight decline of 1 percentage point from 2014-15 when women comprised 40% of *all speaking characters*.

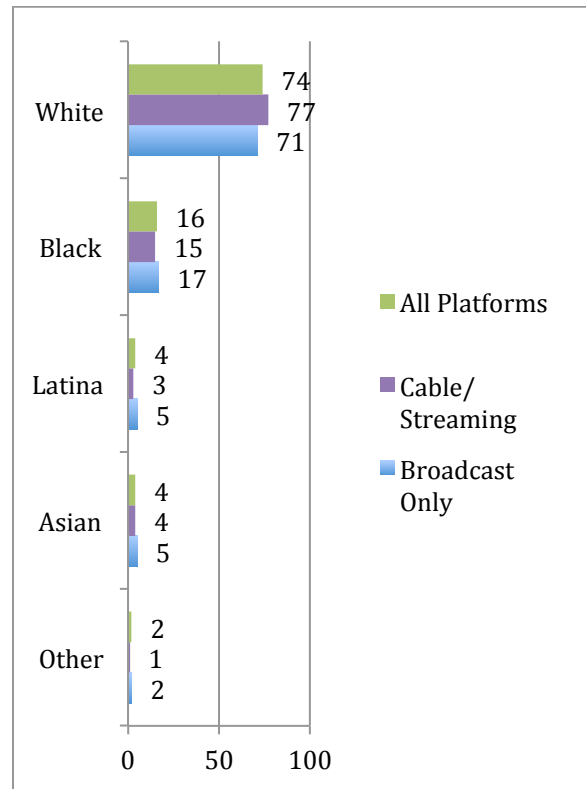
- Females accounted for 38% of *major characters* on broadcast network, cable, and streaming programs. This represents a decline of 2 percentage points from 2014-15 when females comprised 40% of *major characters*. For the purposes of this study, *major characters* appeared in more than one scene and were instrumental to the narrative of the story.

- 79% of the programs considered featured casts with more male than female characters. 5% had ensembles with equal numbers of female and male characters. 16% of the programs had casts with more female than male characters.

- Regarding racial/ethnic diversity, 74% of females were white, 16% were Black, 4% were Latina, 4% were Asian, and 2% were of some other race or ethnicity. These numbers are slightly less diverse

than those for broadcast network programs only (see Figure 10).

*Figure 10.  
Comparison of Race and Ethnicity of Female Characters on All Programs, Cable/Streaming Only, and Broadcast Network Programs Only*



- Overall, female characters were younger than males. The majority of female characters were in their 20s and 30s (61%), whereas the majority of male characters were in their 30s and 40s (61%).



- Female characters experienced a precipitous decline from their 30s to their 40s. 32% of females were in their 30s but only 17% were in their 40s. Male characters also experienced a decline in numbers but it was not as dramatic. 32% of male characters were in their 30s but only 29% were in their 40s.
- 48% of male characters but only 29% of female characters were 40 and older.
- While few characters age into their 60s and beyond, male characters were more than twice as likely to fall into this age category. 7% of male characters but only 3% of females were 60 or older.
- Viewers were more likely to know the marital status of female characters than male characters. 48% of female characters but only 40% of male characters had a clearly identifiable marital status.
- Viewers were more likely to know the occupational status of male characters than female characters. 75% of male characters and 60% of female characters had an identifiable occupation.
- Male characters were almost twice as likely to be portrayed as leaders. 9% of males but only 5% of females were portrayed as leaders. For the purposes of this study, leaders occupied a formal leadership position in an organization, government or group and/or two or more other characters followed their instructions and/or behaviors.
- As leaders, female characters were most likely to be portrayed as politicians and heads of government agencies or as

- leaders in business environments.
- Female characters were more likely than males to have personal life-related goals, such as caring for others or being in a romantic relationship. 20% of female characters but 13% of male characters had personal life-related goals. Male characters were more likely than females to have work-related goals. 49% of males but 33% of females had work-related goals.
- Males were more likely than females to be seen at work and actually working. 58% of male characters but 41% of females were seen in their work setting, and actually working.
- Female characters were more likely than male characters to play personal life-oriented roles such as wife and mother. 42% of females but 25% of males played roles related to their personal lives. Male characters were more likely than females to play work-oriented roles such as business executive or attorney. 62% of males but 41% of females played work-oriented roles.

#### *Women Behind the Scenes*

- Overall, women comprised 26% of creators, directors, writers, executive producers, producers, editors, and directors of photography working on broadcast network, cable, and streaming programs in 2015-16. This figure is slightly above the percentage achieved in 2014-15 (25%).
- 60% of programs employed 4 or fewer women in the behind-the-scenes roles considered. In contrast, 7% of programs employed 4 or fewer men.
- 1% of programs employed 14 or more

women in the behind-the-scenes roles considered. In contrast, 46% of the programs considered employed 14 or more men.

- Women fared best as producers (36%), followed by writers (27%), executive producers (25%), editors (22%), creators (20%), directors (11%), and directors of photography (3%) (see Figure 11).

- Women comprised 20% of creators working on all of the programs considered. This represents a decline of 2 percentage points from 22% in 2014-15.

- Women accounted for 25% of executive producers working on all of the programs considered. This represents an increase of 2 percentage points from 23% in 2014-15.

- Women comprised 36% of producers working on all of the programs considered. This represents a decline of 2 percentage points from 38% in 2014-15.

- Women accounted for 27% of writers. This represents an increase of 2 percentage points from 25% in 2014-15.

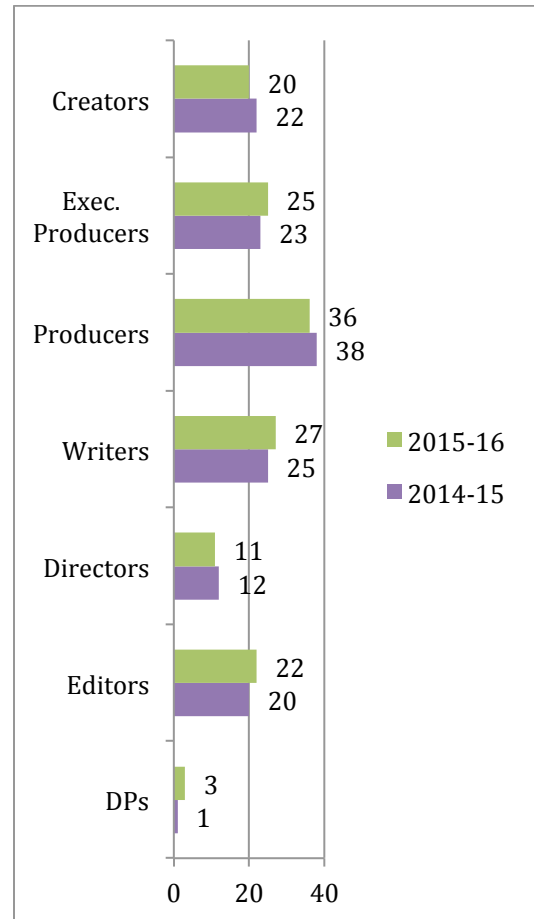
- Women comprised 11% of directors in 2015-16. This represents a decline of 1 percentage point from 12% in 2014-15.

- Women comprised 22% of editors in 2015-16. This represents an increase of 2 percentage points from 20% in 2014-15.

- Women accounted for 3% of directors of photography in 2015-16. This represents an increase of 2 percentage

points from 1% in 2014-15.

*Figure 11.  
Women Working in Key Behind-the-Scenes Roles on All Programs in 2014-15 and 2015-16\**

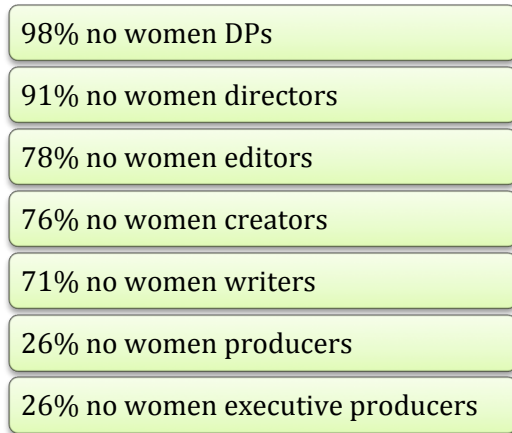


*\*Note that the samples for cable and streaming programs differed slightly in the years compared. In 2014-15, the sample included the following channels/streaming services: A&E, AMC, FX, History, TNT, USA, HBO, Showtime, and Netflix. See Methods section for channels/streaming services in the 2015-16 sample.*

- 98% of the programs considered had no women directors of photography, 91% had no women directors, 78% had no women editors, 76% had no women creators, 71% had no women writers, 26% had no women producers, and 26% had no women executive producers (see

Figure 12).

*Figure 12.  
Percentages of All Programs with No  
Women in Key Behind-the-Scenes Roles*



### *Important Relationships*

- Programs with at least one woman creator featured more female characters overall and more major female characters, and had higher percentages of women directors and writers than programs with exclusively male creators.
- On programs with at least one woman creator, females comprised 45% of *all speaking characters*. On programs with exclusively men creators, females accounted for 36% of *all speaking characters*.
- On programs with at least one woman creator, females comprised 48% of *major characters*. On programs with exclusively male creators, females accounted for 35% of *major characters*.
- On programs with at least one woman creator, women comprised 23% of directors. On programs with exclusively male creators, women accounted for 7% of directors.

- On programs with at least one woman creator, women comprised 51% of writers. On programs with exclusively male creators, women accounted for 16% of writers.

- Programs with at least one woman executive producer featured more female characters overall and more major female characters, and had higher percentages of women writers than programs with exclusively male executive producers.

- On programs with at least one woman executive producer, females comprised 40% of *all speaking characters*. On programs with exclusively male executive producers, females accounted for 32% of *all speaking characters*.

- On programs with at least one woman executive producer, females accounted for 41% of *major characters*. On programs with exclusively male executive producers, females comprised 31% of *major characters*.

- On programs with at least one woman executive producer, women comprised 29% of writers. On programs with exclusively male executive producers, women accounted for 15% of writers.

### *About the Center*

The *Center for the Study of Women in Television and Film* at San Diego State University is home to the longest running and most comprehensive studies of women's behind-the-scenes employment and on-screen portrayals. Dedicated to producing extensive and timely research on women in film and



---

television, studies generated by the Center provide the foundation for a realistic discussion of women's employment and representation. For more information, visit the Center's website at <http://womenintvfilm.sdsu.edu> or contact Dr. Lauzen at [lauzen@mail.sdsu.edu](mailto:lauzen@mail.sdsu.edu).

