



MOTION PICTURE ASSOCIATION OF AMERICA

# THEATRICAL MARKET STATISTICS

## 2016

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Dear Fellow Movie Fans,

2016 was another strong year for the global box office.

Audiences around the world flocked to action-packed thrillers like *Captain America: Civil War*, *Ghostbusters*, and *Star Trek Beyond*; they traveled back into the magical world of Harry Potter with *Fantastic Beasts and Where to Find Them*; and rejoined some of the most beloved animated characters in *Finding Dory*.

This year, films like *Hidden Figures* and *Jackie* introduced us to heroes – and heroines – in new, untold ways. *Moonlight* and *Loving*, among others, presented challenging questions about our society and history, while the animated antics of *Zootopia* and *The Secret Life of Pets* had families laughing out loud.

The global box office receipts of these films and the hundreds more released in 2016 reached \$38.6 billion, an increase of one percent from the previous year. In the United States and Canada, the box office rose two percent to hit \$11.4 billion.

Even with an incredible variety of viewing choices available to audiences, cinema remains *the* premier way to experience the magic of our movies. And the good news is, there are positive signs for greater growth in the future.

In 2016, more young people and diverse populations went to the movies. Audiences between the ages of 18 and 24 attended an average of 6.5 movies over the course of the year – more than any other age group. Per capita attendance also increased among African American and Asian/Other audiences.

Today, there are more stories and more storytelling mediums than ever before. Producers and filmmakers are continually finding new talent and technologies to weave these tales. At the same time, theater owners are investing in the best ways to bring movies to life with better sound, screens, and special effects. This collaboration – and relentless innovation – among production, distribution, and exhibition is an important reason the global film industry remains strong.

As the 2016 Theatrical Market Statistics Report confirms, yet again, movies continue to play a vital role in our lives and our cultures. Around the world, storytelling – and the movie-going experience that brings great stories to life – is very much alive and well.

Christopher J. Dodd  
Chairman and Chief Executive Officer  
Motion Picture Association of America, Inc.

## Global

- In 2016, the global box office for all films released in each country around the world reached \$38.6 billion, up one percent from 2015. The U.S./Canada box office (\$11.4 billion) grew two percent, while the international box office (\$27.2 billion) in U.S. dollars held steady compared to 2015, despite the increased strength of the U.S. dollar and slowed growth in China.
- Cinema screens increased by eight percent worldwide in 2016 to nearly 164,000, due in large part to continued double digit growth in the Asia Pacific region (+18%). The number of digital screens (+17%) and Premium Large Format screens (+11%) also saw double digit growth globally. Today, 95 percent of the world's cinema screens are digital.

## U.S./Canada

- In 2016, U.S./Canada box office was \$11.4 billion, up two percent from \$11.1 billion in 2015. Admissions, or tickets sold (1.32 billion), held steady compared to 2015.

## Moviegoer Trends

- More than two-thirds (71%) of the U.S./Canada population – or 246 million people – went to the cinema at least once in 2016, a two percent increase from 2015. Frequent moviegoers – individuals who go to the cinema once a month or more – continue to drive the movie industry, accounting for 48 percent of all tickets sold in the United States and Canada.
- The number of frequent moviegoers increased in 2016. However, the number of tickets purchased by frequent moviegoers decreased. This was offset by an increase in the tickets purchased by occasional moviegoers (moviegoers who attended less than once a month).

## Demographics

- In 2016, 18-24 year olds went to the movies an average of 6.5 times over the year, up 0.6 from 2015. This was the largest increase of any age group. Per capita attendance was next highest for 12-17 year olds (6.1). Per capita attendance also increased for 25-39 year olds and 50-59 year olds compared to the previous year.
- Per capita attendance increased for African Americans and Asians/Other Ethnicities compared to 2015. In 2016, Asians/Other Ethnicities reported the highest annual attendance per capita, going to the cinema an average of 6.1 times in the year.
- Three of the top five grossing films in 2016 attracted majority female audiences. *Finding Dory* drew the largest proportion of females, with 55 percent of its box office coming from women. *The Jungle Book* drew the most ethnically diverse audience, followed by *Finding Dory* and *Captain America: Civil War*.

## Technology

- Frequent moviegoers tend to own more key technology products, such as smartphones and tablets, compared to the general population of adults 18 years and older. More than three quarters of all frequent moviegoers (79%) own at least four different types of key technology products, compared to 60 percent of the total adult population.

## Films Released

- Total films released (718) increased one percent from 2015. Films released by MPAA members (139) were down five percent in 2016 compared to 2015, which was a five-year high. Non-MPAA affiliated independents continued to release the most films domestically (579) and were up three percent from 2015.

THEATRICAL MARKET STATISTICS

# GLOBAL

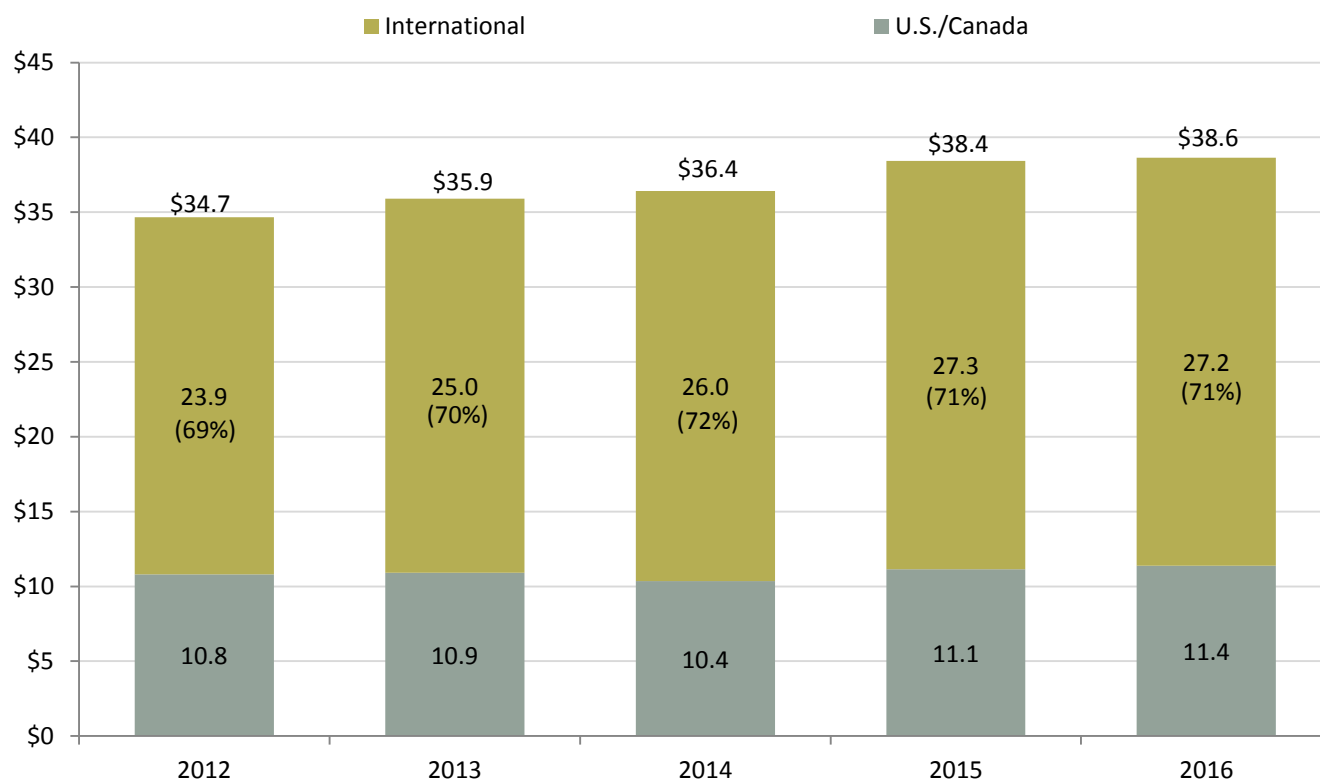
2016



In 2016, the global box office for **all films** released in each country around the world<sup>1</sup> reached \$38.6 billion, up one percent over 2015. U.S./Canada box office (\$11.4 billion) grew two percent, while the international box office in U.S. dollars (\$27.2 billion) held steady compared to 2015. International box office accounted for 71 percent of total box office in 2016, equivalent to 2015.

The international box office in U.S. dollars is up 14 percent compared to five years ago. The global box office is up 11 percent in the same time period.

### Global Box Office – All Films (US\$ Billions)



	2012	2013	2014	2015	2016	% Change <sup>2</sup> 16 vs. 15	% Change <sup>2</sup> 16 vs. 12
U.S./Canada <sup>3</sup>	\$10.8	\$10.9	\$10.4	\$11.1	\$11.4	2%	5%
International <sup>4</sup>	\$23.9	\$25.0	\$26.0	\$27.3	\$27.2	0%	14%
<b>Total</b>	<b>\$34.7</b>	<b>\$35.9</b>	<b>\$36.4</b>	<b>\$38.4</b>	<b>\$38.6</b>	<b>1%</b>	<b>11%</b>

<sup>1</sup> Values in the report include all films released, regardless of distributor or country of origin, except where specified as a subset.

<sup>2</sup> Percentage value change is calculated using full table values before rounding. Note that in 2016, the table value before rounding was \$27.261 billion (\$27.3B) but is rounded down in order to sum to the rounded global total.

<sup>3</sup> Source: comScore – Box Office Essentials. Data is based on calendar year (January 1-December 31).

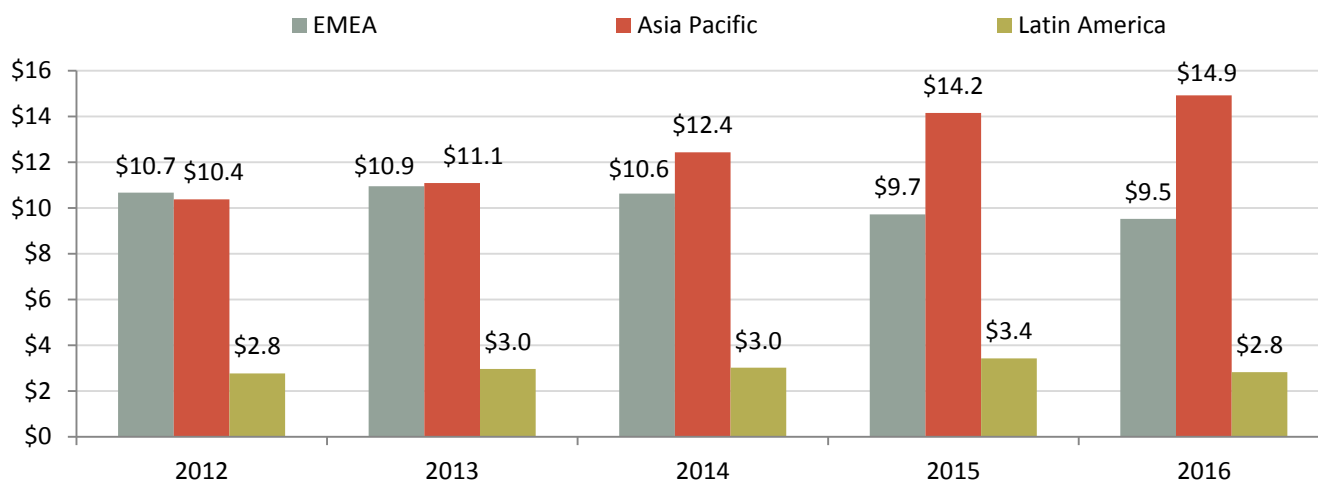
<sup>4</sup> MPAA calculates international box office country-by-country based on a variety of primary and secondary data sources.

In 2016, the box office in the Asia Pacific region (\$14.9 billion) increased five percent compared to 2015. Increases in Japan and India were the primary drivers of growth. After over a decade of consecutive gains, in 2016, the Chinese box office decreased one percent in U.S. dollars from 2015, while increasing slightly (+4%) in local currency.

The Europe, Middle East & Africa (EMEA) box office decreased two percent in U.S. dollars when comparing 2016 to 2015. This was driven by decreases in the U.K. (-10% decline in U.S. dollars), where the pound depreciated 12 percent against the U.S. dollar, and Germany (-13%). However, during the same period, other markets such as France (+5%) and Italy (+6%) experienced growth.

The Latin America box office decreased 18 percent in U.S. dollars when comparing 2016 to 2015, despite many markets in the region increasing in local currency. Brazil's box office was an exception, increasing five percent in U.S. dollars from 2015. However, the depreciation of several currencies against the U.S. dollar in 2016, including Mexico (-15%), Argentina (-37%), and Venezuela (-31%), contributed to the overall decline in regional box office.

### International Box Office by Region – All Films (US\$ Billions)<sup>5</sup>



	2012	2013	2014	2015	2016	% Change <sup>6</sup> 16 vs. 15	% Change <sup>6</sup> 16 vs. 12
Europe, Middle East & Africa	\$10.7	\$10.9	\$10.6	\$9.7	\$9.5	-2%	-11%
Asia Pacific	\$10.4	\$11.1	\$12.4	\$14.2	\$14.9	5%	44%
Latin America	\$2.8	\$3.0	\$3.0	\$3.4	\$2.8	-18%	2%
<b>Total</b>	<b>\$23.9</b>	<b>\$25.0</b>	<b>\$26.0</b>	<b>\$27.3</b>	<b>\$27.2</b>	<b>0%</b>	<b>14%</b>

### 2016 Top 20 International Box Office Markets – All Films (US\$ Billions)

Source: IHS Markit, local sources

1. China	\$6.6	11. Italy	\$0.7
2. Japan	\$2.0	12. Russia	\$0.7
3. India	\$1.9	13. Spain	\$0.7
4. U.K.	\$1.7	14. Netherlands	\$0.3
5. France	\$1.6	15. Indonesia	\$0.3
6. South Korea	\$1.5	16. Taiwan	\$0.3
7. Germany	\$1.1	17. Argentina	\$0.3
8. Australia	\$0.9	18. Hong Kong	\$0.3
9. Mexico	\$0.8	19. Poland	\$0.2
10. Brazil	\$0.7	20. Turkey	\$0.2

<sup>5</sup> Box office data is in U.S. dollars for analytical and comparative purposes. Local currency box office trends may differ due to exchange rate fluctuations.

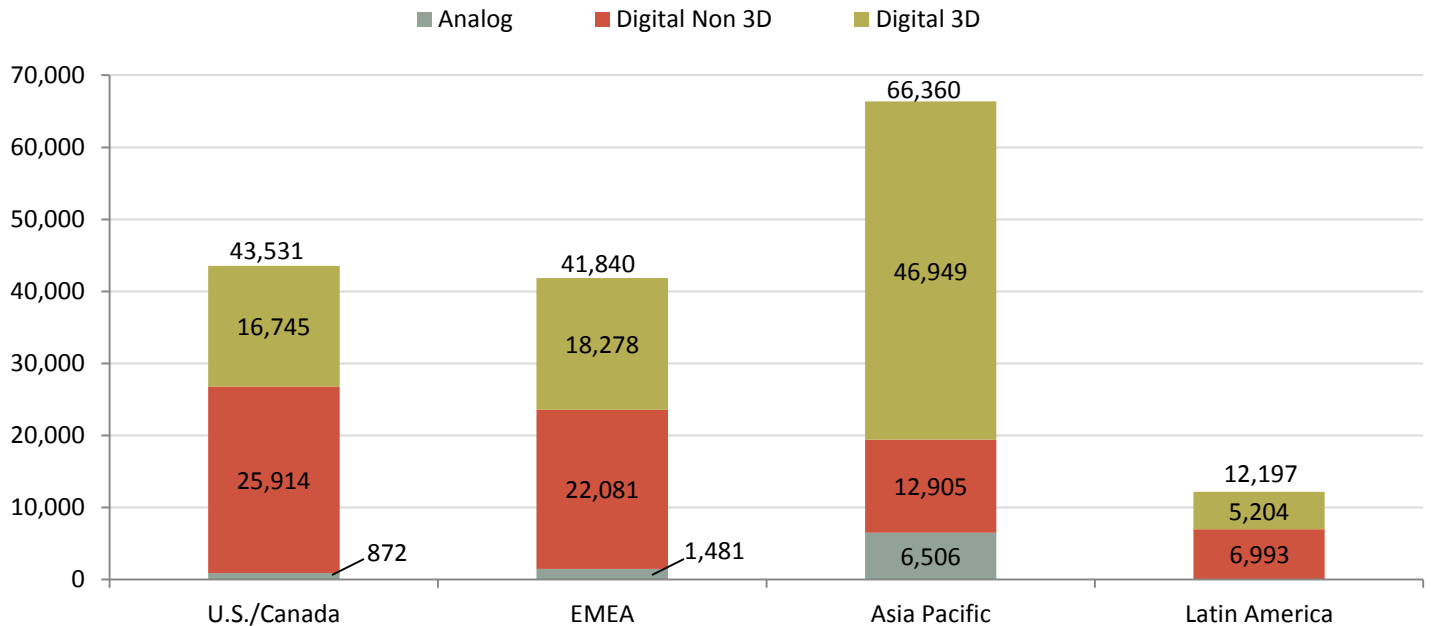
<sup>6</sup> Percentage value change is calculated using table values before rounding.

Total cinema screens increased eight percent worldwide in 2016 to nearly 164,000, due in large part to continued double digit growth in the Asia Pacific region (+18%).

Global digital cinema continued to grow (+10%), although at a slower rate than past years given limits to market penetration. Today, 95 percent of the world's cinema screens are digital, up two percentage points from 2015 (93%). Among individual regions, Asia Pacific has the lowest percentage of digital screens at 90 percent.

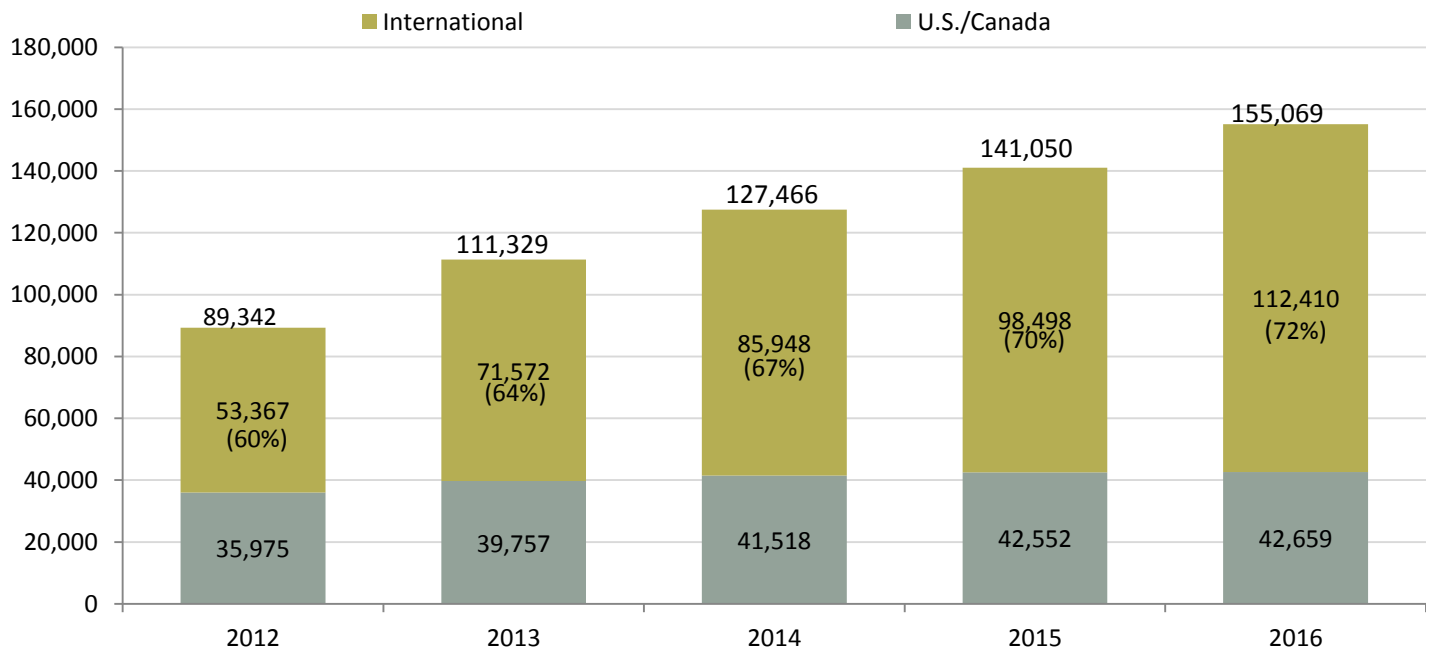
### 2016 Cinema Screens by Format and Region<sup>7</sup>

Source: IHS Markit



### Digital Screens

Source: IHS Markit



<sup>7</sup> 2016 total screens figures are estimates as of March 2017. Screen figures for previous years have been revised by source.



Across all regions, the number of digital 3D screens continued to grow in 2016 – and at a faster pace (17%) than 2015 (15%). The global portion of 3D digital screens increased three percentage points to 56 percent of all digital screens in 2016. Asia Pacific (78%) had the highest 3D digital proportion of total digital screens.

### Worldwide Digital 3D Screens

Source: IHS Markit

	2012	2013	2014	2015	2016	2016 % of Digital
U.S./Canada	14,734	15,782	16,143	16,441	16,745	39%
EMEA	13,964	15,813	16,880	17,580	18,278	45%
Asia Pacific	14,219	17,726	27,472	35,807	46,949	78%
Latin America	2,629	3,748	4,294	4,733	5,204	43%
Total	45,546	53,069	64,789	74,561	87,176	56%
% Change vs. Previous Year	25%	17%	22%	15%	17%	--

Premium Large Format (PLF) screens are growing in all regions. According to IHS Markit, PLF is currently one of the most active areas in cinema exhibition and has significant potential for growth over the next several years.<sup>8</sup> U.S./Canada (945) had the largest number of PLF screens in 2016, followed by Asia Pacific (859). In 2016, the total number of PLF screens increased by 11 percent compared to 2015. These totals include both exhibitor-developed and global technology brands, such as IMAX.

### Worldwide PLF Screens<sup>9</sup>

Source: IHS Markit

	2014	2015	2016	2016 % of Total Screens
U.S./Canada	763	889	945	2%
EMEA	191	248	295	1%
Asia Pacific	558	763	859	1%
Latin America	154	205	231	2%
Total	1,666	2,105	2,330	1%
% Change vs. Previous Year	--	26%	11%	--

<sup>8</sup> Jones, Charlotte, *The Rise of Premium Large Format: Investing in the next generation of cinema exhibition*, Film Journal International, 10/28/2015.

<sup>9</sup> 2016 PLF screens figures are estimates as of March 2017. Screen figures for previous years have been revised by source.

THEATRICAL MARKET STATISTICS

# U.S. / CANADA

2016



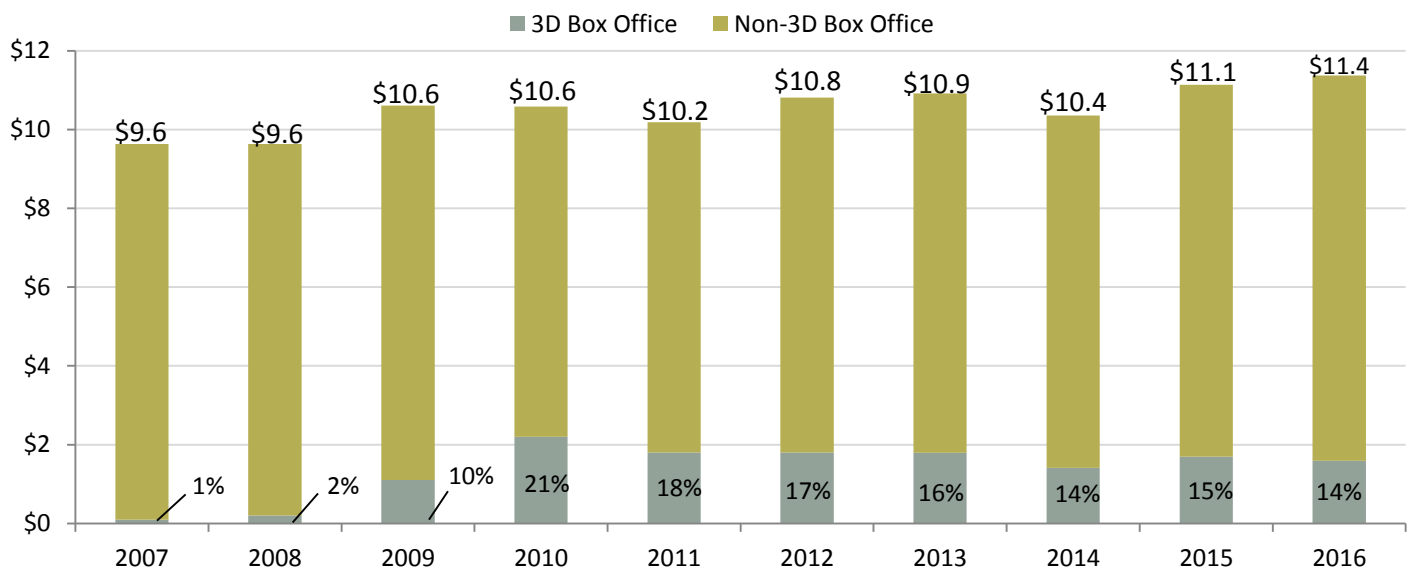
MOTION PICTURE ASSOCIATION OF AMERICA

In 2016, U.S./Canada box office was \$11.4 billion, up two percent from \$11.1 billion in 2015.<sup>10</sup> The 3D box office (\$1.6 billion), down eight percent from 2015, comprised 14 percent of the total box office.

Admissions, or tickets sold (1.32 billion), held steady compared to 2015.

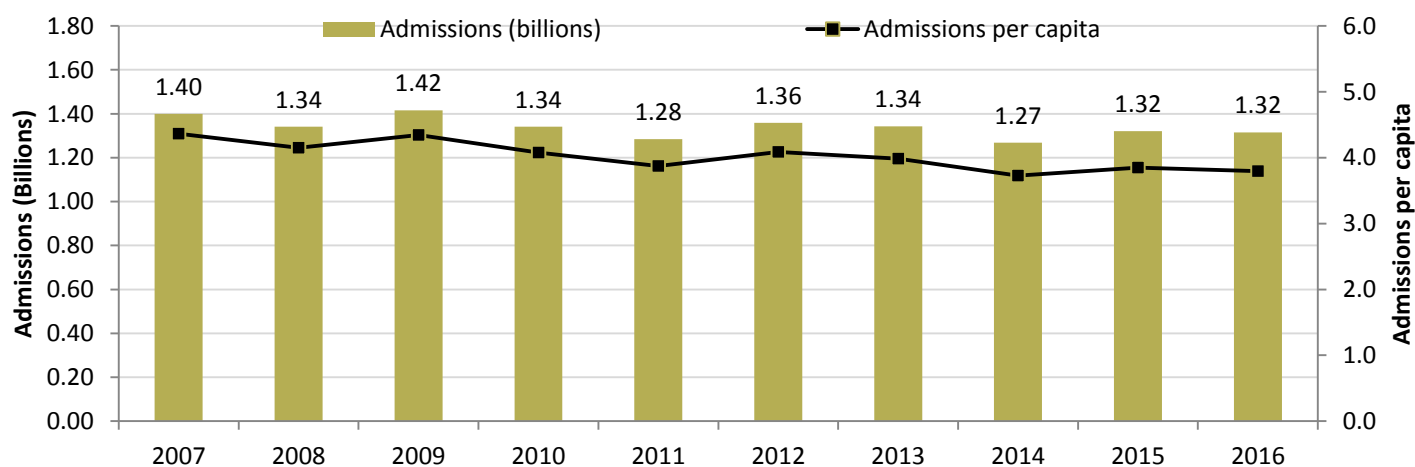
### U.S./Canada Box Office (US\$ Billions)

Source: comScore – Box Office Essentials (Total), MPAA (3D)



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	% Chg. 16 vs. 15
U.S./Can. Box Office (US\$B)	\$9.6	\$9.6	\$10.6	\$10.6	\$10.2	\$10.8	\$10.9	\$10.4	\$11.1	\$11.4	2%
3D Box Office <sup>11</sup>	\$0.1	\$0.2	\$1.1	\$2.2	\$1.8	\$1.8	\$1.8	\$1.4	\$1.7	\$1.6	-8%

### U.S./Canada Admissions<sup>12</sup>



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	% Chg. 16 vs. 15
U.S./Can. Admissions (Billions)	1.40	1.34	1.42	1.34	1.28	1.36	1.34	1.27	1.32	1.32	0%
U.S./Can. Admissions per capita <sup>13</sup>	4.4	4.2	4.3	4.1	3.9	4.1	4.0	3.7	3.8	3.8	-1%

<sup>10</sup> Percentage change is calculated using table values before rounding.

<sup>11</sup> 3D box office figures include only box office earned from 3D showings, not total box office for films with a 3D release.

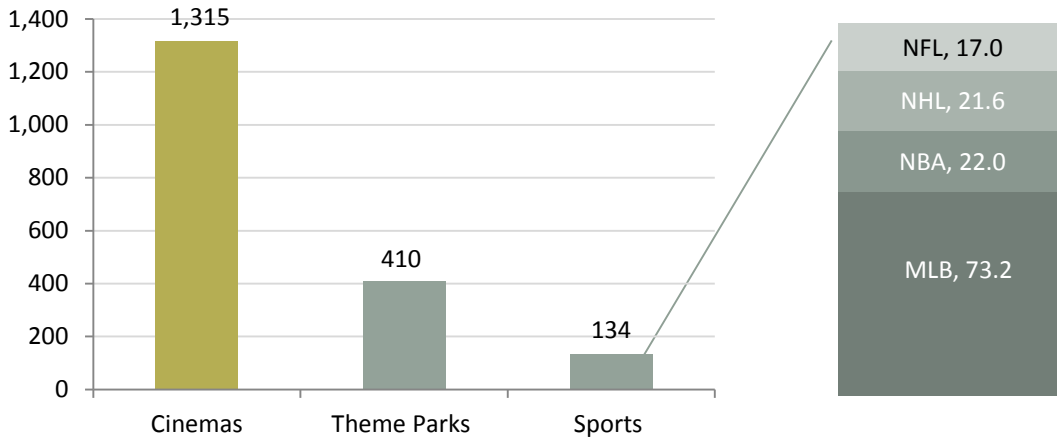
<sup>12</sup> Admissions calculated using comScore – Box Office Essentials calendar year box office data and National Association of Theatre Owners (NATO) average annual ticket price (see page 12).

<sup>13</sup> Admissions per capita calculated using aggregated U.S. Census Bureau and Statistics Canada data for population aged 2+.

Movie theaters continue to draw more people than all theme parks and major U.S. sports combined.

A movie still provides the most affordable entertainment option, costing under \$35 for a family of four. The average cinema ticket price nationwide increased by 22 cents (3%) in 2016, compared to the one percent increase in inflation as measured by the Consumer Price Index (CPI).

### 2016 Attendance (Millions)<sup>14</sup>



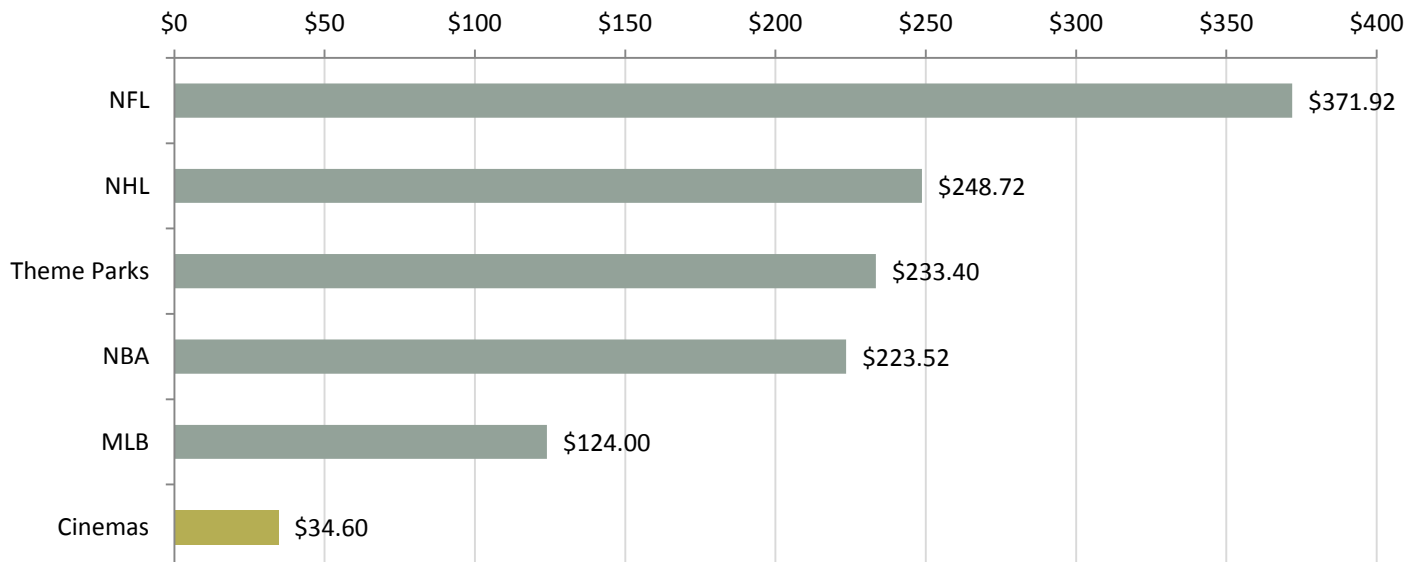
### Average Cinema Ticket Price (US\$)

Sources: National Association of Theatre Owners (Ticket price), Bureau of Labor Statistics (Consumer Price Index)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Average Ticket Price	\$6.88	\$7.18	\$7.50	\$7.89	\$7.93	\$7.96	\$8.13	\$8.17	\$8.43	\$8.65
% Change vs. Previous Year	5%	4%	4%	5%	1%	0%	2%	0%	3%	3%
CPI % Change vs. Previous Year	3%	4%	0%	2%	3%	2%	2%	2%	0%	1%

### 2016 Average Ticket Price for a Family of Four (US\$)<sup>14</sup>

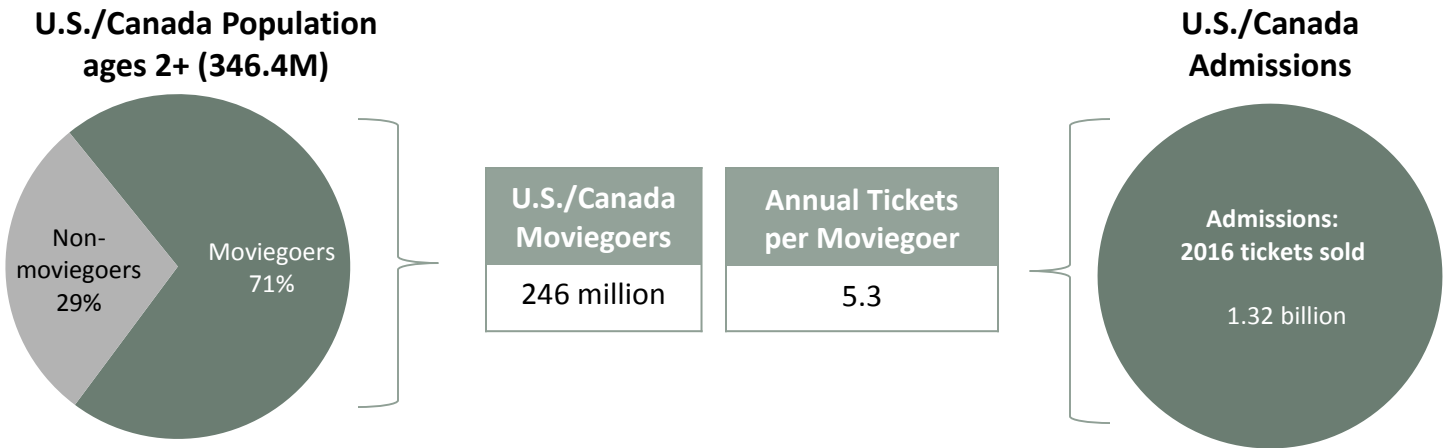
Sources: NATO, Team Marketing, International Theme Park Services



<sup>14</sup> NHL data is for the last available season (2014-2015).

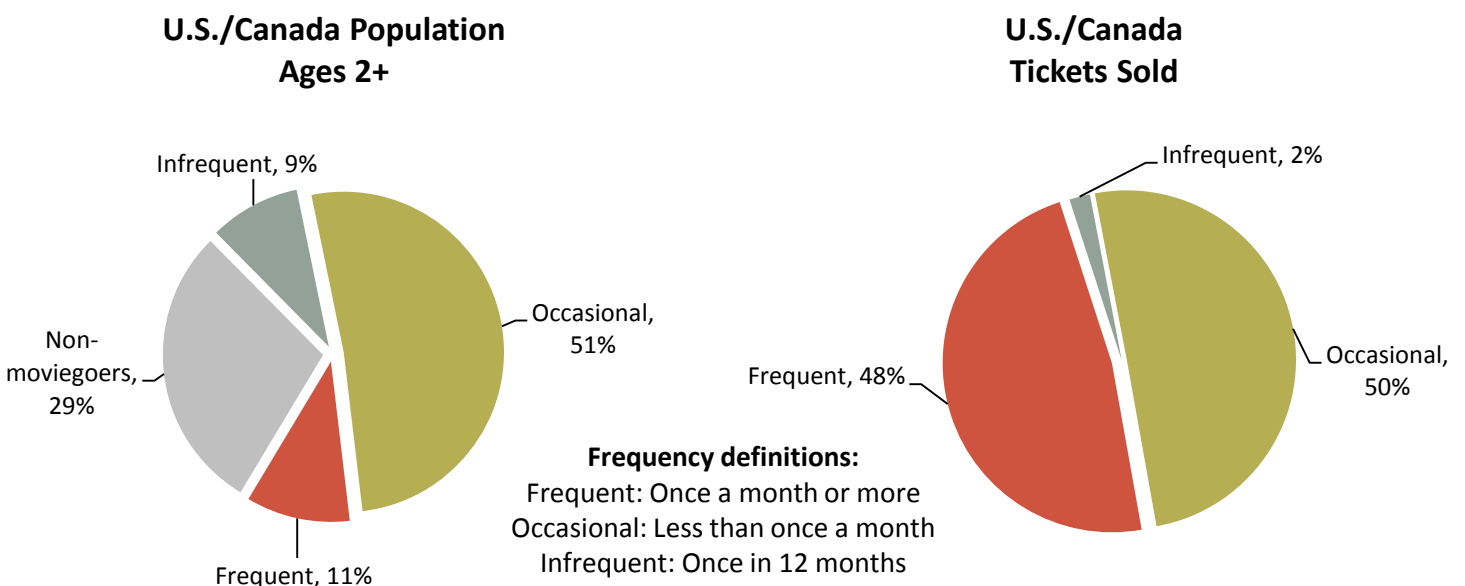
More than two-thirds (71%) of the U.S./Canada population aged two or older, or 246 million people, went to a movie at the cinema at least once in 2016 ("moviegoer"), a two percent increase in the number of moviegoers from 2015. The typical moviegoer bought 5.3 tickets over the course of the year, down from 5.6 tickets in 2015.

**2016 Demographic Summary<sup>15</sup>**



Eleven percent of the U.S./Canada population are frequent moviegoers, who attend the cinema once a month or more. These individuals are responsible for 48 percent of all tickets sold. The number of frequent moviegoers increased in 2016, while the number of tickets purchased by frequent moviegoers decreased (21 million). At the same time, the number of tickets purchased by occasional moviegoers increased, raising the share of tickets purchased by occasional moviegoers by one percentage point to 50 percent.

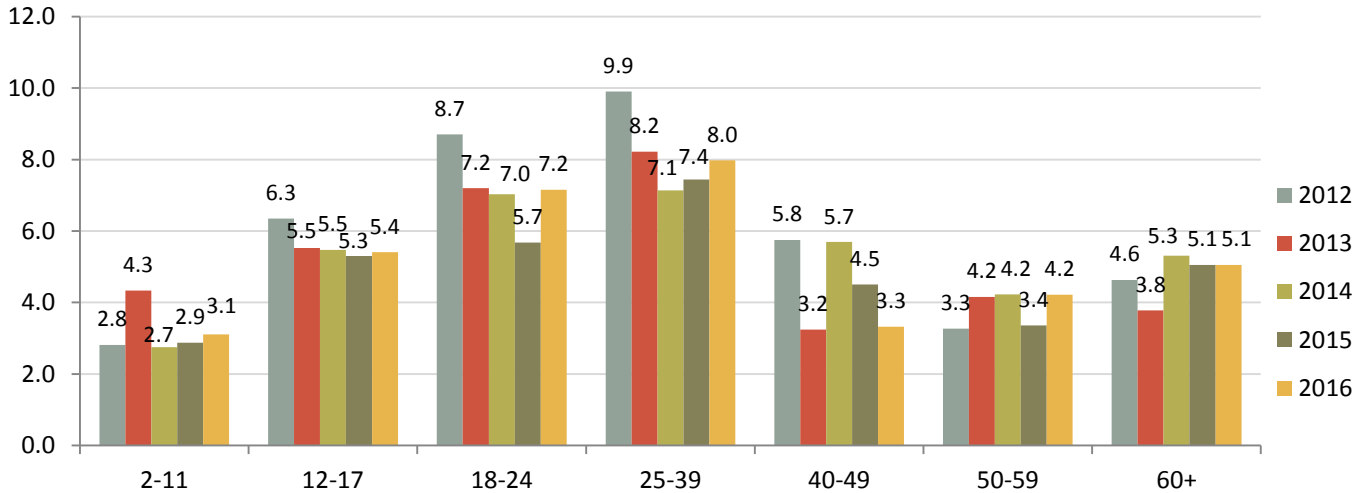
**2016 Moviegoer Share of Population and Tickets Sold**



<sup>15</sup> MPAA's analysis of attendance demographics is based on survey research and attendance projections by ORC International. See *Appendix: Methodology* (page 27) for details. Note that surveying is conducted in the U.S. only, so the results assume the demographic composition of the U.S./Canada combined population is similar to what was observed for the U.S. only.

In 2016, the total number of frequent moviegoers increased by 2.1 million. The number of frequent moviegoers increased among all age groups, except 40-49 year olds and 60+ year olds. Individuals 12-17 years old and 18-24 years old continue to be overrepresented among frequent moviegoers relative to their population size.<sup>16</sup>

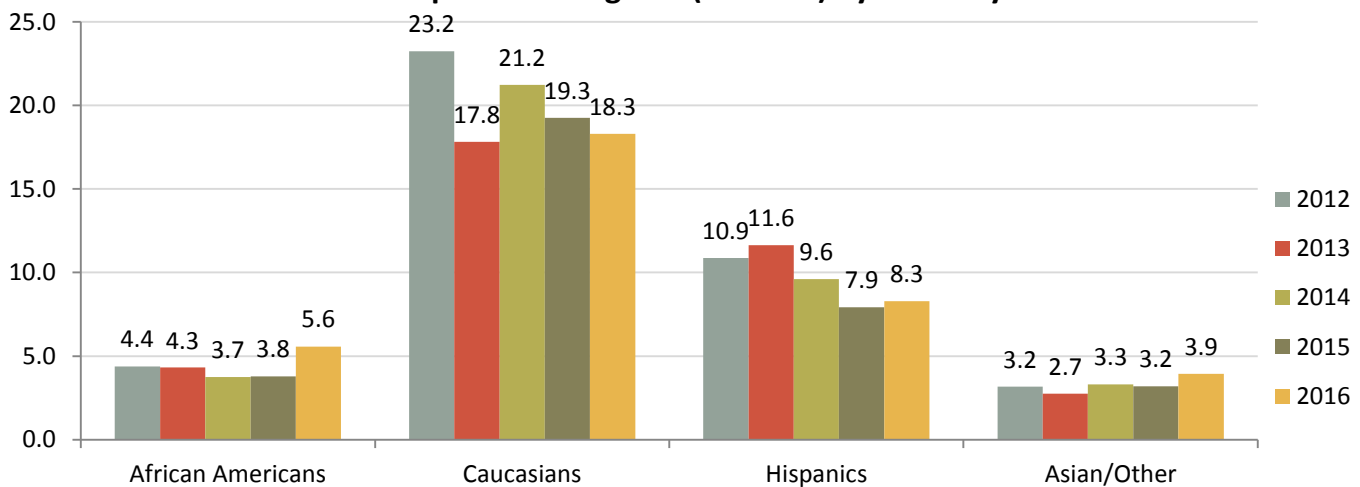
**Frequent Moviegoers (Millions) by Age<sup>17</sup>**



	2-11	12-17	18-24	25-39	40-49	50-59	60+
% of Population 2016	13%	8%	10%	21%	13%	14%	21%
% of Frequent Moviegoers 2016	8%	15%	20%	22%	9%	12%	14%

Hispanics continued to be overrepresented in the population of frequent moviegoers relative to their proportion of the overall population. In 2016, the number of African American and Asian/Other frequent moviegoers increased compared to 2015, while the number of Caucasian frequent moviegoers declined.

**Frequent Moviegoers (Millions) by Ethnicity<sup>17</sup>**



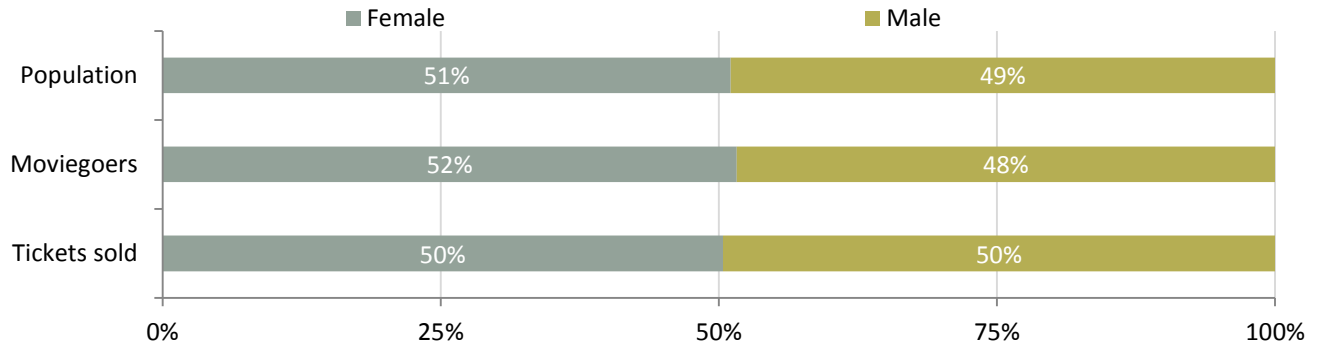
	African Americans	Caucasians	Hispanics	Asian/Other
% of Population: 2016	12%	62%	18%	8%
% of Frequent Moviegoers: 2016	15%	51%	23%	11%

<sup>16</sup> The small size of frequent moviegoer subgroups may lead to large fluctuations in annual figures.

<sup>17</sup> Prior years' data may differ slightly from previously published data due to calculation methods and the effects of rounding.

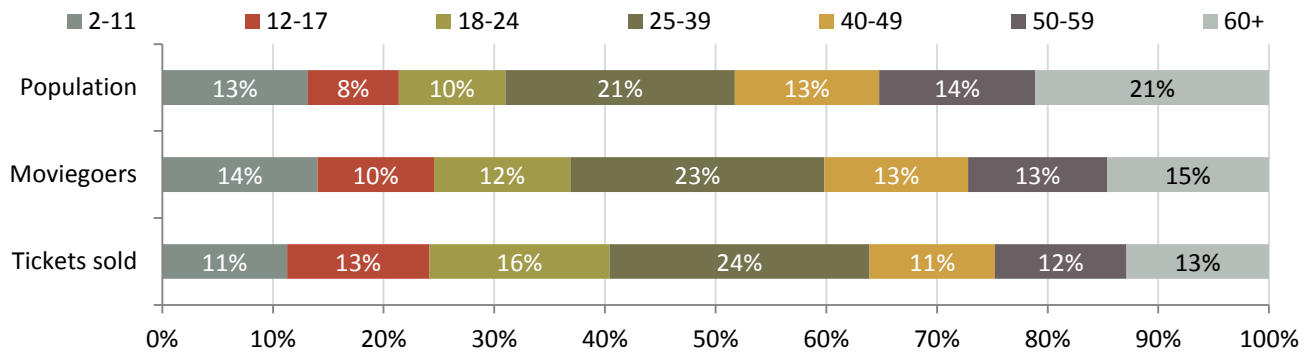
The gender composition of moviegoers (people who went to a movie at the cinema at least once in the year) in 2016 skewed slightly towards women, similar to the composition of the overall population. As in previous years, tickets sold continue to be split evenly among genders.

**2016 Gender Share of Total Population, Moviegoers, and Tickets Sold**



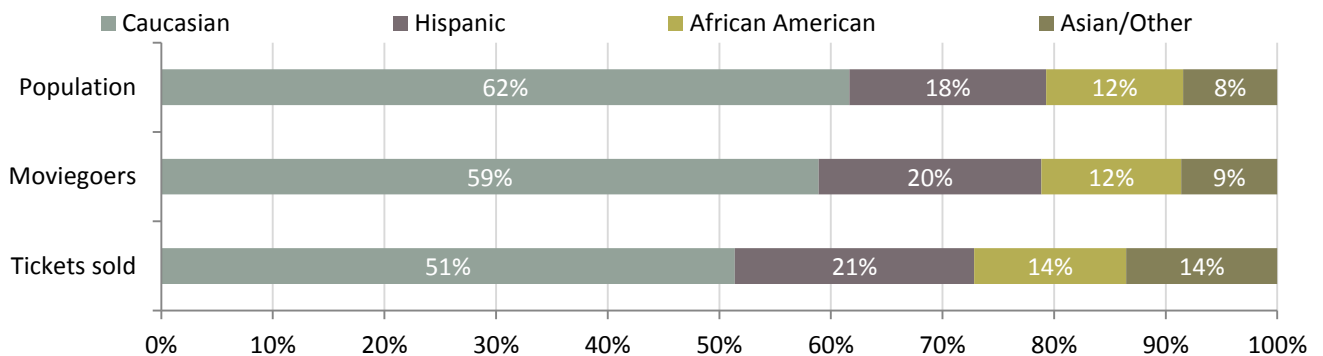
In 2016, the 18-24 age group was the most overrepresented age group in terms of tickets sold, accounting for 10 percent of the population and 16 percent of tickets sold in 2016. To a lesser extent, the 12-17 and 25-39 age groups are also overrepresented for tickets sold (13% and 24%) relative to their share of the population (8% and 21%).

**2016 Age Group Share of Total Population, Moviegoers, and Tickets Sold**



Although Caucasians make up the majority of the population (62%) and moviegoers (59%), they represented a smaller share of 2016 ticket sales (51%), similar to previous years. In 2016, the Asian/Other category overrepresented the most of any group in share of movie tickets purchased (14%) relative to their share of the population (8%).

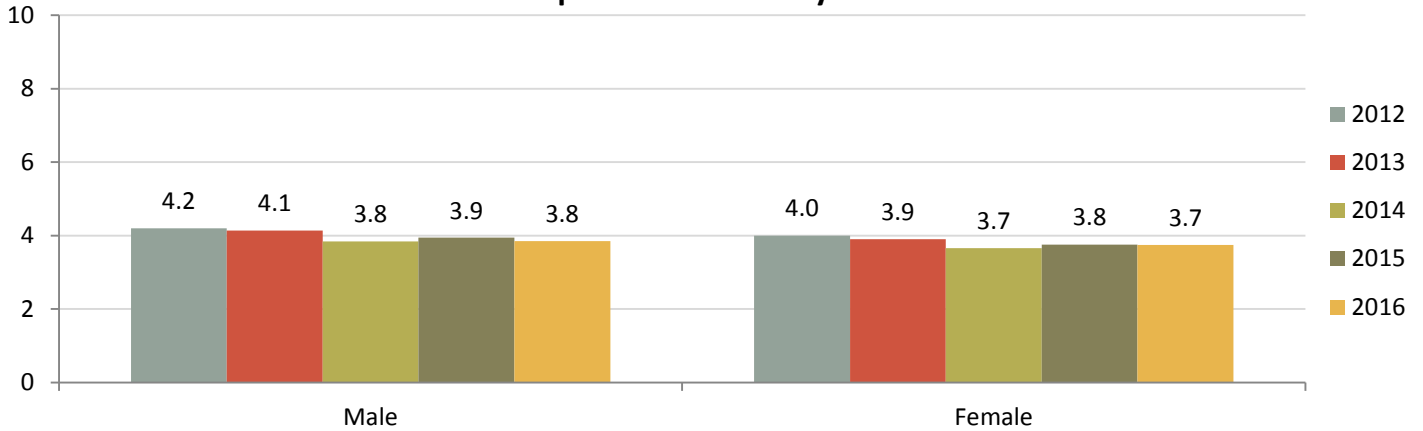
**2016 Ethnicity Share of Total Population, Moviegoers, and Tickets Sold**



**2016 Moviegoers: 246 million | 2016 Admissions: 1.32 billion**

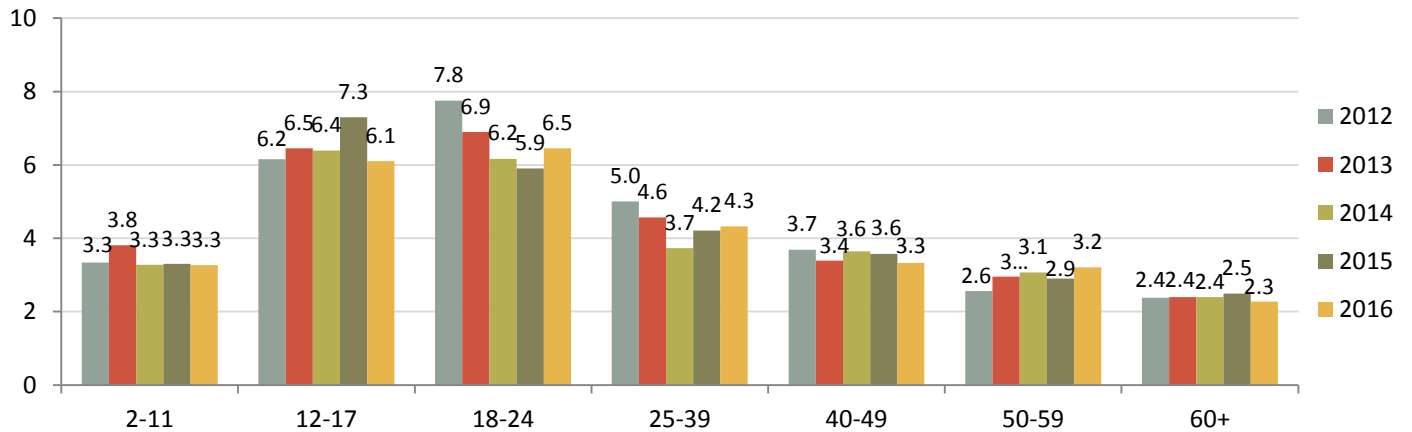
In 2016, per capita annual movie attendance (tickets sold per person) decreased for both males (3.8) and females (3.7).

**Per Capita Attendance by Gender**



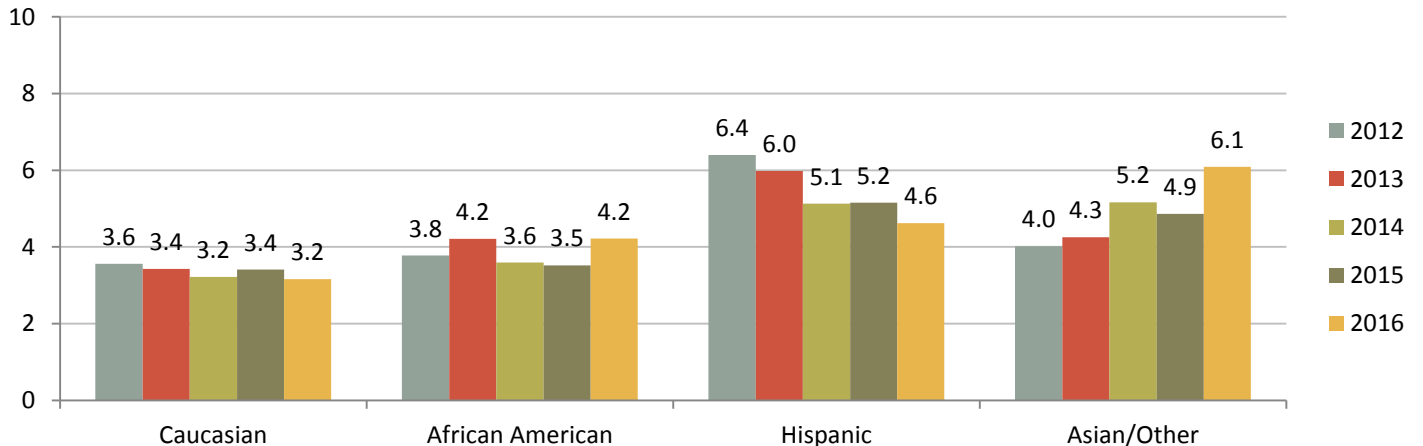
In 2016, 18-24 year olds had the highest per capita attendance (6.5), followed by 12-17 year olds (6.1). 18-24 year olds had the largest increase in per capita attendance, up 0.6 from 2015. Per capita attendance also increased for 25-39 year olds and 50-59 year olds compared to the previous year.

**Per Capita Attendance by Age**



Per capita attendance increased for African Americans and the Asian/Other category compared to 2015. The Asian/Other category reported the highest annual attendance per capita in 2016, going to the movies an average of 6.1 times in the year.

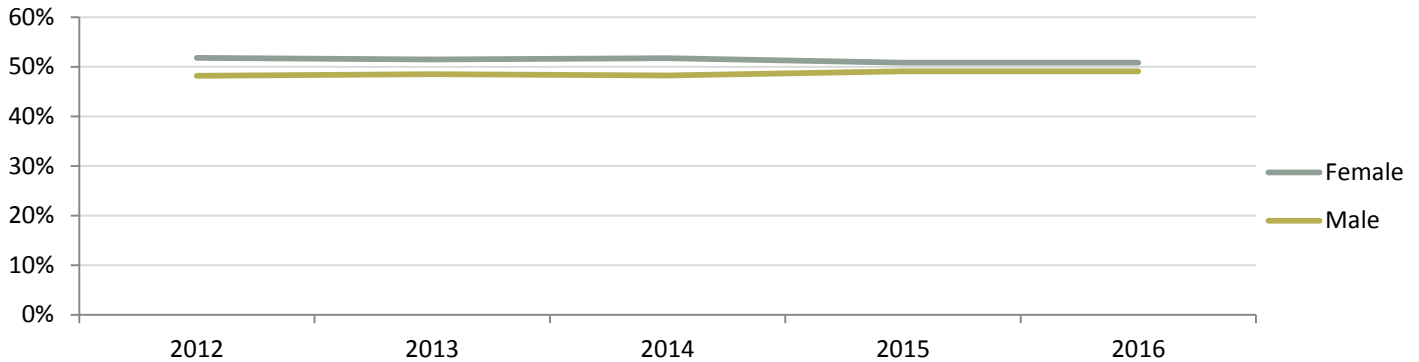
**Per Capita Attendance by Ethnicity**





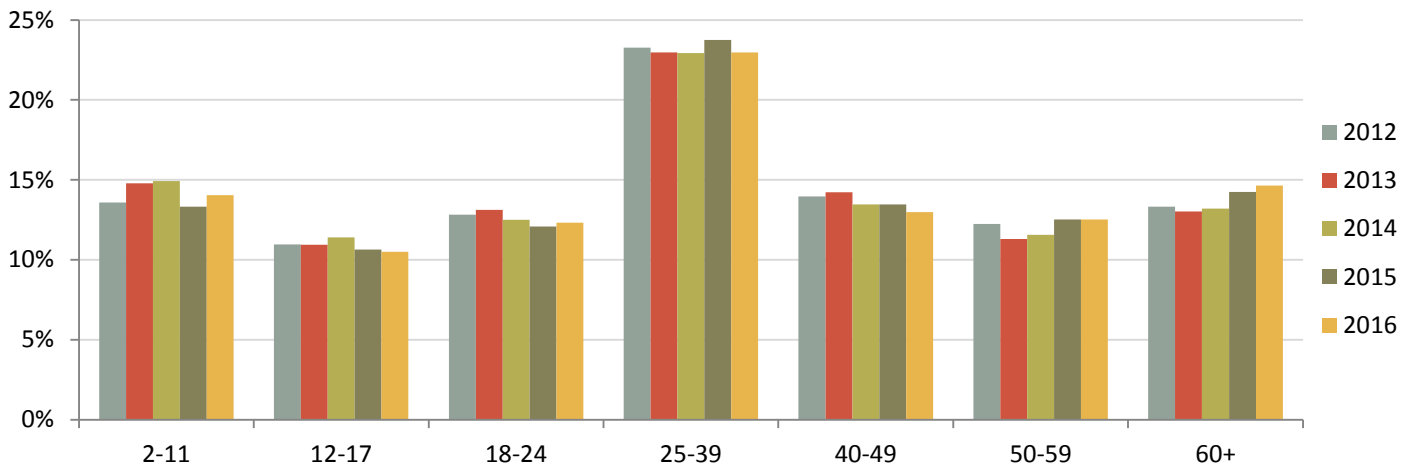
Similar to the overall population, females have comprised 51 percent to 52 percent of moviegoers (people who went to a movie at the cinema at least once in the year) consistently since 2012. This trend remains unchanged in 2016.

**Trends in Gender Share of Moviegoers**



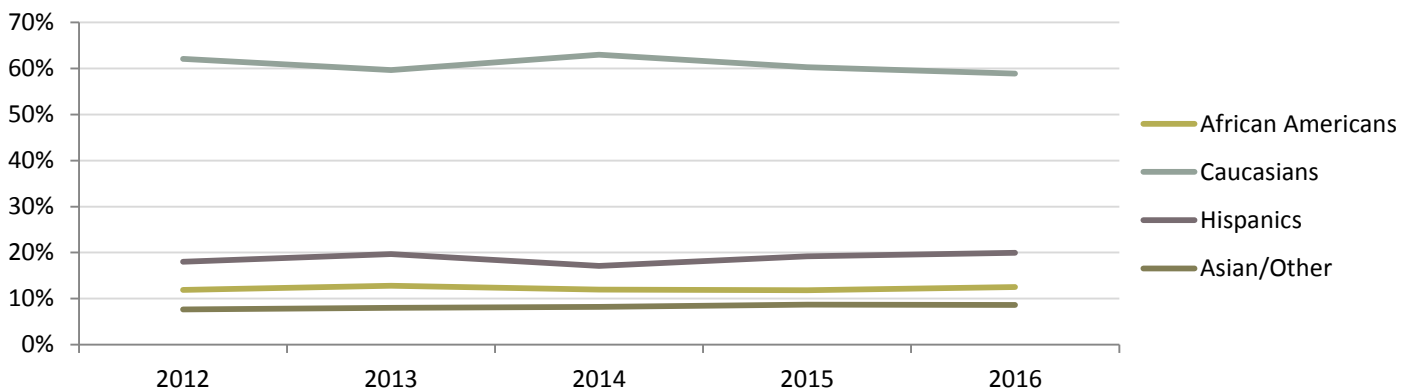
Overall, age group shares of moviegoers have been relatively consistent since 2012. Accounting for 23 percent of moviegoers, 25-39 year olds continue to constitute the largest share of moviegoers in 2016.

**Trends in Age Group Share of Moviegoers**



In 2016, the shares of moviegoers by ethnicity were similar to previous years.

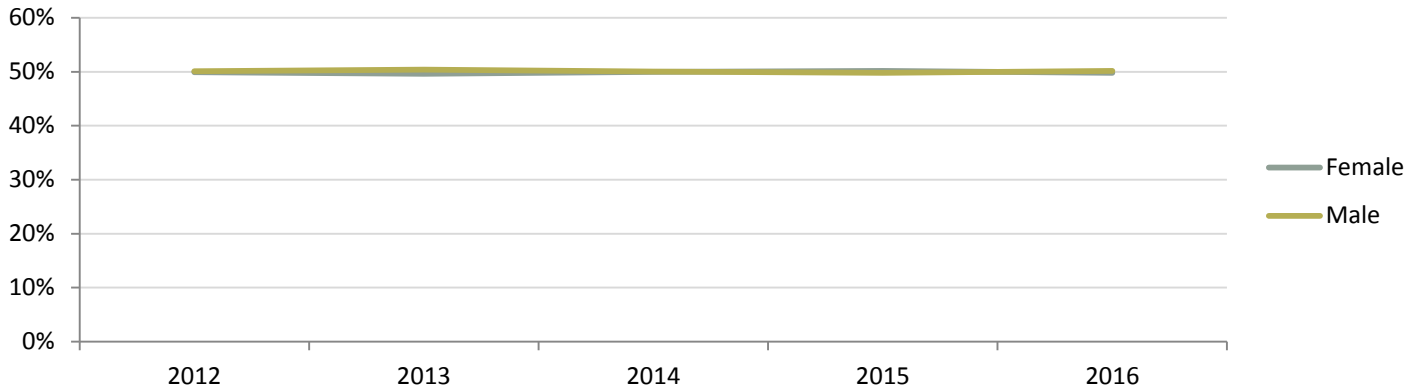
**Trends in Ethnicity Share of Moviegoers**



**2016 Moviegoers: 246 million | 2016 Admissions: 1.32 billion**

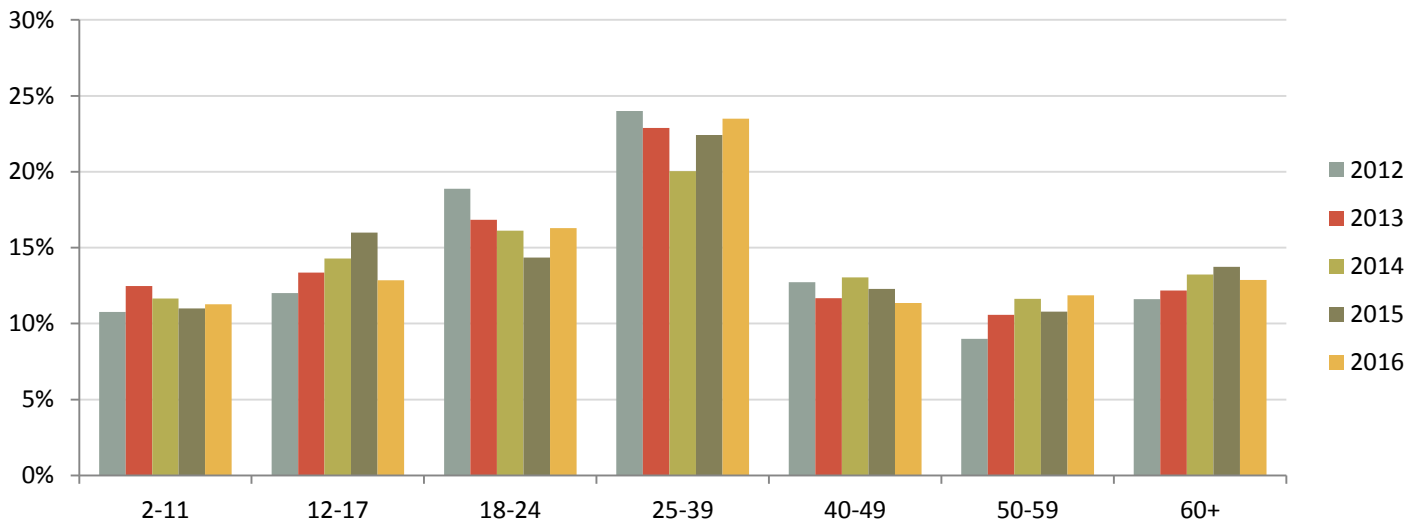
Since 2012, tickets sold at cinemas have been evenly split by gender.

**Trends in Gender Share of Tickets Sold**



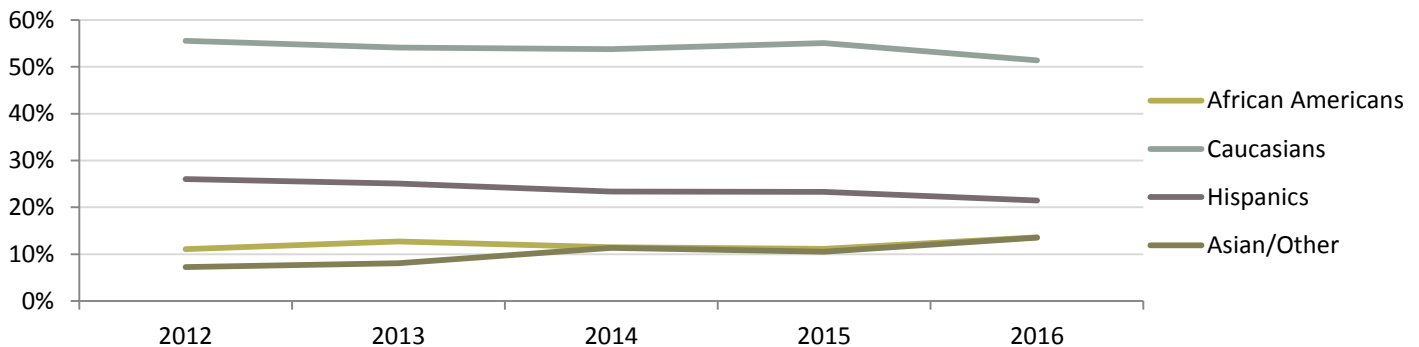
In 2016, the share of tickets sold to the 18-24 (16%), 25-39 (23%), and 50-59 (12%) age groups all increased compared to 2015.

**Trends in Age Group Share of Tickets Sold**



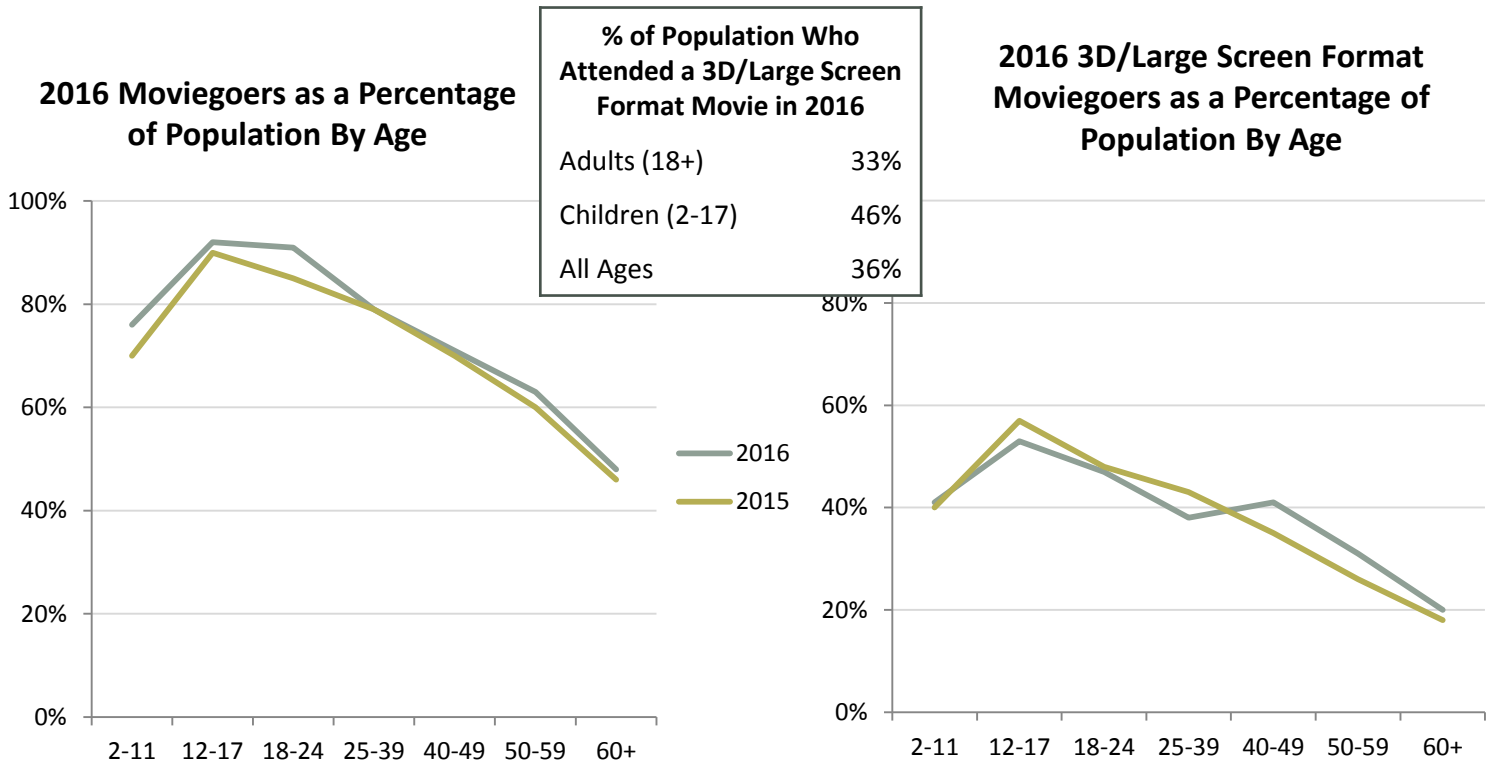
In 2016, the share of tickets sold to African Americans (14%) and the Asian/Other (14%) category each increased by three percentage points from the previous year.

**Trends in Ethnicity Share of Tickets Sold**



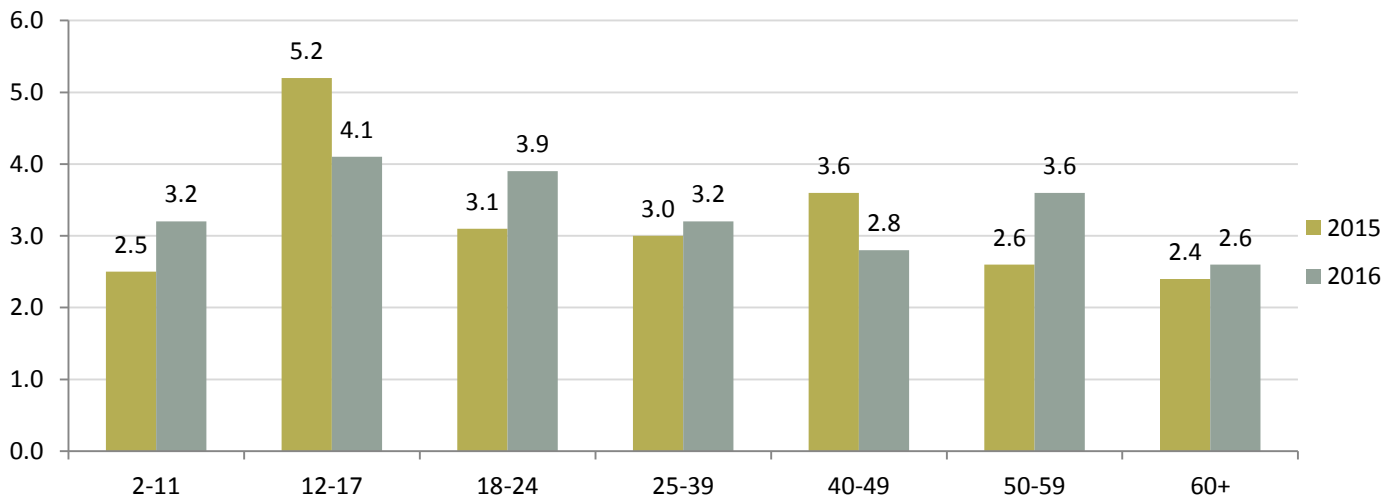
**2016 Moviegoers: 246 million | 2016 Admissions: 1.32 billion**

More than a third (36%) of the general population attended a 3D or large screen format movie in 2016<sup>18</sup>, compared to 71 percent of the population who viewed any movie. Children (2-17) were more likely to attend a 3D or large screen format movie in 2016 than their adult counterparts.



12-17 year olds viewed an average of 4.1 3D and large screen movies in 2016, more than any other age group. 18-24 year olds followed at an average of 3.9.

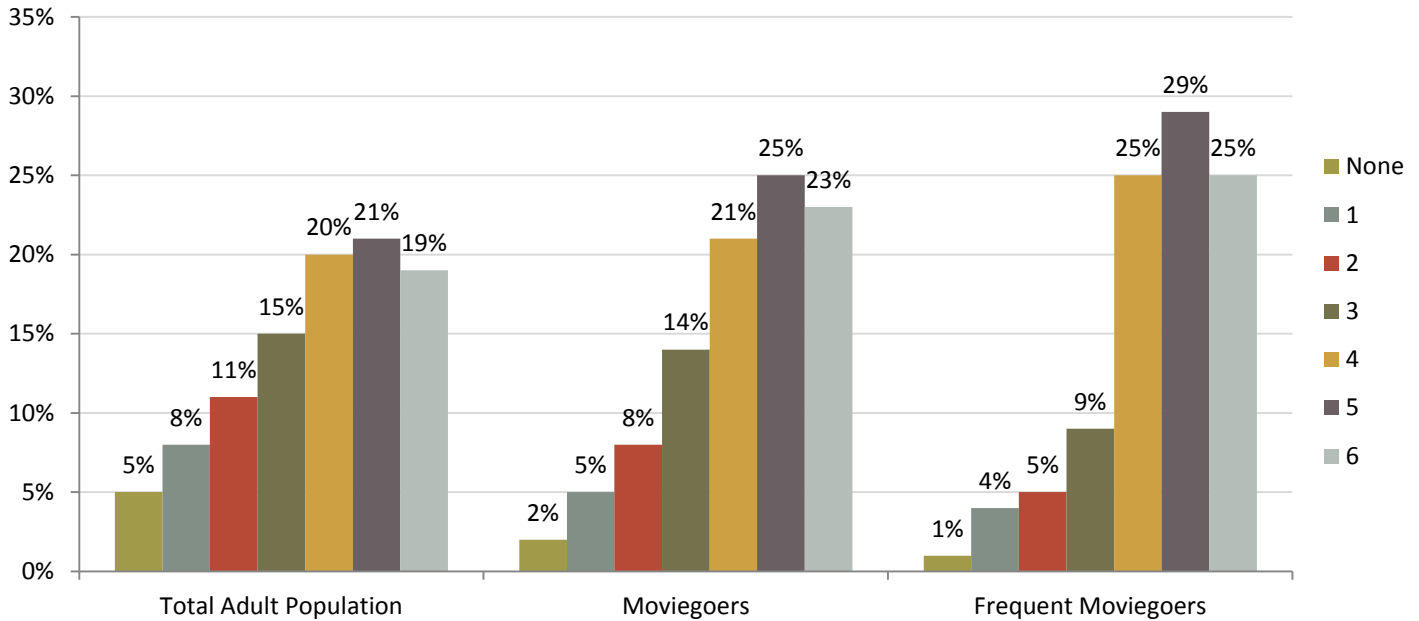
2016 Average 3D/Large Screen Format Movies Viewed Per Moviegoer By Age



<sup>18</sup> In 2015, our methodology changed on 3D measurement to include large screen format movies, as a result comparisons to years prior to 2015 are not available.

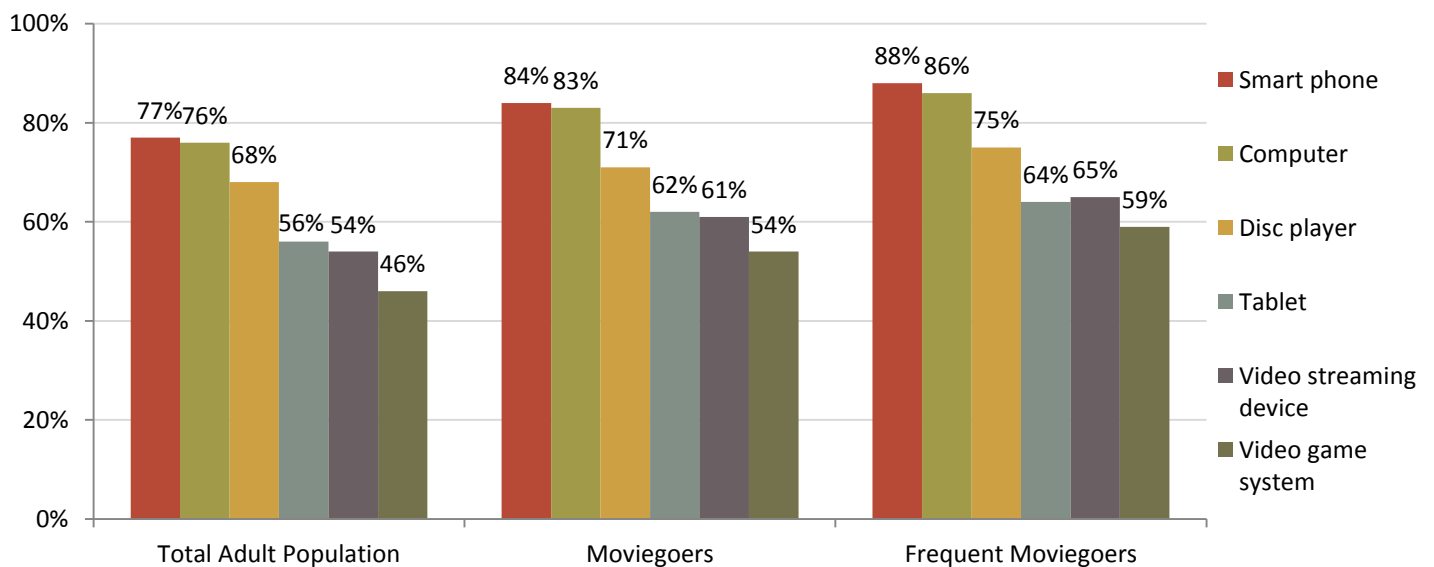
Frequent moviegoers tend to own more key technology products (computers, smart phones, disc players, tablets, video-streaming devices, and video game systems) than the general population of adults 18 years or older. More than three quarters of all frequent moviegoers (79%) own at least four different types of key technology products, compared to 60 percent of the total adult population.

**Number of Key Technology Products Owned**



Frequent moviegoers also have a significantly higher share of ownership for all key technology products when compared to the total adult population. Smart phone (88%), video streaming device (65%), and video game system (59%) ownership is particularly high among frequent moviegoers relative to the total adult population.

**Types of Key Technology Products Owned<sup>19</sup>**

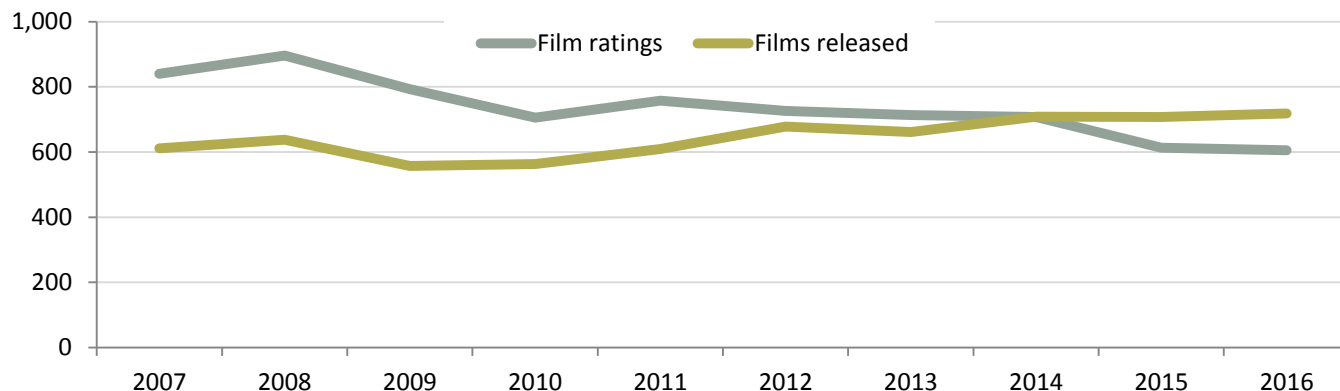


<sup>19</sup> People surveyed may own more than one type of technology product. Because product categories are not mutually exclusive, percentages will sum to more than 100 percent.

In 2016, the Classification and Ratings Administration (CARA) rated 605 films (including non-theatrical films), down one percent from 2015. The number of films released in theaters in U.S./Canada (718) increased one percent from 2015 (708) and was up 18 percent from ten years ago.

### Films Rated by CARA and Films Released Theatrically

Sources: CARA (Film ratings), comScore (Films released)



In 2016, the number of non-MPAA member films rated (including non-theatrical films) decreased four percent from 2015, while MPAA member films increased five percent during the same time period. The number of non-MPAA member films rated was down 30 percent from ten years ago, while MPAA member films were down 25 percent in the same time period.

### Film Ratings<sup>20</sup>

Source: CARA (Film ratings), MPAA (Subtotals)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	16 vs. 15	16 vs. 07
Film ratings	840	897	793	706	758	726	713	708	613	605	-1%	-28%
-MPAA members <sup>21</sup>	233	201	177	174	169	166	169	165	167	176	5%	-24%
-Non-members	607	696	616	532	589	560	544	543	446	429	-4%	-29%

The total number of films released (718) increased one percent from 2015. Films released by MPAA members (139) were down five percent in 2016 compared to 2015, which was a five-year high. Non-MPAA affiliated independents continued to release the most films domestically (579) and were up three percent. Film attendance by moviegoers remains concentrated, the top 140 films made up over 95 percent of the box office in 2016.

### Films Released

Sources: comScore – Box Office Essentials (Total), MPAA (Subtotals)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	16 vs. 15	16 vs. 07
Films released <sup>22</sup>	611	638	557	563	609	678	661	709	708	718	1%	18%
- 3D film releases	6	8	20	26	45	40	45	47	40	52	30%	n/a
- Large format releases	11	15	14	16	21	26	32	30	36	42	17%	n/a
MPAA member total	189	168	158	141	141	128	114	136	147	139	-5%	-26%
- MPAA studios	107	108	111	104	104	94	84	100	100	97	-3%	-9%
- MPAA studio subsidiaries	82	60	47	37	37	34	30	36	47	42	-11%	-49%
Non-members	422	470	399	422	468	550	547	573	561	579	3%	37%

<sup>20</sup> Note that films may be rated or re-rated months or even years after production. Includes non-theatrical films.

<sup>21</sup> Member studios include: Walt Disney Studios Motion Pictures, Paramount Pictures Corporation, Sony Pictures Entertainment, Inc. Twentieth Century Fox Film Corporation, Universal City Studios LLC, and Warner Bros. Entertainment Inc.

<sup>22</sup> Source: comScore – Box Office Essentials. Includes all titles that **opened** and earned any U.S./Canada box office in the year. Historical data is regularly updated by comScore.

In 2016, PG-13 films comprised 14 of the top 25 films **in release**, more than any other rating, and up from 2015 (12). In 2016, nine of the top 10 and 19 of the top 25 films were released in 3D, both up compared to 2015 (six and 14). In 2016, the top 25 films accounted for 53 percent of total box office, while the top five films accounted for 18 percent of total box office, less than the equivalent percentages in 2015.

### Top 25 Films by U.S./Canada Box Office Earned in 2016

Source: comScore – Box Office Essentials, CARA (Rating)

Rank	Title	Distributor	Box Office (USD MM)	Rating	3D
1	Finding Dory	Disney	\$486.3	PG	✓
2	Rogue One: A Star Wars Story*	Disney	\$408.2	PG-13	✓
3	Captain America: Civil War	Disney	\$408.1	PG-13	✓
4	Secret Life Of Pets, The	Universal	\$368.4	PG	✓
5	Jungle Book, The	Disney	\$364.0	PG	✓
6	Deadpool	20th Century Fox	\$363.1	R	
7	Zootopia	Disney	\$341.3	PG	✓
8	Batman V Superman: Dawn Of Justice	Warner Bros.	\$330.4	PG-13	✓
9	Suicide Squad	Warner Bros.	\$325.1	PG-13	✓
10	Star Wars: The Force Awakens**	Disney	\$284.7	PG-13	✓
11	Doctor Strange*	Disney	\$229.9	PG-13	✓
12	Fantastic Beasts And Where To Find Them*	Warner Bros.	\$222.7	PG-13	✓
13	Moana*	Disney	\$206.5	PG	✓
14	Revenant, The**	20th Century Fox	\$182.8	R	
15	Jason Bourne	Universal	\$162.4	PG-13	
16	Star Trek Beyond	Paramount	\$158.8	PG-13	✓
17	X-Men: Apocalypse	20th Century Fox	\$155.4	PG-13	✓
18	Sing*	Universal	\$152.9	PG	✓
19	Trolls*	20th Century Fox	\$150.1	PG	✓
20	Kung Fu Panda 3	20th Century Fox	\$143.5	PG	✓
21	Ghostbusters	Sony	\$128.4	PG-13	✓
22	Central Intelligence	Warner Bros.	\$127.4	PG-13	
23	Legend Of Tarzan, The	Warner Bros.	\$126.6	PG-13	✓
24	Sully	Warner Bros.	\$125.0	PG-13	
25	Bad Moms	STX Entertainment	\$113.3	R	

\* Film still in theaters in 2017; total reflects box office earned from January 1 – December 31, 2016  
 \*\* Film released in theaters in 2015; total reflects box office earned from January 1 – December 31, 2016

In 2016, the number of films entering production with estimated budgets greater than \$1 million increased two percent to 510. The increase was driven by non-MPAA member studio films, up six percent over 2015 to 411, while the number of MPAA member studio films entering into production decreased to 99 in 2016.

### Films Produced for Future Theatrical Release<sup>23</sup>

	2012	2013	2014	2015	2016 <sup>24</sup>	16 vs. 15	16 vs. 12
MPAA member total	99	106	110	114	99	-13%	--
Non-members (est. \$1m+ budget)	377	349	371	387	411	6%	9%
- % with reported \$15m+ budget	18%	15%	14%	15%	15%	--	--
<b>Total films produced (est. \$1m+ budget)</b>	<b>476</b>	<b>455</b>	<b>481</b>	<b>501</b>	<b>510</b>	<b>2%</b>	<b>7%</b>
Non-members (est. <\$1m budget)	252	283	226	290	279		
Total films produced	728	738	707	791	789		

<sup>23</sup> These figures reflect full-length feature films in the English language which began production in the reported year, with a U.S. production company (including co-productions). The counts do not include student films, documentaries, or films created for video release. Budgets are estimated from publicly available information. In the interest of accuracy, MPAA compiles data from a wide range of sources. The number for lower-budget films is variable and more difficult to track.

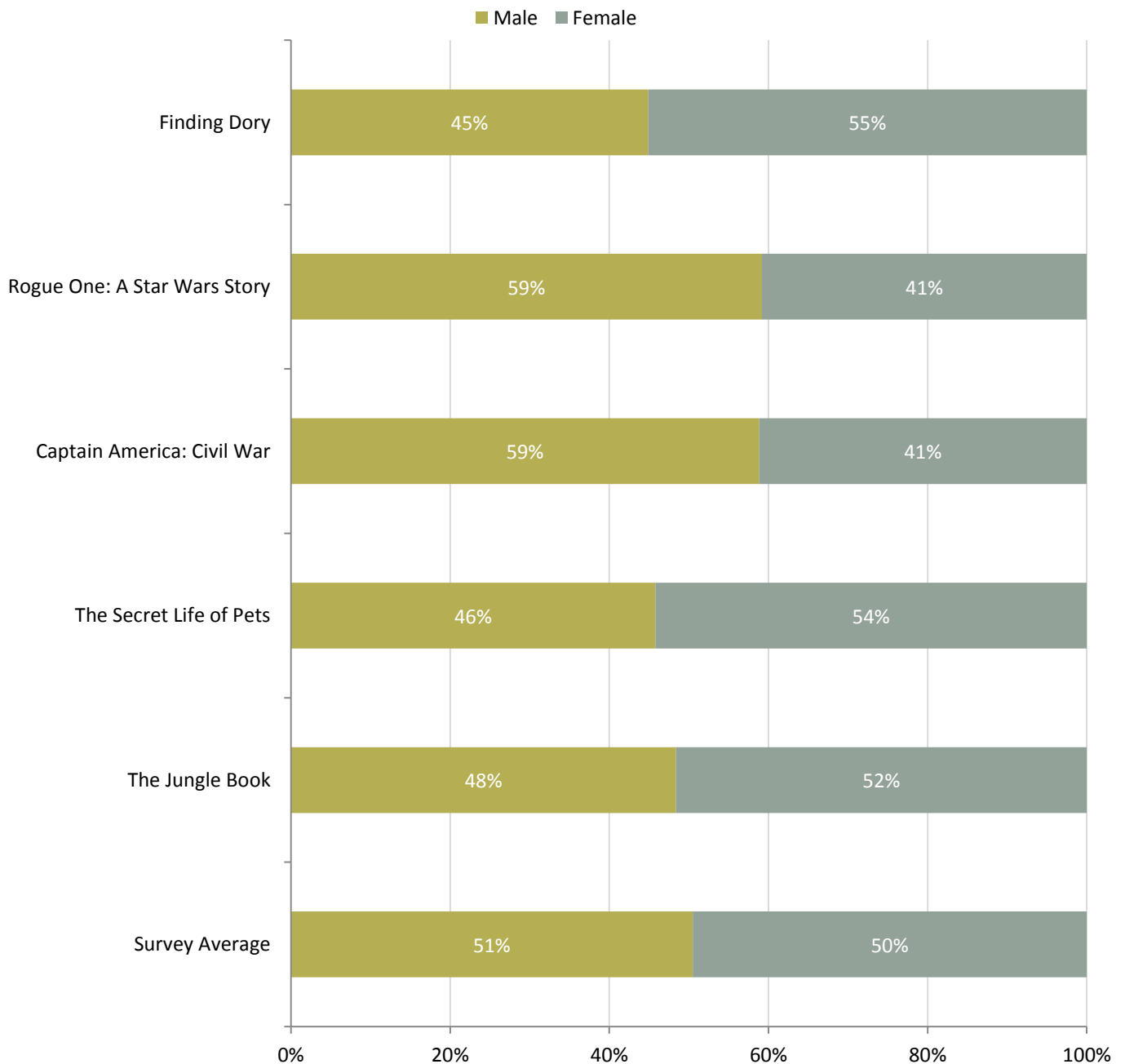
<sup>24</sup> Data for 2016 is provisional as of March 2017, and may be revised as more information becomes available.

comScore/Screen Engine’s “PostTrak” collects domestic survey data for all films in release in at least 800 theaters, and links box office grosses to gender and ethnicity of attendees. The surveys are conducted during the first two weeks of a film’s wide release.<sup>25</sup>

Three of the top five grossing films in 2016 attracted majority female audiences, led by the top box office title, *Finding Dory*, which received 55 percent of its box office from women. *Rogue One: A Star Wars Story* and *Captain America: Civil War* attracted majority male audiences. Both films received 59 percent of box office from men.

### 2016 Gender Share of Top Grossing Films

Source: comScore/Screen Engine

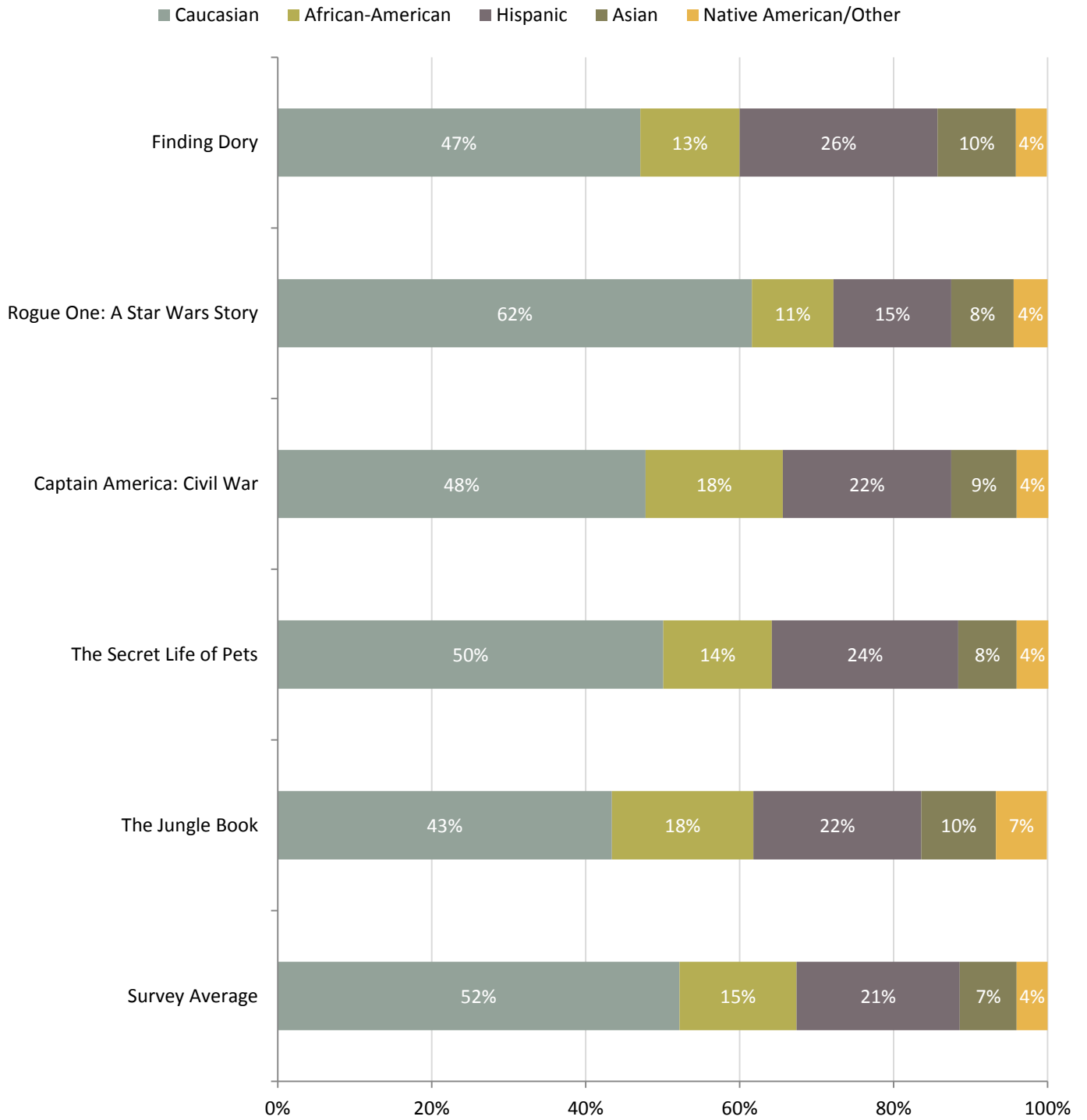


<sup>25</sup> More details about comScore’s PostTrak methodology can be found in the methodology section at the end of this report.

According to comScore/Screen Engine's "PostTrak," among the top grossing films, *The Jungle Book* drew the most ethnically diverse audience, followed by *Finding Dory* and *Captain America: Civil War*.

### 2016 Ethnicity Share of Top Grossing Films<sup>26</sup>

Source: comScore/Screen Engine



<sup>26</sup> Percentage values in table may not sum to 100 percent due to rounding.



In 2016, there were nearly 40,400 screens in the United States, a slight increase from 2015. The majority of screens (85%) were located at venues with five or more screens. The number of screens at venues with four or fewer screens was unchanged compared to the previous year, despite an overall increase in the number of screens.

### U.S. Screens by Type of Venue<sup>27</sup>

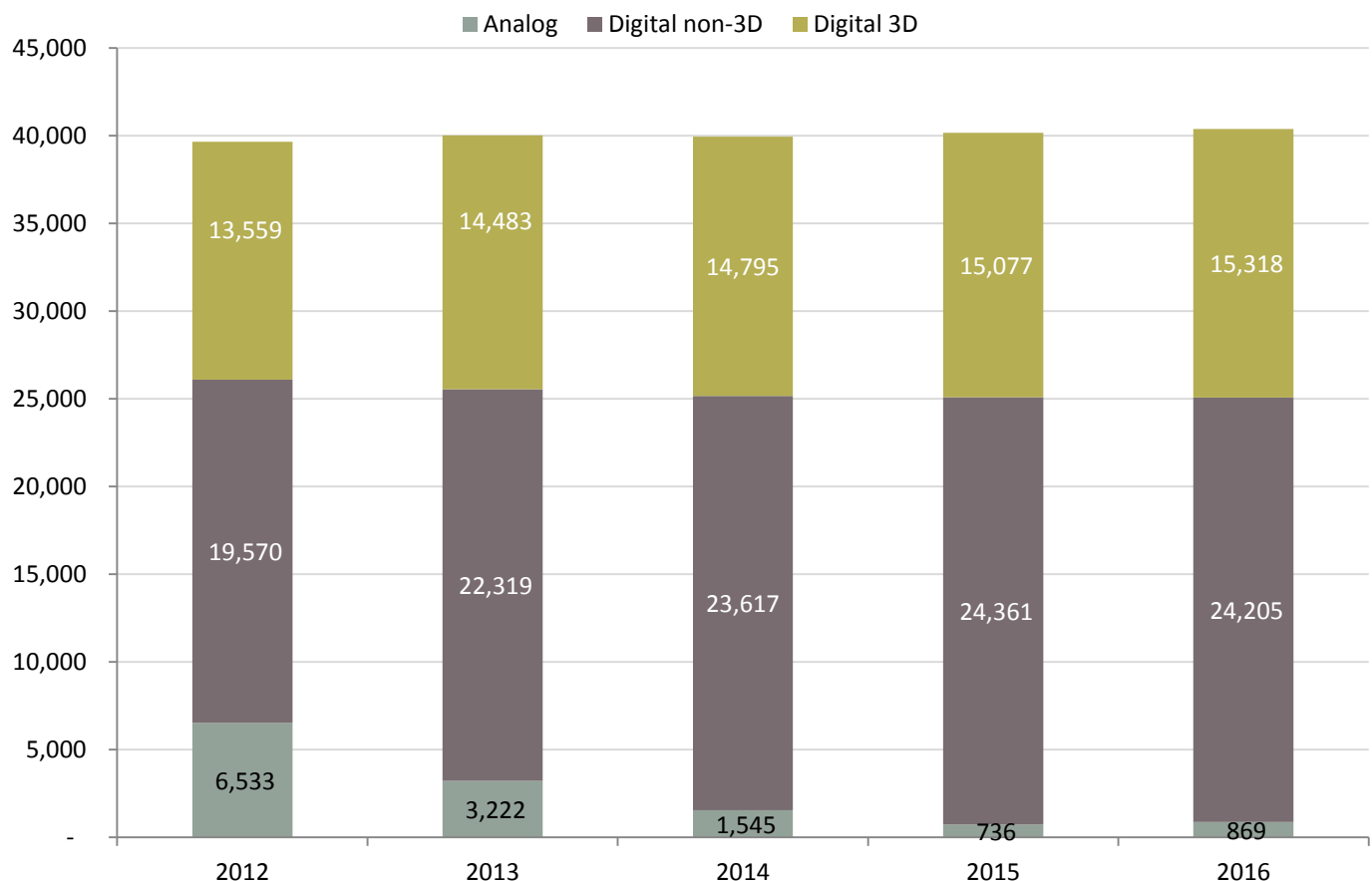
Source: IHS Markit

	2012	2013	2014	2015	2016
1-4 screen venues	6,386	6,487	6,133	6,076	6,076
5+ screen venues	33,276	33,537	33,824	34,098	34,316
<b>Total</b>	<b>39,662</b>	<b>40,024</b>	<b>39,957</b>	<b>40,174</b>	<b>40,392</b>

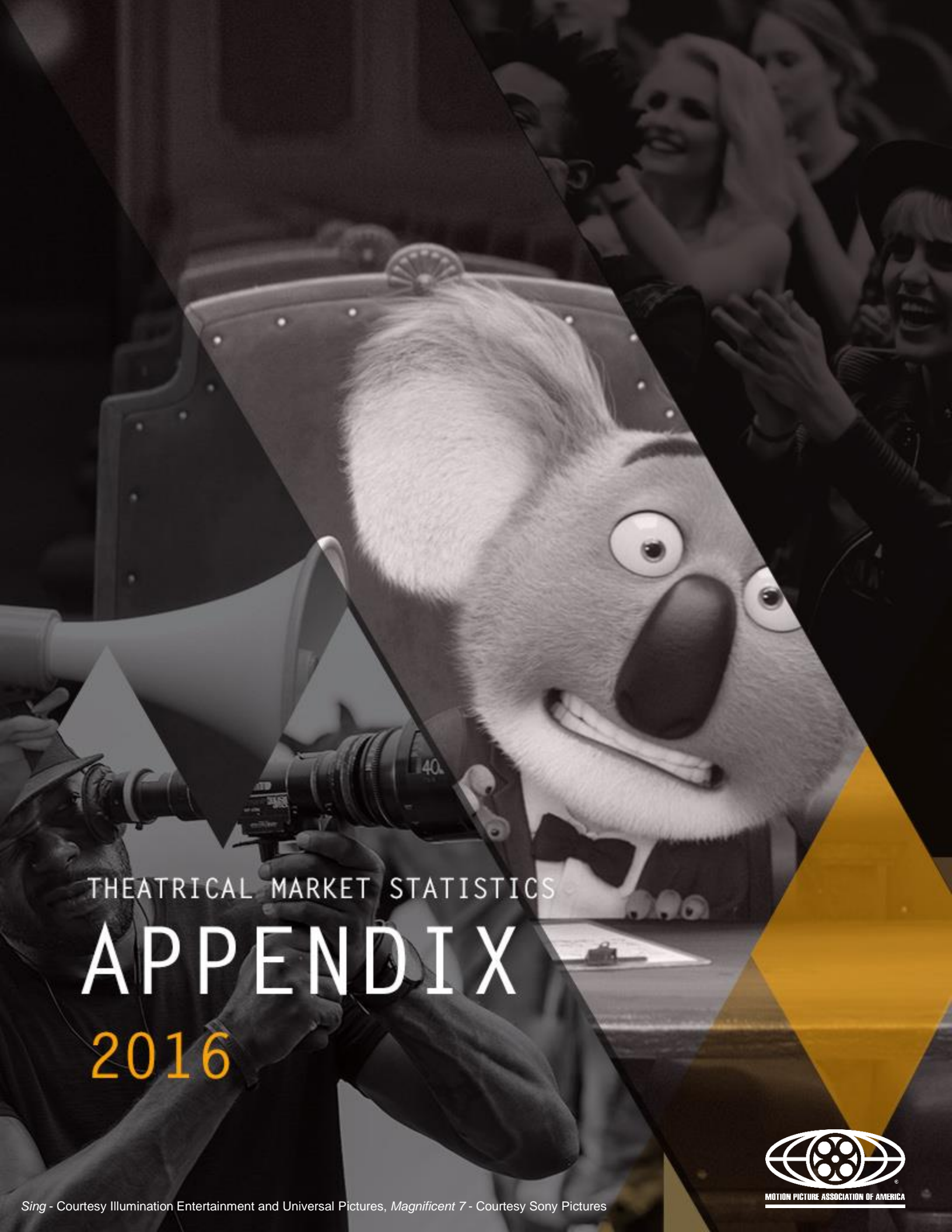
In 2016, the number of digital screens in the United States increased, now accounting for 98 percent of all U.S. screens. The number of non-3D digital screens declined by 156, decreasing one percent from the previous year to account for 60 percent of all screens. The number of digital 3D screens increased two percent from 2015, while analog screens are up 18 percent in the same time period.

### U.S. Screens by Type

Source: IHS Markit



<sup>27</sup> 2016 screen venue figures are estimates as of March 2017. Screen figures for previous years have been revised by source.



THEATRICAL MARKET STATISTICS

# APPENDIX

2016



MOTION PICTURE ASSOCIATION OF AMERICA

## Attendance Demographics Study Methodology

### Survey research

Motion Picture Association of America, Inc. (MPAA) commissioned Opinion Research Corporation (ORC) International to study motion picture cinema attendance in the United States. A survey was conducted among a national probability sample of 3,999 adults comprising 2,001 men and 1,998 women 18 years of age and older, living in private households in the continental United States. Interviewing was completed beginning January 5, 2017, and ending January 29, 2017 via four consecutive waves of CARAVAN®, ORC International's weekly national telephone omnibus survey.

A dual frame Random Digit Dial (RDD) sample consisting of landline and cell phone numbers was used in 2017. Completed interviews consisted of ~50% conducted via cell phone and 50% conducted via landline. The proportion of cell telephones in the sample has increased from 35% in 2014. This change to the CARAVAN sample was made in January 2015 in recognition of the increasing proportion of American adults reliant primarily on cell phones. Details about the CARAVAN dual frame sampling and weighting methodology are available upon request to ORC. The margin of error for surveys with samples of 3,999 respondents, at the 95% confidence level, is plus or minus 1.55 percentage points. A table showing margin of sampling error for key subgroups is included at the end of the document. While any change in sampling methodology can potentially raise concerns, this can be overcome by the use of consistent and standardized interviewing procedures and representative weighting.

The survey collected data on the frequency of adult motion picture attendance in the prior calendar year (January – December 2016). In 2016, the 3D category was expanded to include movies in a large screen format such as IMAX.

- *"Think back to January 2016—about a year ago. During the 12 month period from January through December 2016, about how many times did you go to the movies at theaters?"*
- *(IF 1 OR MORE): "And, of those [INSERT RESPONSE] movies that you saw in theaters, how many did you see in 3D or in a large screen format such as IMAX?"*

Also, where the respondent indicated the presence of a child or children in the household ages 2-17, the respondent was asked to provide estimates of the frequency of each child's motion picture attendance, as well as the child's age and gender. Following were the questions used, which were repeated for each child in order of oldest to youngest:

- *"To better understand the make-up of the movie-going audience, we would also like to know about how frequently children 2 and older attended the movies in 2016, including all times they went with guardians or on their own. Now, thinking of your child at least 2 but under 18, how many times did he or she go to the movies at theaters in 2016?"*
- *(IF 1 OR MORE): "And, of those [INSERT RESPONSE] movies, how many did that child see in 3D or in a large screen format such as IMAX?"*

In order to analyze the data for attendance levels for the entire population 2 years old or older, the survey data is split into two data sets -- the original set of adult respondent data and a second set representing the child data. In order to create this child's data set, each child in the household is treated as a separate respondent. The child's age, gender and movie attendance are taken from the survey data provided by the parent. Each child's race/ethnicity is assumed to be the same as the parent, as is household information such as location and household income.

Once the two data sets are created, adult data is weighted by age, gender, region, race and education. The children's data is also separately weighted by age, gender, region and race. The data sets are combined and the data is reviewed to ensure that the proportions of children to adults match the overall population. The combined data usually demonstrates an overrepresentation of children vs. adults, as it does in 2017. In that case, the child's data is then re-weighted if necessary so that the ending proportions of children to adults corresponds to the actual population ratios. This is necessary because there can be more than one child in many households. This weighted data set is used to produce the attendance projections.

## Attendance Demographics Study Methodology continued

### Attendance projections

The survey process yields a self reported frequency of motion picture cinema attendance for the total sample and for each demographic group. When this frequency number is used to calculate total attendance in a calendar year, it typically produces a number that exceeds the attendance figure reported by MPAA. This is due to over reporting on the part of the respondents, so an adjustment factor is calculated for the total sample and for each demographic group. This adjustment factor is derived by dividing the actual attendance number from MPAA by the attendance number derived from the survey data for each demographic group. The resulting adjustment factor is typically a number slightly less than one. Attendance projections are then created for each demographic group, using the weighted total number of admissions derived from the survey data, multiplied by the adjustment factor. Due to the sample size and approach of this survey, it is not feasible to provide additional data for demographic groups beyond those listed on page 29 at a similar margin of error (+/- six or fewer percentage points).

### Technology product ownership

A question was added in 2014 to measure ownership of key technology products among adults 18 years of age and older. Some wording modifications were made in 2017.

- Which of the following do you own?

*(READ LIST. RECORD AS MANY AS APPLY. WAIT FOR YES OR NO FOR EACH)*

- 01 A desktop, laptop or netbook computer
- 02 A tablet such as an iPad, Galaxy Tab, Fire, G Pad, Surface, etc. *(READ IF NECESSARY: includes all Android and Windows based tablets. Does not include an e-reader)*
- 03 A smartphone, such as an iPhone, Android phone, Microsoft phone, etc.
- 04 A video game system – either console or portable *(READ IF NECESSARY: This includes any PlayStation or PSP, Xbox, Nintendo, etc.)*
- 05 A DVD or Blu-ray disc player *(READ IF NECESSARY: stand-alone, not built into a video game system or a PC/laptop)*
- 06 Any internet-connected device that lets you stream video to your TV set *(READ IF NECESSARY: Includes a 'smart-TV', Roku, Google Chromecast, Amazon Fire TV, Apple TV, etc.)*
- 98 NONE OF THESE
- 99 DON'T KNOW

Survey results for this question are presented using adult data only, weighted by age, gender, region, race and education.

## Attendance Demographics Study Methodology continued

### Table of Sampling Error for Demographic Subgroups

Subgroup	Margin of Error
All adults	+/- 1.6 percentage points
Children 2-17	+/- 2.7 percentage points
Ages 2-11	+/- 3.5 percentage points
Ages 12-17	+/- 4.3 percentage points
Ages 18-24	+/- 5.3 percentage points
Ages 25-39	+/- 3.9 percentage points
Ages 40-49	+/- 4.4 percentage points
Ages 50-59	+/- 3.6 percentage points
Ages 60+	+/- 2.3 percentage points
White, non-Hispanic	+/- 1.6 percentage points
Black, non-Hispanic	+/- 4.3 percentage points
Asian/Other	+/- 3.7 percentage points
Hispanic	+/- 4.8 percentage points
<25K HH income	+/- 3.4 percentage points
25K-<50K HH income	+/- 2.9 percentage points
50K-<75K HH income	+/- 3.5 percentage points
75K + HH income	+/- 2.4 percentage points
Male	+/- 1.9 percentage points
Female	+/- 1.9 percentage points

## comScore PostTrak Methodology

PostTrak is conducted every week for all films in their first and second week of wide release. Twenty one theaters in unique locations were chosen to participate and are demographically representative of the U.S. Census population. Wide release includes all films playing in more than 800 theaters.

Sample sizes are as follows:

- 1st weekend –
  - For Family titles, a minimum of N=1200 (which includes a mix of general audience, parents, and kids).
  - For purely General Audience titles, a minimum of N=800.
- 2nd weekend –
  - For Family titles, a minimum of N=600 (which includes a mix of general audience, parents, and kids).
  - For purely General Audience titles, a minimum of N=400.

PostTrak uses a multi-mode methodology for data collection: paper and pencil and mobile tablet. All of the data is then entered into comScore’s system within one hour of data collection for near-immediate reporting. To ensure the audience composition is representative, audience audits are conducted at each location by field personnel. These audits are then applied to the collected data and then weighted to the measured demographic of the actual moviegoing audience for each movie.

Note that the “race/ethnicity” question is asked as follows:

Which race or ethnic group do you most identify with? Choose only one.

African-American/Black

Asian/Pacific Islander

Caucasian/White

Hispanic/Latino

Native American

Other<sup>28</sup>

All survey methodologies involve sampling a universe of potential respondents. The PostTrak surveys are subject to a sampling error determined by the sample size for each film. The PostTrak method was designed to minimize the sources of sampling error, as well as coverage error and errors due to response rate.

<sup>28</sup> “Other” includes those who self-identify as a “mixed race or ethnicity” or “some other race.” For example, a person’s ethnicity may be Hispanic, but they may also characterize themselves as a member of the Caucasian race. Consequently, when forced to make only one selection, they will identify themselves as “Other” rather than choosing to only identify with one race or one ethnic group individually.



MOTION PICTURE ASSOCIATION OF AMERICA

