



Q2 2018

THE NIELSEN LOCAL WATCH REPORT

THE EVOLVING OVER-THE-AIR HOME



JUSTIN LAPORTE
VP, LOCAL INSIGHTS

INTRODUCTION

Do you remember your first TV? If it had ‘rabbit ears’, a channel dial, access to only a handful of stations, and no remote, you’re among millions of viewers. Even if you didn’t have a ‘broadcast only,’ or what we now call ‘over-the-air’ (OTA) TV set growing up, you might now. As of May 2018, more than 14% of all TV households—or 16 million homes—have OTA status, and that number is on the rise. As consumers look for more on-demand and cost-effective options, there has been a resurgence in this type of television household. However, to really grasp this trend it is important to understand what OTA homes actually look like—who’s in them, and how they engage with media.

What we’ve found is that two prominent OTA segments co-exist, each with very different profiles and media habits. One type of OTA home has at least one subscription video on-demand (SVOD) service, while the other has no SVOD service. When we refer to SVOD, we mean pay services, such as Netflix, Hulu (not Hulu Live), and Amazon Prime Video. The “No SVOD” homes tend to be older, more diverse and have a smaller median income, compared to the “Plus SVOD” segment, which skews younger, more affluent and more device-connected. We see different media behavior with Plus SVOD homes consuming less traditional media and spending more time on personal devices. In an average day, the No SVOD homes have more viewing to broadcast stations, at almost five hours, than all of the TV usage combined in Plus SVOD homes.

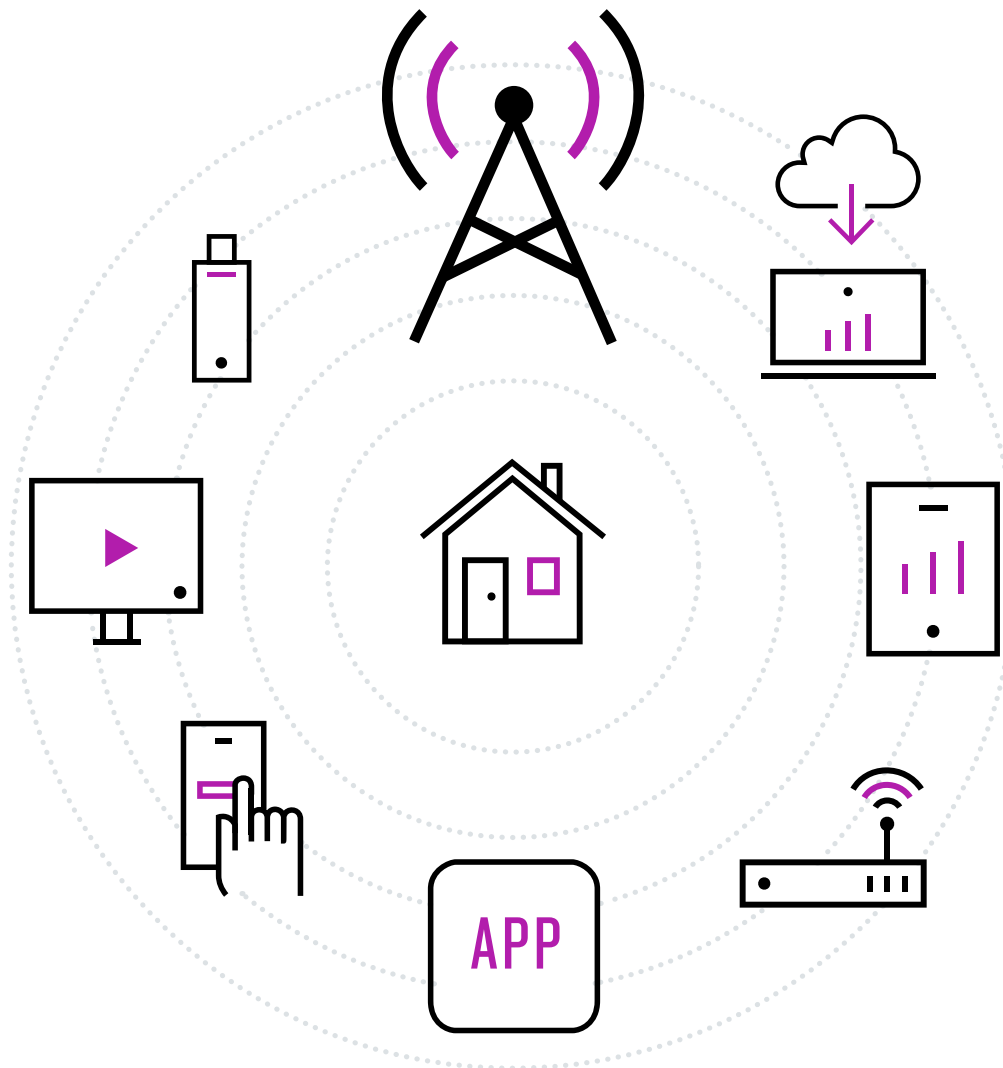
While we see some very distinct differences in the two larger segments of OTA homes, a third segment, which is a part of the Plus SVOD group, has emerged. These homes have access to a virtual provider, or vMVPD, which includes services such as Sling TV, DirecTV Now, Sony PlayStation Vue, YouTube TV, and others. As of May 2018, there were 1.3 million of these homes. Sharing a similar profile to the Plus SVOD group as a whole, these consumers have a higher median income and access to more devices. They also have access to individual cable networks and spend an almost equal amount of time watching broadcast and cable sources.

What the data tells us is that today’s OTA landscape is no longer characterized by our grandfather’s ‘rabbit ears.’ For a re-education of the evolving OTA home, read on.

A handwritten signature in black ink that reads "Justin Laporte".

JUSTIN

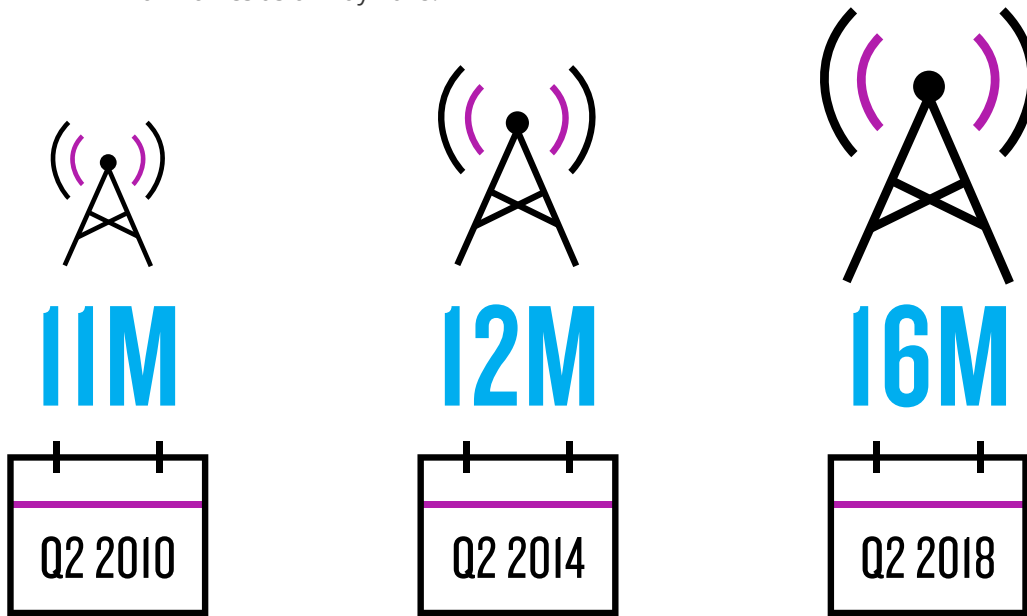
THE **EVOLVING** OVER-THE-AIR HOME



A shift is underway in the TV universe, with more homes swapping traditional pay-TV cable and satellite service for additional options. According to Nielsen's TV panel, one in every seven homes are now considered "over-the-air"—up 48% from eight years ago. No longer restricted to terrestrial signals and rabbit ears, over-the-air homes are now able to access cable and subscription VOD content via digital devices, such as smart TVs, tablets and smartphones. This edition of *The Nielsen Local Watch Report* examines how technology is redefining "over-the-air" as we've known it, giving way to a dynamic, diverse segment that is shaking up the TV ecosystem.

A GROWING TREND

The number of OTA homes is growing, with more pronounced growth in recent years. The percent of homes without traditional cable (wired or satellite) that receive local broadcast stations on a TV set via some form of digital antenna has increased 48% over the past eight years, totaling 16 million homes as of May 2018.

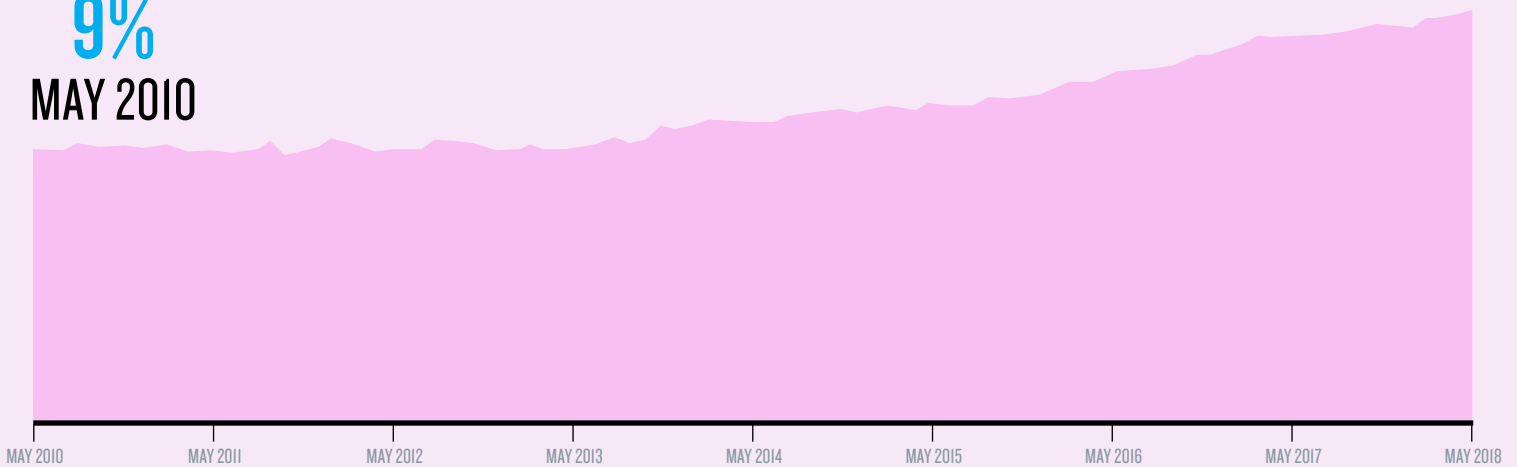


PERCENT OF OVER-THE-AIR TV HOMES

MONTHLY TREND, MAY 2010 – MAY 2018

9%
MAY 2010

14%
MAY 2018



Source: NPOWER. Based on scaled install counts. Over-the-air homes = Any TV home without wired or satellite cable. Includes homes with and without access to subscription video on demand (SVOD) or virtual MVPD providers.

A TALE OF TWO HOUSEHOLDS

NOT ALL OVER-THE-AIR HOMES ARE ALIKE

Today's OTA home is no longer reliant on the antenna to view television content. With today's accessibility of SVOD services and streaming devices, we're seeing a clash between traditional OTA homes and another segment that is supplementing traditional broadcast viewing with internet streaming options. In the following pages, we use Nielsen's TV panel to understand the two most prominent types of OTA households—those with SVOD and those without.



NO SVOD

OVER-THE-AIR WITHOUT SVOD SERVICE

6.6 MILLION HOMES

Representing 6% of total U.S. homes, these consumers tend to be older, with a median viewer age of 55 years. They are more multicultural and tend to live in smaller households without children. Over half earn a household income of less than \$30K. They are also less likely to own devices such as tablets, streaming devices, and smartphones.



PLUS SVOD

OVER-THE-AIR WITH SVOD SERVICE

9.4 MILLION HOMES

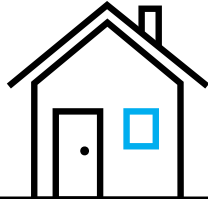
Making up 8% of U.S. homes, these consumers are more likely to be young parents with children. The median viewer age is 36. They are more likely to be White Non-Hispanic and live in homes with four or more people. They are well connected, with the majority having access to personal devices and plenty of ways to stream content to their TV.

AUDIENCE PROFILE DIFFERS BY SEGMENT

HOUSEHOLD PROFILE BY OTA TYPE, MAY 2018

NO SVOD

These homes are over-the-air and may or may not have internet. They do not subscribe to an SVOD service.



VS.

PLUS SVOD

These homes are over-the-air and have internet. They also subscribe to an SVOD service.

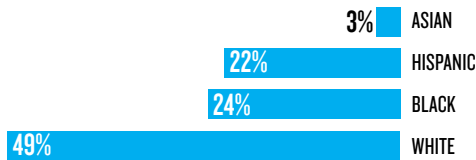


55



AGE

36



ETHNICITY



28%



MARRIED

52%

27%



HAVE CHILDREN

49%

\$21,000



MEDIAN INCOME

\$44,500

20%



OTT CAPABLE

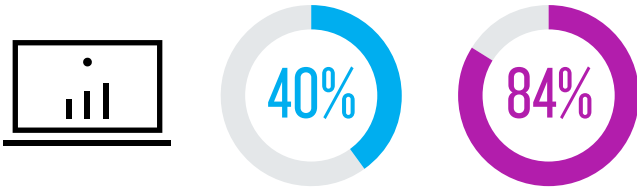
86%

Source: NPOWER. Based on total U.S. Households. May 15, 2018. No SVOD = Over-the-air homes who do not have subscription video on-demand (SVOD). Plus SVOD = Over-the-air homes who have access to one or more SVOD services, and could also have access to a virtual MVPD. OTT Capable homes have access to an internet enabled streaming device including a Video Game Console, Internet Connected Device or Smart TV.

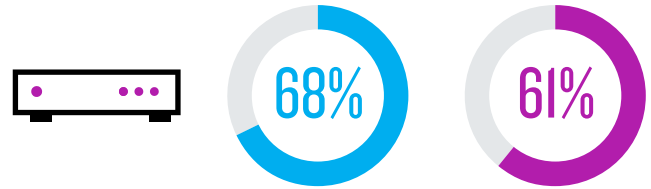
WHAT THEY OWN

TECHNOLOGY OWNERSHIP VARIES BETWEEN SEGMENTS

DESKTOP COMPUTER/LAPTOP



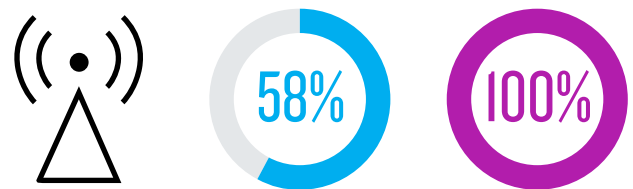
DVD/BLU-RAY PLAYER



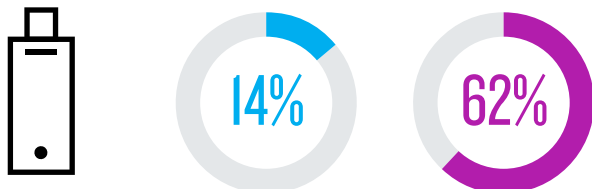
ENABLED SMART TV



INTERNET ACCESS



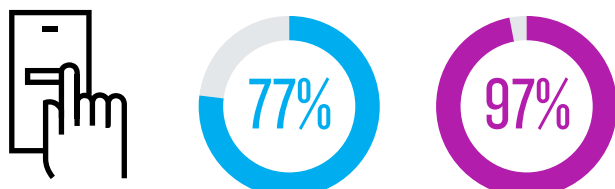
INTERNET CONNECTED DEVICE



TABLET



SMARTPHONE



NO SVOD



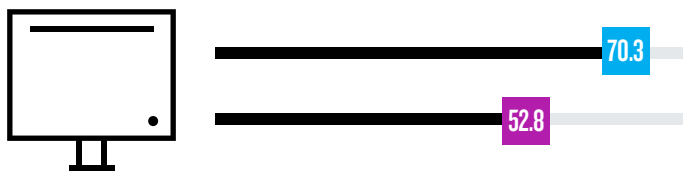
PLUS SVOD

Source: NPOWER. Based on total U.S. Households. May 15, 2018. No SVOD = Over-the-air homes who do not have subscription video on-demand (SVOD). Plus SVOD = Over-the-air homes who have access to one or more SVOD services, and could also have access to a virtual MVPD. Internet Connected Device = Roku, Amazon Fire, Google Chromecast, Apple TV, etc. Read as "40% of OTA homes without SVOD own a computer/laptop."

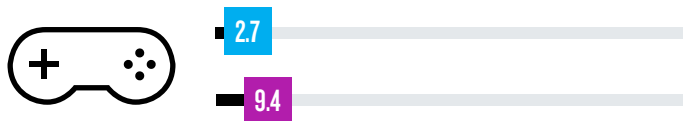
DIFFERENT PROFILES, DIFFERENT MEDIA HABITS

AVERAGE DAILY REACH AMONG ADULTS 18+

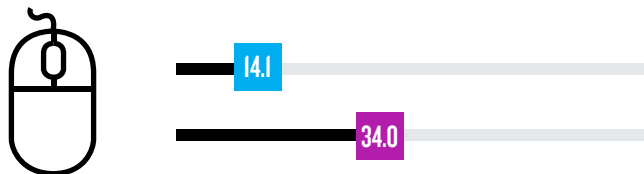
LIVE+TIME-SHIFTED TV



GAME CONSOLE



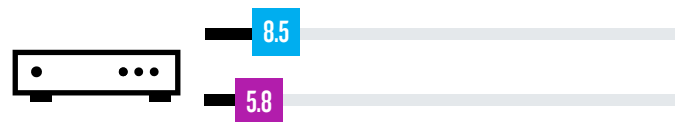
INTERNET ON COMPUTER



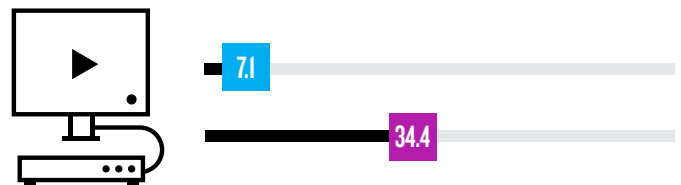
APP/WEB ON A TABLET



DVD/BLU-RAY



INTERNET CONNECTED DEVICE



APP/WEB ON A SMARTPHONE



NO SVOD



PLUS SVOD

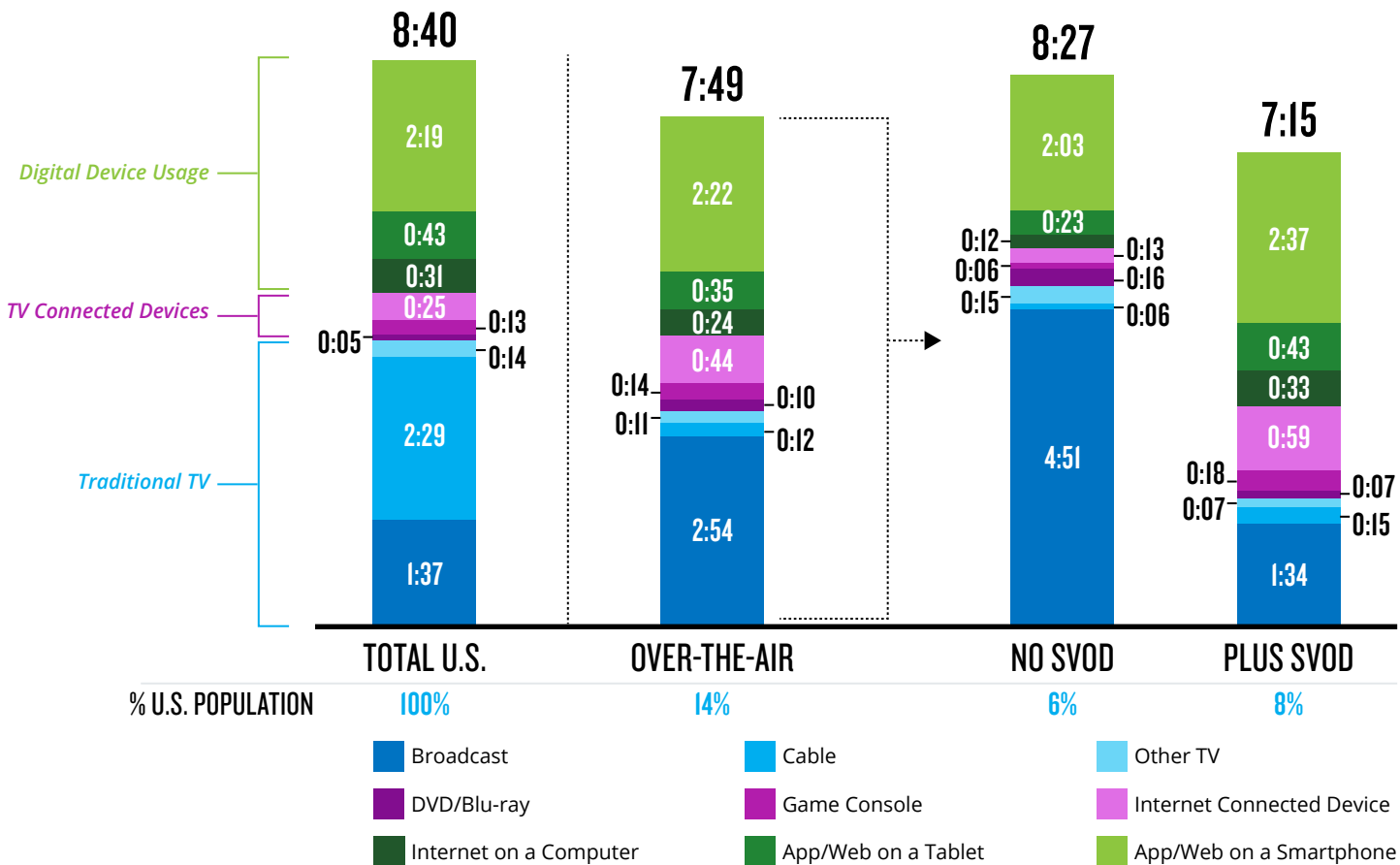
OVER-THE-AIR HOMES WITH SVOD ARE MORE LIKELY TO BE REACHED ON DIGITAL MEDIUMS THAN THOSE WITHOUT SVOD

Source: TV and TV-connected device data via Nielsen NPOWER. Digital data via Nielsen Media Impact. May 2018. Based on total U.S. Population. No SVOD = Over-the-air homes who do not have subscription video on-demand (SVOD). Plus SVOD = Over-the-air homes who have access to one or more SVOD services, and could also have access to a virtual MVPD. Internet Connected Device = Content viewed on a Roku, Google Chromecast, Apple TV, Amazon Fire TV, etc.



SCREEN USAGE

DAILY TIME SPENT (HH:MM), MAY 2018, ADULTS 18+



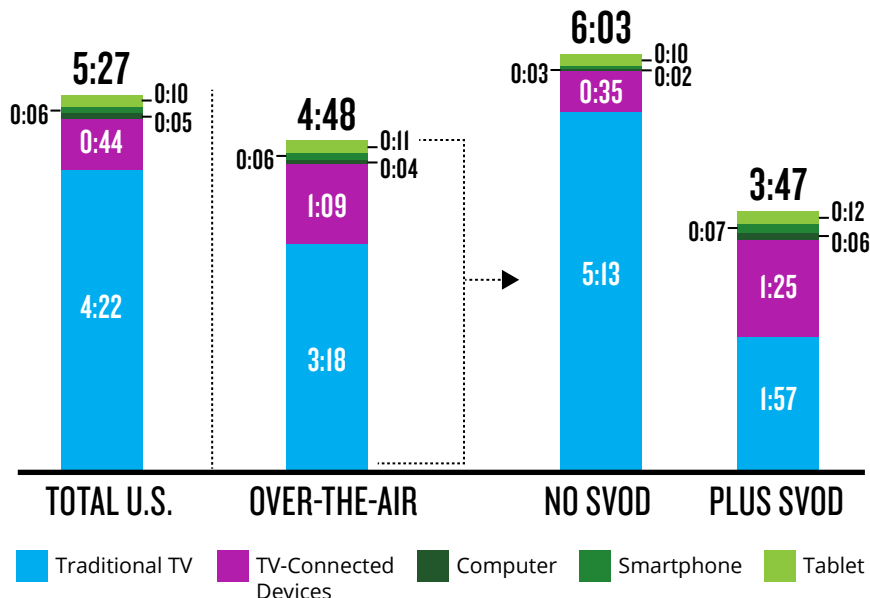
Source: TV and TV-connected device data via Nielsen NPOWER. Digital data via Nielsen Media Impact. May 2018. Based on total U.S. Population. No SVOD = Over-the-air homes who do not have subscription video on-demand (SVOD). Plus SVOD = Over-the-air homes who have access to one or more SVOD services, and could also have access to a virtual MVPD. Internet Connected Device = Content viewed on a Roku, Google Chromecast, Apple TV, Amazon Fire TV, etc. Other TV includes any un-encoded content that cannot be assigned to broadcast or cable.

TOTAL VIDEO



At a total U.S. level, total video viewing across TV and devices nets out to nearly 5 and a half hours per day. While adults in OTA average less (4:48), homes without SVOD spend over six hours per day with video content, over two hours more than those with SVOD. Regardless of household type, traditional television maintains the largest share of time spent across viewing platforms.

DAILY TIME SPENT WITH VIDEO (HH:MM)



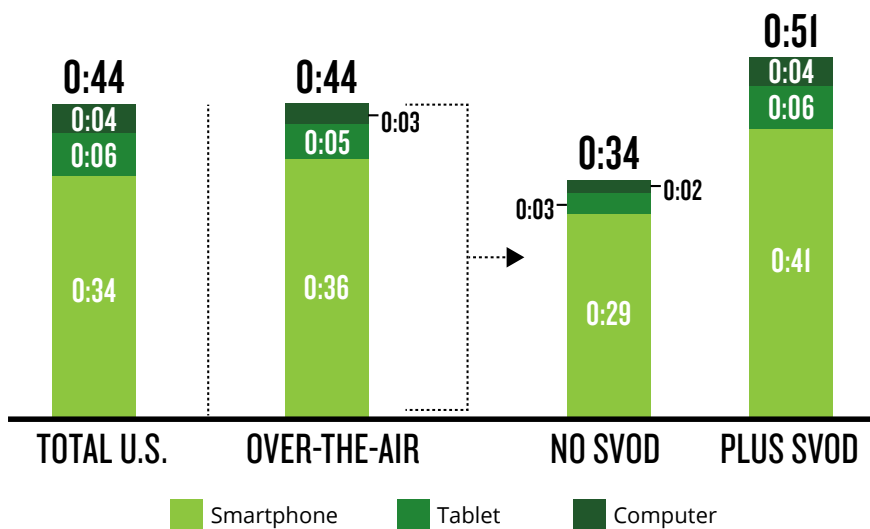
MODERN OVER-THE-AIR HOMES WITH SVOD ARE HEAVIER USERS OF SOCIAL MEDIA AND STREAMING DEVICES, YET STILL SPEND THE MAJORITY OF THEIR VIDEO TIME WITH TRADITIONAL TV

SOCIAL ACTIVITY



On the surface, adults in OTA homes appear to behave similarly to the average American home when it comes to social media usage. However, when drilling down by type (with and without SVOD service), things change. OTA homes with access to SVOD spend nearly an hour each day with social media—17 minutes more than those without SVOD.

DAILY TIME SPENT ON SOCIAL MEDIA (HH:MM)

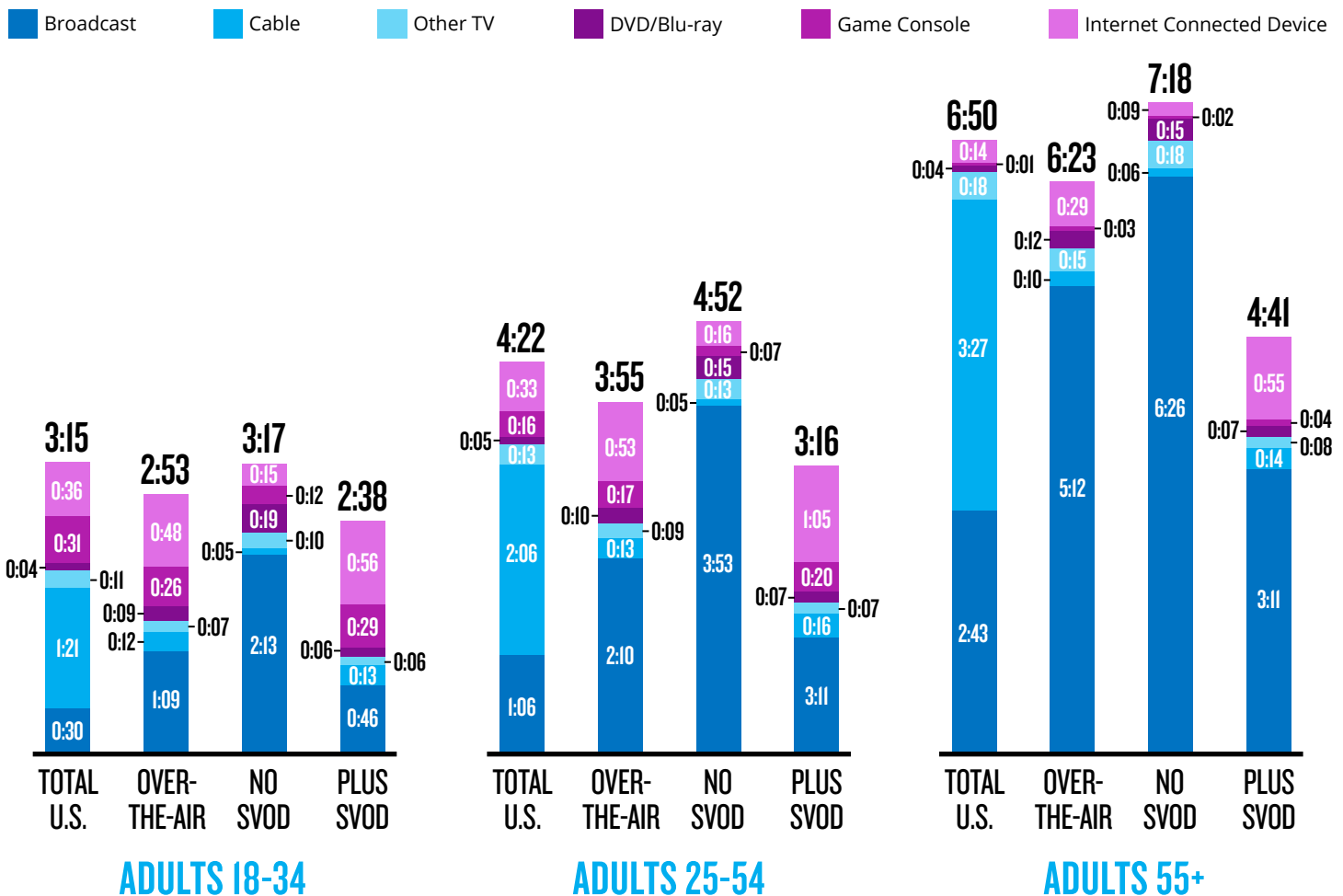


Source: TV and TV-connected device data via Nielsen NPOWER. Digital data via Nielsen Media Impact. May 2018. Based on Total Adults 18+. No SVOD = Over-the-air homes who do not have subscription video on-demand (SVOD). Plus SVOD = Over-the-air homes who have access to one or more SVOD services, and could also have access to a virtual MVPD. Traditional TV includes Live and Time-shifted viewing. TV-Connected Devices include usage of Video Game Consoles, DVD/Blu-ray Players and Internet Connected Devices such as a Roku, Apple TV, Google Chromecast, etc.

TV USAGE VARIES BY AGE

Each demo behaves differently, however, there are similarities in the way the TV screen is used within each OTA segment. In No SVOD homes, people spend far more time watching broadcast and cable sources, while people in Plus SVOD homes are more likely to stream video. That being said, P25-54 time spent viewing broadcast sources almost doubles that of P18-34 in both OTA groups. P55+ spend the most time viewing broadcast sources.

DAILY TIME SPENT WITH TV (HH:MM), MAY 2018



PERCENT OF POPULATION BY OTA GROUP, MAY 2018

DEMOGRAPHIC	OVER-THE-AIR	NO SVOD	PLUS SVOD
Adults 18-34	13.2%	4.9%	8.4%
Adults 25-54	15.6%	3.6%	11.9%
Adults 55+	15.4%	4.4%	11.0%

Source: TV and TV-connected device data via Nielsen NPOWER. May 2018. Based on total U.S. Population. No SVOD = Over-the-air homes who do not have subscription video on-demand (SVOD). Plus SVOD = Over-the-air homes who have access to one or more SVOD services, and could also have access to a virtual MVPD. Internet Connected Device = Content viewed on a Roku, Google Chromecast, Apple TV, Amazon Fire TV, etc. Other TV includes any un-encoded content that cannot be assigned to broadcast or cable.

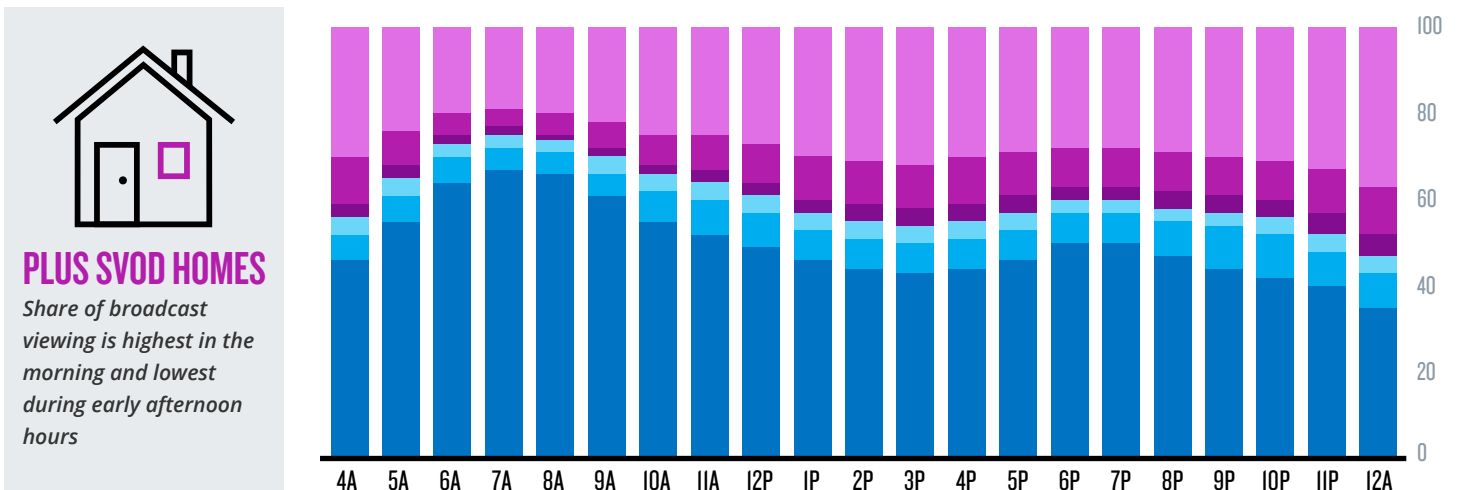
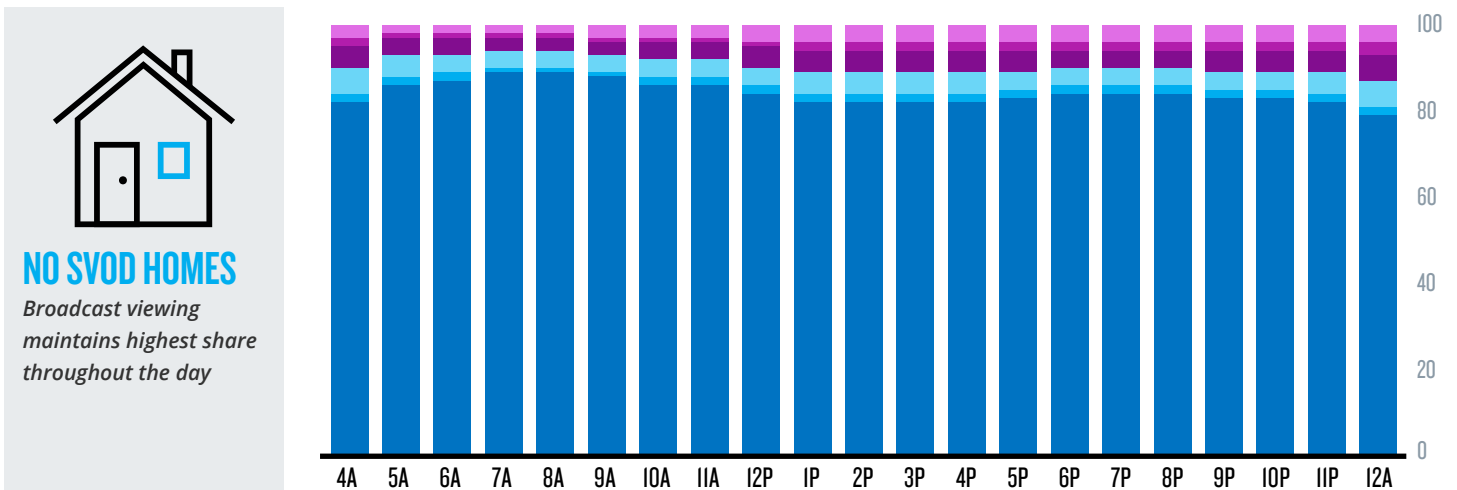


USAGE DIFFERS BY DAYPART, TOO

An hourly progression of traditional TV and TV connected device usage reveals notable differences between OTA types. While distribution of viewing favors broadcast in No SVOD homes across the day, Plus SVOD homes show more variability and fragmentation.

SHARE OF HOURLY TV USAGE BY OTA TYPE, ADULTS 18+

■ Broadcast
 ■ Cable
 ■ Other TV
 ■ DVD/Blu-ray
 ■ Game Console
 ■ Internet Connected Device



Source: TV and TV-connected device data via Nielsen NPOWER. May 2018. Based on total U.S. Population. No SVOD = Over-the-air homes who do not have subscription video on-demand (SVOD). Plus SVOD = Over-the-air homes who have access to one or more SVOD services, and could also have access to a virtual MVPD. Internet Connected Device = Content viewed on a Roku, Google Chromecast, Apple TV, Amazon Fire TV, etc. Other TV includes any un-encoded content that cannot be assigned to broadcast or cable.



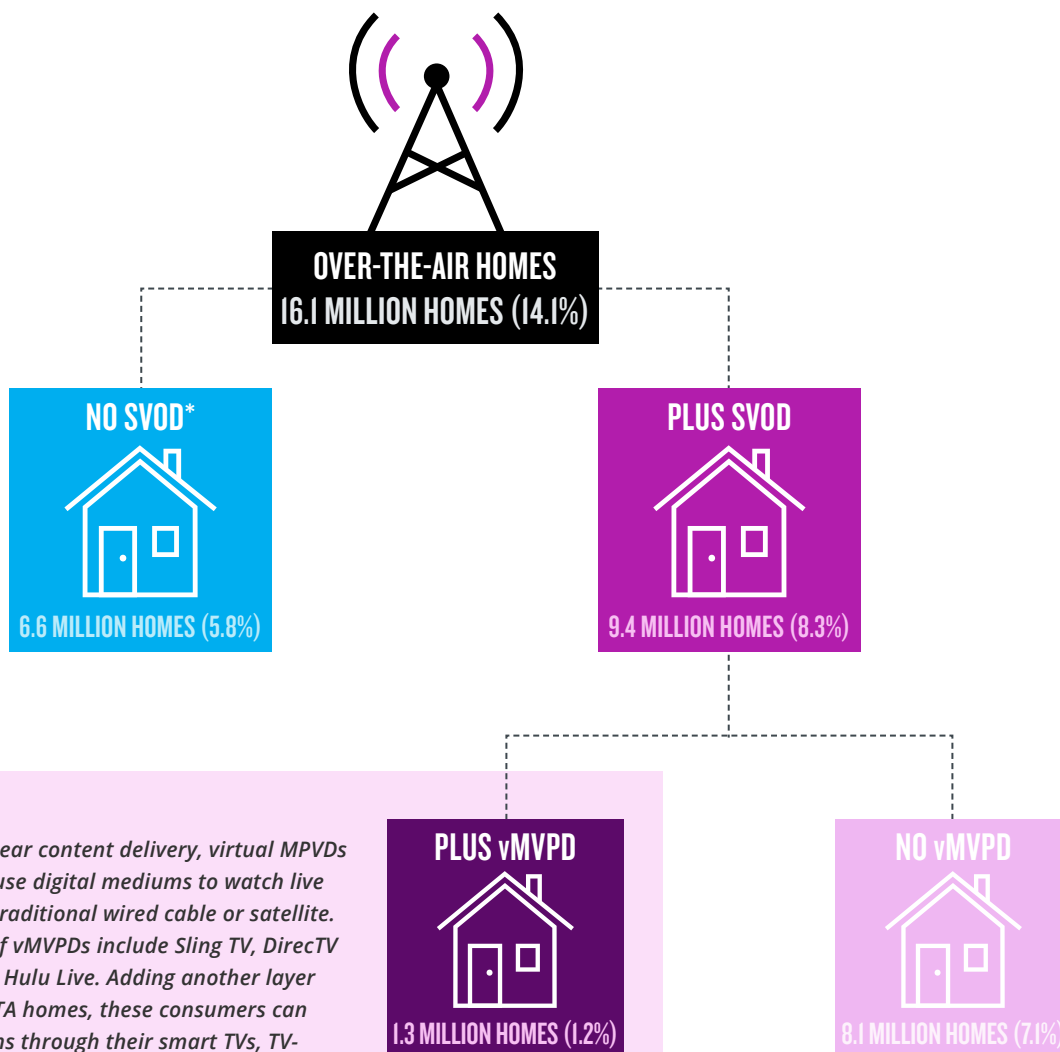
EMERGENCE OF A NEW SEGMENT

DRILLING DEEPER

AN EARLY LOOK AT A **THIRD** OTA OFFSPRING

Beginning to reveal itself in Nielsen data as of 2018, a new OTA type is making its way into the mix. Still in its infancy stages, this segment is emerging from the “Plus SVOD” OTA group—homes with OTA reception who subscribe to a virtual multichannel video programming distributor (vMVPD). Small but growing, these homes tell a different story when it comes to television consumption. The following pages give a preview into vMVPD OTA homes and how they’re redefining the OTA landscape.

THE OVER-THE-AIR FAMILY TREE



vMVPD, EXPLAINED

Changing the game for linear content delivery, virtual MVPDs allow viewers to use digital mediums to watch live content without traditional wired cable or satellite. Some examples of vMVPDs include Sling TV, DirecTV Now, PlayStation Vue and Hulu Live. Adding another layer of digital complexity to OTA homes, these consumers can stream television programs through their smart TVs, TV-connected devices, tablets, and smartphones, while also viewing traditional broadcast channels via the antenna. As of May 2018, there are 1.3 million OTA homes with a vMVPD, representing 1.2% of U.S. households.



Source: NPOWER. Based on total U.S. Households, May 2018.

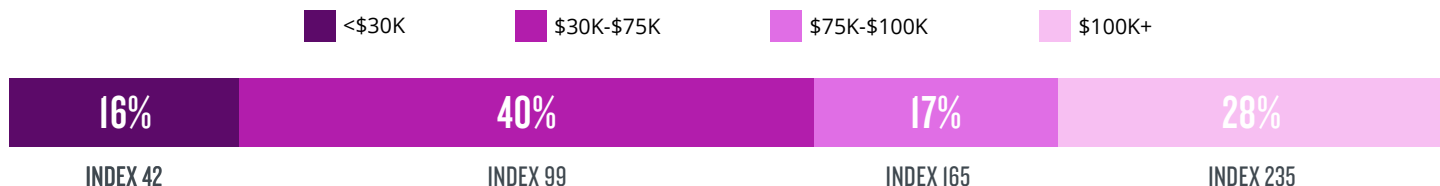
*It is possible for No SVOD homes with OTA status to also have access to a vMVPD, as many of these homes do have internet service. As of the most recent data, the number of No SVOD homes that also have a vMVPD is negligible.



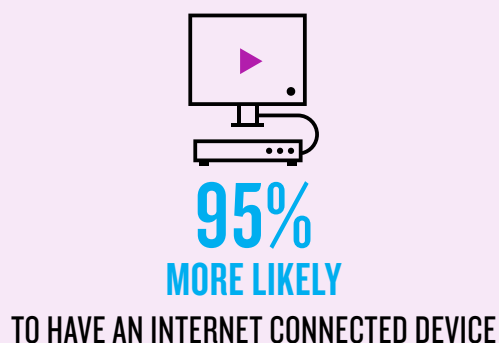
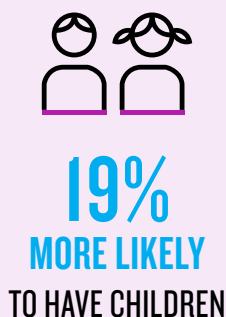
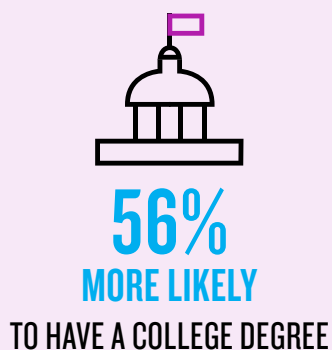
GETTING TO KNOW THEM

HOUSEHOLD PROFILE OF OTA+vMVPD HOMES

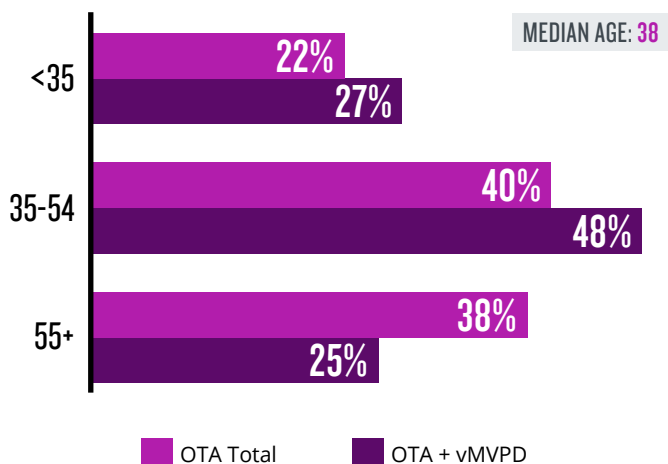
HOUSEHOLD INCOME



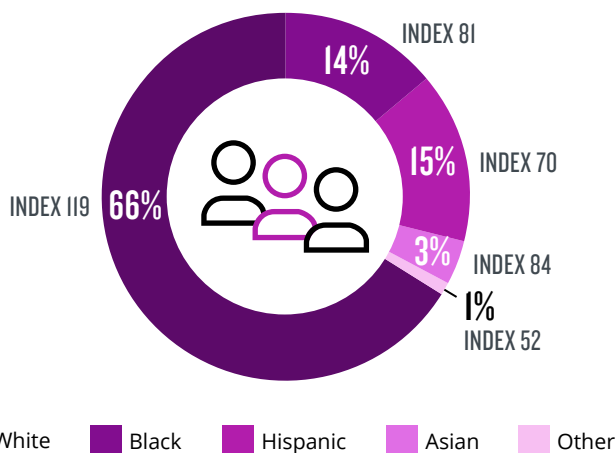
COMPARED TO THE AVERAGE OTA HOME, THOSE WITH A vMVPD PROVIDER ARE:



AGE COMPOSITION



ETHNIC COMPOSITION

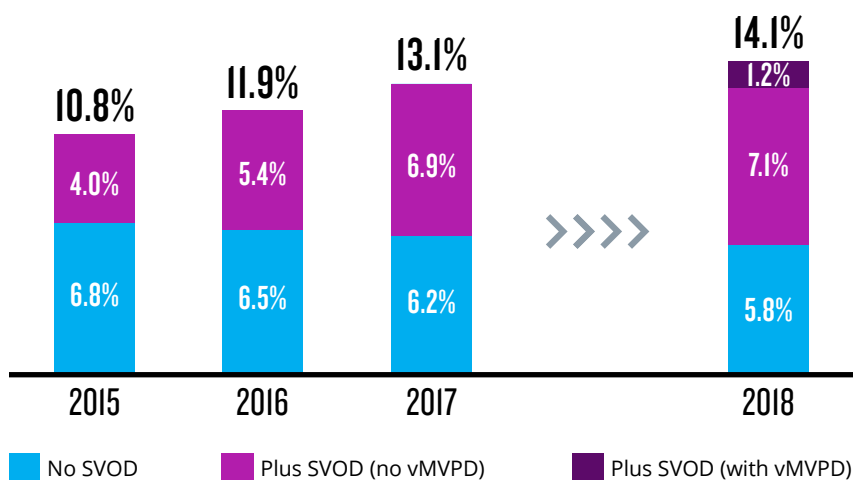


Source: NPOWER, May 2018. Over-the-air homes with a vMVPD are a subset of OTA homes with SVOD, representing 1.2% of Total U.S. households. They make up 8% of all over-the-air homes. Internet Connected Device = Any internet enabled device capable of streaming to the television set, including Video Game Consoles, Smart TVs and devices such as Google Chromecast, Roku, Apple TV, Amazon Fire TV, etc. Index figures based on Total OTA Households. Read as: "OTA+vMVPD homes are 19% more likely to be White."

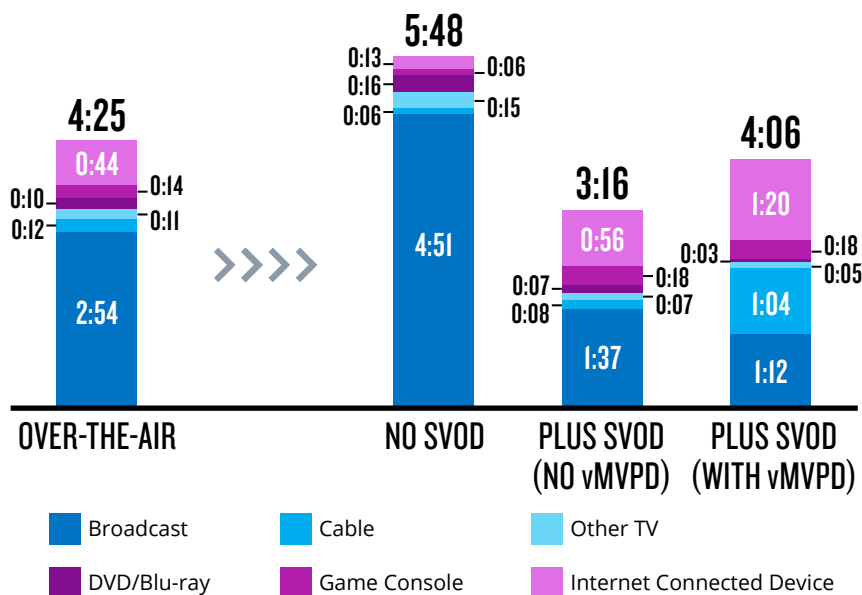
ADDING vMVPD TO THE MIX

Adding another layer, now let's see what OTA homes look like when breaking down Plus SVOD homes. With the ability to measure vMVPD in 2018, a three-tier OTA segment now exists, blending together very different consumer types and viewing habits. When comparing viewing in vMVPD homes, we see higher engagement with cable programs and streaming devices compared to other OTA types. Over the years, the percent of over-the-air homes without a streaming provider continues to decrease as more of these homes obtain streaming devices and subscription services.

TOTAL U.S. PENETRATION OF OTA HOMES BY SEGMENT



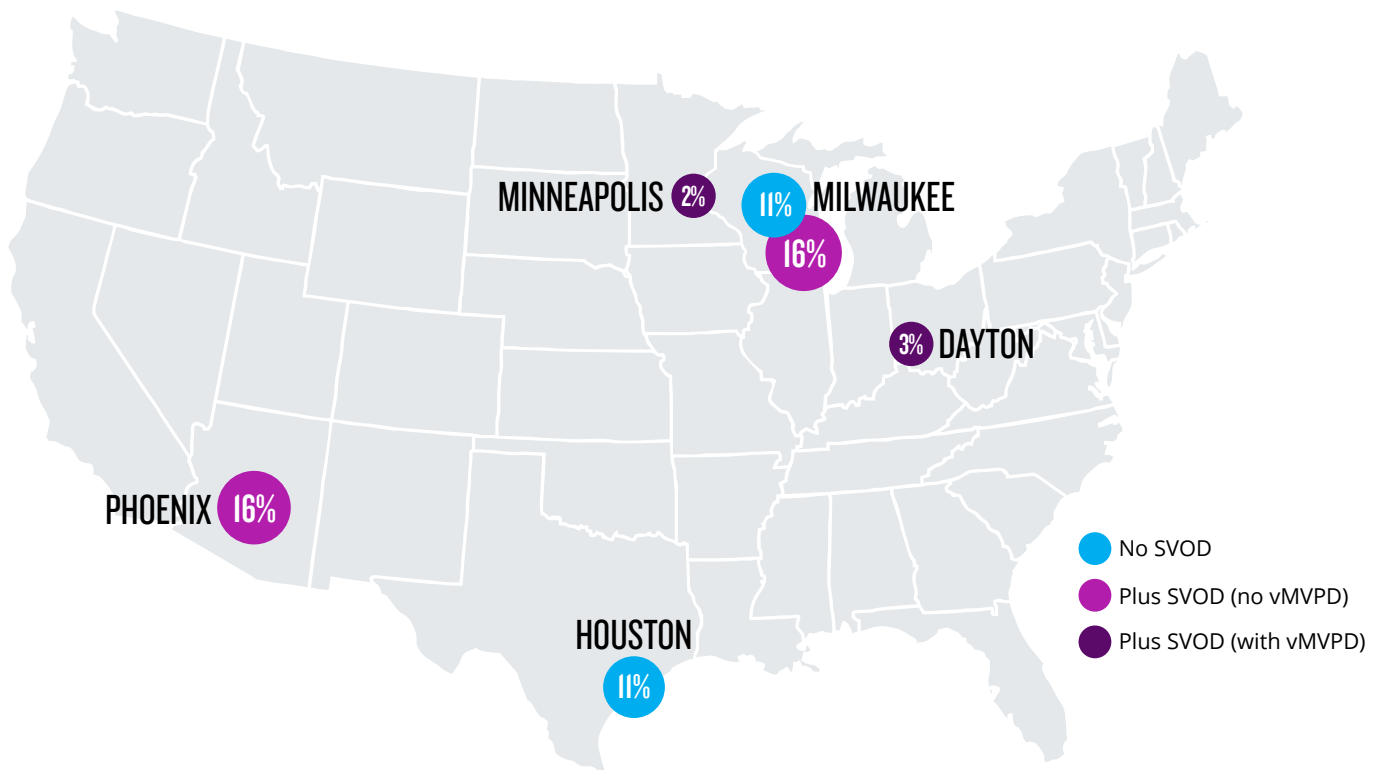
DAILY TIME SPENT WITH TV, ADULTS 18+ (HH:MM)



Source: NPOWER, May 2018. Plus SVOD (no vMVPD) and Plus SVOD (with vMVPD) are subsets of over-the-air homes with an SVOD service. Penetration based on average household install counts. Daily Time Spent based on Adults 18+, Total Day. Other TV includes un-encoded content that could not be assigned to a viewing source. Internet Connected Device = Content viewed on streaming device such as Apple TV, Roku, Amazon Fire, Google Chromecast, etc.

Now that we understand the audience profile and TV consumption of all three OTA segments, let's find out where they live. Nielsen's TV panel can tell us which local markets have the highest presence of each OTA household type. The below map highlights the top LPM and Set Meter markets for each of the three OTA types (No SVOD, Plus SVOD with and without a vMVPD). We also included a list of the Top 5 metered markets for each. Interestingly, Milwaukee ranks first for both No SVOD and Plus SVOD (no vMVPD). Dayton is leading the way for OTA homes with a vMVPD.

TOP MARKETS BY OVER-THE-AIR TYPE



NO SVOD	
MILWAUKEE (Set Meter)	11.1%
OKLAHOMA CITY (Set Meter)	10.7%
HOUSTON (LPM)	10.5%
TULSA (Set Meter)	10.4%
DAYTON (Set Meter)	10.2%

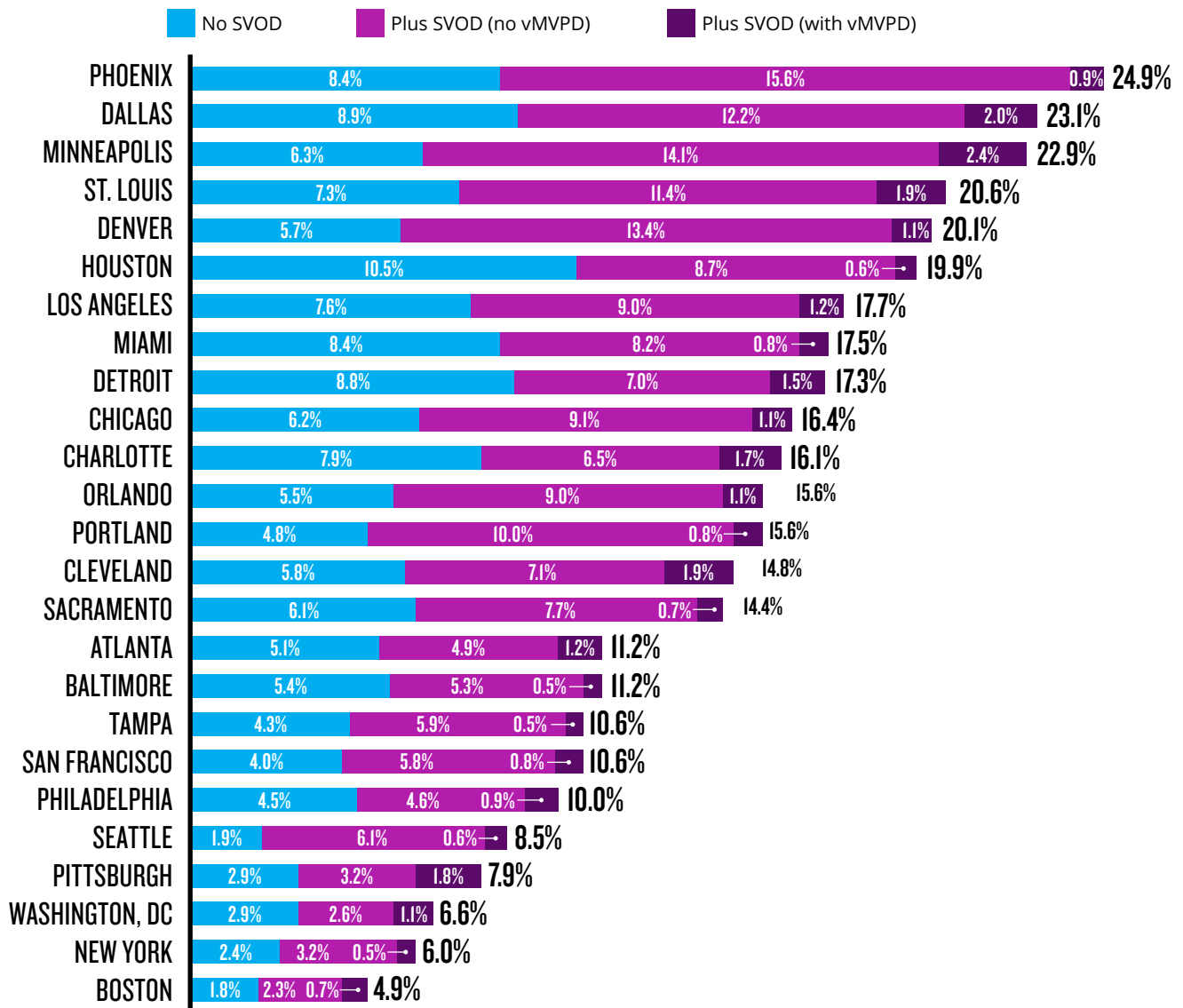
PLUS SVOD (NO vMVPD)	
MILWAUKEE (Set Meter)	16.0%
PHOENIX (LPM)	15.6%
SALT LAKE CITY (Set Meter)	15.6%
MINNEAPOLIS (LPM)	14.1%
DENVER (LPM)	13.4%

PLUS SVOD (WITH vMVPD)	
DAYTON (Set Meter)	2.7%
AUSTIN (Set Meter)	2.5%
NORFOLK (Set Meter)	2.4%
MINNEAPOLIS (LPM)	2.4%
LOUISVILLE (Set Meter)	2.3%

Source: NPOWER, May 2018. No SVOD = Over-the-air homes that do not have subscription video on-demand (SVOD). Plus SVOD (No vMVPD) and Plus SVOD (With vMVPD) are subsets of over-the-air homes with an SVOD service. Penetration based on average household install counts and exclude Broadband Only homes.

OTA HOMES IN LPM MARKETS

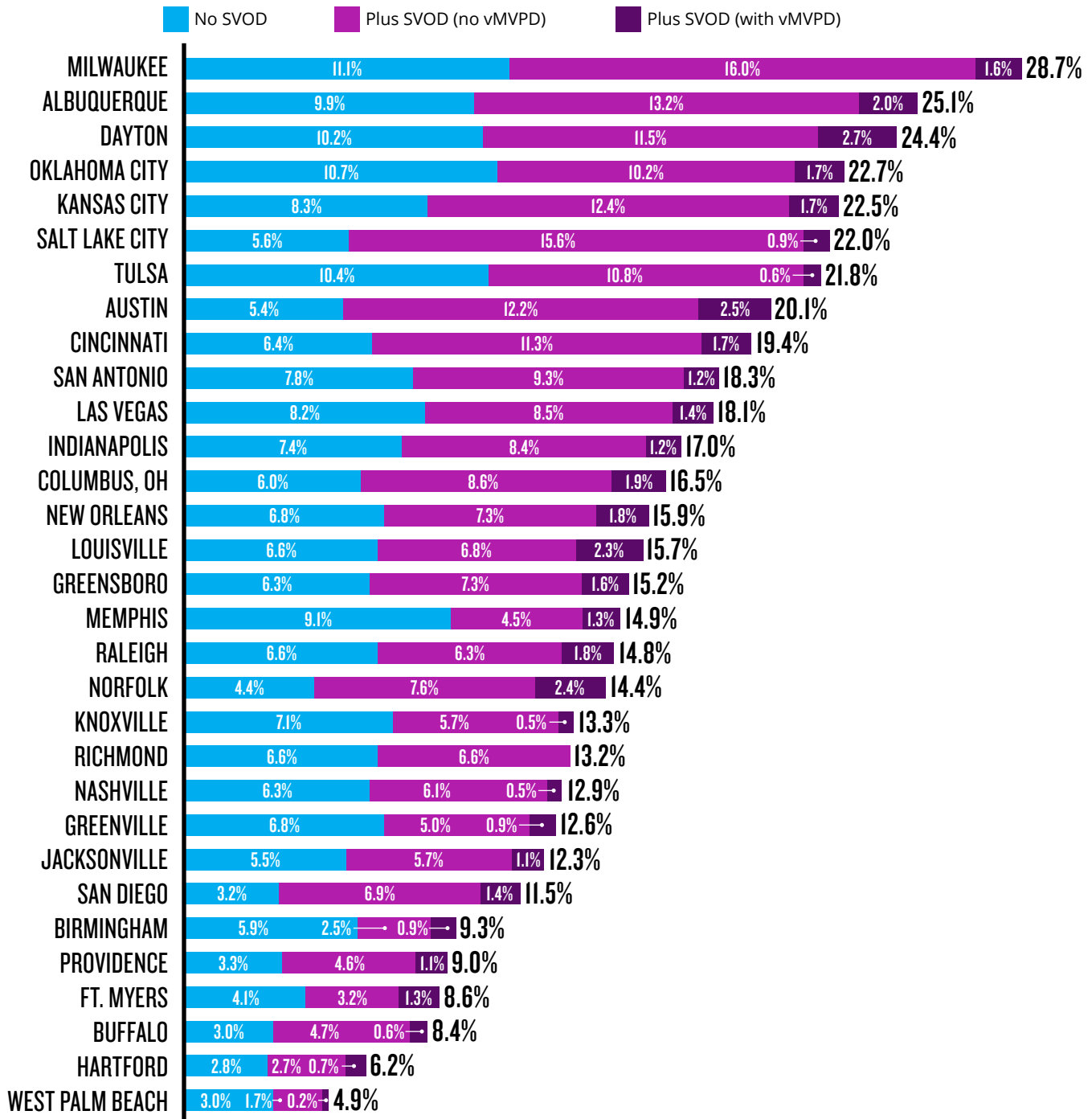
PERCENT OF HOMES BY OTA TYPE, MAY 2018



Source: NPOWER, May 2018. No SVOD = Over-the-air homes that do not have subscription video on-demand (SVOD). Plus SVOD (no vMVPD) and Plus SVOD (with vMVPD) are subsets of over-the-air homes with an SVOD service. Penetration based on average household install counts and exclude Broadband Only homes.

OTA HOMES IN SET METER MARKETS

PERCENT OF HOMES BY OTA TYPE, MAY 2018



Source: NPOWER, May 2018. No SVOD = Over-the-air homes that do not have subscription video on-demand (SVOD). Plus SVOD (no vMVPD) and Plus SVOD (with vMVPD) are subsets of over-the-air homes with an SVOD service. Penetration based on average household install counts and exclude Broadband Only homes.



SUPPLEMENTAL TABLES & SOURCING



LPM MARKETS

DAILY TIME SPENT WITH TV (HH:MM)

PERSONS 25-54, MAY 2018

MARKET	TOTAL TV HOUSEHOLDS					OVER-THE-AIR HOUSEHOLDS				
	LIVE TV	TIME-SHIFTING	DVD/BLU-RAY	GAME CONSOLE	INTERNET CONNECTED DEVICE	LIVE TV	TIME-SHIFTING	DVD/BLU-RAY	GAME CONSOLE	INTERNET CONNECTED DEVICE
ATLANTA	3:21	0:41	0:04	0:17	0:28	2:27	0:02	0:02	0:16	0:57
BALTIMORE	3:12	0:37	0:02	0:15	0:32	1:49	0:07	0:06	0:18	1:40
BOSTON	3:04	0:35	0:03	0:17	0:26	1:48	0:02	0:10	0:30	0:50
CHARLOTTE	3:53	0:44	0:05	0:12	0:29	3:06	0:02	0:10	0:08	0:54
CHICAGO	2:49	0:42	0:05	0:12	0:28	2:12	0:01	0:05	0:10	0:50
CLEVELAND	3:49	0:42	0:05	0:17	0:33	2:55	0:04	0:11	0:18	1:03
DALLAS	2:46	0:39	0:05	0:11	0:38	2:22	0:04	0:05	0:12	0:54
DENVER	2:38	0:32	0:09	0:15	0:30	1:38	0:03	0:14	0:23	0:48
DETROIT	3:32	0:42	0:03	0:15	0:24	3:54	0:01	0:07	0:13	0:49
HOUSTON	3:08	0:37	0:03	0:11	0:35	3:00	0:03	0:07	0:07	0:40
LOS ANGELES	2:52	0:35	0:04	0:13	0:30	2:14	0:01	0:07	0:15	0:42
MIAMI	2:42	0:29	0:02	0:10	0:37	2:06	0:01	0:01	0:10	0:59
MINNEAPOLIS	2:24	0:34	0:06	0:13	0:26	1:12	0:01	0:08	0:16	0:47
NEW YORK	3:21	0:35	0:03	0:11	0:27	2:32	0:05	0:04	0:07	0:52
ORLANDO	3:11	0:41	0:05	0:17	0:39	2:17	0:03	0:05	0:11	1:03
PHILADELPHIA	3:31	0:29	0:04	0:14	0:28	2:52	0:03	0:06	0:19	1:06
PHOENIX	2:56	0:41	0:09	0:16	0:33	2:13	0:02	0:12	0:15	0:46
PITTSBURGH	3:47	0:40	0:04	0:12	0:21	2:41	0:01	0:08	0:12	0:49
PORTLAND	2:41	0:38	0:05	0:19	0:27	1:40	0:00	0:12	0:11	0:52
SACRAMENTO	2:43	0:43	0:05	0:15	0:30	2:02	0:02	0:08	0:15	0:54
SAN FRANCISCO	2:17	0:36	0:03	0:11	0:24	1:01	0:01	0:07	0:16	0:52
SEATTLE	2:27	0:35	0:05	0:21	0:27	1:14	0:03	0:22	0:28	1:00
ST. LOUIS	3:26	0:40	0:05	0:18	0:28	2:06	0:02	0:10	0:20	1:03
TAMPA	3:30	0:36	0:04	0:11	0:40	2:27	0:09	0:08	0:09	1:23
WASHINGTON, DC	2:58	0:31	0:03	0:13	0:31	2:04	0:01	0:04	0:35	1:36

Source: Nielsen Local TV View. May 2018 local sweep period (April 26 – May 23, 2018). Live Data Stream. Internet Connected Device = Video on a Roku, Apple TV, Google Chromecast, Amazon Fire TV, etc. Over-the-air households = No Cable, No ADS. Excludes Broadband Only homes. Based on average quarter hour.



SET METER MARKETS

DAILY TIME SPENT WITH TV (HH:MM)

PERSONS 25-54, MAY 2018

MARKET	TOTAL TV HOUSEHOLDS					OVER-THE-AIR HOUSEHOLDS				
	LIVE TV	TIME-SHIFTING	DVD/BLU-RAY	GAME CONSOLE	INTERNET CONNECTED DEVICE	LIVE TV	TIME-SHIFTING	DVD/BLU-RAY	GAME CONSOLE	INTERNET CONNECTED DEVICE
ALBUQUERQUE	3:33	0:33	0:10	0:20	0:37	2:43	0:02	0:12	0:14	0:59
AUSTIN	2:50	0:33	0:03	0:22	0:35	2:15	0:05	0:07	0:29	0:50
BIRMINGHAM	5:03	0:54	0:06	0:18	0:28	4:59	0:07	0:08	0:14	1:08
BUFFALO	3:58	0:37	0:03	0:15	0:28	2:34	0:01	0:10	0:08	1:13
CINCINNATI	4:01	0:42	0:03	0:23	0:32	3:50	0:05	0:06	0:40	1:04
COLUMBUS, OH	4:04	0:38	0:04	0:24	0:29	2:42	0:03	0:03	0:39	0:58
DAYTON	4:39	0:37	0:08	0:18	0:31	3:51	0:04	0:12	0:24	0:59
FT. MYERS	3:50	0:33	0:05	0:15	0:35	3:53	0:01	0:18	0:24	0:56
GREENSBORO	4:22	0:38	0:05	0:15	0:26	3:13	0:06	0:09	0:16	0:51
GREENVILLE	4:22	0:44	0:05	0:12	0:35	3:17	0:06	0:11	0:16	0:54
HARTFORD	3:58	0:38	0:05	0:14	0:22	3:23	0:11	0:05	0:16	1:12
INDIANAPOLIS	4:01	0:43	0:03	0:21	0:34	3:37	0:03	0:08	0:26	1:00
JACKSONVILLE	4:49	0:42	0:04	0:19	0:27	3:35	0:01	0:10	0:09	0:56
KANSAS CITY	3:14	0:39	0:04	0:18	0:21	2:15	0:02	0:05	0:25	0:40
KNOXVILLE	4:46	0:40	0:08	0:18	0:28	4:17	0:03	0:32	0:20	1:01
LAS VEGAS	4:01	0:50	0:04	0:15	0:25	3:18	0:03	0:04	0:12	0:47
LOUISVILLE	4:10	0:44	0:05	0:19	0:31	3:16	0:07	0:08	0:08	0:58
MEMPHIS	5:27	0:45	0:04	0:12	0:19	4:32	0:02	0:12	0:16	0:32
MILWAUKEE	3:16	0:37	0:06	0:21	0:30	2:21	0:04	0:11	0:21	0:48
NASHVILLE	4:36	0:40	0:09	0:16	0:34	4:23	0:01	0:18	0:24	0:54
NEW ORLEANS	5:15	0:42	0:08	0:14	0:26	4:24	0:02	0:23	0:12	0:49
NORFOLK	4:22	0:44	0:04	0:18	0:35	2:59	0:06	0:07	0:28	0:59
OKLAHOMA CITY	4:16	0:45	0:05	0:16	0:27	4:15	0:01	0:08	0:22	0:45
PROVIDENCE	4:06	0:30	0:04	0:15	0:23	3:22	0:02	0:04	0:22	0:55
RALEIGH	4:07	0:42	0:03	0:19	0:29	2:19	0:08	0:03	0:19	0:52
RICHMOND	4:11	0:43	0:04	0:18	0:26	3:45	0:02	0:13	0:27	0:41
SALT LAKE CITY	2:15	0:34	0:10	0:22	0:27	1:26	0:01	0:14	0:21	0:48
SAN ANTONIO	3:19	0:36	0:08	0:13	0:33	2:39	0:02	0:13	0:13	1:03
SAN DIEGO	2:47	0:39	0:04	0:17	0:27	1:34	0:01	0:08	0:11	0:55
TULSA	4:22	0:49	0:12	0:12	0:25	2:59	0:00	0:32	0:17	0:42
WEST PALM BEACH	3:55	0:43	0:02	0:11	0:20	1:53	0:02	0:11	0:05	0:15

Source: Nielsen Local TV View. May 2018 local sweep period (April 26 – May 23, 2018). Live Data Stream. Internet Connected Device = Video on a Roku, Apple TV, Google Chromecast, Amazon Fire TV, etc. Over-the-air households = No Cable, No ADS. Excludes Broadband Only homes. Based on average quarter hour.

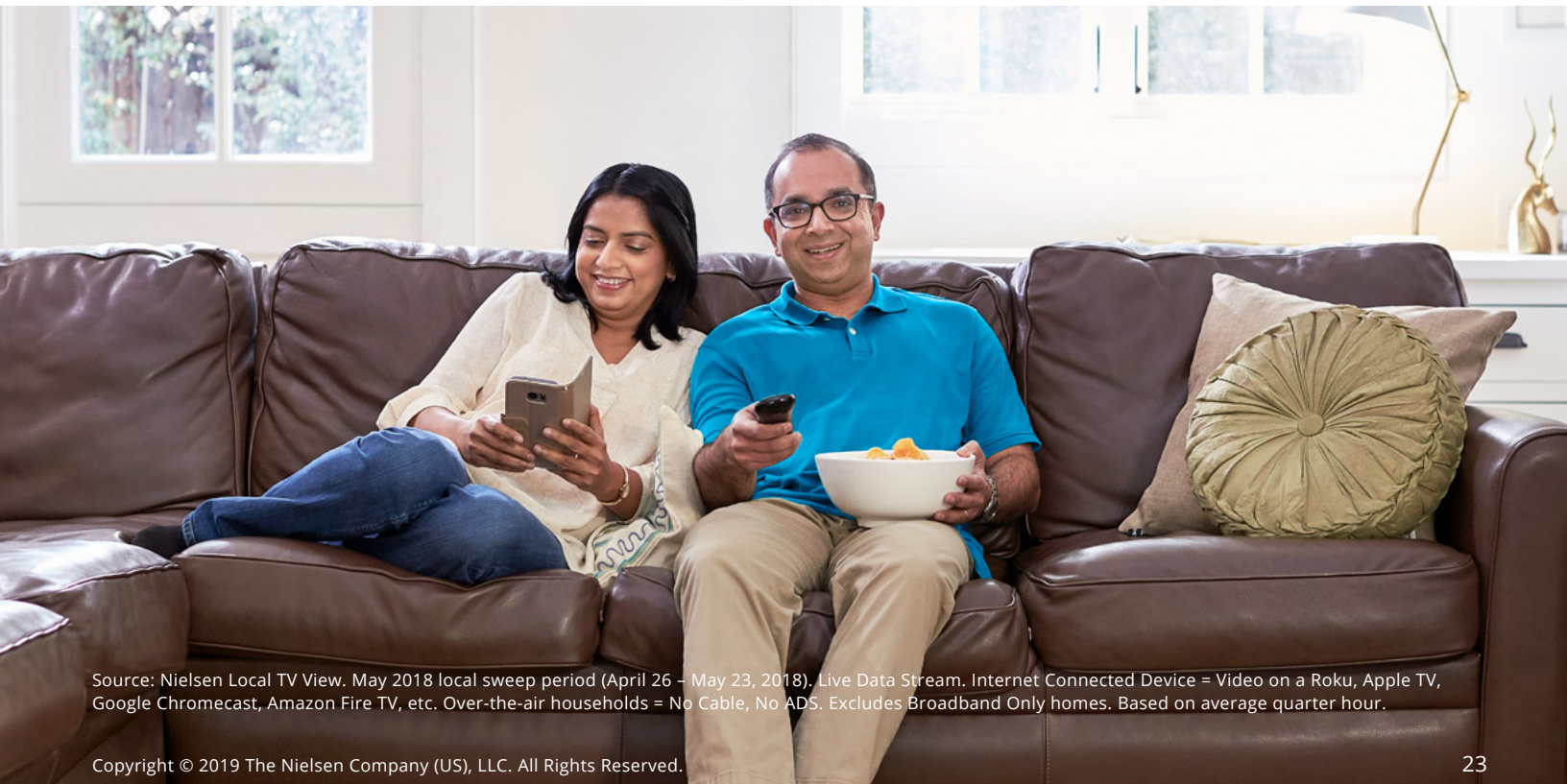


CODE READER MARKETS

DAILY TIME SPENT WITH TV (HH:MM)

PERSONS 25-54, MAY 2018

MARKET	TOTAL TV HOUSEHOLDS		OVER-THE-AIR HOUSEHOLDS	
	LIVE TV	TIME-SHIFTING	LIVE TV	TIME-SHIFTING
ALBANY-SCHENECTADY-TROY	3:24	0:27	2:01	0:03
CHARLESTON, SC	3:49	0:35	2:09	0:04
FLINT-SAGINAW-BAY CITY	3:58	0:33	2:51	0:01
FRESNO-VISALIA	3:15	0:31	3:07	0:01
GRAND RAPIDS	3:14	0:36	1:55	0:03
HARRISBURG	3:28	0:36	2:11	0:03
MADISON	3:14	0:36	1:37	0:08
MOBILE-PENSACOLA	4:10	0:39	3:44	0:03
PADUCAH	4:10	0:44	2:17	0:03
RENO	3:20	0:33	2:12	0:04
SANTA BARBARA	2:18	0:36	1:02	0:00
TRAVERSE CITY	3:42	0:34	2:33	0:02
TUCSON	3:30	0:35	3:15	0:01
YAKIMA	2:39	0:31	1:42	0:04



Source: Nielsen Local TV View. May 2018 local sweep period (April 26 - May 23, 2018). Live Data Stream. Internet Connected Device = Video on a Roku, Apple TV, Google Chromecast, Amazon Fire TV, etc. Over-the-air households = No Cable, No ADS. Excludes Broadband Only homes. Based on average quarter hour.



MULTICULTURAL MARKETS

DAILY TIME SPENT WITH TV (HH:MM)

HISPANIC PERSONS 25-54, MAY 2018

MARKET	TOTAL TV HOUSEHOLDS					OVER-THE-AIR HOUSEHOLDS				
	LIVE TV	TIME-SHIFTING	DVD/BLU-RAY	GAME CONSOLE	INTERNET CONNECTED DEVICE	LIVE TV	TIME-SHIFTING	DVD/BLU-RAY	GAME CONSOLE	INTERNET CONNECTED DEVICE
CHICAGO	2:41	0:22	0:04	0:09	0:23	2:10	0:00	0:03	0:06	0:30
DALLAS	2:28	0:16	0:03	0:11	0:32	2:19	0:01	0:03	0:11	0:34
DENVER	2:52	0:16	0:06	0:13	0:23	2:28	0:00	0:09	0:17	0:39
HOUSTON	2:43	0:19	0:02	0:07	0:27	2:41	0:01	0:04	0:04	0:22
LOS ANGELES	2:44	0:22	0:04	0:12	0:26	2:23	0:01	0:04	0:18	0:38
MIAMI	2:20	0:23	0:03	0:10	0:34	1:35	0:00	0:02	0:10	0:55
NEW YORK	3:43	0:25	0:04	0:14	0:26	3:52	0:08	0:11	0:10	0:42
PHOENIX	2:53	0:19	0:05	0:15	0:30	2:35	0:02	0:07	0:10	0:30
SACRAMENTO	2:40	0:30	0:04	0:16	0:29	2:07	0:01	0:05	0:13	0:58
SAN FRANCISCO	2:30	0:24	0:05	0:14	0:20	1:42	0:01	0:17	0:28	0:33

BLACK PERSONS 25-54, MAY 2018

MARKET	TOTAL TV HOUSEHOLDS					OVER-THE-AIR HOUSEHOLDS				
	LIVE TV	TIME-SHIFTING	DVD/BLU-RAY	GAME CONSOLE	INTERNET CONNECTED DEVICE	LIVE TV	TIME-SHIFTING	DVD/BLU-RAY	GAME CONSOLE	INTERNET CONNECTED DEVICE
ATLANTA	4:28	0:43	0:01	0:13	0:33	4:39	0:03	0:01	0:13	1:31
CHICAGO	4:58	0:51	0:07	0:15	0:25	4:32	0:01	0:10	0:01	0:48
DALLAS	4:24	0:30	0:10	0:10	0:41	4:46	0:02	0:08	0:16	0:32
DETROIT	5:35	0:46	0:02	0:18	0:23	5:25	0:02	0:04	0:16	0:31
HOUSTON	5:05	0:41	0:05	0:05	0:35	6:01	0:01	0:26	0:00	0:37
LOS ANGELES	3:53	1:04	0:05	0:08	0:41	3:46	0:08	0:11	0:22	0:49
MIAMI	3:40	0:28	0:01	0:18	0:43	3:08	0:02	0:03	0:08	1:06
NEW YORK	4:45	0:32	0:05	0:15	0:40	3:32	0:08	0:06	0:14	1:13
PHILADELPHIA	5:08	0:27	0:05	0:19	0:33	4:28	0:01	0:06	0:11	0:45
WASHINGTON, DC	4:09	0:34	0:02	0:17	0:39	3:58	0:02	0:05	1:19	1:50

Source: Nielsen Local TV View. May 2018 local sweep period (April 26 – May 23, 2018). Live Data Stream. Internet Connected Device = Video on a Roku, Apple TV, Google Chromecast, Amazon Fire TV, etc. Over-the-air households = No Cable, No ADS. Excludes Broadband Only homes. Based on average quarter hour.



SOURCING & METHODOLOGY

TELEVISION METHODOLOGY

Live TV includes live usage within the measurement period. DVR/Time-shifted TV is playback primarily on a DVR but includes playback from video on demand, DVD recorders, server-based DVRs and services like Start Over. TV-connected devices (DVD, Game Console, Multimedia Device) includes when these devices are in use for any purpose, not just for accessing media content. For example, Game Console would also include when the game console is being used to play video games. Internet Connected Device usage is a combination of usage of the Internet Connected Devices viewing source and Audio-Video viewing source. It includes viewing on an Apple TV, Roku, Google Chromecast, Smartphone, Computer/Laptop, etc. connected to the TV. All data was pulled from Nielsen NLTV and is based on average quarter hour.

MARKET TYPES

LOCAL PEOPLE METER (LPM)

Top 25 DMAs measured by an electronic people meter, providing daily information about what is viewed on a TV set and which members of the household are watching.

Markets: Atlanta, Baltimore, Boston, Charlotte, Chicago, Cleveland, Dallas, Denver, Detroit, Houston, Los Angeles, Miami, Minneapolis, New York, Orlando, Philadelphia, Phoenix, Pittsburgh, Portland, Sacramento, San Francisco, Seattle, St. Louis, Tampa, Washington, DC.

SET METER

31 mid-size markets that provide tuning information on a daily basis. Viewer assignment provides demographic information about who is watching.

Markets: Albuquerque, Austin, Birmingham, Buffalo, Cincinnati, Columbus, OH, Dayton, Ft. Myers, Greensboro, Greenville, Hartford, Indianapolis, Jacksonville, Kansas City, Knoxville, Las Vegas, Louisville, Memphis, Milwaukee, Nashville, New Orleans, Norfolk, Oklahoma City, Providence, Raleigh, Richmond-Petersburg, Salt Lake City, San Antonio, San Diego, Tulsa, West Palm Beach

CODE READER

14 smaller markets measured by a device that tracks audio codes to determine household tuning. Viewer assignment provides demographic information about who is watching.

Markets: Albany-Schenectady-Troy, Charleston, SC, Flint, Fresno, Grand Rapids, Harrisburg, Madison, Mobile-Pensacola, Paducah, Reno, Santa Barbara, Traverse City, Tucson, Yakima

ABOUT NIELSEN

Nielsen Holdings plc (NYSE: NLSN) is a global measurement and data analytics company that provides the most complete and trusted view available of consumers and markets worldwide. Our approach marries proprietary Nielsen data with other data sources to help clients around the world understand what's happening now, what's happening next, and how to best act on this knowledge. For more than 90 years Nielsen has provided data and analytics based on scientific rigor and innovation, continually developing new ways to answer the most important questions facing the media, advertising, retail and fast-moving consumer goods industries. An S&P 500 company, Nielsen has operations in over 100 countries, covering more than 90% of the world's population. For more information, visit www.nielsen.com.



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