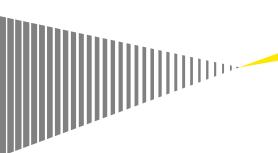
## The Relationship Between Movie Theatre Attendance and Streaming Behavior

Survey Findings

February 2020





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### I: About this study

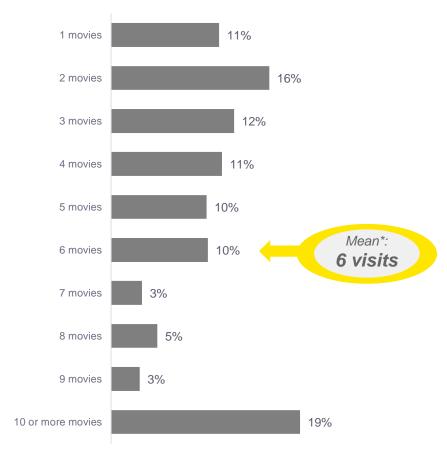
- All results in this study are based on an EY survey fielded in November 2019 that asked questions about:
  - Movie theatre attendance over the last twelve months
  - Streaming consumption over the last twelve months
  - Awareness of movies released in theaters and its impact on home viewing
  - Demographic information (race, age, income, etc.)
- The survey included 2,015 respondents who saw at least one movie in theatres over the last twelve months and an additional 505 respondents who did not see any movie in theatres.
- Of the 2,520 total respondents, 79% of the respondents streamed at least one hour of online content per week over the last twelve months, and 69% saw at least one movie in theatres and streamed at least one hour of online content per week in the last twelve months.

Unless otherwise noted, the survey results presented in this study only include respondents who saw at least one movie in theatres <u>and</u> streamed at least one hour of online content per week in the last twelve months. These 1,734 respondents are called "dual-consumers" (DC's).

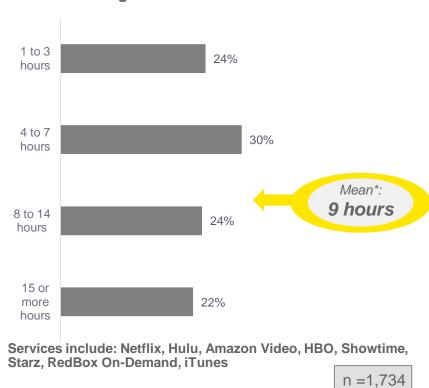


# II: Movie theatre attendance and streaming consumption, dual-consumers

During the last 12 months, about how many times did you go to the movies at theatres?



During the last 12 months, on average, how many hours per week would you say you spent streaming online-subscription content or downloads from any of the following services?



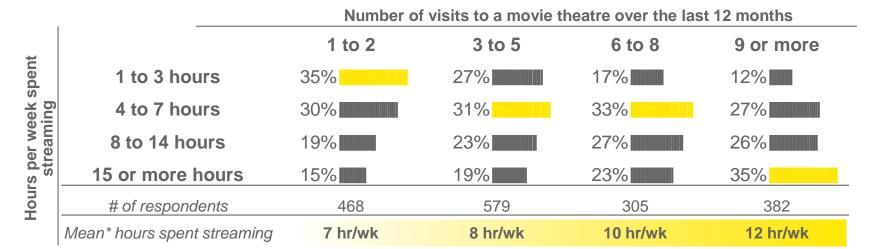
These results have not changed significantly from earlier iteration of the survey. See slide 32.



<sup>\*</sup>Means are reported as 95% trimmed means.

# Positive relationship between movie theatre attendance and streaming behavior

Movie theatre attendance and streaming consumption are positively related – those who attend movies in theatres more frequently also tend to consume streaming content more frequently



Of dual-consumers (DC's) who visited a movie theatre twice at most in the last 12 months, 35% streamed less than 4 hours per week.

Of DC's who reported 9 or more visits to a movie theatre in the last 12 months, only 12% streamed less than 4 hours per week.

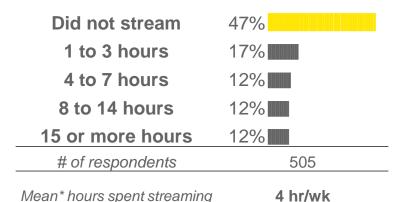
Of DC's who visited a movie theatre twice at most in the last 12 months, only 15% streamed online content for 15 or more hours per week. Of DC's who reported 9 or more visits to a movie theatre in the last 12 months, 61% streamed online content for 8 or more hours per week, and 35% streamed at least 15 hours per week.

Note: Figures may not appear to sum due to rounding. \*Means are reported as 95% trimmed means.



## Nearly half of those who did not visit a movie theatre in the last 12 months did not stream online content

Online streaming behavior of those who did not visit a movie theatre in the last 12 months



Of those who didn't visit a movie theatre in the last 12 months, nearly half (47%) didn't stream any online content.

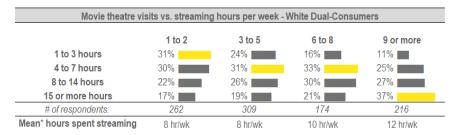
Of those who did not visit a movie theatre at all in the last 12 months, about 24% streamed online content for 8 or more hours per week.

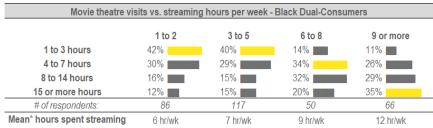
Note: Figures may not appear to sum due to rounding. \*Means are reported as 95% trimmed means.



## II: Movie theatre attendance and streaming consumption, dual-consumers by race/ethnicity

The positive relationship between movie theatre attendance and streaming consumption is strong across all races/ethnicities - the mean hours spent streaming per week generally increases with the number of movie theatre visits in the last 12 months.





Movie theatre visits vs. streaming hours per week - Asian Dual-Consumers					
	1 to 2	3 to 5	6 to 8	9 or more	
1 to 3 hours	40%	24%	22%	18%	
4 to 7 hours	32%	41%	56%	35%	
8 to 14 hours	13%	18%	17%	23%	
15 or more hours	15%	18%	6% ■	25%	
# of respondents:	47	34	18	40	
lean* hours spent streaming	6 hr/wk	8 hr/wk	7 hr/wk	10 hr/wk	

Movie theatre visits vs. streaming hours per week - Multi Race Dual-Consumers					
	1 to 2	3 to 5	6 to 8	9 or more	
1 to 3 hours	39%	21%	23%	16%	
4 to 7 hours	26%	28%	23%	29%	
8 to 14 hours	20%	28%	18%	20%	
15 or more hours	15%	23%	36%	35%	
# of respondents:	61	102	56	51	
Mean* hours spent streaming	7 hr/wk	9 hr/wk	11 hr/wk	11 hr/wk	

Movie theatre visits vs. streaming hours per week - Hispanic Dual-Consumers					
	1 to 2	3 to 5	6 to 8	9 or more	
1 to 3 hours	43%	25%	15%	7% 🔳	
4 to 7 hours	29%	40%	38%	33%	
8 to 14 hours	17%	21%	22%	18%	
15 or more hours	12%	14%	24%	42%	
# of respondents:	112	156	78	97	
Mean* hours spent streaming	6 hr/wk	7 hr/wk	10 hr/wk	12 hr/wk	

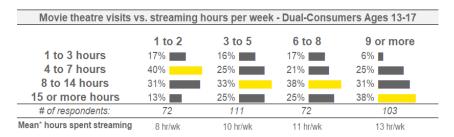
Movie theatre visits vs. streaming hours per week - Non-Hispanic Dual-Consumers				
	1 to 2	3 to 5	6 to 8	9 or more
1 to 3 hours	33%	28%	18%	14%
4 to 7 hours	31%	27%	31%	25%
8 to 14 hours	20%	25%	29%	29%
15 or more hours	16%	20%	22%	33%
# of respondents:	356	423	227	285
lean* hours spent streaming	7 hr/wk	8 hr/wk	10 hr/wk	11 hr/wk



<sup>\*</sup>Means are reported as 95% trimmed means.

# II: Movie theatre attendance and streaming consumption, dual-consumers by age group

Across all age groups, those respondents that visited a movie theatre 9 or more times on average in the last 12 months also streamed at least 9 hours of online content per week.



	44-2	24- 5	C 4- 0	0
	1 to 2	3 to 5	6 to 8	9 or more
1 to 3 hours	43%	27%	12%	11%
4 to 7 hours	26%	37%	40%	30%
8 to 14 hours	14%	19%	26%	21%
15 or more hours	16%	16%	21%	38%
# of respondents:	202	281	122	136
an* hours spent streaming	7 hr/wk	8 hr/wk	9 hr/wk	12 hr/wk

Movie theatre visits vs. streaming hours per week - Dual-Consumers Ages 38-52						
	1 to 2	3 to 5	6 to 8	9 or more		
1 to 3 hours	31%	28%	19%	12%		
4 to 7 hours	30%	23%	32%	20%		
8 to 14 hours	19%	26%	20%	30%		
15 or more hours	19%	23%	29%	37%		
# of respondents:	115	112	75	83		
lean* hours spent streaming	8 hr/wk	9 hr/wk	10 hr/wk	12 hr/wk		

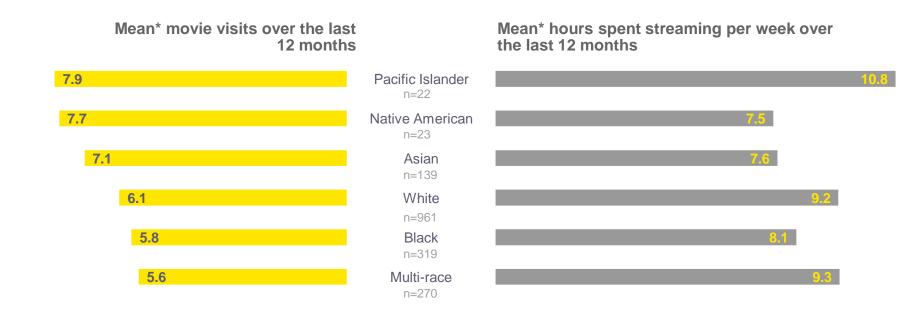
Movie theatre visits vs. streaming hours per week - Dual-Consumers Ages 53-72           1 to 2         3 to 5         6 to 8         9 or more           1 to 3 hours         37%         39%         29%         23%           4 to 7 hours         32%         28%         34%         30%           8 to 14 hours         25%         22%         26%         23%           15 or more hours         7%         11%         11%         23%           # of respondents:         73         72         35         56           Mean* hours spent streaming         6 hr/wk         6 hr/wk         7 hr/wk         9 hr/wk							
1 to 3 hours       37%       39%       29%       23%         4 to 7 hours       32%       28%       34%       30%         8 to 14 hours       25%       22%       26%       23%         15 or more hours       7%       11%       11%       23%         # of respondents:       73       72       35       56	Movie theatre visits vs. streaming hours per week - Dual-Consumers Ages 53-72						
4 to 7 hours       32%       28%       34%       30%         8 to 14 hours       25%       22%       26%       23%         15 or more hours       7%       11%       11%       23%         # of respondents:       73       72       35       56		1 to 2	3 to 5	6 to 8	9 or more		
8 to 14 hours       25%       22%       26%       23%         15 or more hours       7%       11%       11%       23%         # of respondents:       73       72       35       56	1 to 3 hours	37%	39%	29%	23%		
15 or more hours       7% ■       11% ■       11% ■       23% ■         # of respondents:       73       72       35       56	4 to 7 hours	32%	28%	34%	30%		
# of respondents: 73 72 35 56	8 to 14 hours	25%	22%	26%	23%		
1	15 or more hours	7% ■	11%	11%	23%		
Mean* hours spent streaming 6 hr/wk 6 hr/wk 7 hr/wk 9 hr/wk	# of respondents:	73	72	35	56		
	Mean* hours spent streaming	6 hr/wk	6 hr/wk	7 hr/wk	9 hr/wk		

Note: Dual-Consumers ages 73+ are not shown as no movie attendance range includes more than six respondents.



<sup>\*</sup>Means are reported as 95% trimmed means.

# II: Movie theatre attendance and streaming consumption, dual-consumers by race



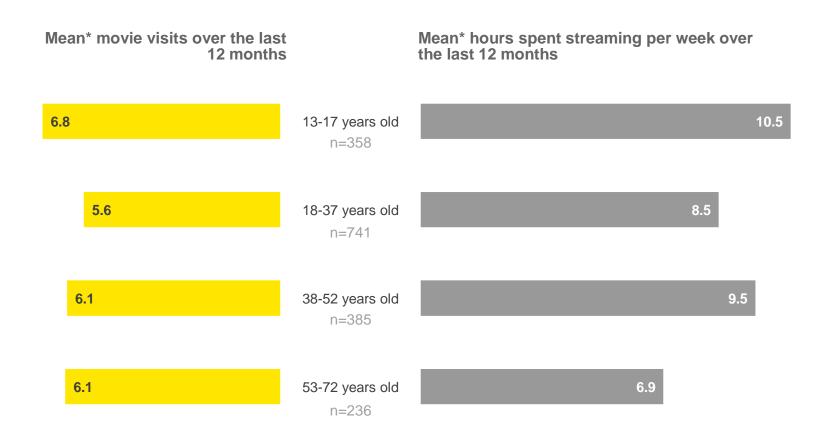


These results have not changed significantly from earlier iteration of the survey. See slide 33.

\*Means are reported as 95% trimmed means.



# II: Movie theatre attendance and streaming consumption, dual-consumers by age



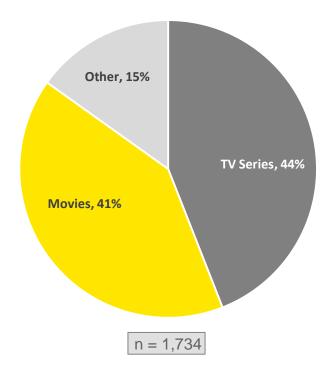
These results have not changed significantly from earlier iteration of the survey. See slide 34.

\*Means are reported as 95% trimmed means.



### II: Streaming content, dual-consumers

Of the time you spent streaming, what percentage of the time would you say you spent streaming the following content?



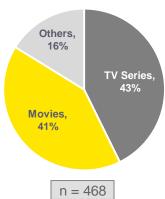
Note: The streaming content groups were described to respondents as the following: TV Series - a group of episodes of a television program released simultaneously or broadcasted in regular intervals Movies - films/motion pictures usually anywhere from 1-3 hours in length Other - sports, comedy specials, etc.



## II: Streaming content, dual-consumers by movie theatre attendance

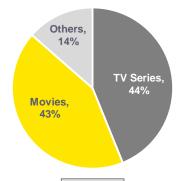
Of the time you spent streaming, what percentage of the time would you say you spent streaming the following content?

Respondents who visited a movie theatre 1 to 2 times in the last 12 months



Respondents who visited a movie theatre

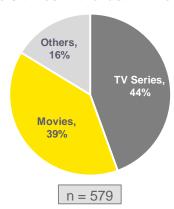
6 to 8 times in the last 12 months



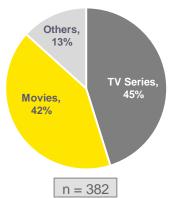
n = 305

Note: Figures may not appear to sum to 100% due to rounding.

Respondents who visited a movie theatre 3 to 5 times in the last 12 months



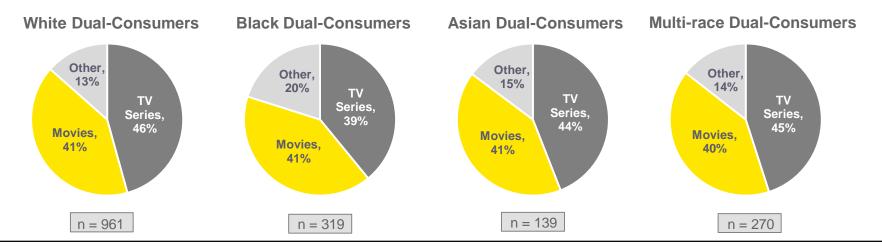
Respondents who visited a movie theatre 9 or more times in the last 12 months

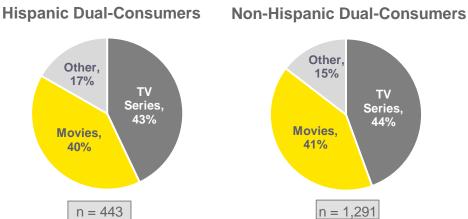




## II: Streaming content, dual-consumers by race

Of the time you spent streaming, what percentage of the time would you say you spent streaming the following content?



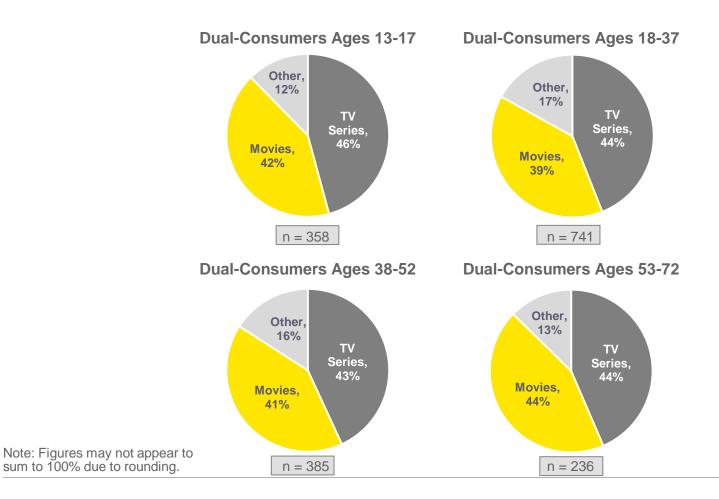




Note: Figures may not appear to sum to 100% due to rounding.

# II: Streaming content, dual-consumers by age group

Of the time you spent streaming, what percentage of the time would you say you spent streaming the following content?





### III: Quadrant Analysis: Segmenting dualconsumers into four quadrants

1

#### Low Movie/Low Streaming

≤ 3 movies in last 12 months≤ 4 hours/week streaming online content

n = 322

2

#### **High Movie/Low Streaming**

≥ 7 movies in last 12 months ≤ 4 hours/week streaming online content

n = 122

3

#### Low Movie/High Streaming

≤ 3 movies in last 12 months≥ 11 hours/week streaming online content

n = 154

4

#### **High Movie/High Streaming**

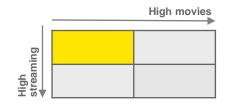
≥ 7 movies in last 12 months
≥ 11 hours/week streaming online content

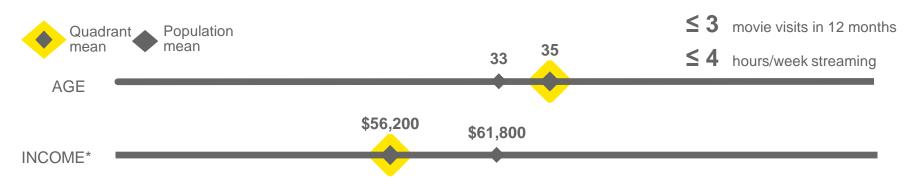
n = 213

Note: Only 811 of the 1,734 dual-consumers fall into one of the four quadrants. The remaining 923 dual-consumers reported 4 to 6 movie theatre visits and 5 to 10 hours of streaming online content.



### Low-movie/Low-streaming: Quadrant profile





Race

- Quadrant
- White: 47%
- Black: 24%
- Asian: 10%
- Native-American: 3% •
- Pacific-Islander: 1%
- Multi-race: 15%

- **Population**
- White: 55%
- Black: 18%
- Asian: 8%
- Native-American: 1%
- Pacific-Islander: 1%
- Multi-race: 16%

Gender

- Quadrant: 52% male, 48% female
- Population: 50% male, 50% female

Internet

- •Quadrant: 84% at-home, 81% mobile
- •Population: 92% at-home, 87% mobile

Hispanic Origin

- Quadrant: 29% Hispanic
- Population: 26% Hispanic

**Marital** Status\*\*

- Quadrant: 46% have never been married
- Population: 40% have never been married

Children\*\*

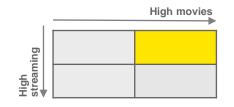
- Quadrant: 41% w/ at least one child under 17
- Population: 44% w/ at least one child under 17

# of respondents

**322** (19% of 1,734)

<sup>\*</sup>Reported as 95% trimmed mean; only 18+ years old respondents were asked to report income. \*\*only 18+ years old respondents were asked to report marital status, and number of children.

# High-movie/Low-streaming: Quadrant profile





Race

Quadrant

White: 57%

Black: 14%

Asian: 14%

Native-American: 0% •

Pacific-Islander: 0%

• Multi-race: 16%

Population

White: 55%

• Black: 18%

Asian: 8%

Native-American: 1%

nder: 0% • Pacific-Islander: 1%

Multi-race: 16%

Gender

· Quadrant: 57% male, 43% female

• Population: 50% male, 50% female

Internet

•Quadrant: 95% at-home, 82% mobile

•Population: 92% at-home, 87% mobile

Hispanic Origin

Quadrant: 20% Hispanic

• Population: 26% Hispanic

Marital Status\*\*

•Quadrant: 43% have never been married

• Population: 40% have never been married

Children\*\*

• Quadrant: 28% w/ at least one child under 17

• Population: 44% w/ at least one child under 17

# of respondents

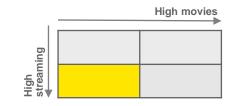
**122** (7% of 1,734)

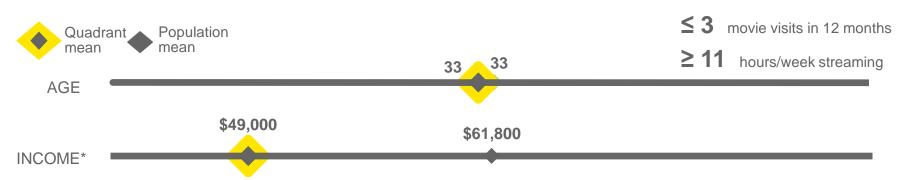


<sup>\*</sup>Reported as 95% trimmed mean; only 18+ years old respondents were asked to report income.

<sup>\*\*</sup>only 18+ years old respondents were asked to report marital status, and number of children.

### Low-movie/High-streaming: Quadrant profile





Race

- Quadrant
- White: 60%
- Black: 16%
- Asian: 9%
- Native-American: 0% .
- Pacific-Islander: 1%
- Multi-race: 14%

- **Population**
- White: 55%
- Black: 18%
- Asian: 8%
- Native-American: 1%
- Pacific-Islander: 1%
- Multi-race: 16%

Gender

- Quadrant: 39% male, 61% female
- Population: 50% male, 50% female

Internet

- •Quadrant: 94% at-home, 85% mobile
- •Population: 92% at-home, 87% mobile

Hispanic Origin

- **Quadrant:** 19% Hispanic
- Population: 26% Hispanic

**Marital** Status\*\*

- •Quadrant: 43% have never been married
- Population: 40% have never been married

Children\*\*

- Quadrant: 48% w/ at least one child under 17
- Population: 44% w/ at least one child under 17

# of respondents

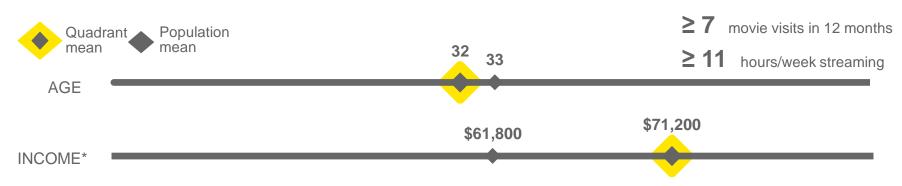
**154** (9% of 1,734)



<sup>\*</sup>Reported as 95% trimmed mean; only 18+ years old respondents were asked to report income. \*\*only 18+ years old respondents were asked to report marital status, and number of children.

### High-movie/High-streaming: Quadrant profile





Race

- Quadrant
- White: 57%
- Black: 17%
- Asian: 7%
- Native-American: 2% •
- Pacific-Islander: 3%

- **Population**
- White: 55%
- Black: 18%
- Asian: 8%
- Native-American: 1%

Multi-race: 16%

- Pacific-Islander: 1%
- Multi-race: 15%

#### Gender

- Quadrant: 51% male, 49% female
- Population: 50% male, 50% female

Internet

- •Quadrant: 98% at-home, 92% mobile
- •Population: 92% at-home, 87% mobile

Hispanic Origin

- Quadrant: 26% Hispanic
- Population: 26% Hispanic

**Marital** Status\*\*

- Quadrant: 38% have never been married.
- Population: 40% have never been married

Children\*\*

- Quadrant: 50% w/ at least one child under 17
- Population: 44% w/ at least one child under 17

# of respondents

**213** (12% of 1,734)



<sup>\*</sup>Reported as 95% trimmed mean; only 18+ years old respondents were asked to report income. \*\*only 18+ years old respondents were asked to report marital status, and number of children.

# IV: Impact of in-theatre movie release on streaming behavior

Streaming services typically offer a mix of movies to their subscribers, some of which have been released previously in movie theaters and others which have not. Thinking about movies you watch using a streaming service, how often are you aware of whether or not the movie was released in a movie theater?

Response	Percentage	
Always	16%	
Usually	35%	
Sometimes	28%	
Rarely	8%	
Never	13%	
Total	100.0%	
Sample Size	2,520	

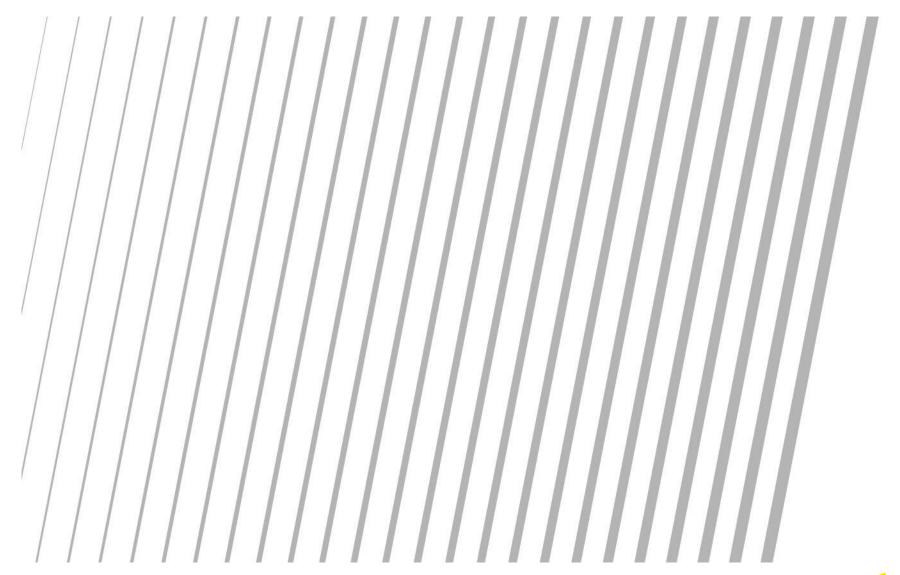
Respondents that were aware of movies' in-theatre releases were more likely to stream a movie when they knew it was released in theatres.

	Always or Usually	Sometimes or Rarely	Total
I am more likely to stream a movie if I know it has been released in a movie theatre	62%	40%	53%
My decision to stream a movie is not impacted by knowing whether it has been released in a movie theatre	35%	51%	42%
I am less likely to stream a movie if I know it has been released in a movie theatre	3%	9%	6%
Total	100%	100%	100%
Sample size	1,286	905	2,191

Note: Results presented include 2,191 respondents who indicated that they were, in some capacity (rarely, sometimes, usually, always), aware of whether the movie they streamed was released in a movie theatre. Respondents who reported that they were slightly, somewhat, or much more likely were grouped together as respondents who were more likely to stream a movie if they knew it was release in a movie theatre. Similarly, respondents who reported that they were slightly, somewhat, or much less likely were grouped together as respondents who were less likely to stream a movie if they knew it was released in theatres. Table may not sum due to rounding.

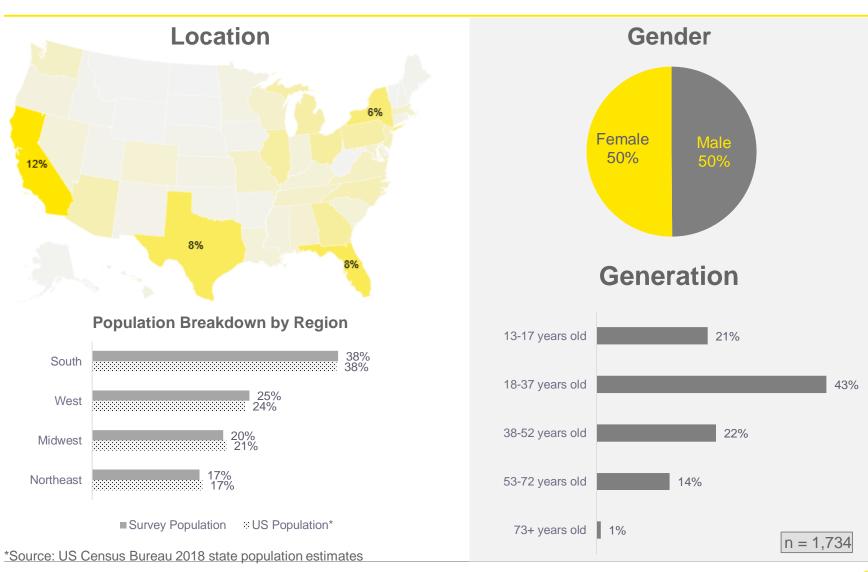


## A: Demographics



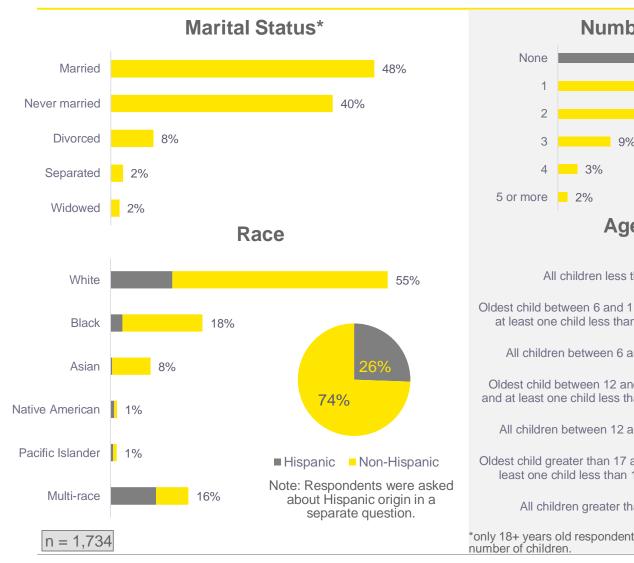


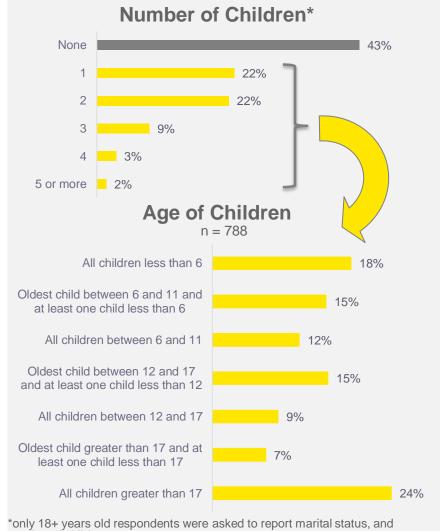
### **Demographics of dual-consumers**





### **Demographics of dual-consumers**



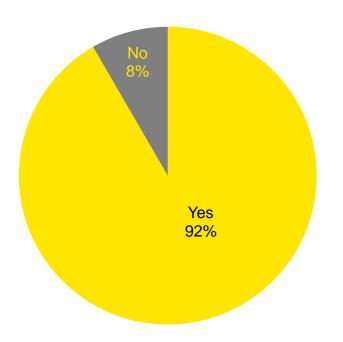


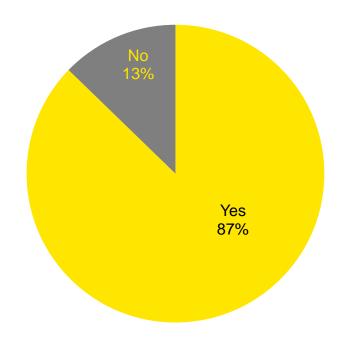


## Access to high-speed internet

Access to wired high-speed internet at home

Access to wireless high-speed internet within household

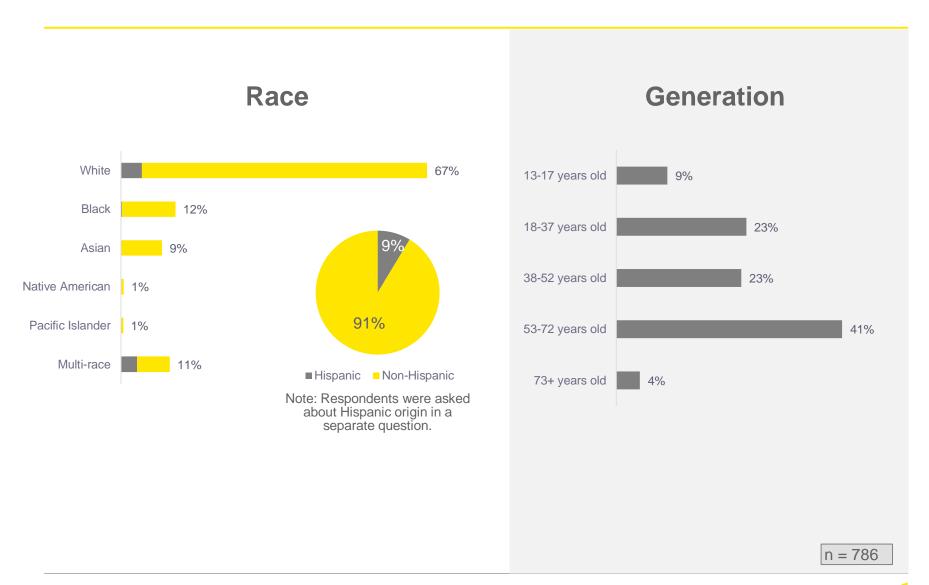




n = 1,734

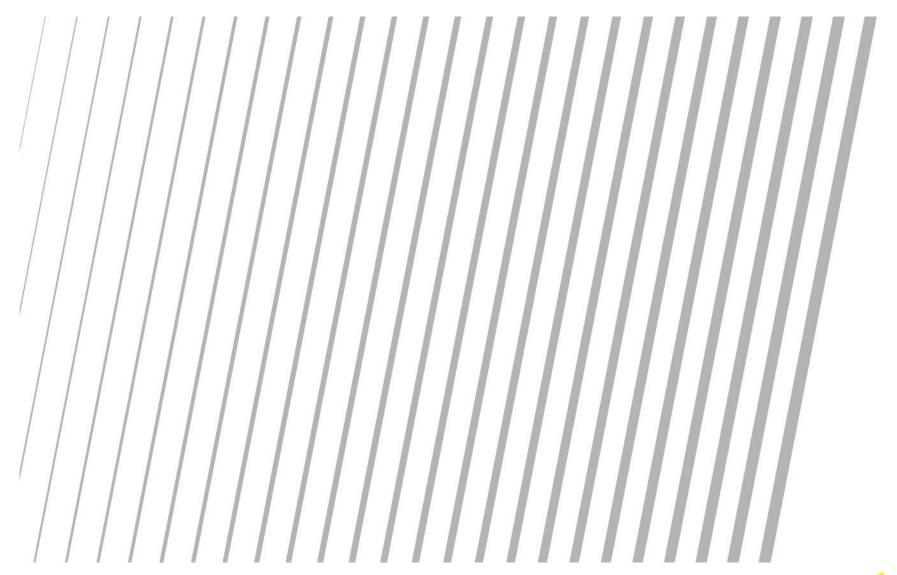


### Demographics of non dual-consumers





## **B: Methodology**





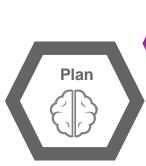
### **Survey quality**

Two main types of error are considered in survey research; variable and systematic errors. **Variable errors** are the cumulative effect of the total error for a particular observation, either positive or negative. When the frequency of variable error is high, the data are often referred to as 'noisy', since variable error limits our ability to understand what the data are telling us. **Systematic errors** arise from faults in the measurement process; these errors lead to bias.

Variable errors are unavoidable, but can be reduced using appropriate techniques of statistical inference. Systematic errors can be reduced by making improvements to the survey process – these errors are the chief focus of our survey quality process.

Survey error can also be classified by its two main sources – sampling error and non-sampling error. Sampling error arises from basing an estimate for the population value on a sample rather than the entire population. In general, sampling error contributes to increased variability in the data. It is measurable and often can be reduced by increasing the sample size or using more sophisticated sample designs.

Non-sampling errors are those arising from sources other than sampling. They tend to contribute to the systematic errors which can be mitigated through good survey practice. On the next page, we describe the steps we have taken to mitigate survey error at each of the five survey stages outlined in the figure below.



#### Develop analysis plan

- ▶ Initial research
- ▶ Define study objectives



#### Questionnaire design

- Draft questions
- ▶ Select mode
- ▶ Web/mobile design
- Pre-test

#### Sample design

- Construct frame
- Choose scheme
- Survey panels



#### **Data collection**

- Advance letter
- Reminders
- Survey implementation



**Process** 

#### **File construction**

- Keying
- Editina
- Verification
- ▶ Follow up
- Weighting



#### Report and analysis

- Descriptive statistics
- Data visualization
- Predictive analytics
- Clustering and segmentation
- Interactive analyses
- Infographics
- Benchmarking



### Steps taken to mitigate survey error



Coordinated with

of Theatre Owners

(NATO) to develop

Considered lessons

research objectives

learned from the first

two iterations of the

study

Developed a survey questionnaire to National Association achieve research objectives

Design

- Partnered with a panel vendor to deploy the survey on the web to 2,500 target respondents
- Extensively tested the web survey tool for coherence and logic
- Targeted respondents based on the demographic profile of movie goers provided by NATO



- Checked quality of incoming data through the collection period
- Collected data in an efficient manner in November -December 2019



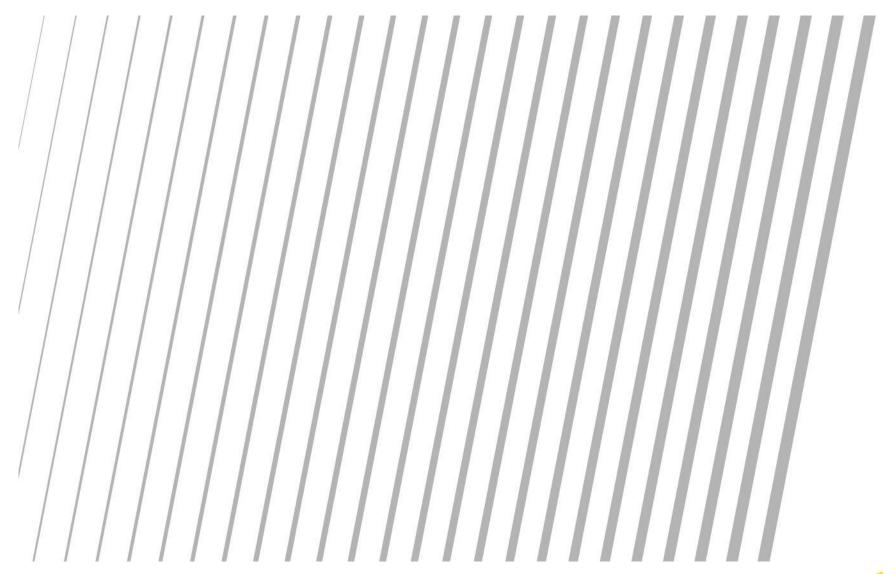
- Reviewed responses to flag outliers as needed
- Used trimmed means to reduce the impact of outliers



- Identified key differences between subgroups throughout report
- Used analytic techniques like cross-tabulation to derive deeper insight and segment the survey population



## C: Study comparison





# Dual consumer movie theatre attendance and streaming consumption comparison

#### Number of visits to a movie theatre over the last 12 months

First Study FY2018

Previous Study FY2019

> New Study FY2020

Number of	visits to a mov	ie theatre over th	e last 12 month	S
	1 to 2	3 to 5	6 to 8	9 or more
1 to 3 hours	28%	21%	16%	13%
4 to 7 hours	32%	36%	31%	25%
8 to 14 hours	20%	21%	26%	28%
15 or more hours	20%	23%	28%	33%
# of respondents	358	440	288	332
Mean* hours spent streaming	8 hr/wk	9 hr/wk	10 hr/wk	12 hr/wk
	1 to 2	3 to 5	6 to 8	9 or more
1 to 3 hours	39%	30%	18%	15%
4 to 7 hours	28%	33%	30%	26%
8 to 14 hours	18%	20%	26%	28%
15 or more hours	15%	18%	26%	31%
# of respondents	460	511	323	438
Mean* hours spent streaming	7 hr/wk	8 hr/wk	10 hr/wk	11 hr/wk
	1 to 2	3 to 5	6 to 8	9 or more
1 to 3 hours	35%	27%	17%	12%
4 to 7 hours	30%	31%	33%	27%
8 to 14 hours	19%	23%	27%	26%
15 or more hours	15%	19%	23%	35%
# of respondents	468	579	305	382
Mean* hours spent streaming	7 hr/wk	8 hr/wk	10 hr/wk	12 hr/wk

Note: Figures may not appear to sum due to rounding.

Hours per week spent streaming

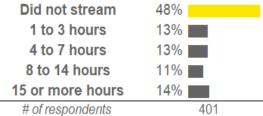
\*Means are reported as 95% trimmed means.



## Streaming behavior of non-moviegoers comparison

#### First Study - FY2018

Online streaming behavior of those who did not visit a movie theatre in 2017

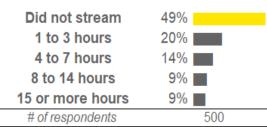


5 hr/wk

Mean\* hours spent streaming

#### Previous Study - FY2019

Online streaming behavior of those who did not visit a movie theatre in the last 12 months



Mean\* hours spent streaming

#### New Study – FY2020

Online streaming behavior of those who did not visit a movie theatre in the last 12 months

Did not stream	47%
1 to 3 hours	17%
4 to 7 hours	12%
8 to 14 hours	12%
15 or more hours	12%
# of respondents	505

Mean\* hours spent streaming

4 hr/wk

Of those who didn't visit a movie theatre in 2017, nearly half (48%) didn't stream any online content.

Of those who did not visit a movie theatre at all in 2017, only a quarter (25%) streamed online content for 8 or more hours per week. Of those who didn't visit a movie theatre in the last 12 months, nearly half (49%) didn't stream any online content.

Of those who did not visit a movie theatre at all in the last 12 months, only 18% streamed online content for 8 or more hours per week. Of those who didn't visit a movie theatre in the last 12 months, nearly half (47%) didn't stream any online content.

Of those who did not visit a movie theatre at all in the last 12 months, only 23% streamed online content for 8 or more hours per week.

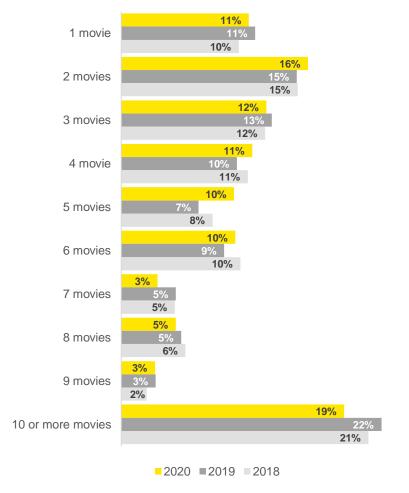
Note: Figures may not appear to sum due to rounding. \*Means are reported as 95% trimmed means.



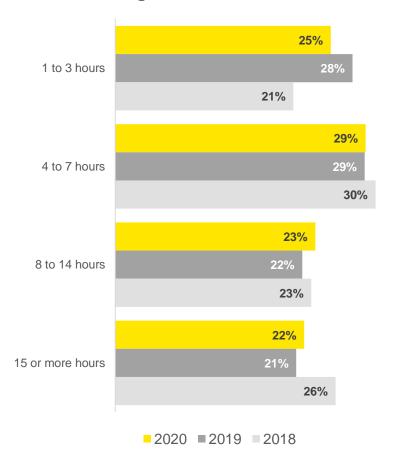
4 hr/wk

# II: Movie theatre attendance and streaming consumption of dual consumers, FY2018-2020

During the last 12 months, about how many times did you go to the movies at theatres?

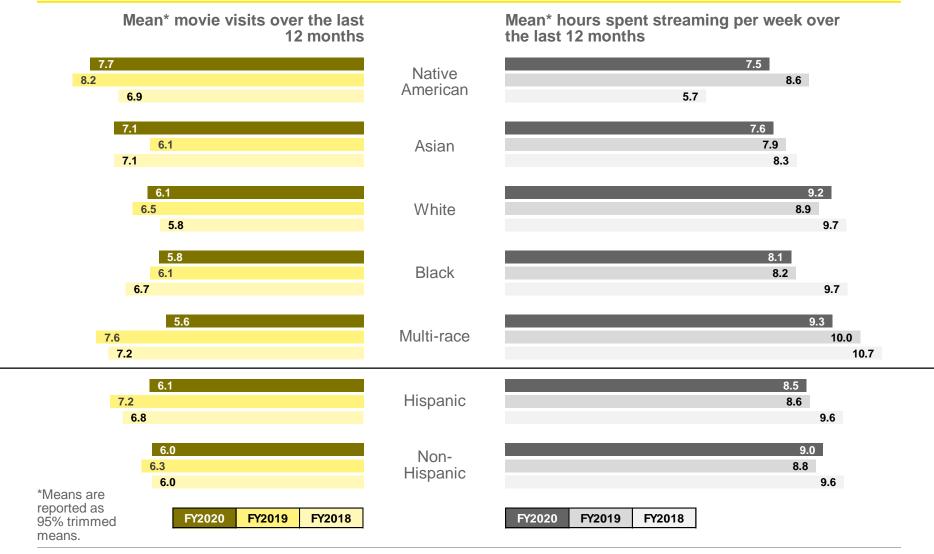


During the last 12 months, on average, how many hours per week would you say you spent streaming online-subscription content or downloads from any of the following services?



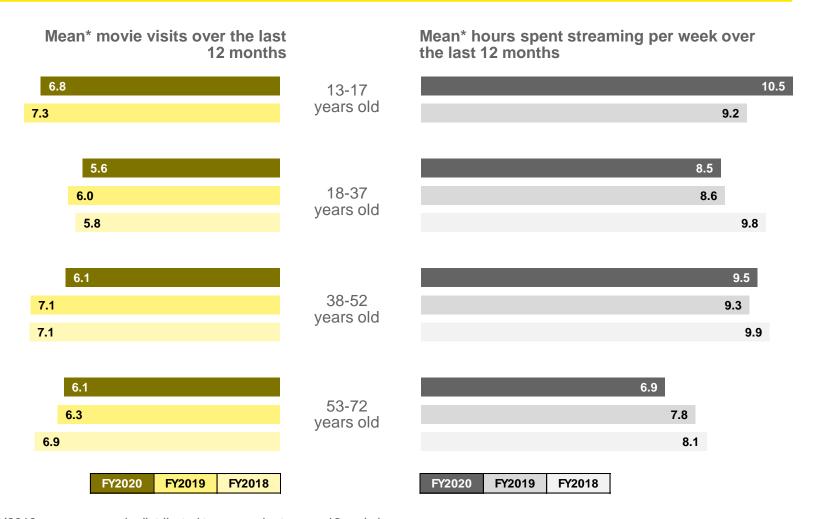


## II: Movie theatre attendance and streaming consumption, dual-consumers by race, FY2018-2020





## II: Movie theatre attendance and streaming consumption, dual-consumers by age, FY2018-2020



Note: The FY2018 survey was only distributed to respondents ages 18 and above. \*Means are reported as 95% trimmed means.

