Benefits of Out of Home (OOH) Advertising Custom Analysis

August 2019

Agenda

- **Background & Objectives**

- **Methodology**

- **Key Takeaways**

- **Part I: Additional Reach of OOH…**
    - to "any" and "heavy" consumers of other media types (cable, TV, radio, internet, magazines, newspapers, mobile devices)
    - to digital/video media activities (TV and movie apps for smartphone or tablet, streaming, mobile streaming/downloading)

- **Part II: Any OOH and Heavy OOH Audience Profiles**
    - Basic demographics
    - Time spent on devices
    - Use of digital and video media (TV, Streaming, Video on Mobile Devices, Online Activities)
    - Ad receptivity
    - Weekly miles traveled
    - Types of transportation used

Background & Objectives

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Background

The Out of Home Advertising Association of America (OAAA) is interested in showcasing the **key benefits of out of home (OOH) advertising**. Specifically, the **amplified reach and influence** of using **OOH with other media** channels.

Objectives

- Provide up-to-date measures of **incremental reach of OOH** with various other media types (cable, TV, radio, internet, etc.)
- Profile of the **OOH audience**, defined as **adults 18-64 who** have **traveled any miles by car in the past 7 days**, either driving or as a passenger, in a town, city, or suburb:
    - Engagement with **video** and **digital media**
    - **Time spent on** various **devices**
    - **Ad receptivity**
    - **Miles traveled** and transportation used

Key Takeaways

Additional Reach of OOH

In a typical week, adding the **OOH** audience – those who have traveled in a car in the past 7 days -- **to** users of any **other media** outlet grows total audience to nearly 100%

- Reach **grows most dramatically for:**
  - **Work-based internet** *+100%*
  - **Print media** (newspapers *+112%* and magazines *+57%*)

Adding OOH to digital video platform **advertising amplifies exposure** and **can double, triple, or** even **quadruple the audience** reached:

- **Video streaming** *+132%*
- **TV or movie** smartphone/tablet **apps** *+226%*
- *M*obile video viewing *+340%*
- **Downloading/streaming on cell** or **smartphone** *+306%*

Any OOH Audience Profile

The **OOH audience** – those who traveled in a car in the past 7 days -- **represent 93% of adults** age 18-64 and **closely reflect demographic norms and variability** observed in the general population

- **Employment**, **home ownership**, **marriage**, and **2-3 person households** are characteristic
- Average **age is 41**, and average **household income is $115k**

In a typical week, **they spend the most time engaging with mobile phones** – 13.5 hours. **Work PCs and TV** are runners up.

54% use video streaming services; **Netflix is the clear leader** among providers.

Top online activities are email, checking weather, banking, and looking up **directions.**

When it comes to advertising, **61% have average or greater receptivity**.

On average, **they spend 166 miles on the road per week; driving is their main mode of transportation.**

Heavy OOH Audience Profile

The **Heavy OOH** audience – defined as those who spend **more miles on the road** and **notice OOH ads** – are **less racially diverse** and have **higher levels of education**, **employment**, and household **income**. They're also more **likely to be married** and have **children**.

When it comes to media engagement, they spend even **more time on mobile phones and work PCs**.

More time on their phones and PCs means **more online activities** – both overall and on mobile. While top activities mirror those of the Any OOH audience, they're notably **more likely to make travel arrangements** or **get travel information** online.

They're 17% **more likely to use a video streaming service** and **are more likely to subscribe to all top providers** (Netflix, Amazon Instant Video, Hulu).

The Heavy OOH audience is **more receptive to advertising** in general, **especially at movie theaters**.

In a given week, **they put 36% more miles on their cars** and **drive 225 miles** on average. **Driving is their go-to mode of transportation,** and they're **less likely to use public transportation or taxis.**

Part I: Additional Reach of OOH
to "Any" and "Heavy" Consumers of other Media Types
to Digital/Video Media Activities

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Part I: Definitions & Sample Sizes

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- The base includes adults age 18-64

- **Any OOH** includes adults age 18-64 who have **traveled any miles by car** in the past 7 days, either **driving or as a passenger**, **in a town, city, or suburb**

- **Heavy OOH** includes those adults who fall into the **top two volume groups for miles by car** in the past 7 days, either **driving or as a passenger**, **in a town, city or suburb**
  - All respondents are divided into 5 volume groups; the lowest volume group traveled zero miles
  - Respondents who traveled any miles are divided equally into the four remaining volume groups; the top two groups represent Heavy OOH

- **"Any" users of other media types** include those who **report using that media type at all in the past 7 days**

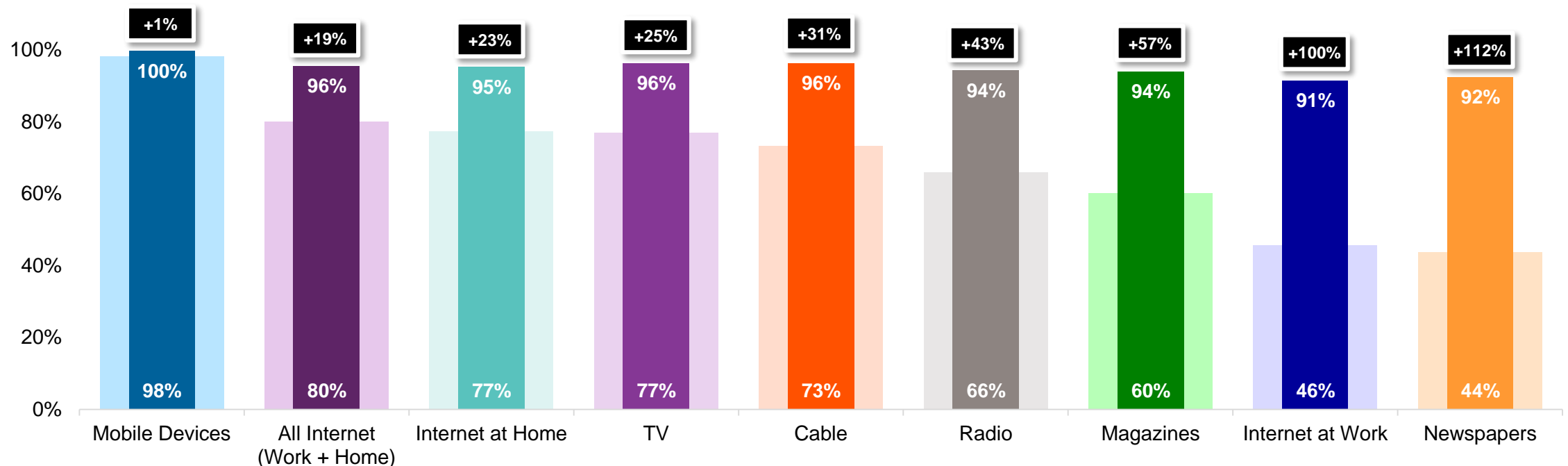- **"Heavy" users of other media types** include those who **fall into the top two volume groups**

Sample Sizes		
Definition	**Unweighted** -actual respondents-	**Weighted** -projected to US population-
Adults 18-64 (Base)	15,473	193,815,000
Any OOH	13,722	172,287,000
Heavy OOH	7,231	88,701,000

Additional Reach of Adding OOH to Heavy Users of Other Media
Any Consumers of Other Media + Any OOH

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Adding OOH to other media can increase your audience to nearly 100%

Total Reach: Any Consumers of Other Media + Any OOH
Sorted by Volume

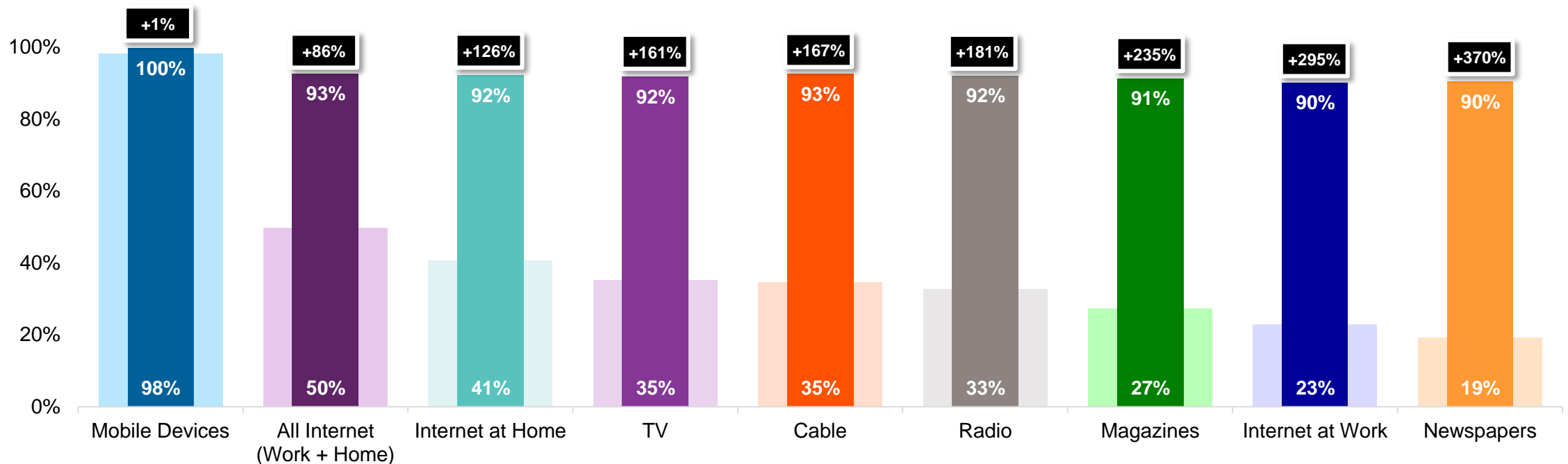|	Mobile Devices	All Internet (Work + Home)	Internet at Home	TV	Cable	Radio	Magazines	Internet at Work	Newspapers
Additional	+1%	+19%	+23%	+25%	+31%	+43%	+57%	+100%	+112%
Total	100%	96%	95%	96%	96%	94%	94%	91%	92%
Base	98%	80%	77%	77%	73%	66%	60%	46%	44%

Other Media Consumers include adults 18-64 who reported using that media type in the past 7 days.
Any OOH includes adults 18-64 who traveled any miles in a car as a driver or passenger, in a town, city, or suburb, in the past 7 days.

Additional Reach of Adding OOH to Other Media
Heavy Consumers of Other Media + Any OOH

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Adding OOH to heavy users of other media can double the audience and grow exposure to 100%

Total Reach: Heavy Consumers of Other Media + Any OOH
Sorted by Volume

	Mobile Devices	All Internet (Work + Home)	Internet at Home	TV	Cable	Radio	Magazines	Internet at Work	Newspapers
Added reach	+1%	+86%	+126%	+161%	+167%	+181%	+235%	+295%	+370%
Total	100%	93%	92%	92%	93%	92%	91%	90%	90%
Base	98%	50%	41%	35%	35%	33%	27%	23%	19%

Heavy Other Media Consumers include adults 18-64 who fall into the top 2 volume groups for using that media type in the past 7 days.
Any OOH includes adults 18-64 who traveled any miles in a car as a driver or passenger, in a city, town or suburb, in the past 7 days.
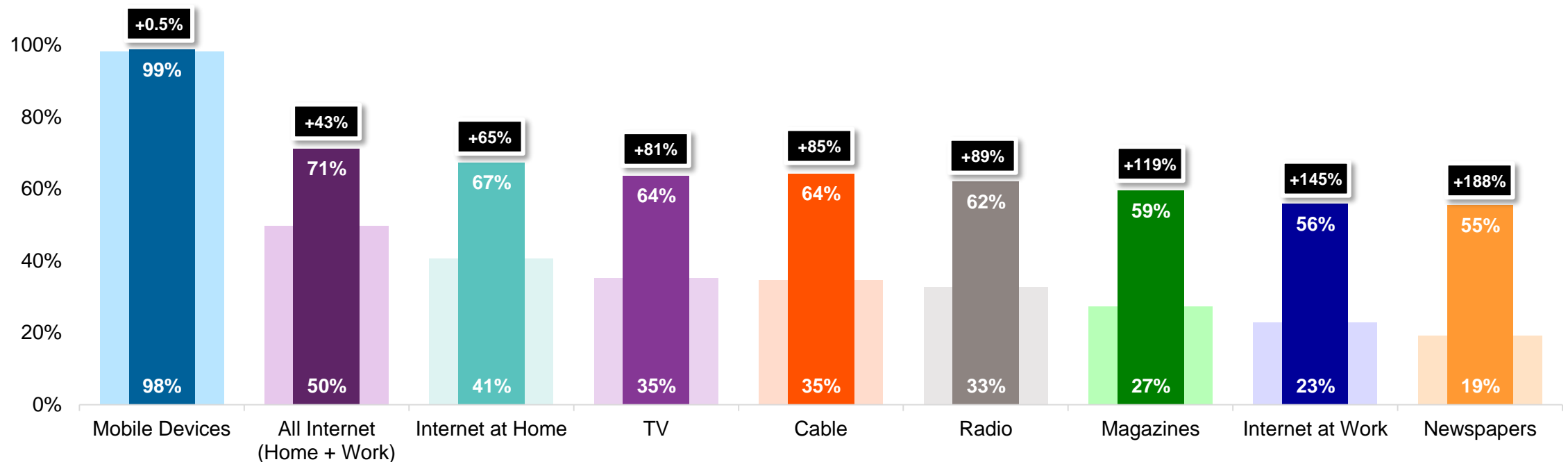
Additional Reach of Adding OOH to Other Media Among All Heavy Users
Heavy Consumers of Other Media + Heavy OOH

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Reach more than doubles when heavy OOH is added to heavy print and internet at work

Total Reach: Heavy Consumers of Other Media + Heavy OOH
Sorted by Volume

Media	Total Reach	Additional Reach	Base Reach
Mobile Devices	99%	+0.5%	98%
All Internet (Home + Work)	71%	+43%	50%
Internet at Home	67%	+65%	41%
TV	64%	+81%	35%
Cable	64%	+85%	35%
Radio	62%	+89%	33%
Magazines	59%	+119%	27%
Internet at Work	56%	+145%	23%
Newspapers	55%	+188%	19%

Heavy Other Media Consumers include adults 18-64 who fall into the top 2 volume groups for using that media type in the past 7 days.
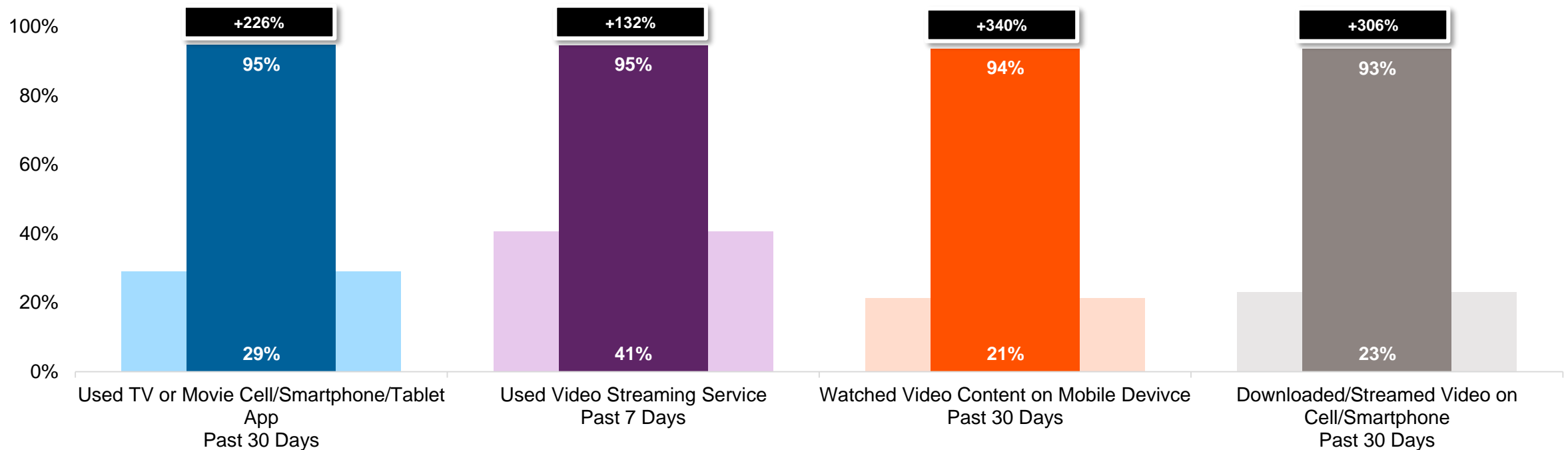Heavy OOH includes adults 18-64 who fall into the top 2 volume groups for miles traveled in a car as a driver or passenger, in a city, town, or suburb, in the past 7 days.

Additional Reach of Adding OOH to Digital/Video Activities
Any Consumers of Digital/Video Media Activities + Any OOH

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Adding OOH to consumers who engage with digital/video media grows reach to nearly 100%

Users of Digital/Video Media Activities + Any OOH
Sorted by Volume

Activity	Base %	Total %	Lift
Used TV or Movie Cell/Smartphone/Tablet App Past 30 Days	29%	95%	+226%
Used Video Streaming Service Past 7 Days	41%	95%	+132%
Watched Video Content on Mobile Devivce Past 30 Days	21%	94%	+340%
Downloaded/Streamed Video on Cell/Smartphone Past 30 Days	23%	93%	+306%

Any OOH includes adults 18-64 who traveled any miles in a car as a driver or passenger in a city, town, or suburb in the past 7 days OR noticed ads in movie theaters in the past 7 days.

Part II: Any OOH Audience Profile
Demographics, Digital & Video Media, Ad Receptivity, Travel Time & Modes of Transportation

Part II: Definitions & Sample Sizes

- The base includes adults age 18-64

- **Any OOH** includes adults age 18-64 who have **traveled any miles by car** in the past 7 days, either driving or as a passenger, in a town, city, or suburb **OR noticed ads in movie theaters** in the past 7 days

- **Heavy OOH** includes the **top two volume groups for miles traveled by car** in the past 7 days, either driving or as a passenger, in a town, city or suburb **AND noticed any OOH ads** in the past 7 days
  - All respondents are divided into 5 volume groups; the lowest volume group traveled zero miles
  - Respondents who traveled any miles are divided equally into the four remaining volume groups; the top two groups represent Heavy OOH
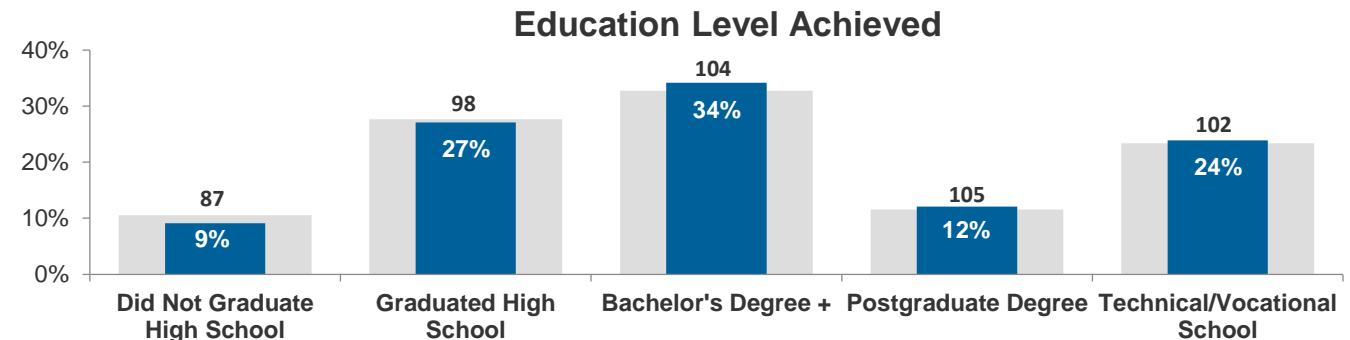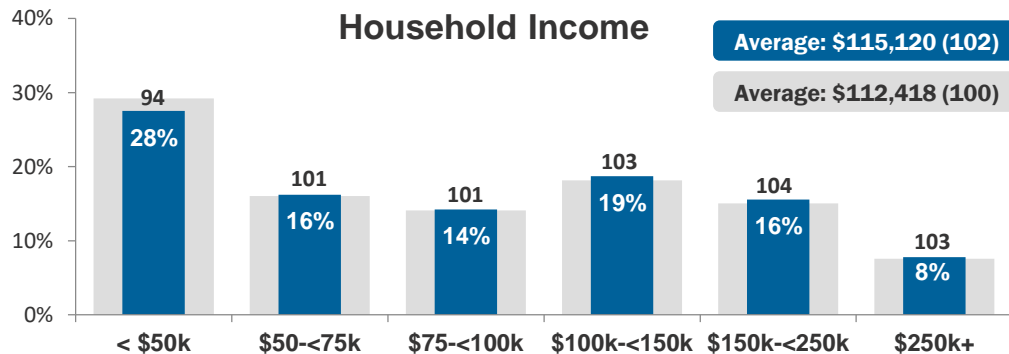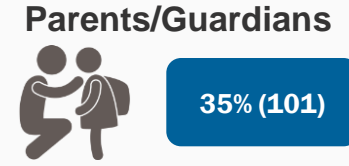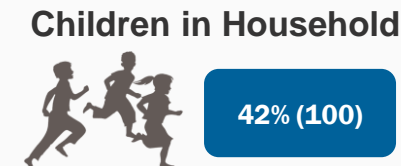
Sample Sizes		
Definition	**Unweighted**	**Weighted**
Adults 18-64 (Base)	15,473	193,815,000
Any OOH	14,294	179,977,000
Heavy OOH	5,157	65,173,000

Demographic Profile: Any OOH viewership (93% of adults 18-64)

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Employment, marriage, home ownership, and 2-3 person households are characteristic
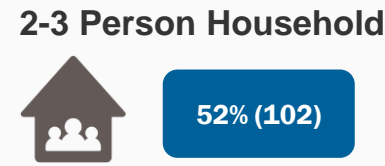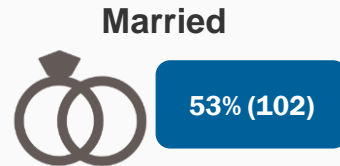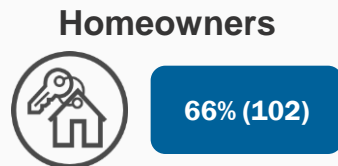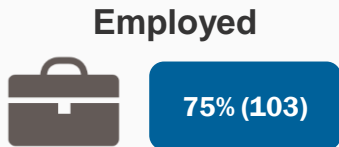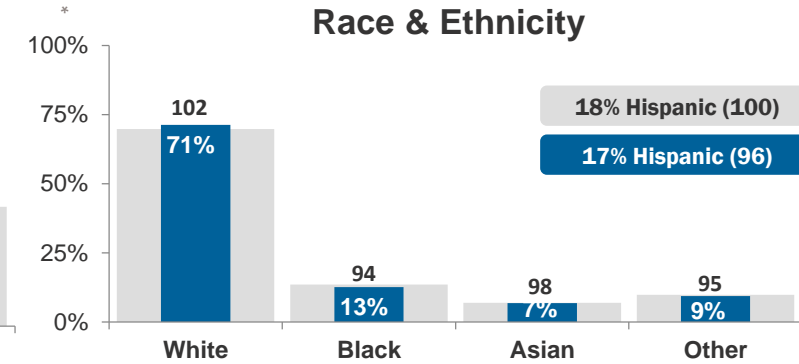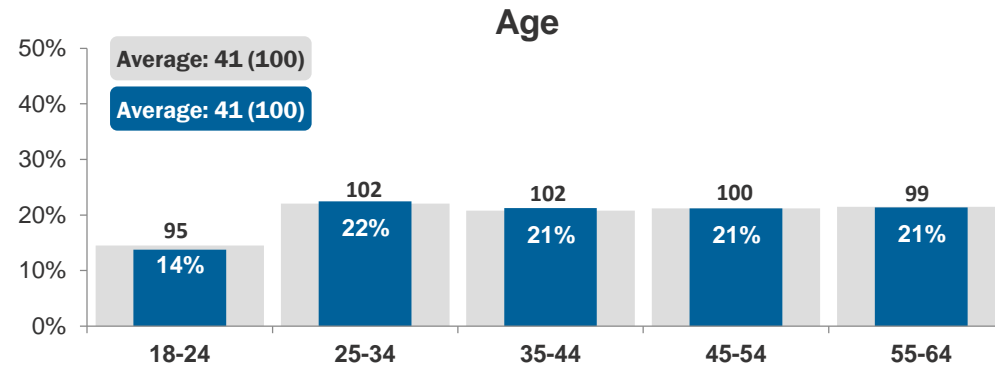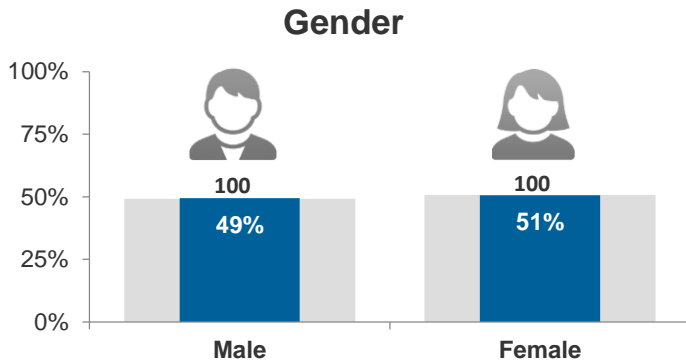
Gender

- Male: 100 / 49%
- Female: 100 / 51%

Age

- Average: 41 (100)
- Average: 41 (100)

Age	Adults 18-64	Any OOH
18-24	95	14%
25-34	102	22%
35-44	102	21%
45-54	100	21%
55-64	99	21%

Race & Ethnicity

- 18% Hispanic (100)
- 17% Hispanic (96)

	Adults 18-64	Any OOH
White	102	71%
Black	94	13%
Asian	98	7%
Other	95	9%

Employed
75% (103)

Homeowners
66% (102)

Married
53% (102)

2-3 Person Household
52% (102)

Children in Household
42% (100)

Parents/Guardians
35% (101)

Household Income

- Average: $115,120 (102)
- Average: $112,418 (100)

Income	Adults 18-64	Any OOH
< $50k	94	28%
$50-<75k	101	16%
$75-<100k	101	14%
$100k-<150k	103	19%
$150k-<250k	104	16%
$250k+	103	8%

Education Level Achieved

Education	Adults 18-64	Any OOH
Did Not Graduate High School	87	9%
Graduated High School	98	27%
Bachelor's Degree +	104	34%
Postgraduate Degree	105	12%
Technical/Vocational School	102	24%

Time Spent on Devices: Any OOH viewership

Spend the most time engaging with mobile phones, followed by work PCs and television
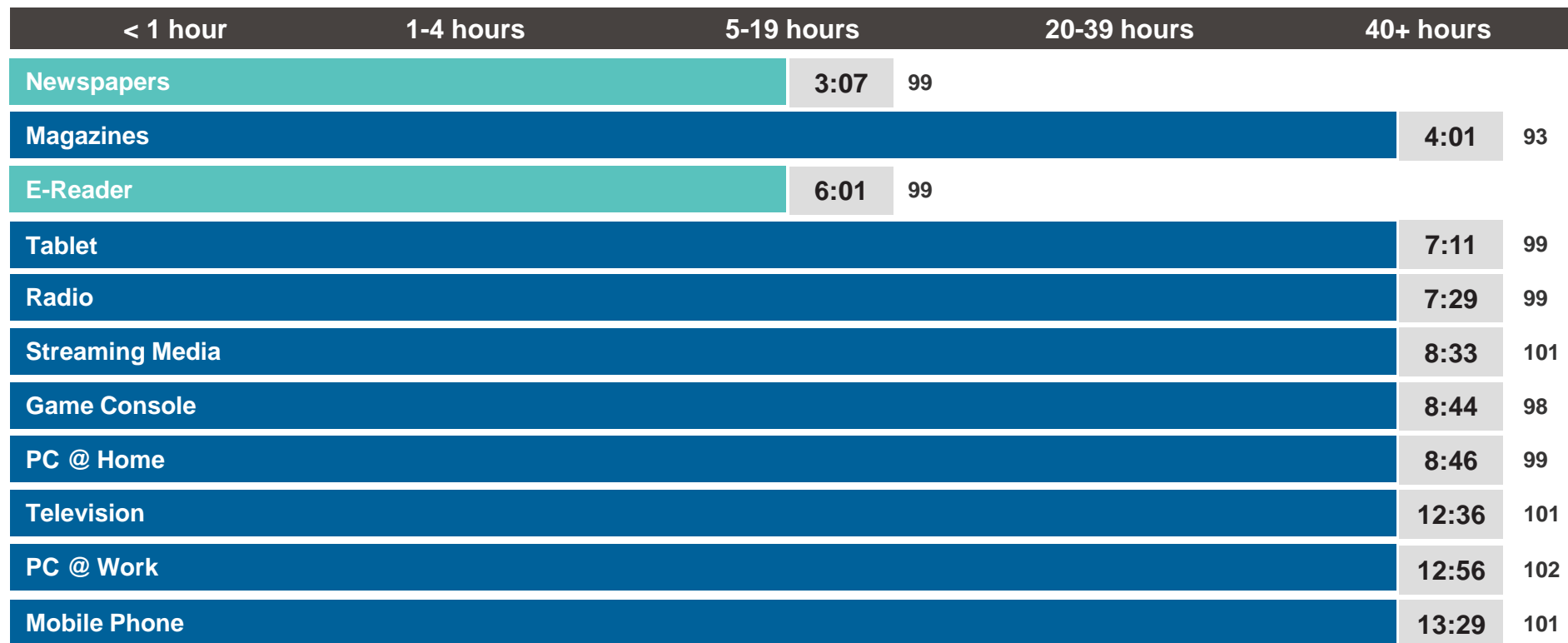
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Time Spent Engaging with Different Media Devices: Last 7 Days

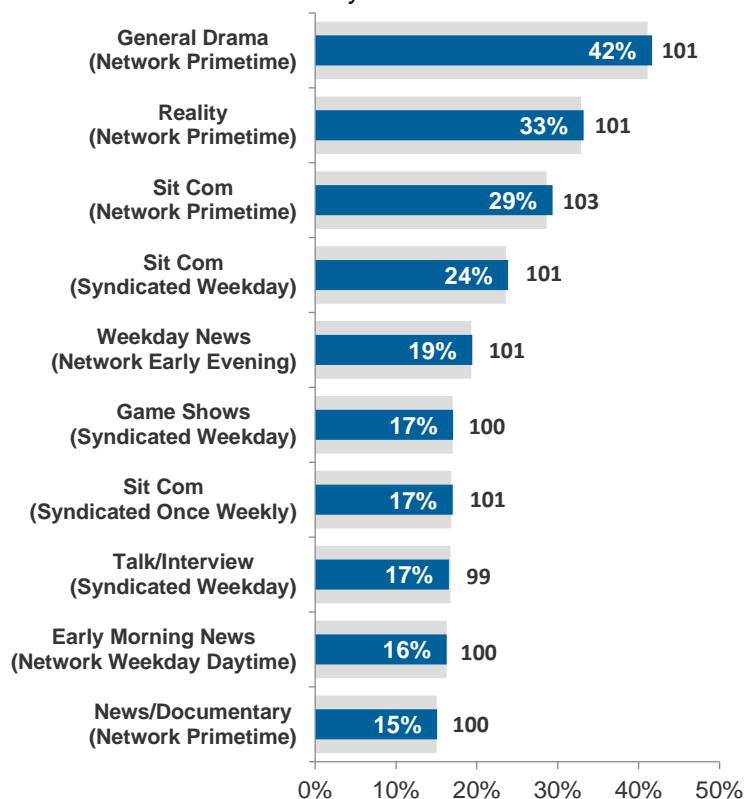|	< 1 hour	1-4 hours	5-19 hours	20-39 hours	40+ hours		
Newspapers			3:07			99
Magazines					4:01	93
E-Reader			6:01			99
Tablet					7:11	99
Radio					7:29	99
Streaming Media					8:33	101
Game Console					8:44	98
PC @ Home					8:46	99
Television					12:36	101
PC @ Work					12:56	102
Mobile Phone					13:29	101

Bars represent the span of time a device is used within a week, excluding ranges with cell counts below 61
Numbers in gray boxes represent average time spent on each device in the last 7 days
Numbers outside of gray boxes represent index for average time spent, against Adults 18-64

TV & Streaming: Any OOH viewership

Primetime TV reaches the broadest audience – through drama, reality, and situation comedy shows. Streaming services are also popular; Netflix has the greatest uptake.
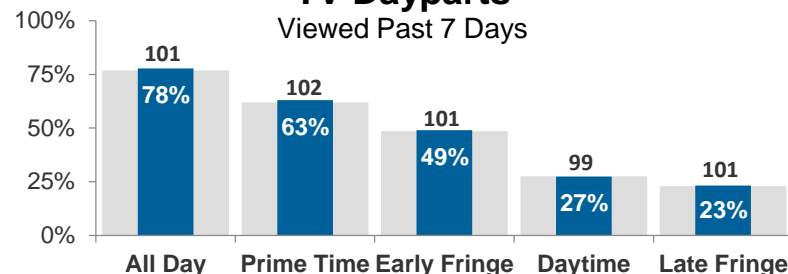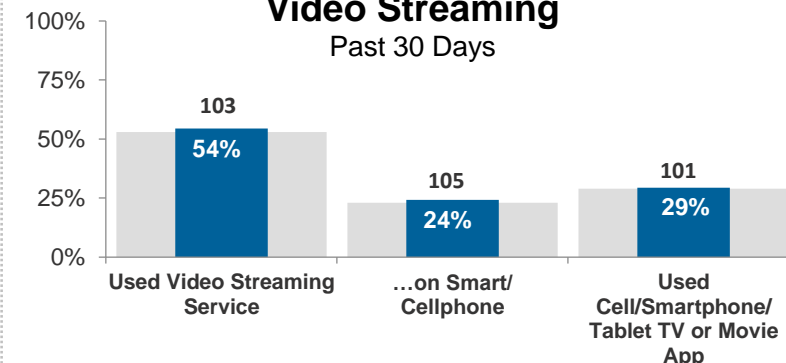
Top Program Types Viewed
Sorted by % Viewed

Program Type	%	Index
General Drama (Network Primetime)	42%	101
Reality (Network Primetime)	33%	101
Sit Com (Network Primetime)	29%	103
Sit Com (Syndicated Weekday)	24%	101
Weekday News (Network Early Evening)	19%	101
Game Shows (Syndicated Weekday)	17%	100
Sit Com (Syndicated Once Weekly)	17%	101
Talk/Interview (Syndicated Weekday)	17%	99
Early Morning News (Network Weekday Daytime)	16%	100
News/Documentary (Network Primetime)	15%	100

TV Dayparts
Viewed Past 7 Days

Daypart	Any OOH	Index
All Day	78%	101
Prime Time	63%	102
Early Fringe	49%	101
Daytime	27%	99
Late Fringe	23%	101

Top Cable Networks
Viewed Past 7 Days

Network	% (Index)	Network	% (Index)
ESPN	17% (101)	FOX NEWS	13% (100)
HGTV	16% (102)	tbs	13% (99)
HISTORY	16% (101)	CNN	13% (101)
HBO	15% (99)	amc	12% (97)
USA	15% (99)	food network	12% (99)

Video Streaming
Past 30 Days

Category	Any OOH	Index
Used Video Streaming Service	54%	103
…on Smart/Cellphone	24%	105
Used Cell/Smartphone/Tablet TV or Movie App	29%	101

Top Video Streaming Services
Used Past 30 Days

Service		% (Index)
NETFLIX	Monthly Fee	45% (103)
amazon instant video	Pay-As-You-Go, or Prime Annual Fee	22% (104)
hulu	Limited or No Commercials	16% (105)

Adults 18-64 ■ Any OOH

Online activities: Any OOH viewership

Email, checking the weather, banking, and looking up directions are the most common online activities overall and on mobile devices

Top Overall Website Categories			
Sorted by % Agreement	%	Index	Avg. Frequency
E-mail	75%	103	13.7
Check the weather	60%	103	10.3
Banking (check accounts/make payments)	58%	104	8.9
Look up directions or maps	58%	104	7.8
Make a shopping purchase	44%	104	6.4
Use search engines	42%	104	13.2
Visit social networking sites	40%	103	13.5
Look for recipes	38%	102	6.9
Listen to internet radio (Pandora, Spotify, etc.)	35%	104	11.0
Airline/car/hotel information or reservations	34%	104	5.1

Past 30 Days

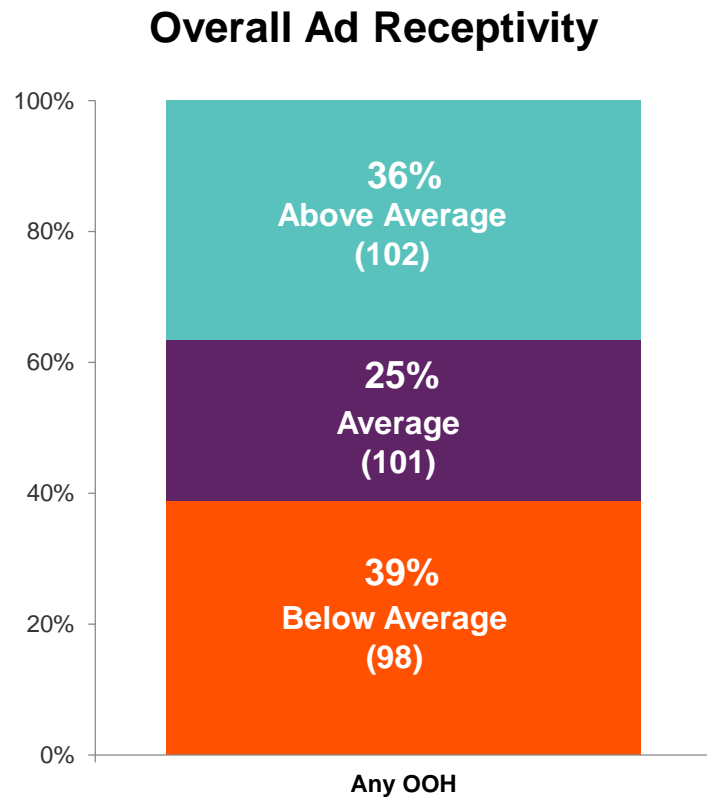| Top Mobile Website Categories		
Sorted by % Agreement	%	Index
E-mail	44%	104
Check the weather	39%	104
Look up directions or maps	38%	105
Banking (check accounts, make payments)	32%	104
Use search engines	27%	105
Visit social networking sites	27%	104
Make a shopping purchase	21%	104
Read latest news/ current events	21%	104
Listen to internet radio (Pandora, Spotify, etc.)	20%	104
Instant messaging	20%	104

Past 30 Days

Ad Receptivity: Any OOH viewership

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Average or greater receptivity for 61% of respondents. More receptive when ads are funny or entertaining.

Overall Ad Receptivity

- 36% Above Average (102)
- 25% Average (101)
- 39% Below Average (98)

Any OOH

MEDIA ATTITUDES – TOP-2-BOX AGREEMENT

Remember ads when shopping…

- **Advertising helps me learn about** the **products** companies have to offer (43%, 102)
- I **remember advertised products when** I am **shopping** (30%, 101)

…but try to avoid them

- I always **choose that my name not be included on mailing lists** (45%, 102)
- I **don't like advertising** in general (40%, 102)
- **Advertising to children is wrong** (39%, 102)

Inattentive to TV commercials…

- **When** I am **watching TV**, I am **usually involved in other activities** (54%, 102)
- I typically **avoid watching TV commercials** (51%, 102)
- Nearly all **TV advertising annoys me** (42%, 102)
- **Whenever commercials** come on, I **change channels** (38%, 102)

Expect advertising to be entertaining

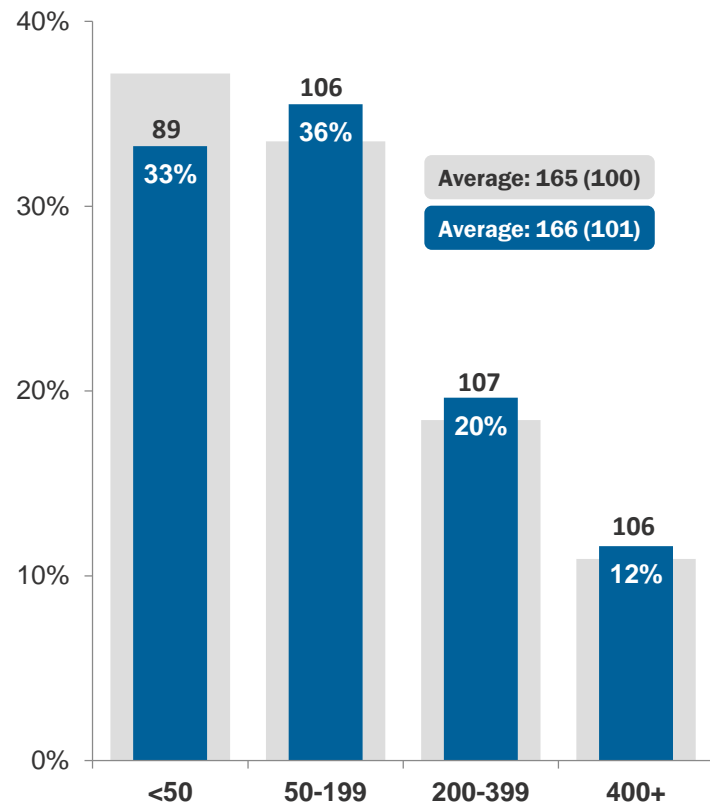- I **expect advertising to be entertaining** (37%, 101)

Ad receptive at movie theaters

- I often **pay attention to** the **commercials that play along with** the **movie previews** in the movie theater (42%, 102)
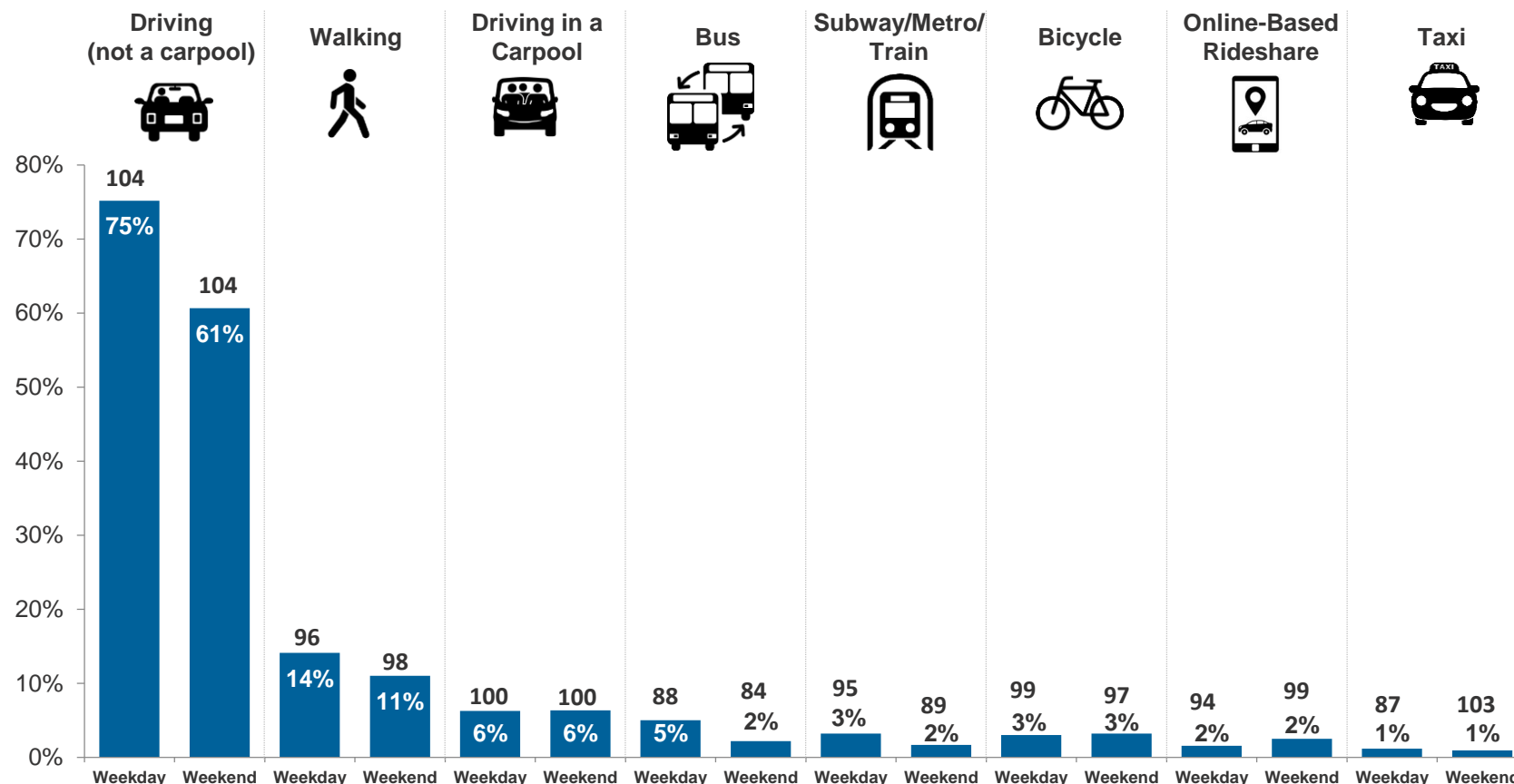- I often **notice** the **ads in the lobbies of movie theaters** (38%, 102)

Transportation: Any OOH viewership

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The OOH audience spends 166 miles on the road every week, on average. Driving is by far the most used method of transportation.

Weekly Miles Traveled in a Car/Truck/Van

Miles	Adults 18-64	Any OOH
<50	89	33%
50-199	106	36%
200-399	107	20%
400+	106	12%

Average: 165 (100)
Average: 166 (101)

Modes of Transportation Used in an Average Week

	Driving (not a carpool)		Walking		Driving in a Carpool		Bus		Subway/Metro/Train		Bicycle		Online-Based Rideshare		Taxi	
	Weekday	Weekend	Weekday	Weekend	Weekday	Weekend	Weekday	Weekend	Weekday	Weekend	Weekday	Weekend	Weekday	Weekend	Weekday	Weekend
Index	104	104	96	98	100	100	88	84	95	89	99	97	94	99	87	103
%	75%	61%	14%	11%	6%	6%	5%	2%	3%	2%	3%	3%	2%	2%	1%	1%

Adults 18-64   Any OOH

Heavy OOH Audience Profile
Demographics, Digital & Video Media, Ad Receptivity, Travel Time & Modes of Transportation

Demographic Profile: Heavy OOH viewership (34% of adults 18-64)

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Higher-educated, higher-income homeowners with families and jobs
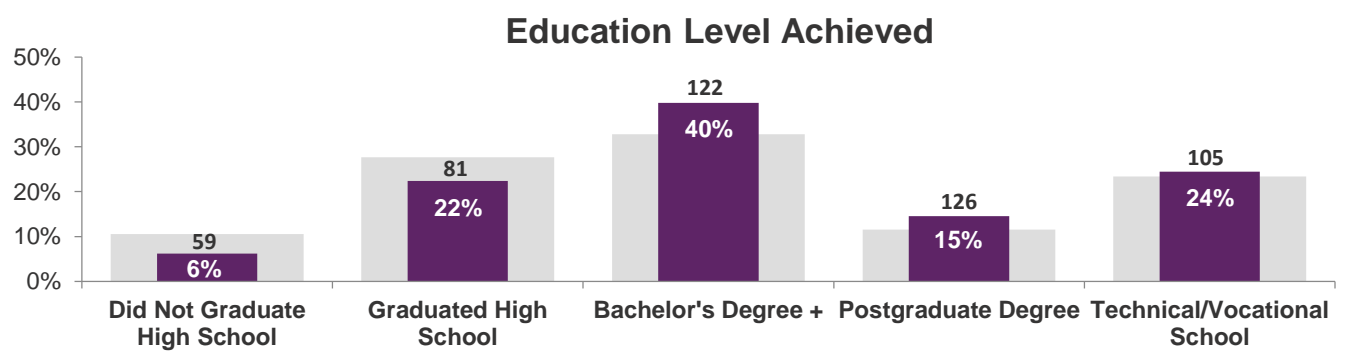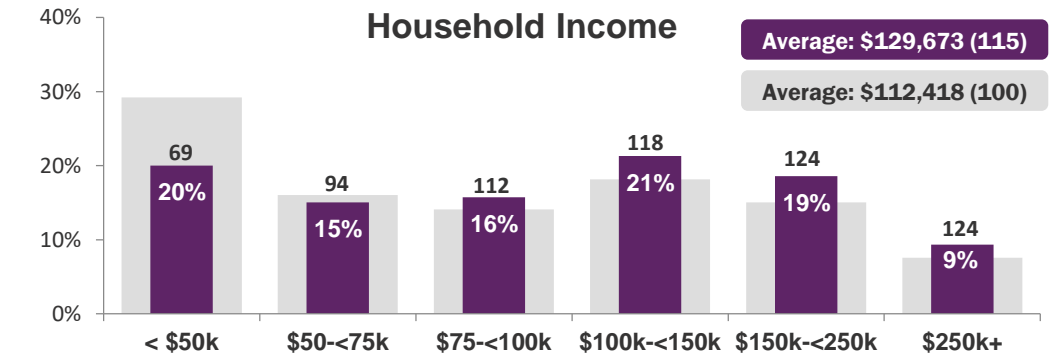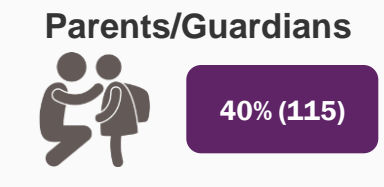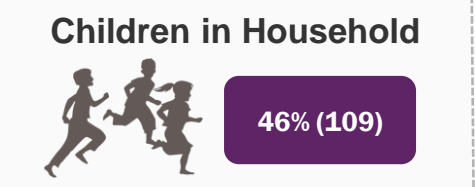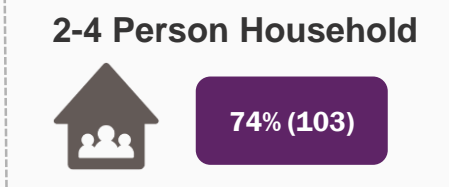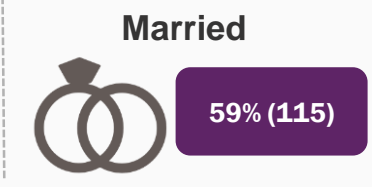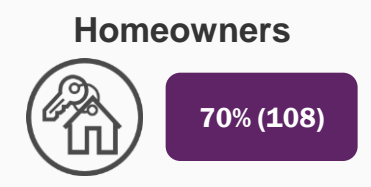
Gender

- Male: 50% (101)
- Female: 50% (99)

Age

- Average: 41 (100)
- Average: 42 (101)

Age	Adults 18-64	Heavy OOH
18-24	72	11%
25-34	106	23%
35-44	116	24%
45-54	104	22%
55-64	93	20%

Race & Ethnicity

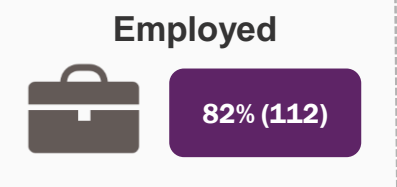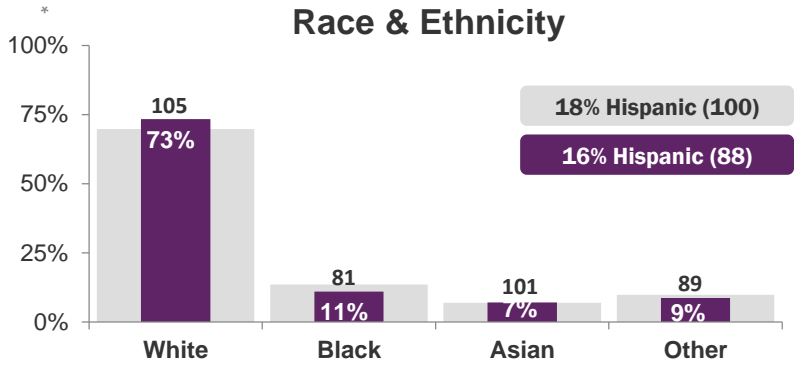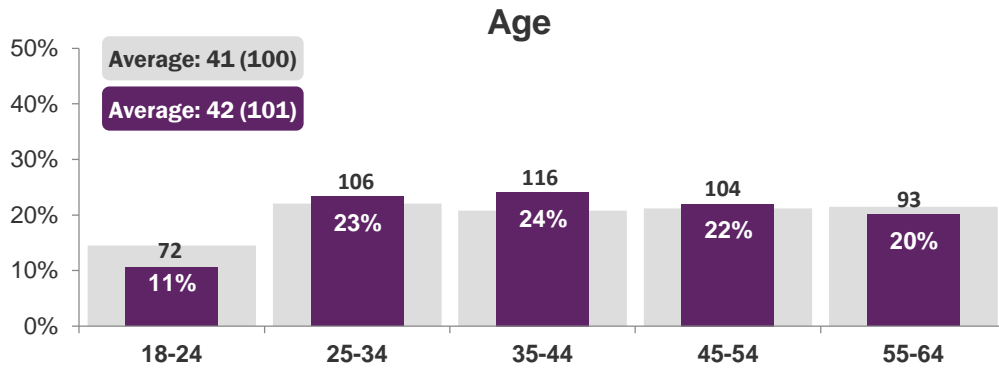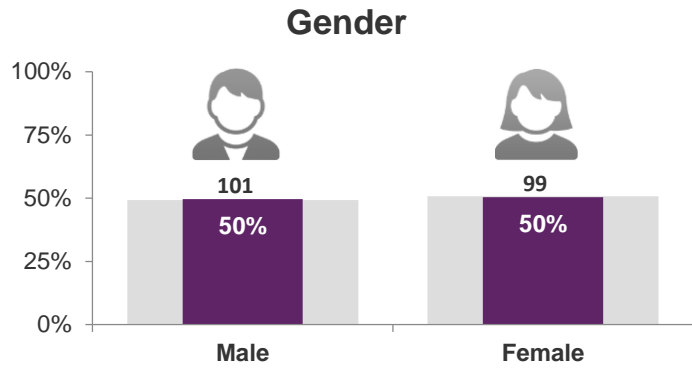|	Adults 18-64	Heavy OOH
White	105	73%
Black	81	11%
Asian	101	7%
Other	89	9%

- 18% Hispanic (100)
- 16% Hispanic (88)

*

Employed: 82% (112)

Homeowners: 70% (108)

Married: 59% (115)

2-4 Person Household: 74% (103)

Children in Household: 46% (109)

Parents/Guardians: 40% (115)

Household Income

- Average: $129,673 (115)
- Average: $112,418 (100)

Income	Index	Heavy OOH
< $50k	69	20%
$50-<75k	94	15%
$75-<100k	112	16%
$100k-<150k	118	21%
$150k-<250k	124	19%
$250k+	124	9%

Education Level Achieved

Level	Index	Heavy OOH
Did Not Graduate High School	59	6%
Graduated High School	81	22%
Bachelor's Degree +	122	40%
Postgraduate Degree	126	15%
Technical/Vocational School	105	24%

Legend: ▢ Adults 18-64 ▢ Heavy OOH

Time Spent on Devices: Heavy OOH viewership

Propensity to spend more time, on average, engaging with mobile phones and work PCs; spend less time with magazines and game consoles

Time Spent Engaging with Different Media Devices: Last 7 Days
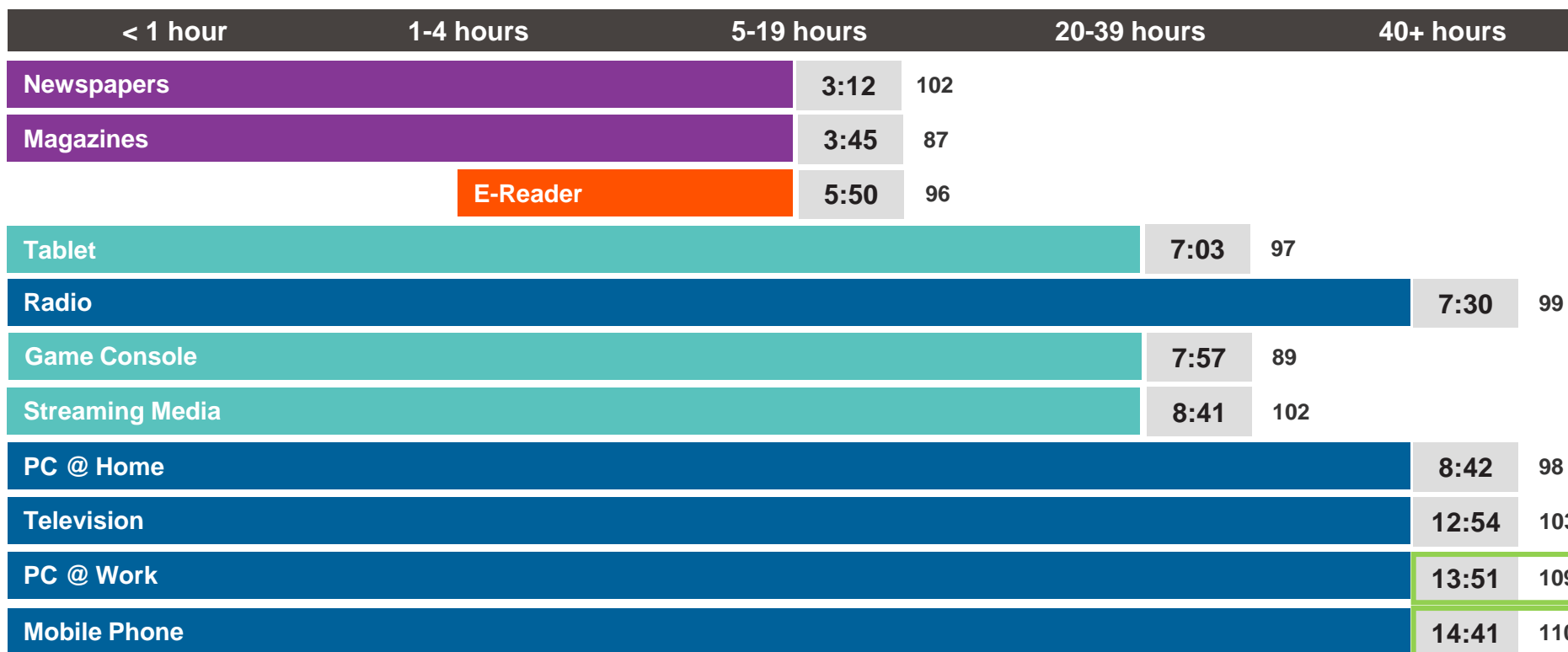
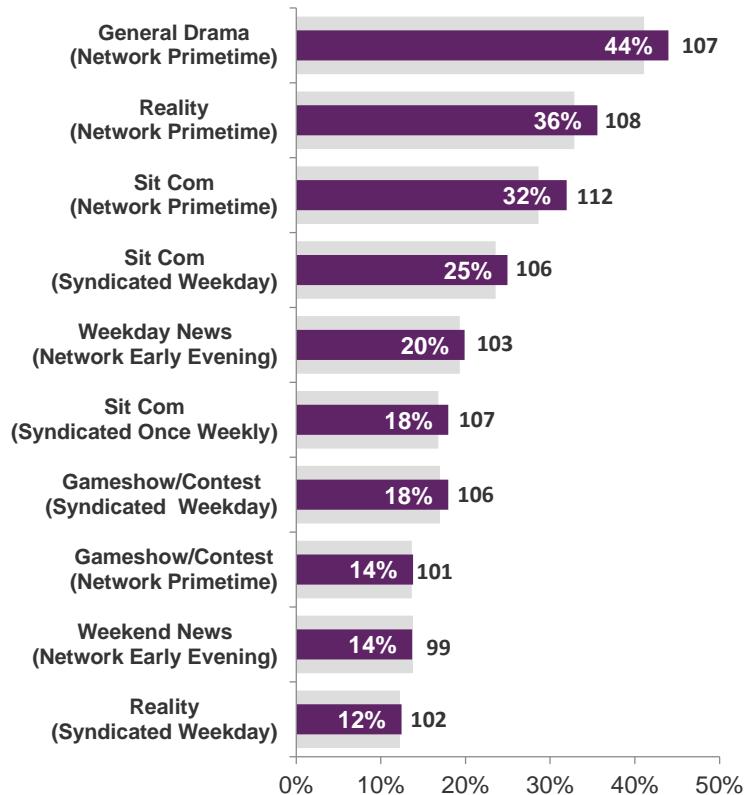|	< 1 hour	1-4 hours	5-19 hours	20-39 hours	40+ hours		
Newspapers						3:12	102
Magazines						3:45	87
E-Reader						5:50	96
Tablet						7:03	97
Radio						7:30	99
Game Console						7:57	89
Streaming Media						8:41	102
PC @ Home						8:42	98
Television						12:54	103
PC @ Work						13:51	109
Mobile Phone						14:41	110

Bars represent the span of time a device is used within a week, excluding ranges with cell counts below 61
Numbers in gray boxes represent average time spent on each device in the last 7 days
Numbers outside of gray boxes represent index for average time spent, against Adults 18-64

TV & Streaming: Heavy OOH viewership

More likely to tune into TV at prime time, and more likely to stream video -- overall and from top providers
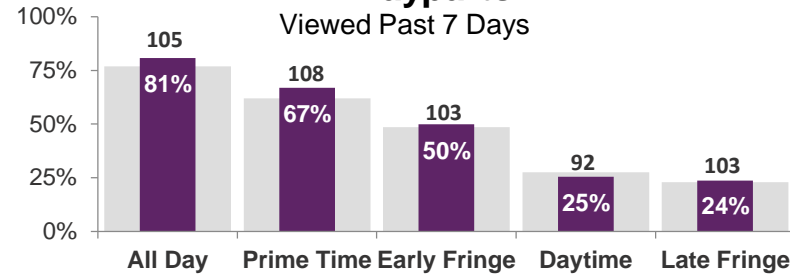
Top Program Types Viewed
Sorted by % Viewed

Program Type	%	Index
General Drama (Network Primetime)	44%	107
Reality (Network Primetime)	36%	108
Sit Com (Network Primetime)	32%	112
Sit Com (Syndicated Weekday)	25%	106
Weekday News (Network Early Evening)	20%	103
Sit Com (Syndicated Once Weekly)	18%	107
Gameshow/Contest (Syndicated Weekday)	18%	106
Gameshow/Contest (Network Primetime)	14%	101
Weekend News (Network Early Evening)	14%	99
Reality (Syndicated Weekday)	12%	102

TV Dayparts
Viewed Past 7 Days

Daypart	%	Index
All Day	81%	105
Prime Time	67%	108
Early Fringe	50%	103
Daytime	25%	92
Late Fringe	24%	103

Top Cable Networks
Viewed Past 7 Days

Network	% (Index)	Network	% (Index)
HGTV	18% (112)	USA	15% (104)
ESPN	19% (109)	Discovery Channel	10% (102)
CNN	13% (108)	Fox News	13% (101)
Food Network	13% (105)	National Geographic Channel	12% (101)
The Weather Channel	11% (105)	History	16% (100)

Top-indexing among those with 10%+ agreement.

Video Streaming
Past 30 Days

	%	Index
Used Video Streaming Service	62%	117
…on Smart/Cellphone	30%	129
Used Cell/Smartphone/Tablet TV or Movie App	31%	108

Top Video Streaming Services
Used Past 30 Days
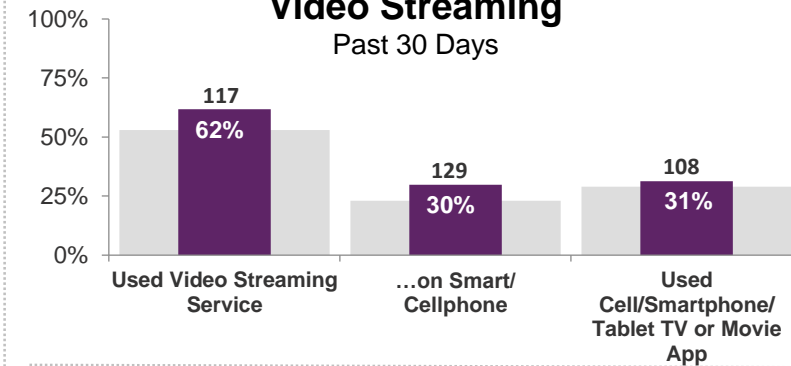
Service	Plan	% (Index)
amazon instant video	Pay-As-You-Go, or Prime Annual Fee	27% (128)
hulu	Limited or No Commercials	19% (123)
NETFLIX	Monthly Fee	52% (118)

Top-indexing among those with 10%+ agreement.

Adults 18-64   Heavy OOH

Online activities: Heavy OOH viewership

More likely to engage in a variety of online activities, most notably travel information or reservations

Top Overall Website Categories			
Sorted by % Agreement	%	Index	Avg. Frequency
Check the weather	67%	116	10.4
Look up directions or maps	66%	119	8.3
Banking (check accounts/make payments)	65%	118	9.2
Make a shopping purchase	50%	116	6.5
Use search engines	49%	119	13.6
Visit social networking sites	46%	117	13.7
Airline/car/hotel information or reservations	41%	125	4.9
Read latest news/current events	40%	123	12.4
Listen to internet radio (Pandora, Spotify, etc.)	40%	117	10.8
Instant messaging	36%	118	12.9

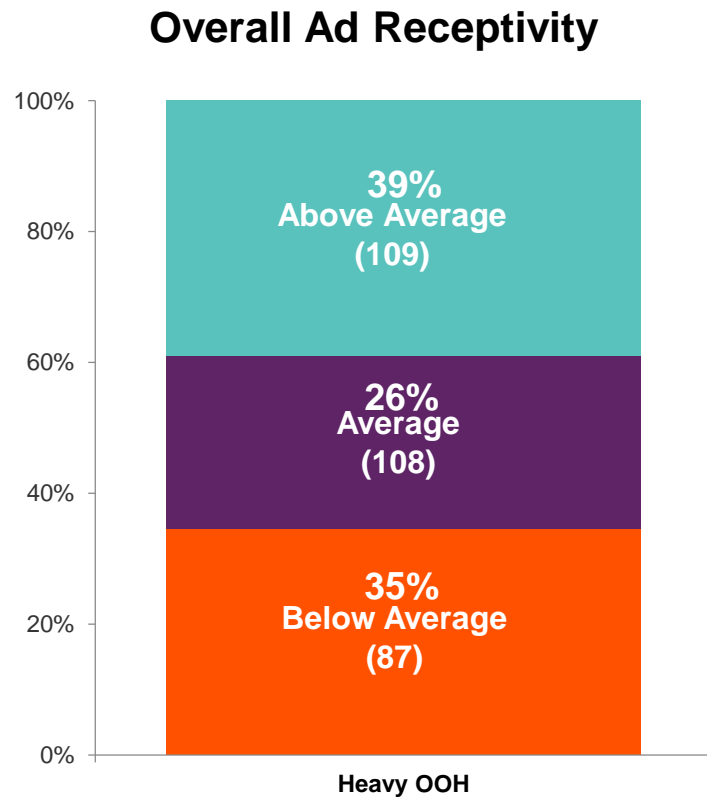Past 30 days. Filtered to include highest-indexing activities with at least 30% agreement.

Top Mobile Website Categories		
Sorted by % Agreement	%	Index
E-mail	52%	123
Look up directions or maps	46%	129
Check the weather	46%	123
Use search engines	34%	129
Visit social networking sites	33%	128
Read latest news/ current events	27%	134
Make a shopping purchase	26%	126
Listen to internet radio (Pandora, Spotify, etc.)	24%	125
Instant messaging	24%	127
Airline/car/hotel information or reservations	23%	136

Past 30 days. Filtered to include highest-indexing activities with at least 20% agreement.

Ad Receptivity: Heavy OOH viewership

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Average or greater ad receptivity among 65% of respondents, and more receptive when ads are funny or entertaining.

Overall Ad Receptivity

39%
Above Average
(109)

26%
Average
(108)

35%
Below Average
(87)

Heavy OOH

MEDIA ATTITUDES – TOP-2-BOX AGREEMENT

Remember ads when shopping…

— **Advertising helps me learn about** the **products** companies have to offer (46%, 110)

— I **remember advertised products when** I am **shopping** (32%, 108)

…but try to avoid them

— I always **choose that my name not be included on mailing lists** (49%, 112)

— I **don't like advertising** in general (43%, 109)

Inattentive to TV commercials…

— **When** I am **watching TV**, I am **usually involved in other activities** (58%, 110)

— I typically **avoid watching TV commercials** (56%, 112)

— Nearly all **TV advertising annoys me** (45%, 109)

— **Whenever commercials** come on, I **change channels** (41%, 110)

Expect advertising to be entertaining

— I **expect advertising to be entertaining** (41%, 112)
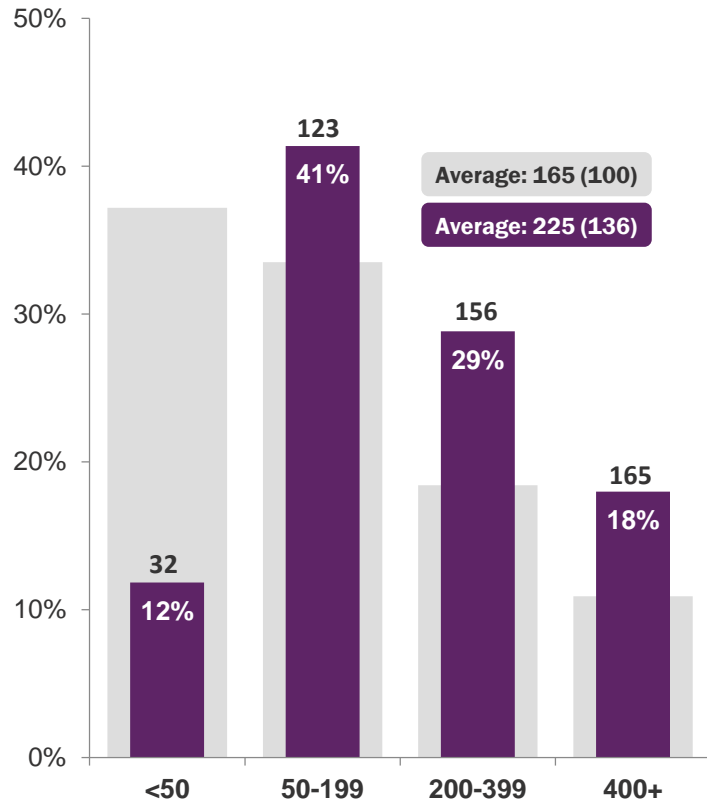
Ad receptive at movie theaters

— I often **pay attention to** the **commercials that play along with** the **movie previews** in the movie theater (48%, 116)

— I often **notice** the **ads in the lobbies of movie theaters** (42%, 113)
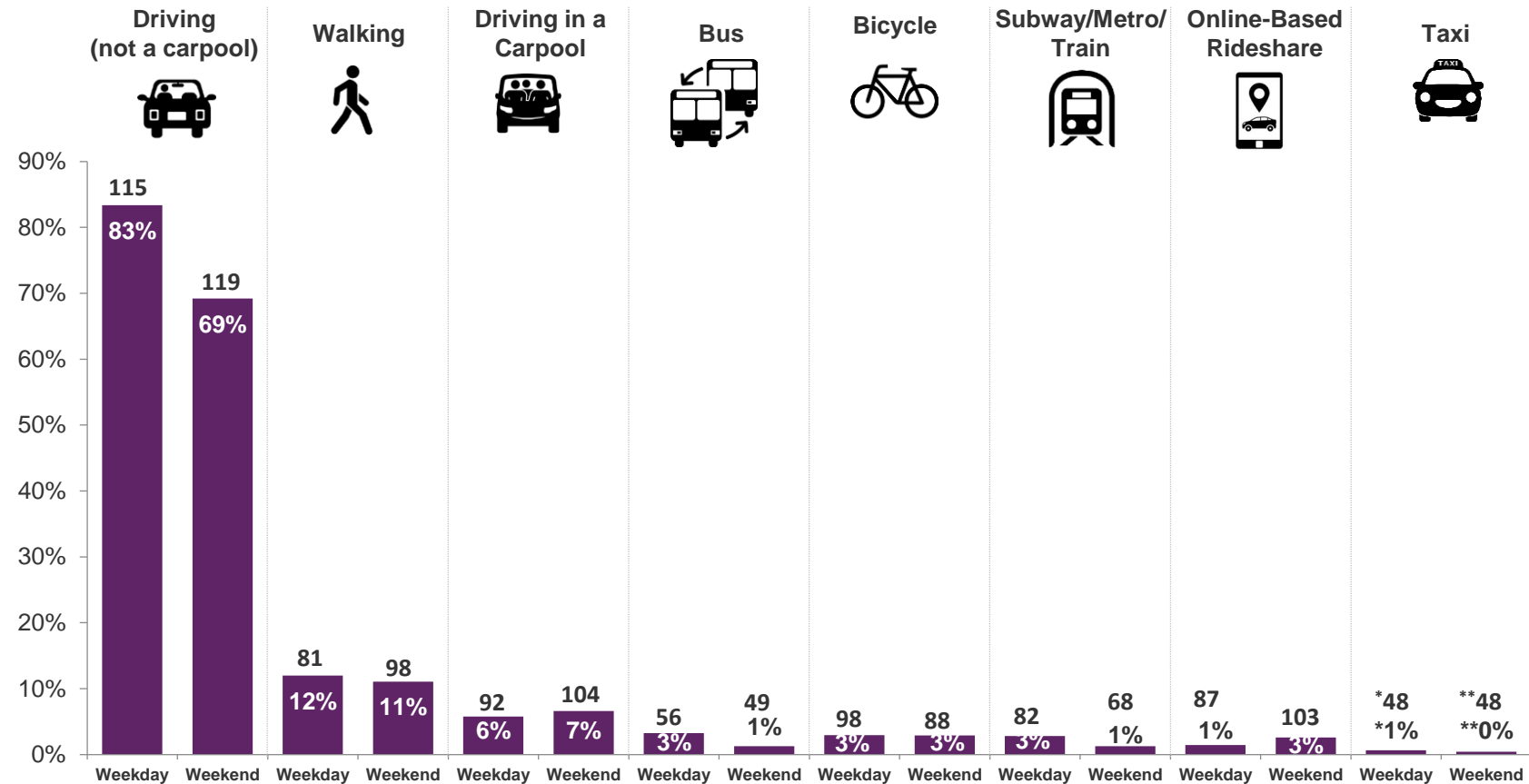
Transportation: Heavy OOH viewership

Spend 36% more miles on the road per week, on average. Driving is their primary mode of transportation, and they're less likely to use public transportation.

Weekly Miles Traveled in a Car/Truck/Van

Miles	Adults 18-64	Heavy OOH
<50		32 / 12%
50-199		123 / 41%
200-399		156 / 29%
400+		165 / 18%

Average: 165 (100)
Average: 225 (136)

Modes of Transportation Used in an Average Week

Mode	Weekday	Weekend
Driving (not a carpool)	115 / 83%	119 / 69%
Walking	81 / 12%	98 / 11%
Driving in a Carpool	92 / 6%	104 / 7%
Bus	56 / 3%	49 / 1%
Bicycle	98 / 3%	88 / 3%
Subway/Metro/Train	82 / 3%	68 / 1%
Online-Based Rideshare	87 / 1%	103 / 3%
Taxi	*48 / *1%	**48 / **0%

Adults 18-64   Heavy OOH

* Base size 31 to 60. ** Base size < 31. Use with caution.

Appendix
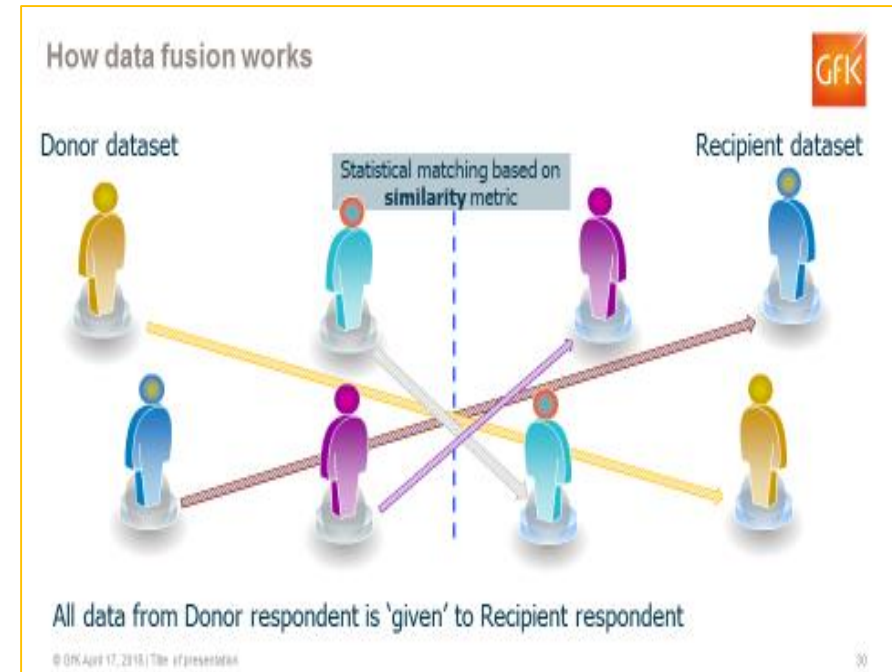Detailed Methodology

Methodology

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Data Collection

- This report uses data from MRI-Simmons Winter 2019 12-Month National Consumer Study (NCS)
    - 22,686 interviews were completed via mail-out/mail-back survey booklets
    - Respondents include English and Spanish-speaking adults 18+ years who reside in the United States, excluding Alaska and Hawaii
    - Respondents participated between January 2018 and March 2019, through one of four quarterly waves:
        - Spring 2018 wave (fielded January 108 through June 2018)
        - Summer 2018 wave (fielded April 2018 through August 2018)
        - Fall 2018 wave (fielded July 2018 through November 2018)
        - Winter 2019 wave (fielded October 2018 through March 2019)

- In addition, MRI-Simmons conducted a custom online study with 2,400 respondents July 2nd – 5th 2019 to measure awareness of advertising in movie theaters (not currently in the NCS)
    - Linking questions (demographic, behavioral, and attitudinal variables) were asked in both the NCS and the custom study in order to fuse the data
        - Linking variables are examined to ensure they are good candidates – i.e., distributions are similar between the two data sources
    - When a custom respondent's linking variables are similar enough to an NCS respondent's, the custom respondent's data is appended to the NCS respondent
    - Weighting is applied to the custom data to reflect the NCS respondents and ensure comparisons made after the fusion are accurate

- Ad Receptivity scores are calculated using a proprietary algorithm that utilizes a multitude of questions asked in the NCS

Methodology: Data Fusion

- Data fusion allows us to **link datasets at the respondent level**
  - This is done by finding the closest match in terms of a pre-defined set of "linking" variables

- After two datasets are 'fused' at the respondent level, we have a **single database**
  - Two data sources can now be treated as single data source
  - Variables unique to one survey can be understood in the context of another survey

Full analysis flexibility!

How data fusion works

Donor dataset   Recipient dataset

Statistical matching based on **similarity** metric

All data from Donor respondent is 'given' to Recipient respondent

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Thank You!