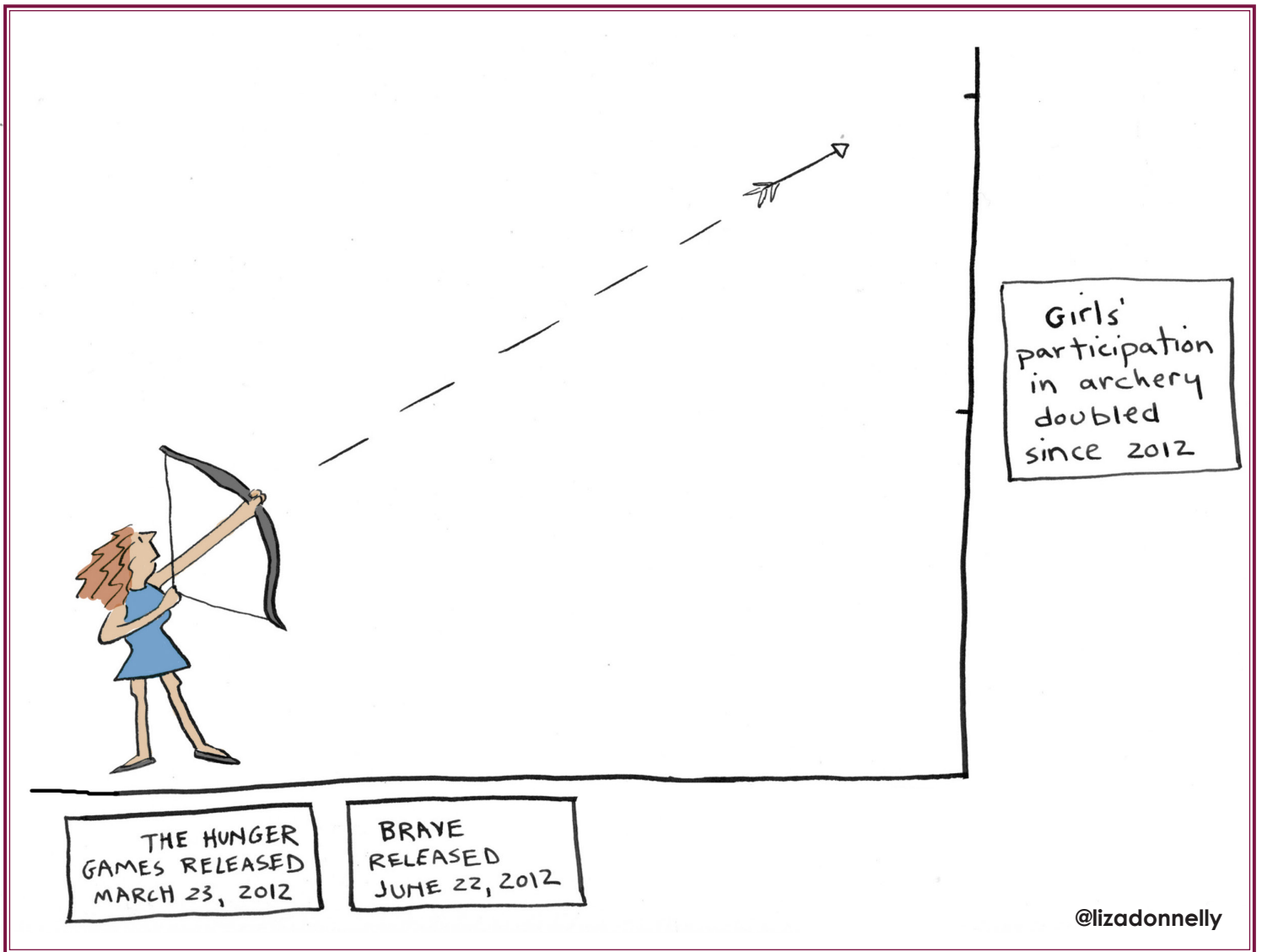


If she can see it, she can be it.™



Hitting the Bullseye: Reel Girl Archers Inspire Real Girl Archers

Hitting the Bullseye: Reel Girl Archers Inspire Real Girl Archers



In the year 2012, girls' participation in national archery competitions doubled.¹ Our study focuses on the role of entertainment media in the recent, rapid growth of archery.² Journalists and archery experts speculate that more young people and women are taking up archery because of Hollywood representations of female archers.³ *The Hunger Games* movies and Disney's animated film *Brave*, both released in 2012, featured prominent female archers. Our study is the first to examine whether archers in popular film and television programs inspire people to take up the sport.

KEY FINDINGS

This study examined fictional archers in film and TV. We find that entertainment media is driving this trend:

- **7-in-10 girls say that Katniss from the *Hunger Games* and Princess Merida from *Brave* influenced their decision to take up archery.** Nearly half (48.5%) of female respondents under 18 say Katniss Everdeen from *The Hunger Games* had “a lot” or “some” influence on their decision to take up archery, while one-third (36.4%) say they were influenced by Princess Merida from *Brave*. (Some girls report that both characters inspired them to start archery.)
- **Across age groups and genders, many say that fictional archers in film and television influenced them to take up the sport.** Robin Hood (23.9%) was the fictional archer most mentioned as having “a lot” or “some” influence, followed by Katniss Everdeen from *The Hunger Games* (14.9%), Legolas from *The Lord of the Rings* franchise (14.1%), Princess Merida from Disney’s animated film *Brave* (11.9%), Hawkeye from *The Avengers* franchise (9.4%), and Green Arrow from the *Arrow* television series (8.9%).
- **When asked about archery role models, respondents were just as likely to mention fictional archers as real life archers.** The top five real life role models mentioned were Brady Ellison (29.4%), Khatuna Lorig (22.9%), Fred Bear (19.1%), Howard Hill (15.2%) and Reo Wilde (14.1%). (Nearly one-in-ten archers (8.3%) mentioned Geena Davis as an archery role model!) The most admired fictional archers mentioned were Robin Hood (23.9%), Katniss Everdeen (19.7%), Green Arrow (15.1%), Princess Merida (10.4%), and Legolas (9.6%).

Introduction

Archery is the fastest growing sport in the United States.² Today, 21.6 million Americans participate in archery, including 4.7 million women and girls.³ The number of people participating in archery has increased dramatically over the past few years, with female and youth archers driving this trend.⁴ Overall, archery participation rose 86% from 2013 to 2014, while women’s participation rose 105% during that same period of time. Also, during an era where youth participation in sports is in decline due to greater use of online technology,⁵ youth membership in archery increased over 200% from 2012 to 2015.⁶

Our study focuses on the role of entertainment media in the recent, rapid growth of archery.⁷ Journalists and archery experts speculate that more young people and women are taking up archery because of Hollywood representations of female archers.⁸ *The Hunger Games* movies and Disney’s animated film *Brave*, both released in 2012, featured prominent female archers. Our study is the first to examine whether archers in popular film and television programs inspire people to take up the sport.

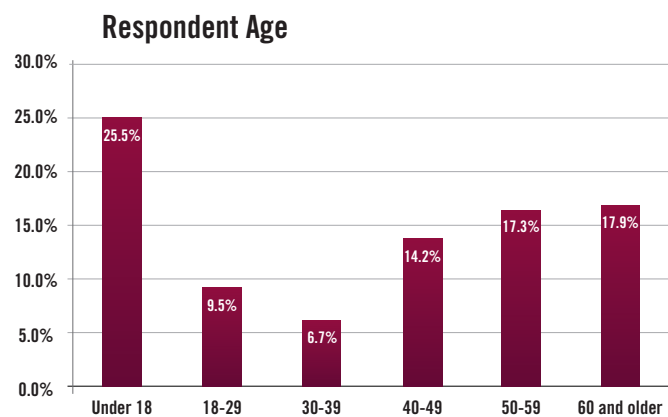
We administered a national survey to members of USA Archery, the largest archery membership organization in the nation. We asked questions about when respondents got started in the sport, what inspired them to get involved in archery, and who they see as role models in the sport. We found that fictional archers in films and television programs have played a key role in inspiring young people to take up archery, especially girls. This finding has implications beyond the sport itself. Archery has positive benefits for boys and girls, including improved self-confidence, motivation, and focus.⁹ Furthermore, girls who participate in archery develop higher self-esteem and get better grades in school.¹⁰ Archery role models in entertainment media thus have a positive effect on the lives of many young people.

METHODOLOGY

We administered a survey to members of USA Archery from January 14 through 28, 2016,¹¹ using Qualtrics, a premiere online data collection program. Members were initially contacted by Denise Parker, the president of USA Archery, with a request to complete the survey, and were sent one reminder during this two week fielding period. A total of 1,381 respondents completed a survey.¹² Our sample is representative of the demographic breakdown of the membership of USA Archery in terms of age, gender, race, education, and income.

Age

Survey respondents range in age from 6-years-old to 85-years-old. The average survey respondent is 39 years of age.



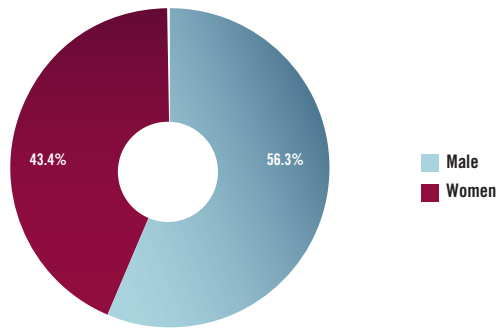
The sample skews toward younger archers and older archers. One-in-four respondents (25.5%) are under the age of 18, which is ideal for studying the effects of recent film and television programs on youth involvement in archery. Nearly 40% of the sample is age 50 or older.

Gender

Men outnumber women in archery two-to-one, so it is not surprising that male respondents outnumber female respondents in our sample. Men comprise 56.3% of the sample, while women make up 43.4% of the sample. One respondent iden-

tified as gender fluid.

Respondent Gender



Race

When it comes to race, eight-in-ten respondents (81.0%) are white, while 8.2% are Asian-American, 3.3% are Latino, and 1.9% are African-American. Native Americans comprise 1.6% of the sample, and Pacific Islanders make up less than 1% of the sample. This is representative of the racial breakdown of archery participants (who are less racially diverse than the general population).

Education

Archers in our sample are more educated than the general public. One-in-three respondents (30%) are currently attending school. For adult in the sample, 8.4% have a high school education or less, while 28.1% have some college or a two-year college degree. Three-in-five respondents in the sample have a bachelor's degree (33.0%) or an advanced degree (30.5%), compared to 30% and 10.2% of the general population, respectively.

Income

Archers in our survey also have higher incomes than the general public. Six-in-ten respondents (58.0%) report an annual household income under \$100,000, while 42% make \$100,000 or more. About 15% of the sample makes under \$40,000, while one-in-five (22.3%) report an income ranging from \$40,000 to \$69,000, and between \$70,000 to \$99,000 (21.4%).

To summarize, archers in our study are disproportionately male, and are less racially diverse, more educated, and with more income than the general population. Our sample reflects the demographics of archery participants in the U.S.

FINDINGS

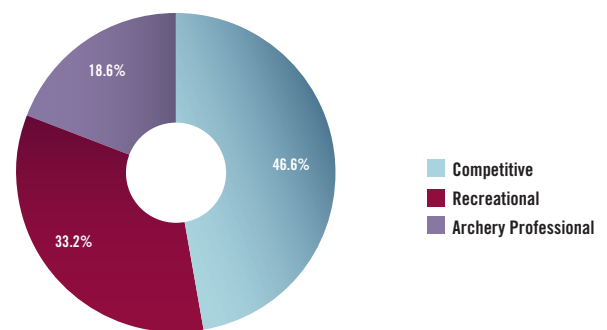
We asked survey respondents a number of questions about when, how, and why they first got involved in archery. In this section, we report findings concerning respondent involvement in archery, their pathways to archery, the influence of archers in film and television, and archery role models.

Involvement in Archery

When it comes to how long respondents have been involved in archery, some respondents took up the sport just a few weeks prior to taking the survey, while others have been practicing for years. One respondent has participated in archery for 73 years! On average, respondents have been practicing archery for 14.2 years.

In terms of level of involvement in archery, fewer than half of the respondents (46.6%) say they are competitive archers, while 33.2% say they are involved in archery recreationally or as a hobby. One-in-five respondents (18.6%) are archery professionals such as coaches or club owners. The remaining respondents (1.6%) fit more than one of these categories, for example, a respondent who is both a competitive archer and an archery coach.

Level of Involvement in Archery

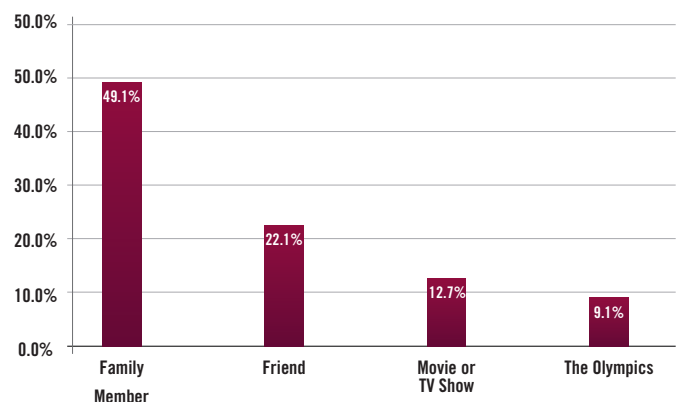


We asked respondents how much time they dedicate to archery each week. On average, respondents spend 8.6 hours on archery or archery-related activities each week. About 2% of the sample (23 respondents) report spending 50 or more hours per week practicing archery.

Pathways to Archery

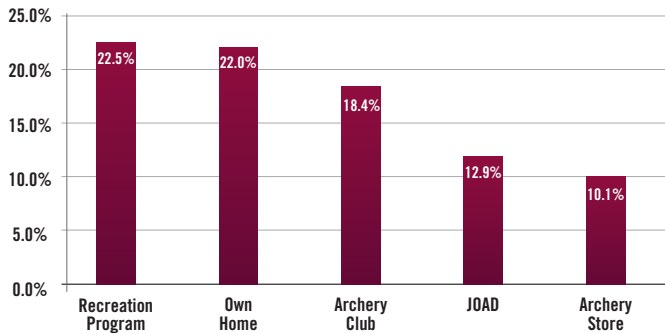
We asked survey respondents about their pathway into archery— who first helped them to get involved in archery and where they first took up the sport. Three-in-four survey participants say that a family member or a friend got them into the sport. About one-in-ten respondents say they started archery because of a movie or a television program or were inspired by the Olympics.

Inspiration to Start Archery



When asked where they first took up archery, the most popular answer is a recreation program, such as a camp, 4-H, or a parks and recreation class (22.5%). One-in-five respondents started at an archery club (18.4%) or on their own at home (22.0%). One-in-ten started at a Junior Olympic Development Program (JOAD) (12.9%) or an archery retail store (10.1%). Fewer respondents (7.7%) say they started archery through a school program.

Where Respondent Started Archery

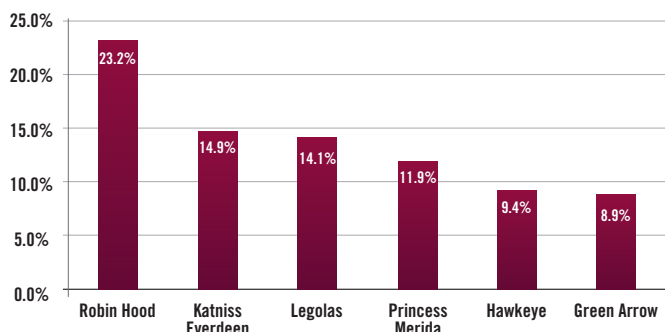


Entertainment Media and Archery

We asked survey respondents directly about the influence of film and television in their decision to take up archery. A sizeable number of respondents across age groups say that fictional archers in film and television were influential in their decision to start archery, and this is especially the case for young archers who took up the sport in the last few years.

Respondents were also asked about which film or television characters influenced them to take up archery. Across age groups, respondents said that Robin Hood (23.2%) was the fictional archer to influence their decision to take up archery, followed by Katniss Everdeen from *The Hunger Games* (14.9%), Legolas from *The Lord of the Rings* franchise (14.1%), Princess Merida from *Brave* (11.9%), Hawkeye from *The Avengers* franchise (9.4%), and Green Arrow from the *Arrow* television series (8.9%).

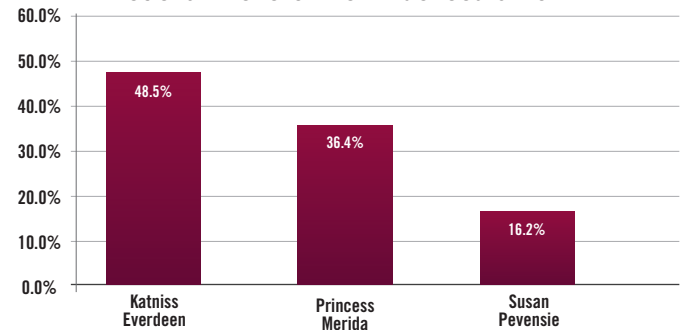
Influenced Decision to Start Archery



Susan Pevensie (7.6%) from *The Narnia Chronicles*, Neytiri from *Avatar* (6.7%), *Rambo* (4.9%) from the film series of the same name, and Daryl Dixon (4.1%) from *The Walking Dead* television series received fewer mentions as influential fictional archers.

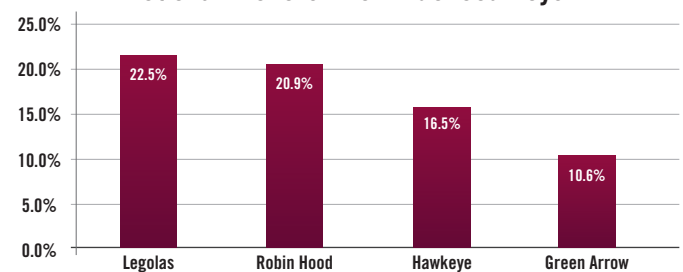
The media influence of fictional film and television archers is more pronounced for girls than other archers. Girls who joined archery after the 2012 release of the first *Hunger Games* film and *Brave* are far more likely than other respondents to say they were influenced by fictional female archers. Nearly half (48.5%) say Katniss Everdeen from *The Hunger Games* had “a lot” or “some” influence on their decision to take up archery, while one-third (36.4%) say they were influenced by Princess Merida from *Brave*. Sixteen percent were influenced by Susan Pevensie from the *Chronicles of Narnia* films.

Fictional Archers who Influenced Girls



Boys were also influenced by fictional archers in film and television in recent years, although to a lesser extent than girls in the sample. Their most influential role models are male archers. One-in-five male respondents under 18 who started archery since 2012 say Legolas (22.5%) or Robin Hood (20.9%) had “a lot” or “some” influence on their decision to take up archery. Fewer respondents were motivated to take up archery because of Hawkeye’s character in *The Avengers* (16.5%) and Green Arrow in the *Arrow* television series (10.6%).

Fictional Archers who Influenced Boys



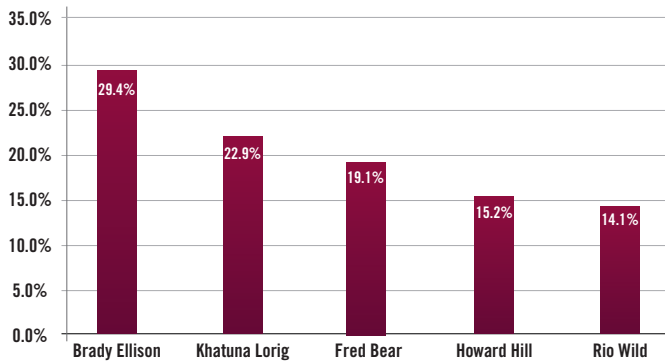
Archery Role Models

We also asked a series of questions about archery role models; real people and fictional archers in entertainment media. Respondents could name up to three people they look up to in archery. The statistics reported in this section reflect combined percentages of first, second, and third mentions of role models.

When it comes to real life archers, Brady Ellison (29.4%), Khatuna Lorig (22.9%), Fred Bear (19.1%), Howard Hill (15.2%) and Reo Wilde (14.1%) were mentioned most often as the top five archery role models. Brady Ellison was an Olympic competitor in 2008 and 2012 that holds the world record for being the highest ranked in men’s archery for the longest continuous time

period. Khatuna Lorig is an Olympic medalist who taught actor Jennifer Lawrence how to shoot a recurve bow for *The Hunger Games*. Fred Bear (1902 – 1988) was a pioneer in the bow hunting community who was immortalized in the song “Fred Bear” by his good friend, rocker Ted Nugent. Howard Hill (1899 – 1975) is one of the most decorated competitive archers as well as a celebrated writer and film producer. Reo Wilde is a compound archer who has held many world titles during his illustrious career. Nearly one-in-ten (8.3%) archers in the sample mentioned Geena Davis as one of their archery role models.

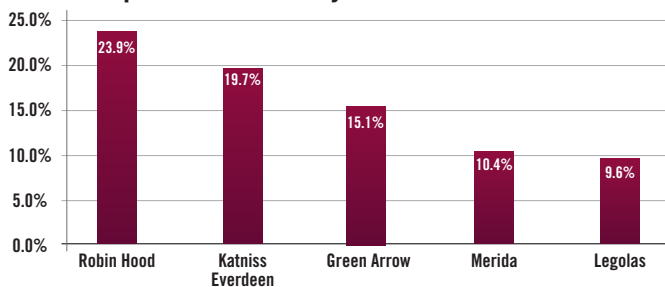
Top “Real Life” Archery Role Models



Respondents also mentioned other real life role models. One-in-four respondents (24%) mentioned their coach, while 11.7% mentioned their father and 3.4% mentioned their mother as their archery role model.

When it comes to fictional archers in film and television, Robin Hood (23.2%), Katniss Everdeen (19.7%), Green Arrow (15.1%), Princess Merida (10.4%), and Legolas (9.6%) are the top five most admired archers.

Top Fictional Archery Role Models



Research conducted by Caroline Heldman, Ph.D. for the Geena Davis Institute on Gender in Media

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- 10 See Shannon Rikard, 2013. “Archery Skills Help Students in the Classroom.” Archery Trade Association, December 18, <https://www.archerytrade.org/news/archery-skills-help-students-in-the-classroom>
- 11 We emailed a survey to the 20,200 members of USA Archery requesting their participation in the project.
- 12 This response rate of 6.8% is acceptable for online surveys. Online survey response rates tend to be far lower than mail and in-person surveys. According to Allyson Holbrook et al. (2005, “The Causes and Consequences of Response Rates in Surveys by the News Media and Government Contractor Survey Research Firms,” <http://web.stanford.edu/dept/communication/faculty/krosnick/docs/response%20rate%20in%20surveys.pdf>), surveys with response rates as low as 5% are less demographically representative, but not by much. Our sample is demographically representative of the larger population of USA Archery members.

The Geena Davis Institute on Gender in Media stands at the forefront to change gender stereotypes in children’s media and entertainment.

We are the only research-based organization working within the entertainment industry to create positive media images for women and girls in all aspects of entertainment.

Our mission is to work from within the industry to alter how girls and women are reflected in all forms of media.

We have created a groundbreaking movement, and collaboration is essential for making it all possible.

Your involvement makes a tremendous difference in allowing our three-tiered approach of research, education and advocacy to continue to influence, train, and educate key decision makers and creators in mass media.

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The Geena Davis Institute on Gender in Media at Mount Saint Mary’s University is the only research organization working collaboratively with entertainment media industry leaders to engage, educate and influence them to recognize the need for gender balance, address stereotyping and objectification and produce a wide variety of female characters for entertainment targeting children 11 and under. ©The Geena Davis Institute on Gender in Media, 2016