The Rare & Ridiculed:
Senior Citizens in the 100 Top Films of 2015

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In partnership with Humana

and

The purpose of this study was to examine the frequency and nature of senior citizens in popular film. To this end, we conducted a secondary analysis of the Media, Diversity, & Social Change Initiative's yearly report profiling every speaking or named character on screen across a variety of measures (e.g., gender, race/ethnicity, LGBT, disability).[1] Using this database, we were able to quantitatively analyze attributes of each character 60 years of age or older on screen (*n*=448) across the 100 most popular domestic movies of 2015.[2]

Additionally, we qualitatively examined all leading and supporting senior characters (*n*=117).[3] Here, the portrayal of seniors' health and wellness, leisure-time activities, relationships, and personality characteristics was captured. By assessing both quantitative and qualitative attributes, we are able to paint a detailed portrait of how senior characters (60 years or older) are depicted on screen. Six areas will be examined below, drawing on both quantitative and qualitative trends. All details of the study can be found in the footnote section of the report.

#1
What is the Demographic Profile of Senior Citizens On Screen?

Across the 100 top films of 2015, 11% of the 4,066 speaking characters evaluated for age were 60 years of age or older. This point statistic is 7.5% below U.S. Census (18.5%).[4] Like many other groups in film, seniors are also underrepresented on screen. Now, we examine the demographic profile and extent of invisibility of senior citizens in popular film.
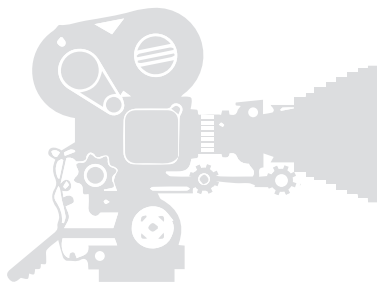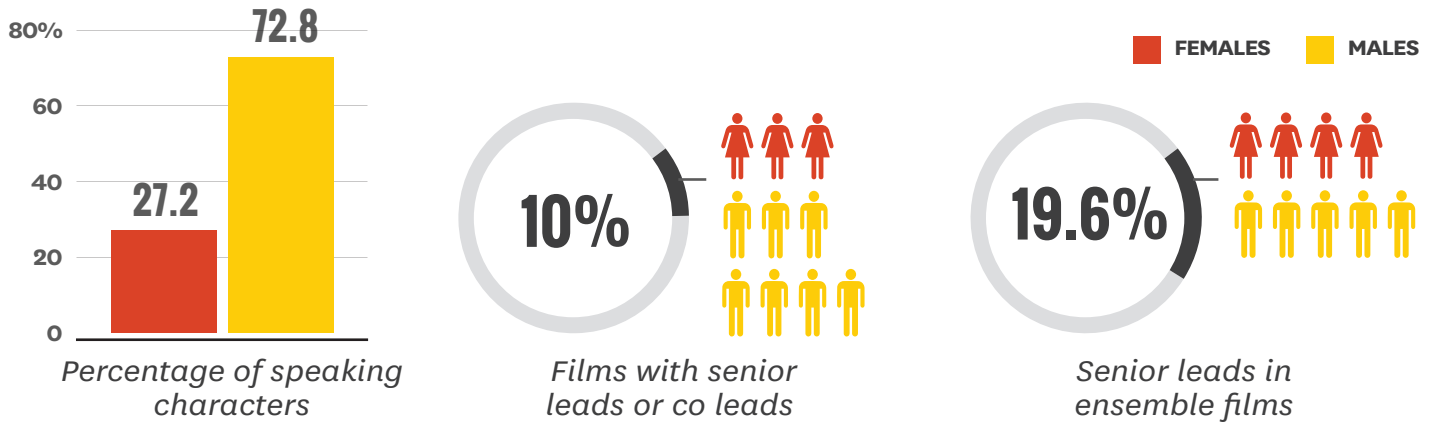
Turning to gender, a full 72.8% of characters were male (*n*=326) and 27.2% were female (*n*=122) which calculates into a gender ratio of 2.7 to 1. This latter trend is the reverse of what we might expect, as there are more senior women living longer in the U.S. (20.2%) than there are senior men (16.7%).[5] See Table 1.

Race/ethnicity was also assessed. Of those characters with enough cues to evaluate race/ethnicity, 82.1% were White, 9.1% Black, 3.6% Hispanic/Latino, and 2.7% Asian. Less than 3% of characters were from "other" races/ethnicities.

Every character was also evaluated for LGBT status. Only 2 characters 60 years of age or older were coded as gay across the entire sample of films. One of these males was White and the other Black. Both appeared in the same movie. Put differently, not one character 60 years of age or older was coded as lesbian, bisexual, or transgender across 100 films and more than 4,000 speaking roles.

Moving from all speaking characters to the leads or co leads of movies reveals other disturbing representational trends. Of the 100 top films, only 10 leads or co leads were driven by actors 60 years of age or older at the time of theatrical release. The majority of these leads were male, with only 3 filled by female actors (Meryl Streep, Helen Mirren, Lin Shaye). Clearly, all of these films had Caucasian leading ladies. Among the male leads, only 1 senior was not White (Samuel L. Jackson, *The Hateful Eight*).

Table 1
Senior Characters by Gender

80%

72.8

60

40

27.2

20

0

Percentage of speaking characters

10%

Films with senior leads or co leads

FEMALES   MALES

19.6%

Senior leads in ensemble films

NUMBER OF FILMS WITHOUT ANY:

7	43	14	43	78	47
Senior characters	Females 60 and older	Males 60 and older	Leading or supporting seniors	Leading or supporting females 60 and older	Leading or supporting males 60 and older

Note: The percentage of senior leads in ensemble films is calculated out of the 46 characters appearing as leads across 11 movies with ensemble casts.

2015 was a good year for seniors in ensemble films. Of the 46 characters across 11 movies with 3 or more leading parts, a full 19.6% of roles were filled with senior citizens. This percentage was driven up by two films with ensemble casts, *Second Best Exotic Marigold Hotel* and *Love the Coopers*. While the inclusion of older actors in lead roles is a step in the right direction, all nine of the ensemble actors were Caucasian.

While the previous analysis examined all speaking characters and leading roles, we were also interested in how many films featured characters 60 years of age or older close to the U.S. Census point statistic. We operationalized proportional representation as +/-2% from 18.5%. Only 5 movies of 100 depict seniors at or close to the U.S. population estimate.

Additionally, seven films did not depict any senior characters, which varied when we assessed more closely by gender. Senior males were missing from 14 movies whereas senior females were missing from 43. Leading and supporting senior characters were absent from 43 films. Senior male leads and supporting characters were not shown in 47 films and senior female leading and supporting characters in 78 movies. The representational roadblock is far more pronounced for senior women and people of color, as we will see repeatedly throughout this report.

Summing up, the findings show that seniors on screen are an endangered species in cinematic storytelling. This is particularly true of characters 60 years of age or older that were women, people of color, or the LGBT community. This pattern of oppression continues as we will see with occupation patterns in the next section of the report.
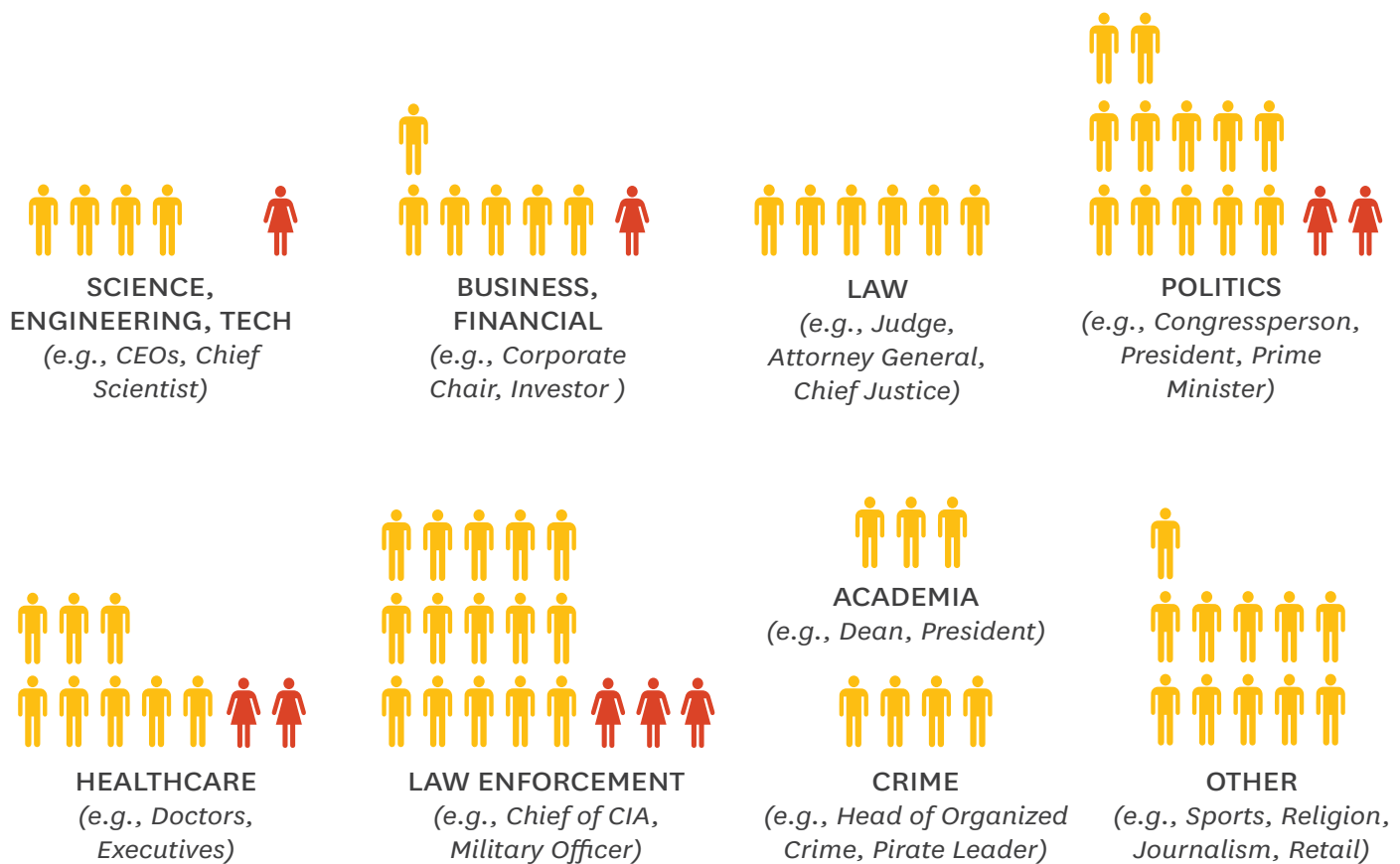
#2
What is the Employment Profile of Senior Citizens On Screen?

A full 61.6% (*n*=276) of all senior speaking characters were depicted with a job.[6] Looking at the breakdown by age, 73.9% of 60- to 64-year olds were employed and 55.3% of characters 65 years of age or older. Gender revealed a major gap, however. 70.6% of senior males were shown working and only 37.7% of senior females. This leaves very few role models with powerful occupations for female viewers.

The nature of jobs was evaluated as well. Here, we qualitatively coded every occupation into a major sector (e.g., Business/Financial, Law, Academia, Politics) and then looked at those characters holding the most clout or prestige within each area. In terms of influence, a full 28.3% or 78 seniors were working at the top or near top of a variety of sectors. For presentational purposes, only those sectors with at least 3 characters featured in high clout positions are mentioned in the table below. Those with less than 3 are grouped into "other."

Table 2
Occupational Clout of Employed Senior Characters by Gender

SCIENCE, ENGINEERING, TECH
(e.g., CEOs, Chief Scientist)

BUSINESS, FINANCIAL
(e.g., Corporate Chair, Investor)

LAW
(e.g., Judge, Attorney General, Chief Justice)

POLITICS
(e.g., Congressperson, President, Prime Minister)

HEALTHCARE
(e.g., Doctors, Executives)

LAW ENFORCEMENT
(e.g., Chief of CIA, Military Officer)

ACADEMIA
(e.g., Dean, President)

CRIME
(e.g., Head of Organized Crime, Pirate Leader)

OTHER
(e.g., Sports, Religion, Journalism, Retail)

Note: Only senior characters working at the top of each sector hierarchy were included in Table 2. Multiple sectors featured less than 3 characters and thus were grouped into "other." Sectors represented in other include media, journalism, religion, sports, production/manufacturing, travel/hospitality, and retail/sales.

As shown in Table 2, power and privilege is unmistakably a senior male activity. Across all sectors, senior males held 69 of the most prestigious posts on screen whereas senior females held 9. This is a gender ratio of 7.7 to 1. Further, 83.1% of clout based positions were filled by seniors that were White and 16.9% were filled by seniors that were from underrepresented racial/ethnic groups (9 Black, 3 Asian, 1 Other). Not one senior citizen that was Hispanic/Latino held an esteemed occupation across the entire sample.

A few comments are in order about the patterns shown in Table 2. Females were notably absent from the halls of authority in law, academia, organized crime, and a variety of other sectors including, but not limited to, journalism, media/arts/entertainment, retail/sales, and travel/hospitality. Given that three female justices are members of the U.S. Supreme Court, art is clearly not reflecting life.

Politics were another area where filmmakers failed to include senior females in their imagination of executive or legislative power. A full 12 character portrayals involved senior men imbued with political clout as Presidents, Prime Ministers, and U.S. Representatives. Four of these 12 were royals or rulers (e.g., King, Grand Duke, Tribal Chief), a role not filled by one senior female. The only two women shown in powerful political roles were fleeting and inconsequential news footage of U.S. Representative Maxine Waters and former U.S. Delegate from the Virgin Islands Donna Christian-Christensen.

Finally, few females work at the top of healthcare ranks or science, engineering, and/or technology. In terms of healthcare, the two senior women were depicted as doctors (i.e., medical, psychiatric). Sigourney Weaver's role in *Chappie* was the only senior female shown in a clout based position (CEO of Robotic Factory) in science, engineering, and/or technology. Depicting only a token senior female is problematic for a variety of reasons, particularly if the same actor is reprising her familiar SET role across films (see *Alien, Avatar, Ghostbusters 2016*). Interestingly, there were only 7 senior characters shown in science, technology, engineering, and math (STEM) jobs and not one was filled with a female character!

Taken together, our findings show that film narratives bestow occupational honor and influence to seniors that are White and male. This trend illuminates, once again, a lack of creativity and ability to write roles for women and people of color as role models on screen. As we will see in the next section, these stereotypes are not limited to occupations but spill over to health and wellness involving characters 60 years of age or older.

#3
What is the Health & Wellness Profile of Seniors On Screen?

Only 10.5% (*n*=47) of all senior speaking characters 60 years old and above were shown with health-related issues.[7] Most of these health problems were the territory of senior men (76.6%) rather than senior women (23.4%). Further, all but three portrayals (6.5%) involved White characters 60 years of age or older. These results reveal that film fails to depict the realistic health realities of women and people of color.

Each health-related issue was categorized qualitatively into one of four mutually exclusive areas.[8] Over half (59.6%) of depictions revealed physical, communicative, or mental impairments, including, but not limited

Table 3
Health-Related Issues of Senior Characters

23.4%
Illness

10.6%
Recovering from Aggression

6.4%
Hospital or Therapy

59.6%
Physical, Communicative, or Mental Impairments
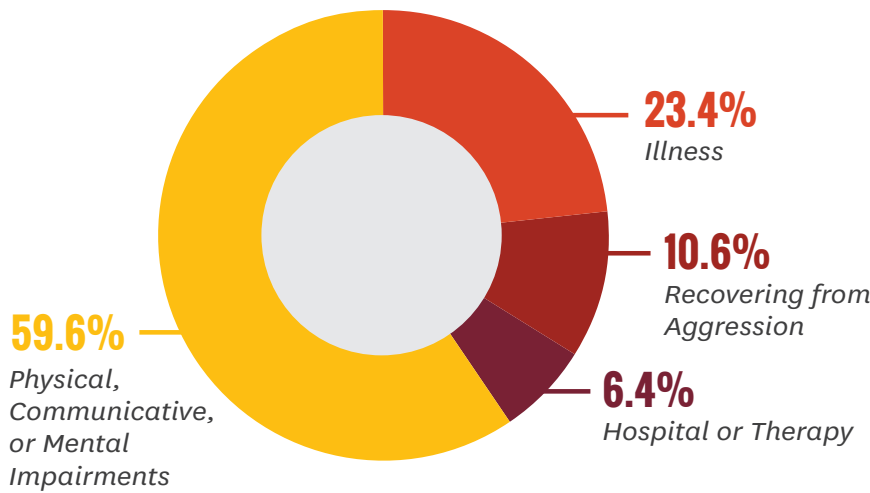
Note: Chart represents the 47 characters aged 60 and above who appeared with a health issue across the plot. Percentages total to 100%.

to, mobility restrictions, partial or full blindness, pain management, dementia, and depression. Nearly a quarter (23.4%) pertained to illness, in the form of cancer, the fatal effects of poisoning on different parts of the body, stroke, as well as other non specified but fatal conditions. 10.6% of seniors were shown recovering from non-fatal accidental or intentional acts of aggression. Three characters (6.4%) were shown in the context of a hospital or therapy session with little or no information about why they were seeking immediate or over-time treatment.

A small percentage (27 of 448 or 6%) of the characters 60 years of age or older were shown using assistive devices and/or receiving medicinal care.[9] Wheelchairs, canes, mobility scooters, and prosthetic devices were used by 14 senior characters. Eleven senior characters were depicted taking their medication, receiving an intravenous drip, or oxygen. Two seniors were featured with both of the above categories.

Overall, only 10.7% (*n*=48) of senior characters died across the context of the story.[10] The number one cause of death among characters 60 years of age or older was violence. A full 79.2% of senior characters died as the result of physical acts of aggression (i.e., shot, stabbed, crushed). Only 16.7% of characters (*n*=8) died of natural or non-specified causes. Two seniors died as the result of accidental violence (i.e., hit by a truck in the street, earthquake). As shown in Table 4, the leading causes of death in film among seniors are completely out of sync with the health realities facing this group in the U.S.[11]

Table 4
Major Causes of Death: Seniors in Film vs. U.S.

100 TOP FILMS	U.S.
1. Violence	1. Heart Disease
2. No Specific Cause Given	2. Malignant Neoplasms
3. Accidents	3. Chronic Lower Respiratory Diseases

Note: Table represents the 48 characters aged 60 and above who died across the course of the plot.

In general, the results of this section show that senior citizens suffer few health complications. The vast majority are depicted without illness, impairment, or incapacitation. Given this profile, we were curious about the types of leisure-time activities and living arrangements of seniors on screen. Both of these areas will be addressed next.

#4
What is the Leisure-Time Profile of Seniors On Screen?

Every leading and supporting character was evaluated for leisure-time activities. Leisure activities were those that took place outside of employment and were not chores or daily life activities involved in caring for the self and/or home. Overall, 74.4% (*n*=87) of the leading and supporting characters age 60 and over participated in a leisure activity. Specific types of leisure activity were assessed, and are detailed below. See Table 5.

One-third of seniors (33.3%, *n*=39) pursued interests or hobbies (i.e., knitting, gardening, golf, watching sports) and 38.5% (*n*=45) attended events (i.e., weddings, charity galas, funerals). A much smaller percentage of se-niors were volunteers (7.7%, *n*=9). Volunteer work across the films studied ranged from interning/assisting at an established business to serving food to the homeless and Christmas caroling at a senior home.

Table 5
Leisure-Time Activity of Senior Characters
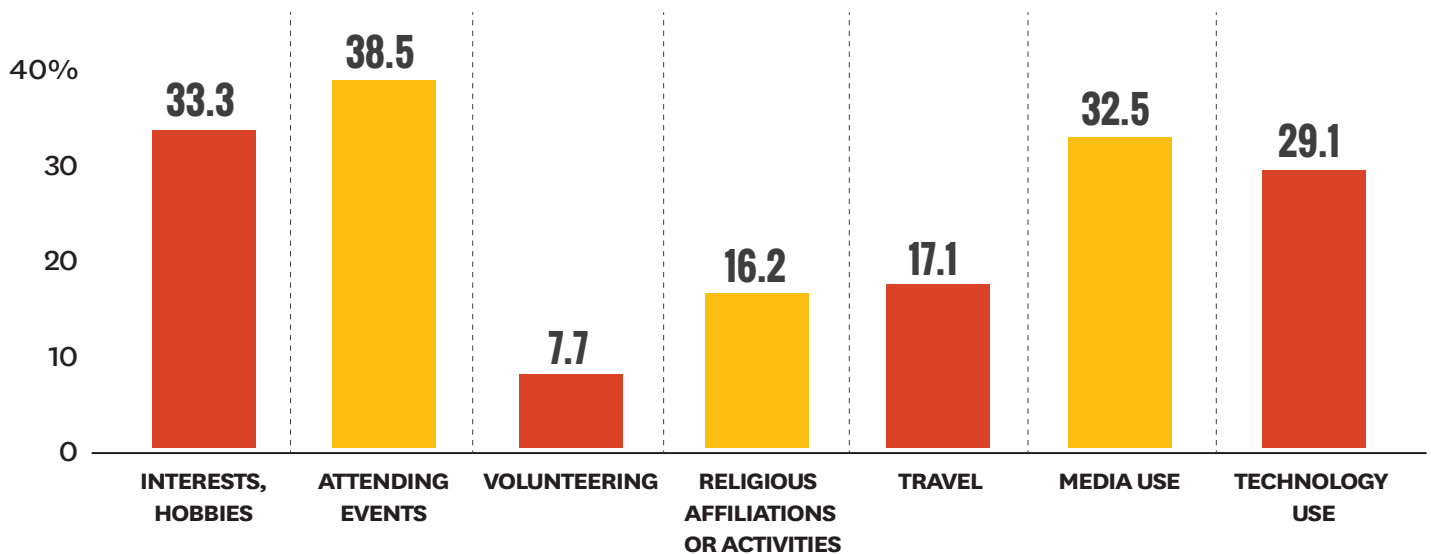
Note: Percent out of the 117 leading and supporting characters aged 60 and above. Subtracting each percentage from 100% reveals the percent of characters not shown with a particular leisure-time activity.

Religious affiliation and actions related to religion were also assessed. Whereas 65% of Americans age 65 and older say that religion is "very important" to them, only 16.2% (*n*=19) of the supporting or main characters age 60 or over in film demonstrated religious activities or affiliations.[12] Travel was also undertaken by a small pro-portion of older characters during their leisure time. Close to one-fifth (17.1%, *n*=20) of the characters 60 years of age or older evaluated traveled some distance during the unfolding narrative. This included trips that were central to the story (i.e., *A Walk in the Woods*) and more unexpected travel (i.e., *Ricki and the Flash*).

Media and technology use were also included as leisure-time activities. Of all main and supporting senior char-acters, 32.5% (*n*=38) engaged in media use (i.e., television, films, books, periodicals). Within this group, 63.2% of characters were shown watching television. TV is a popular leisure activity for older adults. Individuals 65 and older in the U.S. spend over 50 hours per week watching television.[13]

News and informational programming were a prominent focus of media use by film characters. Of those characters using media, 60.5% were shown watching news (including sports news) or reading a newspaper. Older characters in film seem to be utilizing media for news-gathering and information rather than for entertainment purposes.

Less than one-third (29.1%, *n*=34) of lead and supporting characters 60 years of age or older engaged with technology in film. This was broken down into several types of technology use. First, 44.1% of characters using technology (*n*=15) used video chat platforms, tablets, laptops, conducted internet searches, or other types of technology. Second, 29.4% (*n*=10) of characters shown with technology use made calls and/or used apps on a cell phone as well as engaged with other devices or tech tools. Third, 14.7% (*n*=5) of senior characters used cell phone applications for activities like texting and even taking selfies but did not make or receive calls. Finally, the percentage of characters using a cell phone *only* for making or receiving calls was 11.8% (*n*=4). To put the technology use figure in context, 74% of older Americans (65 and up) owned a cell phone in 2014[14] and 58% of American seniors 65 and older used the internet in 2015.[15] However, on screen most individuals 60 and older were not shown with technology.

Given the discrepancy between American seniors' actual leisure-time activities and what is depicted in film, it was important to examine the living arrangements and cognitive capabilities of characters. Each leading and supporting character's cognitive function was assessed. Overwhelmingly, individuals age 60 and above in film are of sound mind, with 95.7% demonstrating no cognitive restrictions or impairments. A mere 4.3% demonstrated minimal to severe cognitive impairment. Additionally, characters' ability to care for themselves was evaluated. A majority (89.7%) of characters live independently, with just 10.2% facing some degree of restriction from minimal to severe.

The findings above reveal that older characters in film are able to engage in leisure-time activities from a cognitive and independence standpoint. However, few characters demonstrated established leisure-time behaviors such as engaging in hobbies, pursuing interests, and/or attending events. Media and technology use among older film characters also fell far below what might be expected given the diffusion of mobile and internet technologies in the U.S. Thus, the portrait of seniors in film is one that bears slight resemblance to the activities and interests of their real-world counterparts.

#5
What is the Personality Profile of Seniors On Screen?

The profile of leading characters on screen was examined with regard to the types of stories that are told. The 9 leading characters were categorized based on their overarching stories. Although there were 10 actors age 60 or above at the time of theatrical release in a lead or co lead role across the films, one portrayed a character intended to be middle-aged during the movie (e.g., *McFarland, USA*). The individual is shown at age 60 or above for a few brief moments at the end of the film. For this reason, the role and story of this lead character was not assessed.

Two types emerged. First, six characters were thrust into a problem or tragedy. These individuals were forced by the narrative to solve their problem, whether stemming from an external force or even from their own choices and history. Three characters were the protagonists of their own journeys, and served as the central force in the plot. These individuals were squarely seeking something. One was intent on filling an emptiness in his life. Another was attempting to find new adventure. A third sought to restore something that had been taken in the past. All are examples of complex senior characters in charge of their own lives and stories.

Secondary and ensemble characters were evaluated for their role in the story and their personality. Using information on relationships, character attributes, and actions in the story, each individual was placed into one of five mutually exclusive categories.[16] These domains reflect prototypical roles that are held by seniors in film.

The first prototype was the *Pillar*. These characters were defined by the relationships they exemplify and the support they provide to the main character. In general, these individuals provide tangible or emotional aid to others in the story and comprise a positive prototype. This group is the largest, with 30.8% (*n*=36) categorized here. Over half (52.7%) of this group was female, illustrating the view that Hollywood typically takes of older women as supportive relatives and friends.

The *Pillar* prototype contains three subgroups. The first consisted of the 16 characters who are *parental figures* (i.e., mother, father, grandparent, aunt/uncle, or surrogate parent). The second contingent included the 10 characters who serve as *partners* (i.e., love interest or spouse). This group was overwhelmingly female, with 7 older women receiving this distinction. The third set represented 10 individuals who were the *peculiar* characters. These characters were supportive and/or helpful, while also having odd or eccentric mannerisms or speech. This category also included supportive characters with cognitive impairments.

The second set of characters were the *Meddlers*, a prototype which can be both positive and negative. These individuals may serve as the voice of reason, or may be a plot device to reveal information or push the story forward. To that end, they may propel the action of the main character. Or, they may offer opposition throughout the plot until there is a moment of acceptance or acquiescence to the hero's aspirations. Of all the senior secondary and ensemble characters, 18.8% (*n*=22) fit into this category. This category primarily featured men, with 68.2% males and 31.8% females.

Third, 16.2% (*n*=19) of characters comprised the *Experts* category. This prototypical character is defined almost solely by their occupational role, and is relied upon for their expertise or position. These characters may have few or no relationships outside the workplace. Although generally positive, some of these characters do not support the main character's actions or journey and may even be grouchy or cranky. Males comprised 89.5% of the roles in this category, with just 10.5% (*n*=2) going to females.

The fourth prototype, which encompassed 14.5% (*n*=17) of characters, was the *Scrooge*. This negative category includes individuals who were greedy, selfish, caustic, critical, or deceitful. While not the primary antagonist of the story, these characters oppose or chastise others. Older women were 23.5% of these characters versus 76.5% of older men.

Fifth and finally, 11.1% (*n*=13) of characters filled the *Wicked Overlord* domain. These individuals were the villains or henchmen in the story, acting as the central force opposing the protagonist. Two broad categories of indi-

viduals filled these roles. They led organized crime at an intergalactic, global, federal, state, or local level. Or, characters might be mentally ill and use violence to accomplish their goals. Just 15.4% of the individuals in this prototype were women.

The prototypes above reveal how storytellers view older individuals. First, they are rarely depicted as the masters of their own stories or destinies. Even as leads, only one-third were featured in narratives built around attempting to achieve a desire or goal. Second, there was a clear split that runs along gendered lines. Males were more likely to appear in roles that are defined by occupation or opposition to the main character. Females were most likely to appear in supporting roles that are defined by relationships. In conjunction with the evidence presented in earlier sections, it is clear that individuals crafting these stories hold a narrow view of the personalities, relationships, and abilities of characters age 60 and above. This becomes even more evident in the next section.

#6
How Much Ageism Surrounds
Seniors On Screen?

Finally, the presence of ageist comments was explored across the 57 movies with a leading or supporting senior character. An ageist reference was defined as a comment or nonverbal response to age or negative attributes typically associated with the aging process or the life of a senior. The references could derive from the senior or another character.

A total of 30 or 52.6% of the films with a leading or supporting senior (n=57) featured at least one ageist comment. Qualitatively, we sifted the comments into multiple categories. The first pertained to general comments that referenced age. These comments were found across 21 movies (70%). Examples include:

"Old-ass gangster."

"That senior bus was running late, huh?"

"You are nothing but a relic from a deleted timeline."

"We're about to give these old bitches a nice little serving of youth."

"Considering she's actually a terrible old witch."

It must be noted that multiple references to "old man" appeared across the films, which we coded as ageist because referring to other identity groups (gender, race/ethnicity, sexual orientation, or disability) in this way would be considered demeaning.

The second category pertained to general statements about health and movement, with 50% of films with a leading or supporting senior character in this category (n=15). Instances that fit this category included:

"I mean, I saw that punch coming a mile away, but I just figured it'd be all pathetic and weak."

"Would you mind helping a frail old woman?"

"They're old, Tyler. Old people have trouble with their bodies sometimes."

"I'm too old to run."

"Careful. You'll never get back up again."

Such comments stand in opposition to what was depicted in the films, as 95.7% of the leading and supporting characters were depicted engaging in some form of physical activity (e.g., walking, dancing, fighting, running).

Third, 11 films or 36.7% featured ageist comments about cognition (mental, memory) or sense organs (hearing, smell). For example, the statements in the films include, but are not limited to:

"Don't let him rile you up. He's just a senile old man."

"You believe this senile horseshit?"

"You left the front door open, Hank. It's official. You're old."

"Wow, what was your major? Do you remember?"

"They're old. They--They won't hear anything."

These comments diverge from what we see on screen. As noted above, the vast majority of leading and supporting senior characters (96%) in the sample have no cognitive limitations.

Fourth, 13.3% (*n*=4) films featured a death-related comment. Examples of this category are:

"Dr. Pym? Yes. I'm still alive."

"Certain people would like me to hurry up and die."

"...and Sonny takes a roll call every morning. A most valuable precaution,

to ensure that nobody has died in the night."

"How much time do you have?"

Seven films featured a smattering of other comments (23.3%) spanning across different topics. Ageist comments emerged with regards to appearance ("Okay, Dad, put 'em [dentures] back in before we all barf," "Inform this old cracker that I was in Baton Rouge also," "Well, you're still in one slightly sagging piece, I see."), money ("What a busy little pensioner bee she is."), and tradition ("Also, don't feel like you have to dress up. Well, I'm comfortable in a suit, if it's okay. No, it's fine. Old-school.").

Given that ageism can occur by both in-group and out-group members, the prevalence of self vs. other comments was assessed. Nine films (30%) of the thirty contained only an other-originated comment. Seven films (23.3%) contained only a self-originated ageist comment. However, 46.7% (*n*=14) contained both self- and other-originated remarks related to age. Clearly, screenwriters are crafting dialogue around the idea that age and aging are worthy of remark and ridicule.

CONCLUSION

The purpose of this research study was to examine the prevalence and portrayal of characters age 60 and over in popular film. The results demonstrate that the reality of aging in America is a cinematic fantasy.

SENIORS ARE RARELY SEEN IN FILM

Only 11% of speaking characters were 60 years of age or older, despite currently representing 18.5% of the population. Older women in film are outnumbered at a rate of 2.7 to 1 compared to their older male counterparts, once again in contrast to population norms. Additionally, the majority of characters were White, and only 2 were LGBT. This means few portrayals of individuals from underrepresented racial/ethnic groups or the LGBT community are seen at older ages. Only 10 films featured an actor 60 years of age or older in a leading or co leading role. As is the case with many other groups, film simply does not present a picture of the world in which we live.

SENIORS FACE A GENDERED JOB MARKET

The distinction between reality and fantasy is even sharper when it comes to jobs. Over 60% of characters 60 years of age and older were shown with a job, and the majority of these characters (70.6%) were male. Examining the sectors and prestige of film-based employment also reveals a stark disparity. Highly accomplished senior females in positions of power and authority were rare, with just 9 women in these roles. In comparison, there were 69 older male characters with a high-clout occupation. Female role models for younger *and* older viewers were difficult to find in film.

SENIORS ARE HEALTHY, BUT HAVE LIMITED LEISURE ACTIVITIES

The health profile of on screen seniors was also skewed. Few characters age 60 and older faced health concerns, while the majority had no cognitive limitations and were able to live independently. This did not translate into greater activity for seniors, however. The leisure pursuits of leading and secondary characters were limited, especially with regard to technology use and travel. These patterns are further reflected in the prototypical roles played by seniors, which were defined by their relationships and occupations. Thus, film reflects a fraction of the pursuits and concerns of individuals age 60 and older.

SENIORS ARE RIDICULED IN FILM

While the representation of seniors is one problematic aspect of film, the language used to discuss aging is even more troubling. Ageist comments appeared in slightly more than half of the films with leading or supporting senior characters. These comments and the negative phrases about age that were used in films may prime stereotypes or negative images related to aging. Among seniors, problematic stereotypes about age can have an adverse short-term influence on various outcomes, such as cardiovascular stress, memory exercises, or even handwriting.[17] Though comments like those catalogued in this study may be intended to be humorous, the effects are anything but. The ageist comments identified in this sample would certainly be unacceptable were they referencing another marginalized group. Even more importantly, viewing such comments may have deleterious effects on some audience members.

A few limitations of the study must be noted. First, the analysis of leading and supporting characters was qualitative in nature. Scholars using more quantitative measures may reveal additional or slightly different results. Second, only the 100 top films of 2015 were examined. A larger or longitudinal sample may offer more robust findings or trends in portrayals over time. We encourage researchers to assess additional content to determine if the data presented here represents a broader sample of media. Finally, the effects of viewing portrayals of characters age 60 and above must be examined. While other researchers have investigated the effects of viewing television,[18] looking to the outcomes related to film consumption may be informative.

Overall, the portrait of seniors in film bears little resemblance to the reality of many individuals age 60 and above. As the nature of aging changes with the advent of new technology, advancements in medicine, and accessibility of leisure activities, film must keep pace. Viewers of all ages should be able to see the vibrant, diverse community and experiences of older adults in the U.S. reflected on screen.

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FOOTNOTES

1. This is a secondary analysis of the Media, Diversity, & Social Change Initiative's yearly report. All information pertaining to the sample, unitizing, measures, training, and reliability can be found in the 2016 report, which is featured on the MDSC Initiative website (http://annenberg.usc. edu/ pages/DrStacyLSmithMDSCI). Only new measures pertaining to the qualitative aspects of the study were included here.

2. To determine age, our evaluators sorted each character into one of five age categories: child (0-5), elementary schooler (6-12), teen (13-20), young adult (21-39), middle aged (40-64), and elderly (65 or older). As noted in our yearly report, age based coding was reliable. For this project, we revisited every age judgment of middle aged and elderly characters. Using online databases such as IMDbpro.com, Variety Insight, Studio System, as well as other information presented online, we looked up the birthday of all individuals playing characters within these two age brackets. If an actor was playing a character with a similar age, we used the thespian's date of birth to determine his/her chronological age. When actors aged up or down, the age of the character was used. If the actor's age was not available, a judgment of apparent age was rendered.

3. A series of qualitative assessments were made across all characters 60 years of age or older. First, a total of five measures captured additional information about every senior character (*n*=448) that spoke or was referred to by name across the 100 top films. Those five measures tapped attributes of occupations, health, whether the character lived or died, the use of assistive devices or medication, and physical appearance. Re watching all of the films in the sample, at least two coders evaluated each of these attributes, took detailed notes, and discussed their final answers with an adjudicator. After discussion, the judgment was entered into the data file.

For all primary and secondary characters 60 years of age or older (*n*=117 across 57 films), a qualitative code book was developed to tap major areas of seniors' lives on screen. Those areas include, but are not limited to, health (e.g., cognitive functioning, physical activity, independent living), relationships (e.g., romantic, familial, collegial), concerns (e.g., safety, health, financial), leisure-time activities (e.g., hobbies, religion, media use, technology, travel), and ageist comments. The code book asked evaluators to answer in depth a series of specific questions. Two evaluators assessed each film and their disagreements were discussed with one of the members of the MDSC Initiative leadership team prior to creating a final file for each character. Due to the qualitative nature of the approach to coding, reliability was not calculated. As such, all results of qualitative coding should be interpreted with caution.

In terms of age, the 448 characters coded 60 years of age or older can be further dichotomized into two groups: 60 to 64 year olds (*n*=153 characters, 3.8%) and 65 years of age or older (*n*=295 characters or 7.2%).

In the qualitative analysis, demographic changes were removed for characters age 60 and above. Five characters were depicted as both age 60-64 and 65 and older. If those were included, the overall number of characters evaluated for the qualitative analysis would increase to 122. For the qualitative analysis, each character was only evaluated once at age 60 and above, even if they appeared as both 60-64 and 65 or older.

4. U.S. Census Bureau (n.d.). Age Groups and Sex: 2010. Available: https://factfinder.census.gov/faces/tableservices/jsf/pages/productview. xhtml?pid=DEC_10_SF1_QTP1&prodType=table

5. U.S. Census Bureau (n.d.). Age Groups and Sex: 2010. Available: https://factfinder.census.gov/faces/tableservices/jsf/pages/productview. xhtml?pid=DEC_10_SF1_QTP1&prodType=table

6. For each senior, coders were asked whether the character had a job (no/yes). If the answer was yes, they were instructed to provide details about the occupation as well as whether the character was an expert or notable figure in their field. Using the descriptive responses, each character was coded into one of 20 sectors and then assessed for clout or status within that particular industry. We used a modified scheme that we applied to assess occupational sector and clout across 129 top-grossing films theatrically released between 2006 and 2011 as well as 120 movies from the top 11 markets worldwide. Please see those reports for more information on not only how we code films for occupation but also how we have qualitatively and quantitatively approached these measures in the past. See: 1) http://annenberg.usc.edu/pages/~/media/MDSCI/Gender%20 Bias%20Without%20Borders%20Executive%20Summary.ashx, 2) http://annenberg.usc.edu/pages/~/media/MDSCI/Gender%20Roles%20 %20Occupations%20Short%20Report.ashx, and 3) http://annenberg. usc.edu/pages/~/media/MDSCI/Occ%20Aspirations.ashx.

7. Coders were asked if the character was featured with any health-related issue (no/yes). If yes, they were asked to describe any short or long-term issues related to a character's well-being.

8. The descriptive responses were read through by one of the study authors and categorized into 6 major categories: recovery from aggression or accidents (i.e., trauma to body), living with physical illness (i.e., systems of the body compromised by some sort of disease), living with physical or communicative impairments (i.e., loss of limb, blindness, deafness), living with mental illness or a cognitive impairment (i.e., neurological or cognitive restrictions such as dementia, Alzheimer's), physical and/or mental complications (i.e., two or more impairments were depicted), or non-specific complications (i.e., character faces health complications but details are not provided). During analysis, all impairments were grouped into one category: physical, communicative, and/or mental impairment.

9. For each senior character, coders were asked whether they were shown with an assistive device or taking medication. Medication could be oral or via an intravenous drip. Each assistive device was depicted and/ or mentioned one or more times: cane, wheelchair, mobility scooter, eye patch, sling, prosthetic hand, and knee replacement. In terms of medicinal care, the following appeared at least once across the sample of senior characters: chemotherapy, oxygen tank, breathing apparatus, inhaler, IV drip, pills, marijuana, and powdered substance for open wounds.

10. Each character was evaluated for whether they lived or died across the context of the plot. For those seniors that died, coders were asked to describe the cause of death. The open-ended responses were coded into one of 4 categories: 1) violence (i.e., death is the result of behavioral act of force, with or without an object, designed to harm character; could be inflicted by self or other); 2) natural causes (i.e., death is the result of the natural aging process; does not include disease or other illness); and 3) accidents (i.e., death results from non-intentional use of force by another character or acts of nature).

11. National Center for Health Statistics (2014). *Table 20. Leading causes*

of death and numbers of deaths, by age: United States, 1980 and 2014.
Centers for Disease Control and Prevention. Available: http://www.cdc.
gov/nchs/hus/contents2015.htm#020

12. Pew Research Center (n.d.). Importance of religion in one's life among
adults ages 65 and older. *Religious Landscape Study*. Available: http://
www.pewforum.org/religious-landscape-study/age-distribution/65/

13. Nielsen Media Research (2016). *The Nielsen Total Audience Report: Q1
2016*. Available: http://www.nielsen.com/us/en/insights/reports/2016/
the-total-audience-report-q1-2016.html

14. Pew Research Center (2014). *Cell owners in 2014*. Available: http://
www.pewinternet.org/fact-sheets/mobile-technology-fact-sheet/

15. Pew Research Center (2015). *Internet usage by age*. Available:
http://www.pewinternet.org/2015/06/26/americans-internet-ac-
cess-2000-2015/#internet-usage-by-age

16. To determine the prototypes, the three primary authors (Pieper,
Smith, Choueiti) identified whether characters were depicted with a job,
the number and nature of their relationships, the primary domains of
personality, and the character's actions in the story. All supporting and
ensemble characters (*n*=107) were sorted into the prototypes. This was
done by qualitatively grouping characters who were similar across the
domains identified, particularly their role in the story. Using this sort, the
nature of each prototype was assessed and distinctions made.

17. For review, see Levy, B.R. (2003). Mind matters: Cognitive and physical
effects of aging self-stereotypes. *Journal of Gerontology: Psychological
Sciences, 52B*(4), p. 203-211.

18. Donlon, M.M., Ashman, O., & Levy, B.R. (2005). Re-vision of older tele-
vision characters: A stereotype-awareness intervention. *Journal of Social
Issues, 61*(2), p. 307-319.

LIST OF FILMS IN THE 2015 SAMPLE

Star Wars: The Force Awakens
Jurassic World
Avengers: Age of Ultron
Inside Out
Furious 7
Minions
The Hunger Games: Mockingjay -
    Part 2
The Martian
Cinderella
Spectre
Mission: Impossible – Rogue Nation
Pitch Perfect 2
The Revenant
Ant-Man
Home
Hotel Transylvania 2
Fifty Shades of Grey
The SpongeBob Movie: Sponge Out
    of Water
Straight Outta Compton
San Andreas
Mad Max: Fury Road
Daddy's Home
The Divergent Series: Insurgent
The Peanuts Movie
Kingsman: The Secret Service
The Good Dinosaur
Spy
Trainwreck
Creed
Tomorrowland
Get Hard
Terminator: Genisys
Taken 3
Sisters
Alvin and the Chipmunks: The Road
    Chip

Maze Runner: The Scorch Trials
Ted 2
Goosebumps
Pixels
Paddington
The Intern
Bridge of Spies
Paul Blart: Mall Cop 2
The Big Short
War Room
Magic Mike XXL
The Visit
The Wedding Ringer
Black Mass
Vacation
The Perfect Guy
Joy
Fantastic Four
The Hateful Eight
Focus
Southpaw
Insidious Chapter 3
Poltergeist
Jupiter Ascending
Sicario
The Man From U.N.C.L.E.
Spotlight
McFarland, USA
The Gift
Everest
The Night Before
Krampus
Max
The Age of Adaline
Brooklyn
The Longest Ride
The Boy Next Door
Pan

Hot Pursuit
Concussion
The DUFF
Woman in Gold
The Second Best Exotic Marigold
    Hotel
Unfriended
Entourage
Paper Towns
Chappie
Crimson Peak
A Walk in the Woods
Point Break
Sinister 2
The Last Witch Hunter
No Escape
Ricki and the Flash
The Woman in Black 2: Angel of
    Death
Run All Night
Love the Coopers
The Lazarus Effect
Ex Machina
In the Heart of the Sea
The Gallows
Hitman: Agent 47
Project Almanac
Black or White
Aloha