YOU DOWN WITH OTT?

An Overview Of The Competitive Video Ecosystem

1Q '18 REPORT

VIDEO ADVERTISING BUREAU

Contents

The Math Of OTT: A Formula Of Addition, Not Subtraction

The over-the-top ecosystem, with 820 million connected video devices in the U.S. and hundreds of different streaming services, is about delivering more to the consumer

- **More…*Distribution***
  - 71% of Internet users use an OTT service at least once a month
- **More…*Content***
  - Consumers have a voracious appetite for content, in fact a large majority of OTT HHs (70%) also have a multichannel subscription
- **More…*Choice***
  - Nearly one-third of OTT subscribers hold 3 or more means of accessing OTT content, an eight-fold increase over just the last two years
- **More…*Convenience***
  - 45% of streamers say it's important to them to be able to watch TV programs "on the go" while 81% say its important to them to watch TV programs whenever they want
- **More…*Advertising Opportunities***
  - Currently, advertising comprises 45% of all online video revenue and is projected to grow to almost 60% over the next 10 years
  - 65% of people who use a second screen while streaming have looked up info on a product that's been advertised in a TV show

What is OTT (Over-The-Top)?

Definition: Premium long form video content that is streamed over the internet through an app or device onto a TV (or PC, Tablet, or Smartphone) without requiring users to subscribe to a wired cable, telco or satellite TV service.

OTT consumer journey: OTT leverages "apps" to stream video content to a television via an internet connection. Viewing methods include: (a) on-demand where viewers select and watch content when they choose to, and (b) linear/live – where viewers watch at the particular time, channel or app (live content is streamed in real time as the event happens)

Viewers stream TV content from the Internet using either a smart TV, OTT device, connected game console or IP set top box that received signals from digital video ad server

All major networks are making their content available either through their own app or via a virtual MVPD like Hulu or Sling TV

Content is streamed and plays instantly in full-screen and can be ad-supported if the network chooses

The Math of OTT: *More* Distribution Points

Currently, 71% of Internet users use an OTT service

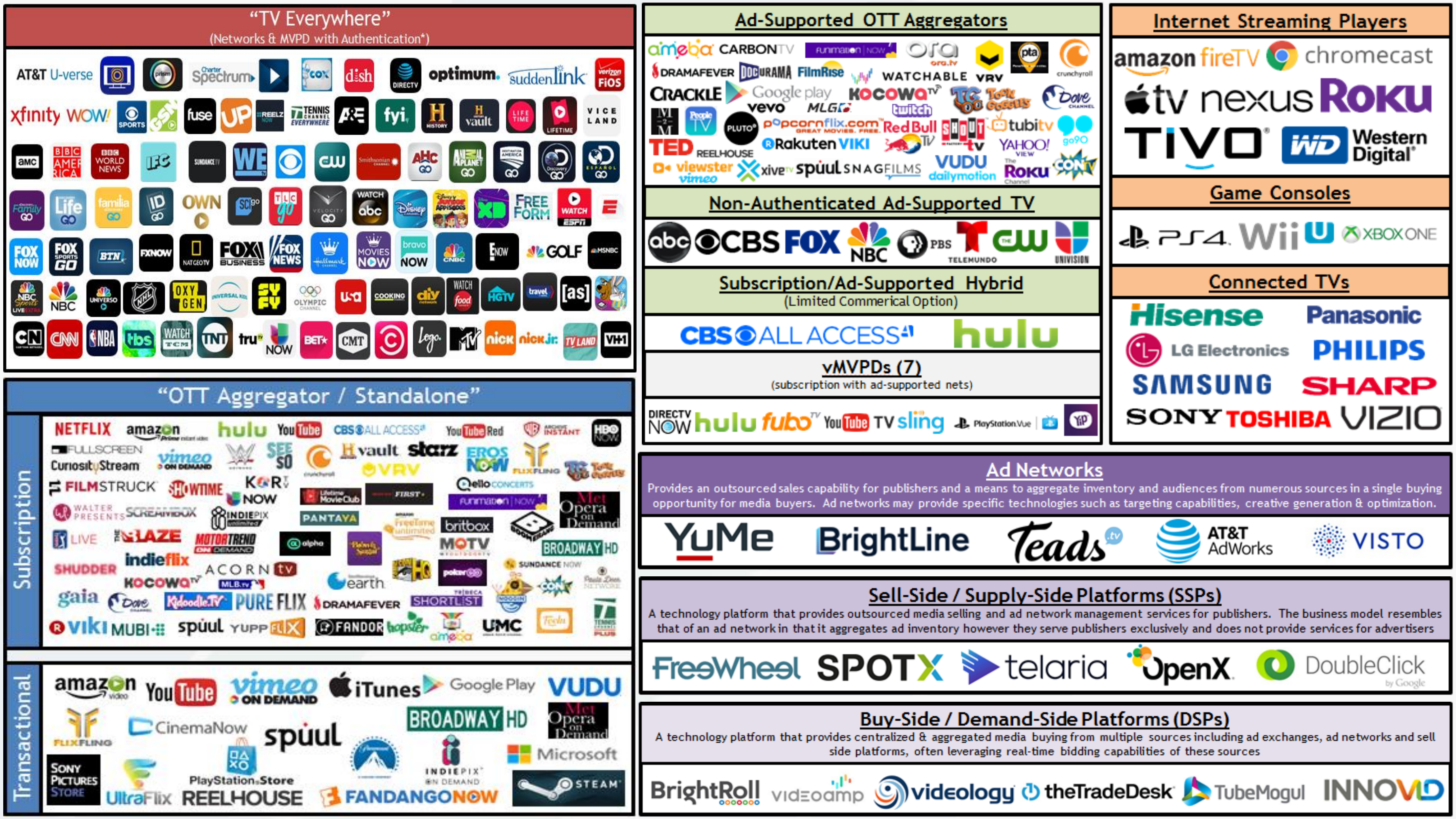
OTT Content Can Be Accessed In Several Ways And Falls Primarily Into Two Groups

Devices	Streaming Services
Connected Devices allows the streaming of specific, selected content. Devices include Streaming Players/Sticks (e.g. Roku/Amazon Fire TV), Gaming Consoles (e.g. PS4), and Smart TVs	Means of access are ad-supported, subscription, rental, or purchase. These access points can take the form of OTT content aggregators (e.g. Crackle), Standalone apps (e.g. ABC), or virtual MVPDs (e.g. Sling).

Streaming services and devices often work in tandem. For example, streaming Hulu content from a mobile phone to the television via Google Chromecast.

Source: SNL Kagan

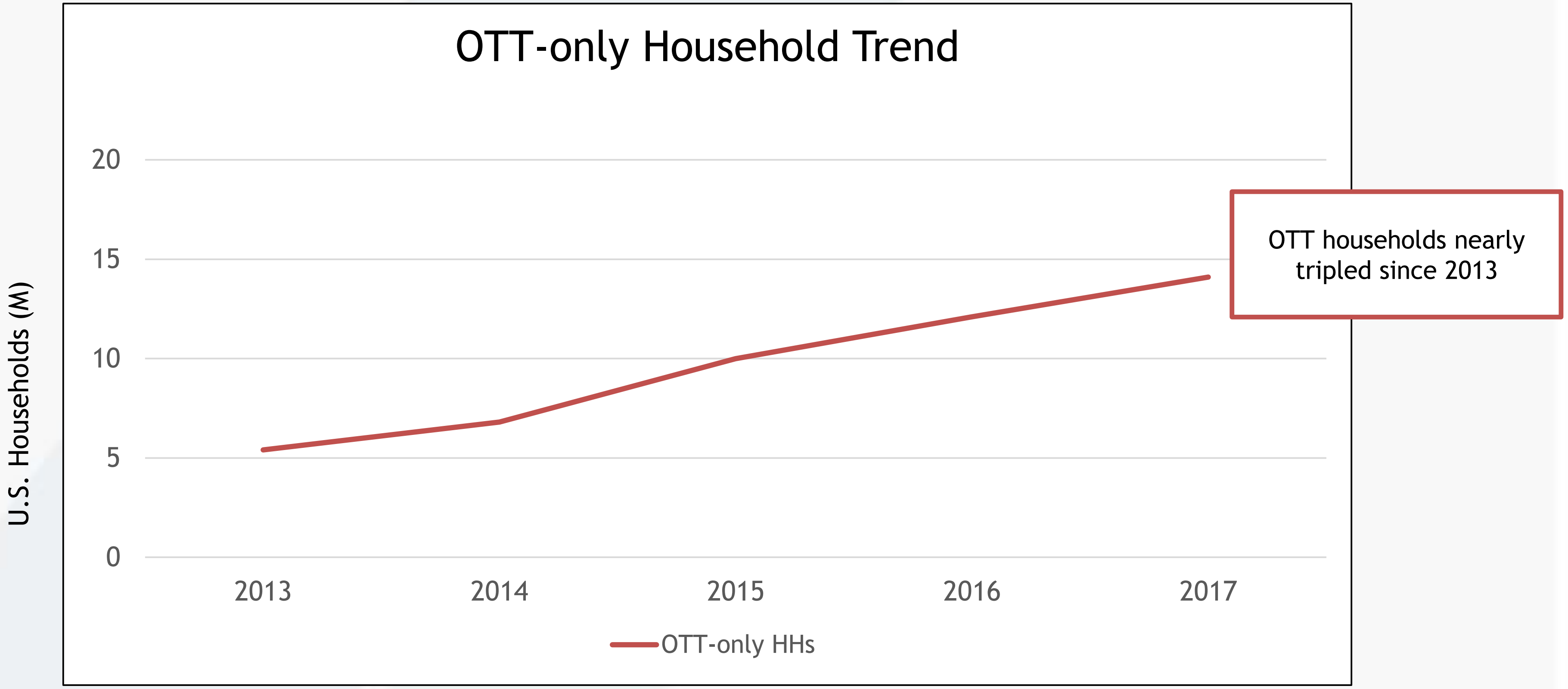
OTT Streaming Services & Devices Ecosystem



VAB: YOU DOWN WITH OTT?

Note: the above reflects a representative sampling of services and devices and each segment does not necessarily reflect every offering available.

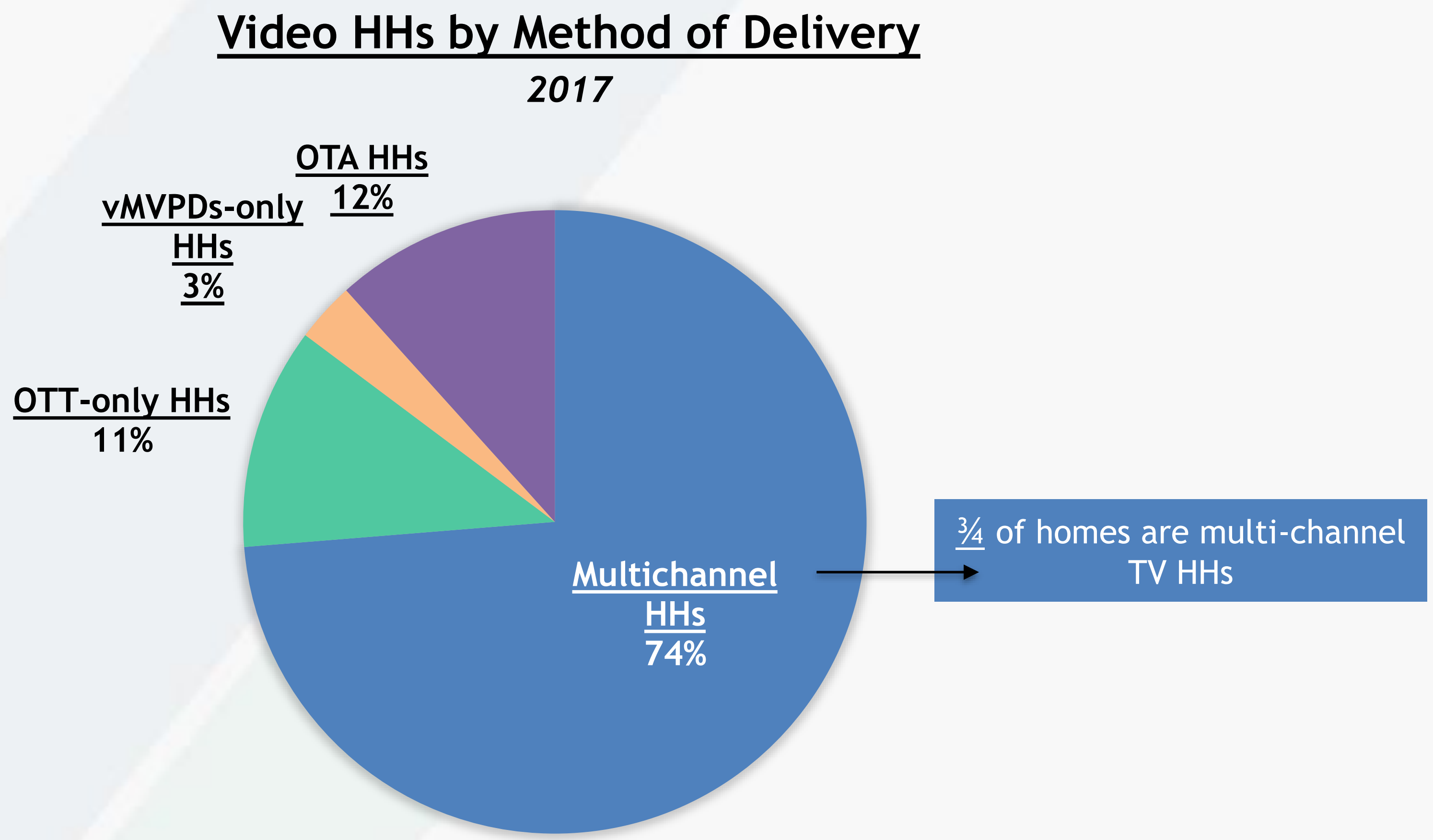
OTT Households Are Growing And Currently Represent 14.1MM Homes…



Source: 2017 S&P Global Market Intelligence, Kagan. 2013 and 2014 data as of June 2014; 2015-2017 data as of June 2017.

- OTT HHs (multichannel substitutes) are HHs that rely on unmanaged Internet or OTT delivery to view television shows or movies in lieu of a traditional multichannel subscription. Figure does not include subscribers to virtual service providers such as Sling TV, PlayStation Vue or DIRECTV NOW.
- Virtual service providers (vMVPDs) characterized by unmanaged (Internet/OTT) delivery of aggregated live, linear networks and on-demand content similar to a traditional multichannel offering for a monthly subscription

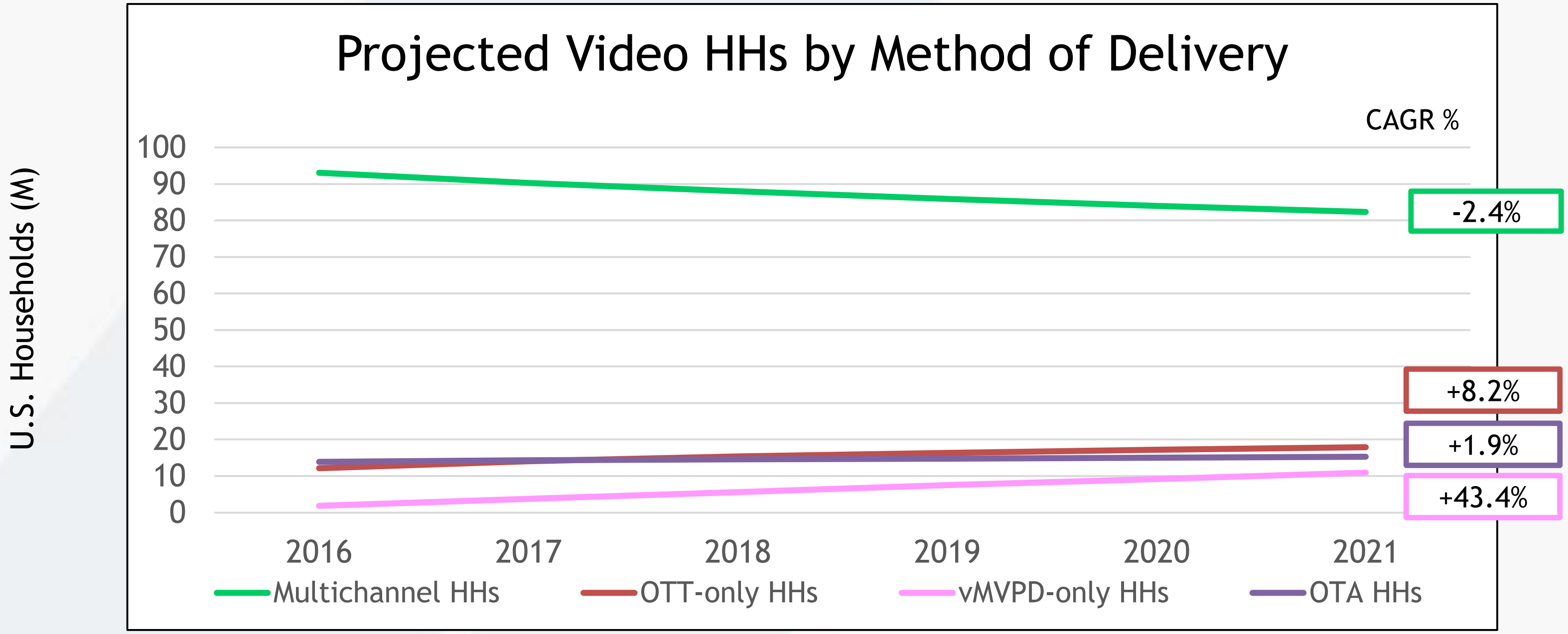
…Which Translates To 11% Of TV Homes; However Three-Fourths Of All Homes Are Multi-channel TV Households



Source: 2017 S&P Global Market Intelligence, Kagan. As of June 2017.
(1) Multichannel HHs - Residential multichannel household count excludes DBS overlap created by households taking multiple multichannel subscriptions. Includes cable, DBS, telco and other multichannel platforms. Excludes commercial subs. (2) OTT HHs (multichannel substitutes) are HHs that rely on unmanaged Internet or OTT delivery to view television shows or movies in lieu of a traditional multichannel subscription. Figure does not include subscribers to virtual service providers such as Sling TV, PlayStation Vue or DIRECTV NOW. (3) Virtual service providers (vMVPDs) characterized by unmanaged (Internet/OTT) delivery of aggregated live, linear networks and on-demand content similar to a traditional multichannel offering for a monthly subscription. (4) OTA HHs - Households that receive broadcast network signals using an antennae. Does not exclude households that also access OTT content

VIDEO ADVERTISING BUREAU

While MVPD Subscriptions Will Maintain A Large Share Of HHs, OTT-Only HHs Are Projected To Grow to 17.9MM Homes By 2021

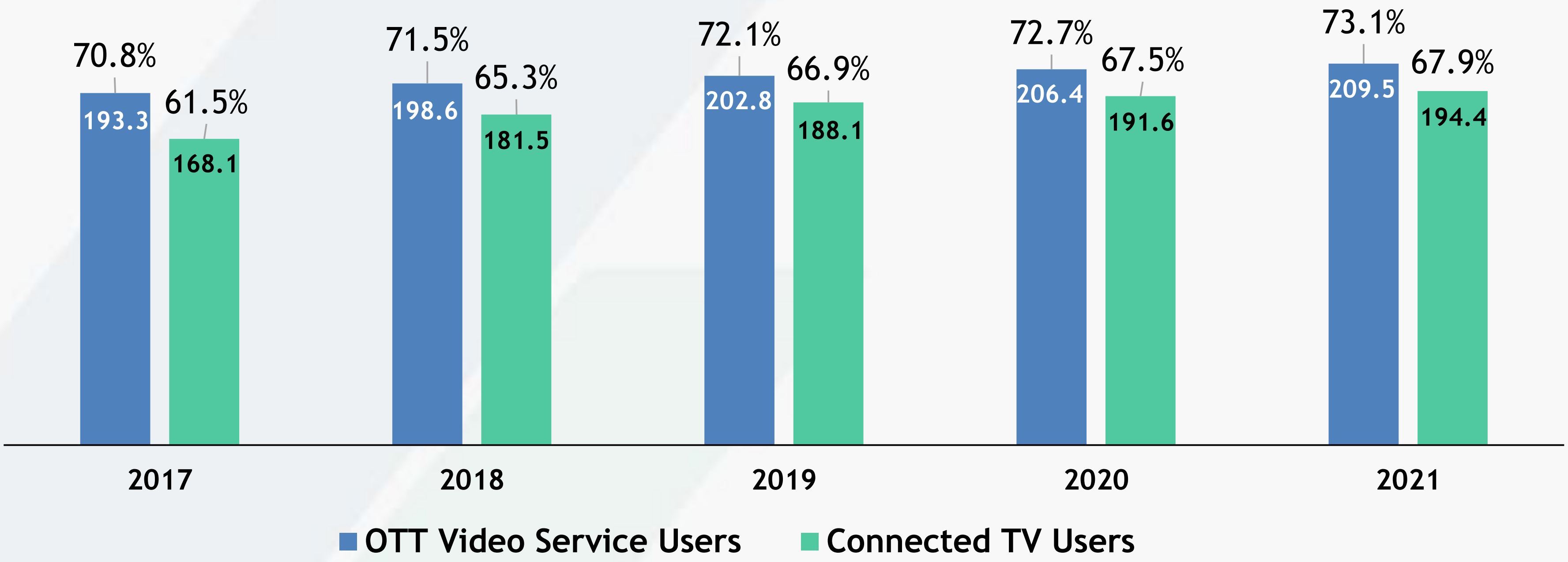


Source: 2017 S&P Global Market Intelligence, Kagan. As of June 2017.
(1) Multichannel HHs - Residential multichannel household count excludes DBS overlap created by households taking multiple multichannel subscriptions. Includes cable, DBS, telco and other multichannel platforms. Excludes commercial subs. (2) OTT HHs (multichannel substitutes) are HHs that rely on unmanaged Internet or OTT delivery to view television shows or movies in lieu of a traditional multichannel subscription. Figure does not include subscribers to virtual service providers such as Sling TV, PlayStation Vue or DIRECTV NOW. (3) Virtual service providers (VSPs) characterized by unmanaged (Internet/OTT) delivery of aggregated live, linear networks and on-demand content similar to a traditional multichannel offering for a monthly subscription. (4) Households that receive broadcast network signals using an antennae. Does not exclude households that also access OTT content

By 2021, About 200 Million US Consumers Will Use An OTT Video Service Or Connected TV At Least Once Per Month

US OTT Video Service Users and Connected TV Users

Millions and % of Internet Users



= users in millions

Source: eMarketer, July 2017, "*Programmatic Connected TV And OTT Video Advertising: Automation, Audience Attracts Digital And TV Ad Buyers*.". Note: "OTT Video Service Users" reflect individuals of any age who watch video via any app or website at least once per month that provides steaming video content over the internet and bypasses traditional distribution; examples include HBO Now, Hulu, Netflix and YouTube. "Connected TV Users" reflect individuals of any age who use the internet through a connected TV at least once per month.

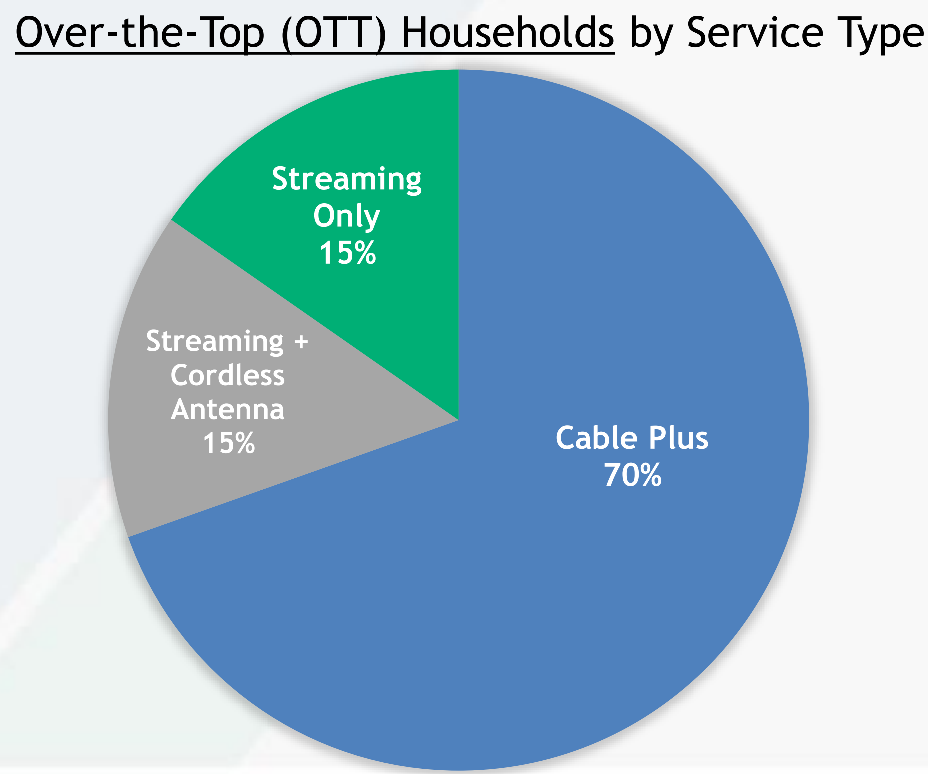
VIDEO ADVERTISING BUREAU

The Math of OTT: *More* Access To *More* Content

<u>70%</u> of OTT households also have an MVPD subscription

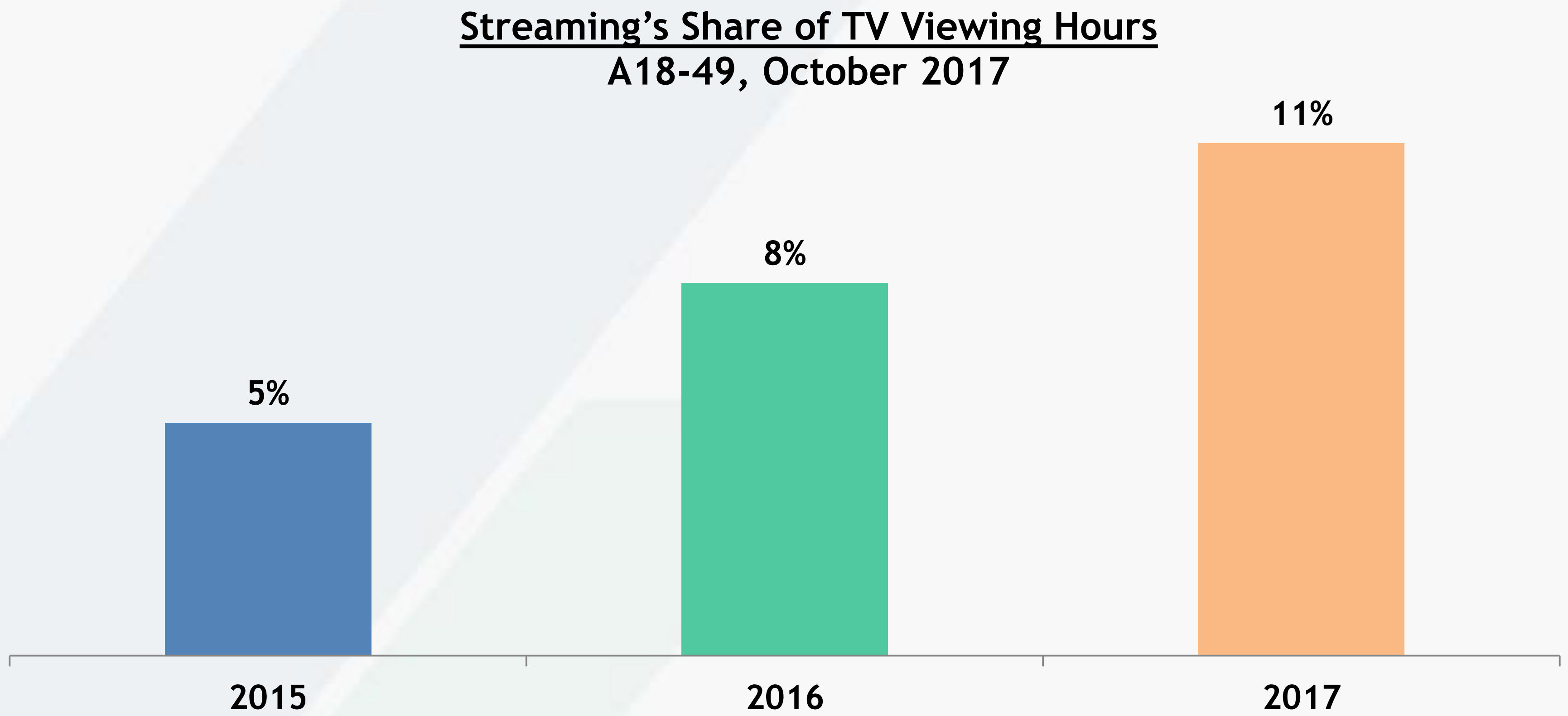
The Overwhelming Majority Of OTT Users Also Have A Cable or Satellite Subscription

Looking at those households that have OTT capabilities, 70% *also* have a Cable+ subscription



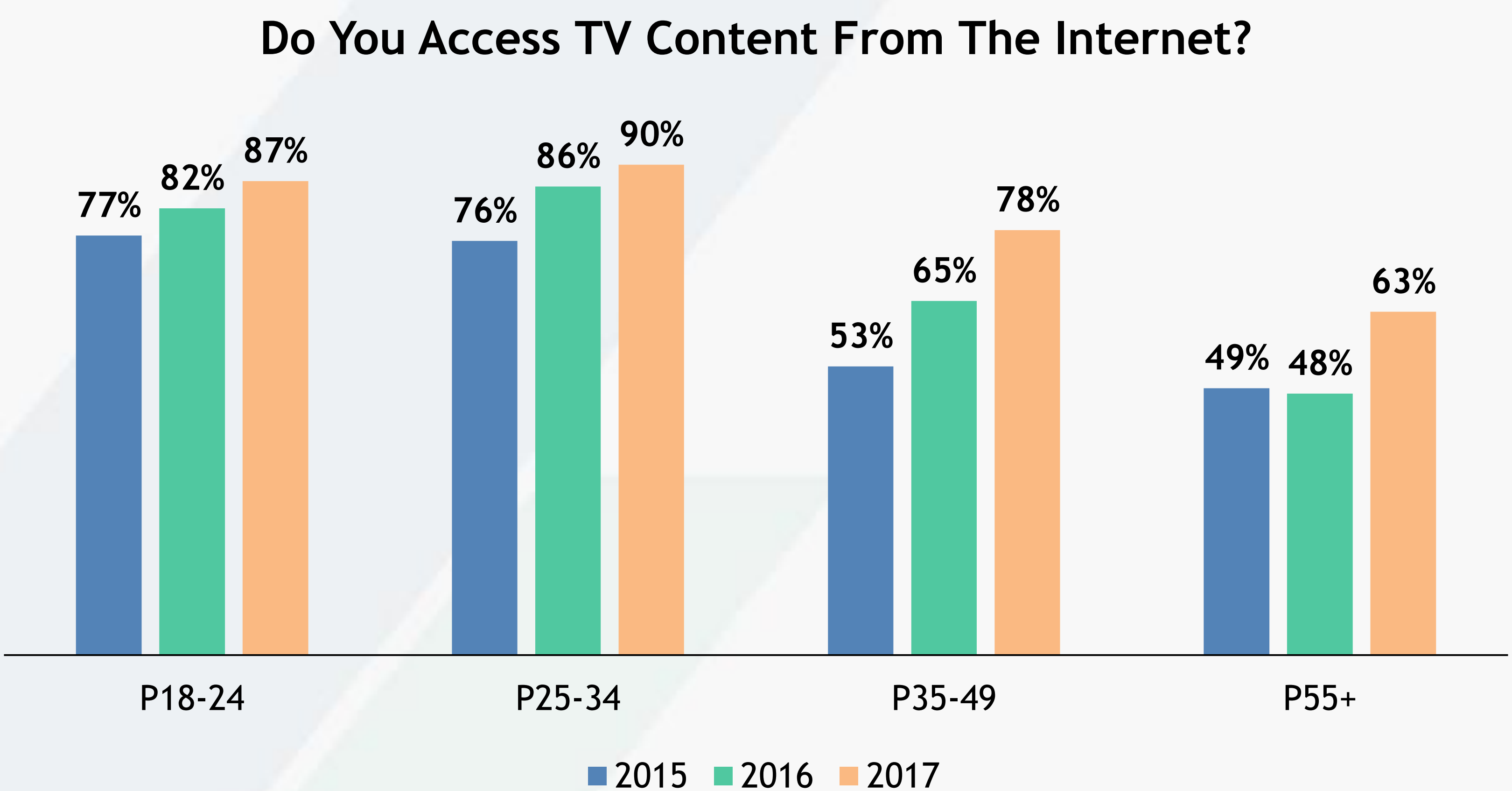
Source: ComScore Total Home Custom Reporting, U.S. December 2016; comScore Single-Source (TV+OTT) Custom Reporting, U.S. December 2016

Because Of This, Streaming - While Growing - Still Only Accounts for a Fraction of Total "TV" Viewing Hours…



Source: Pivotal Research Analysis of Nielsen Data, A18-49, October 2017; Roku Inc.

…Even As The Number Of People That Access TV Content From The Internet Grew By Double-Digits Over The Last Two Years



Source: PwC Consumer Intelligence Services video survey, 2017 from "Consumer Intelligence Series: I stream, you stream" Report.

Let's Take A Closer Look At Connected Devices…

Devices / Platforms

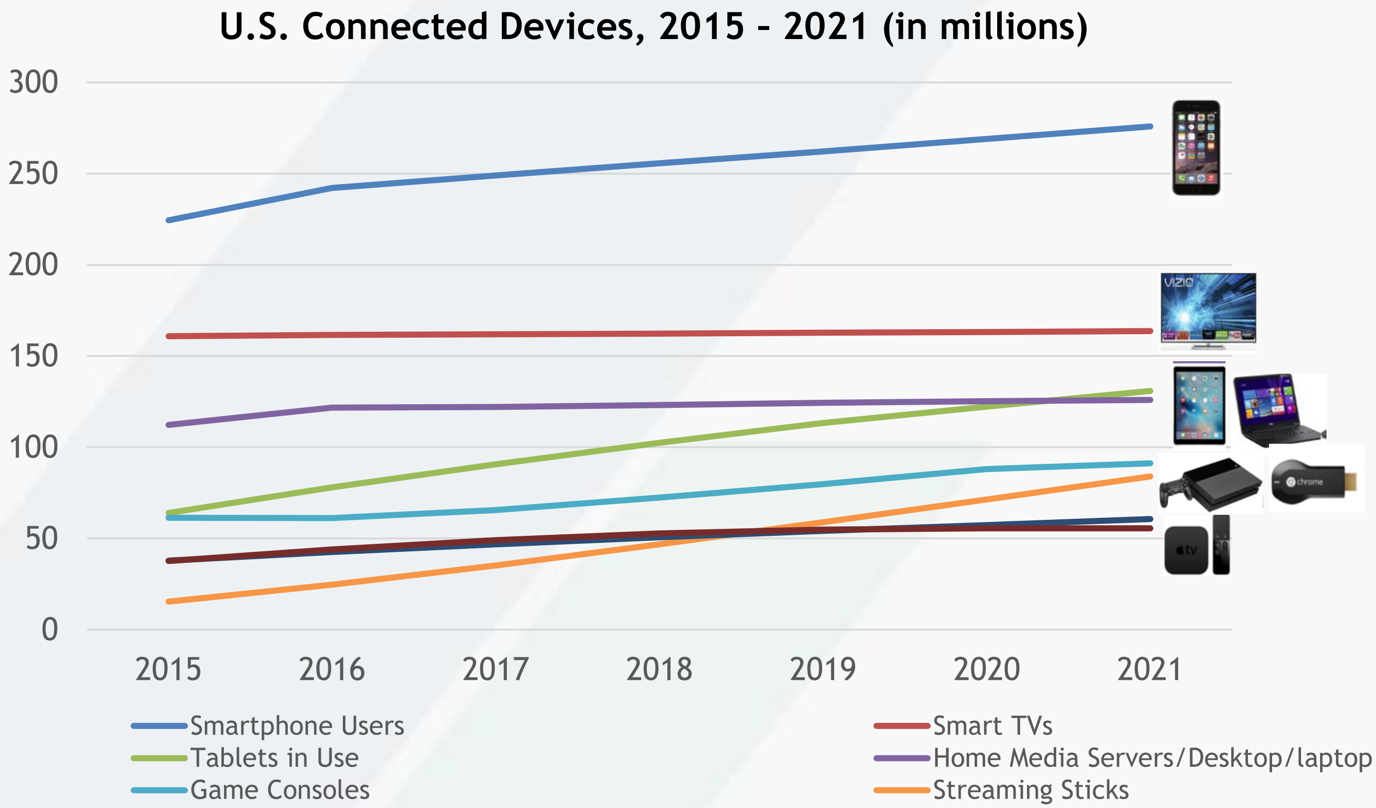
Internet Streaming Players e.g.

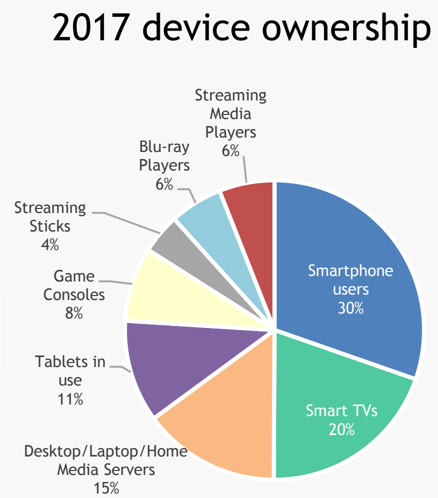
Game Consoles e.g.

Connected TVs e.g.

There Are Currently 820 Million Connected Video Devices in the U.S.

The largest segments are smartphones (30% of devices), smart TVs (20%) and PCs/Home Media Servers (15%)





Source: 2017 SNL Kagan, a division of S&P Global Market Intelligence. As of October 2017.

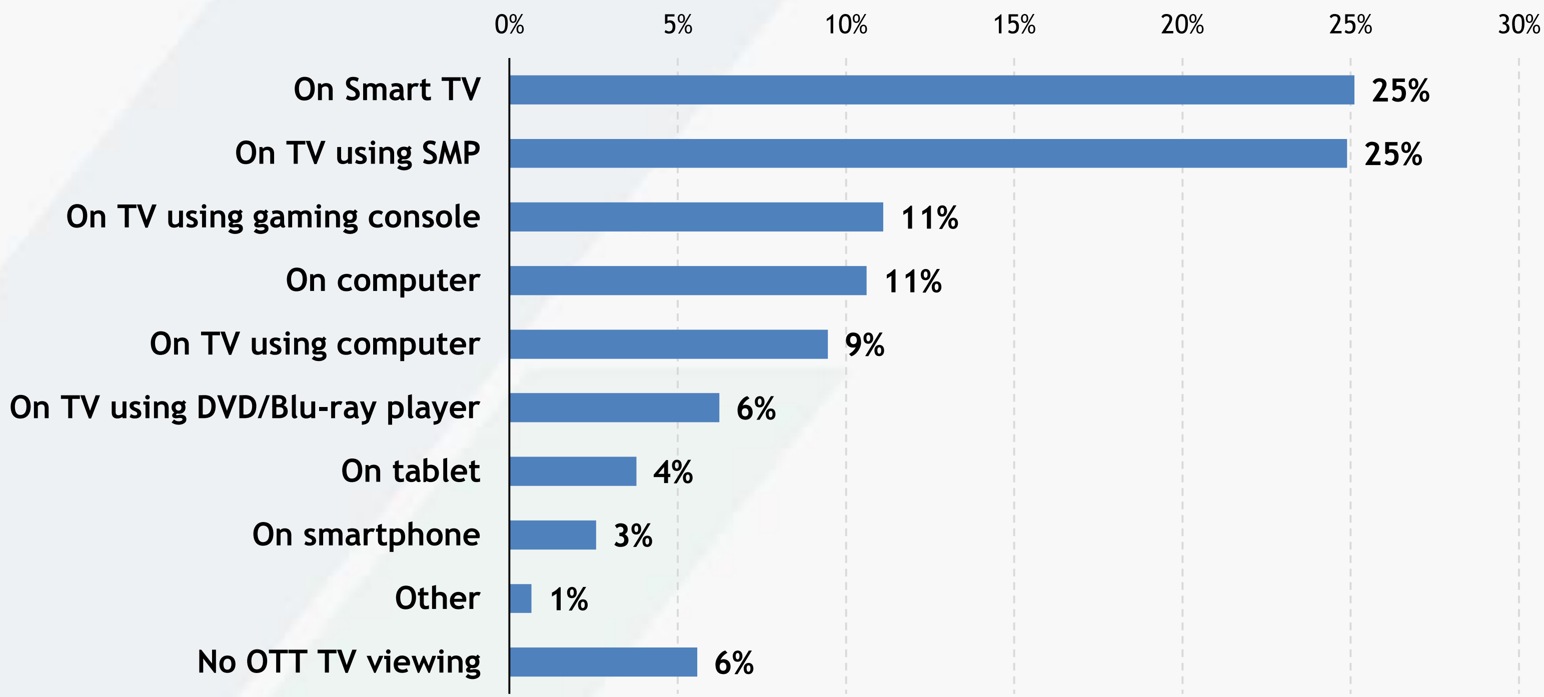
(1) Gaming Consoles - Includes the subset of game consoles that are connected to the Internet such as Sony Playstation, Microsoft Xbox and Nintendo Wii.

(2) Streaming Media Players - Includes installed base of Internet-connected standalone set-tops designed for online video viewing such as AppleTV, Roku, GoogleTV, standalone TiVo and other devices. (3) Streaming Sticks - Includes installed base of streaming sticks designed for online content viewing such as Chromecast and the Roku Streaming Stick, often in conjunction with another connected device. (4) Tablets - Excludes enterprise tablets in use.

VIDEO ADVERTISING BUREAU

The Preferred Device For Viewing Streaming Video Is The Television, Either On a Smart TV Or On A TV Using a Streaming Media Player

Preferred method of watching online video



% internet adults

Source: 2017 SNL Kagan, a division of S&P Global Market Intelligence

Viewing On-Demand Video Content Is A Top Activity Across All Connected TV Devices

Smart TV Activities	% of Device Owners
Viewed SVOD Content	70%
Viewed Live Sports	53%
Viewed TV Everywhere Content	43%
Viewed Premium Network VOD	34%
Streamed Online Music	30%
Download Online Rented Video	27%
Download Online Purchased Video	24%
Played a Video Game	22%
Purchased Physical Goods	13%

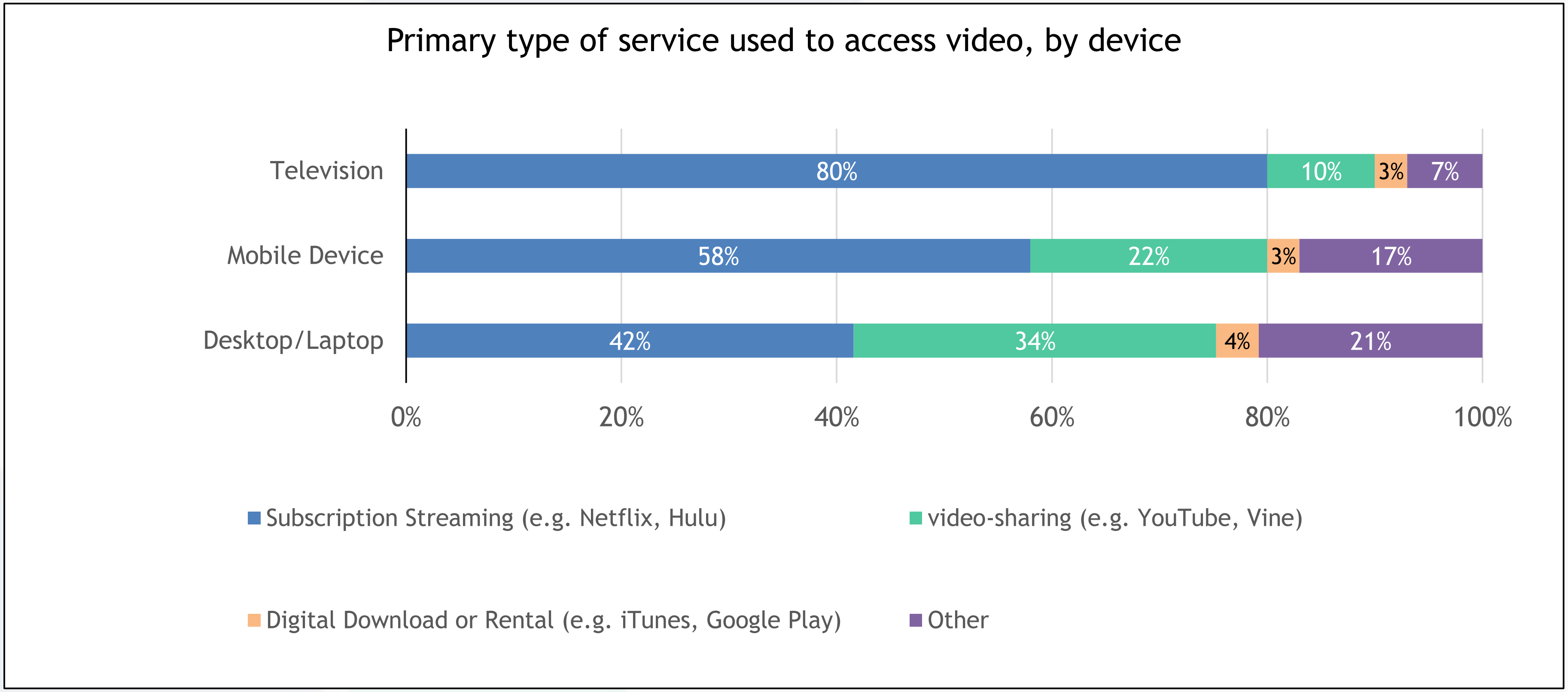
Streaming Media Player Activities	% of Device Owners
Viewed SVOD Content	71%
Viewed TV Everywhere Content	41%
Streamed Online Music	34%
Viewed Premium Network VOD	29%
Viewed Live Sports	27%
Download Online Rented Video	26%
Download Online Purchased Video	25%
Played a Video Game	14%
Purchased Physical Goods	12%

Gaming Console Activities	% of Device Owners
Played a Video Game	73%
Viewed SVOD Content	43%
Streamed Online Music	22%
Viewed TV Everywhere Content	21%
Viewed Premium Network VOD	19%
Download Online Purchased Video	16%
Download Online Rented Video	16%
Viewed Live Sports	15%
Purchased Physical Goods	11%

Source: 2017 SNL Kagan, a division of S&P Global Market Intelligence, excludes “watching TV” for smart TV activities.

The Majority Of Long-Form Streaming Occurs On A Television

Viewers prefer watching longer-form streaming video on a TV, and secondly on Mobile devices



Source: eMarketer, 2016

Streaming Sticks/Boxes & Smart TVs Are The Most Popular "Primary" OTT Streaming Devices

Streaming Sticks/Boxes	Smart TVs
38 MM U.S. HHs with this device	**28 MM** U.S. HHs with this device
73% Of these HHs used their streaming stick/box to stream OTT	**63%** Of these HHs used their smart TV to stream OTT

Source: comScore Connected Home and OTT Intelligence, U.S., April 2017

It's Projected That Smart TVs Will Widen Their Penetration Gap Against The Next Largest Connected TV Device By 2021

US Connected TV Users, by Device

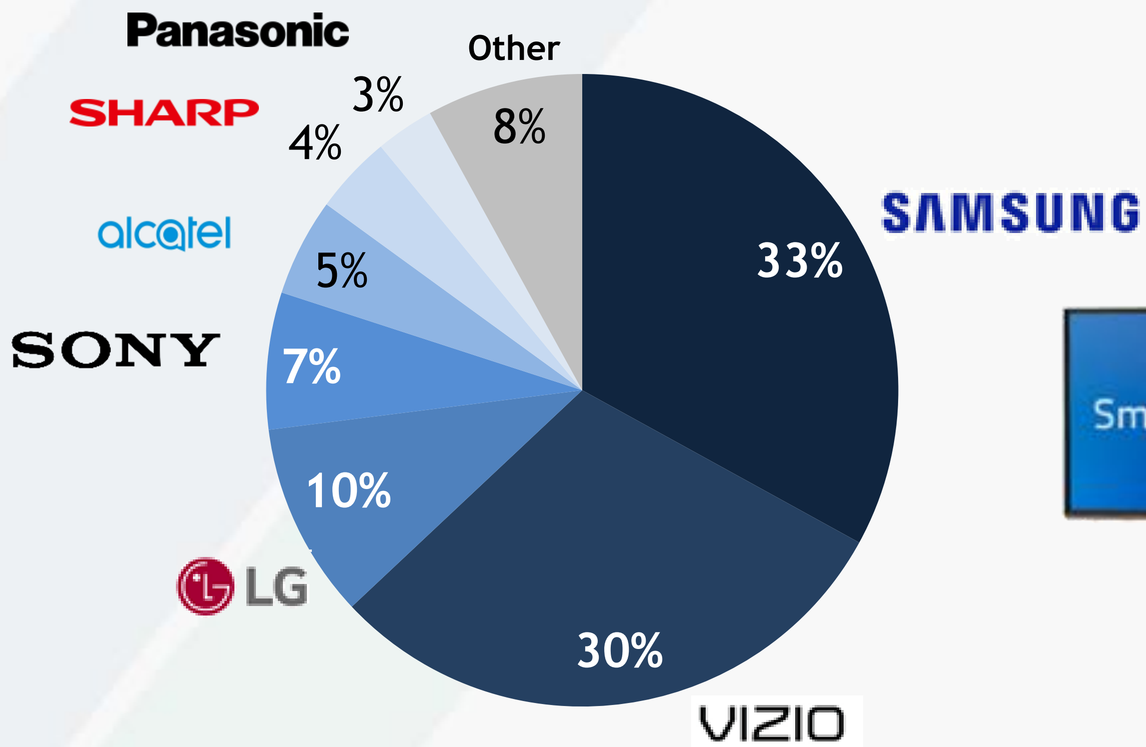
2016-2021 *(Millions)*

	2016	2017	2018	2019	2020	2021
Smart TV	62.0	81.2	94.2	102.6	109.3	114.3
Connected Game Console	58.4	62.8	66.5	69.5	71.8	73.9
Roku	32.6	38.9	45.9	53.4	61.3	69.0
Google Chromecast	29.9	36.9	44.5	51.8	58.3	64.6
Amazon Fire TV	26.3	35.8	44.1	50.8	56.1	62.6
Blu-Ray Player	29.0	29.0	29.0	29.0	29.0	29.0
Apple TV	19.9	21.3	22.6	23.6	24.4	25.2
Total	**152.7**	**168.1**	**181.5**	**188.1**	**191.6**	**194.4**

Source: eMarketer, August 2017, "*Programmatic Connected TV And OTT Video Advertising: Automation, Audience Attracts Digital And TV Ad Buyers*."
Note: reflects individuals of any age who use the internet through a connected TV at least once per month. The total reflects the US connected TV user universe, therefore figures by device are not additive for the total.

The Smart TV Market Is Currently Led By Samsung & Vizio

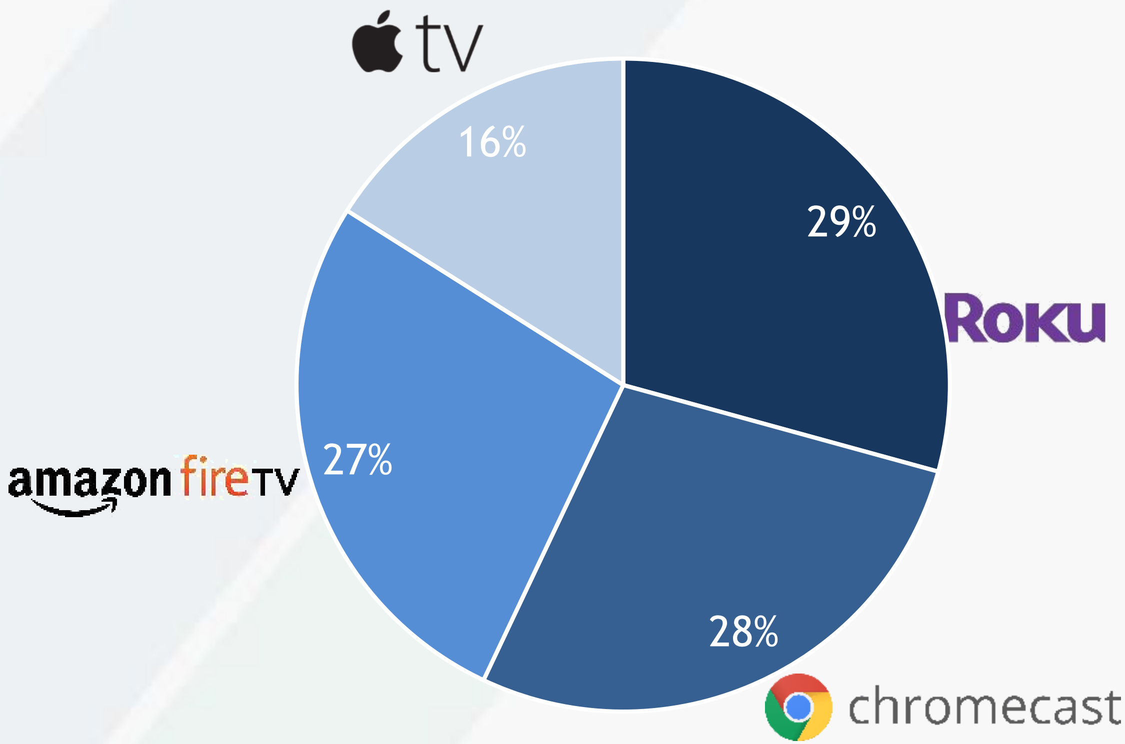
Share (%) of Smart TVs by OEM in U.S. Wi-Fi Households



Source: comScore Connected Home, U.S., April 2017

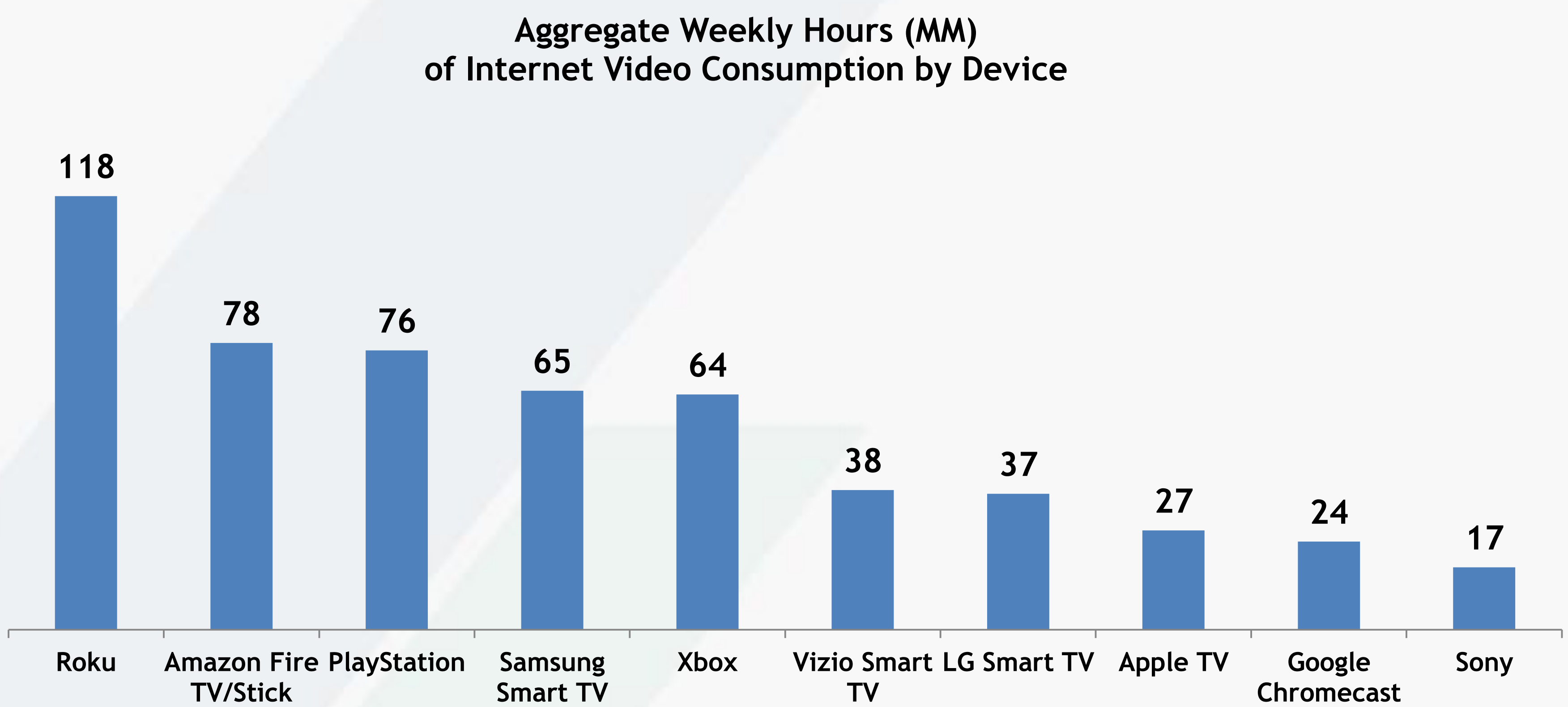
There Is Much Competition Between The Major Streaming Stick/Box Device Players

US Connected TV Users, % By Device (2017)



Source: eMarketer, August 2017, "*Programmatic Connected TV And OTT Video Advertising: Automation, Audience Attracts Digital And TV Ad Buyers*."

Roku Has The Highest Cumulative Weekly Time Spent Out Of All The Devices Available For Viewing OTT Content



Source: Kantar Millward Brown / Roku Streaming Leadership Study, Q3 2017; Roku Inc.

The Math of OTT: *More* Choice

There's been an eight-fold increase recently in people who Have access to 3+ OTT subscription services

Let's Take A Closer Look At Streaming Services…

Streaming Services

OTT Aggregators e.g. Crackle, crunchyroll, VUDU

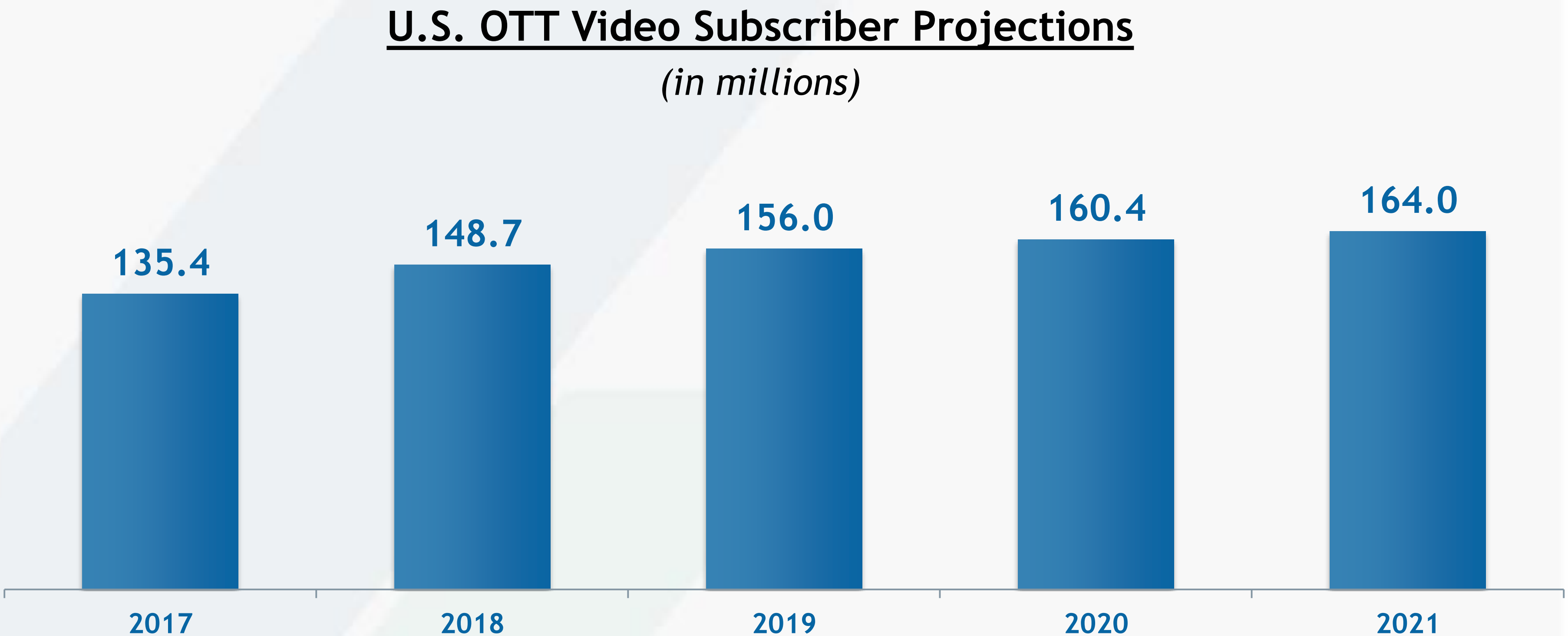
Standalone TV (Authenticated Apps) e.g. abc, CBS, NBC

Subscription (with "limited commercial" option) e.g. hulu, CBS ALL ACCESS

Virtual MVPDs (subscription with ad-supported nets) e.g. sling, YouTube TV, hulu, PlayStation Vue

Subscription-Based Is The Most Popular Method Of Accessing OTT Content & Is Projected To Grow 21% By 2021

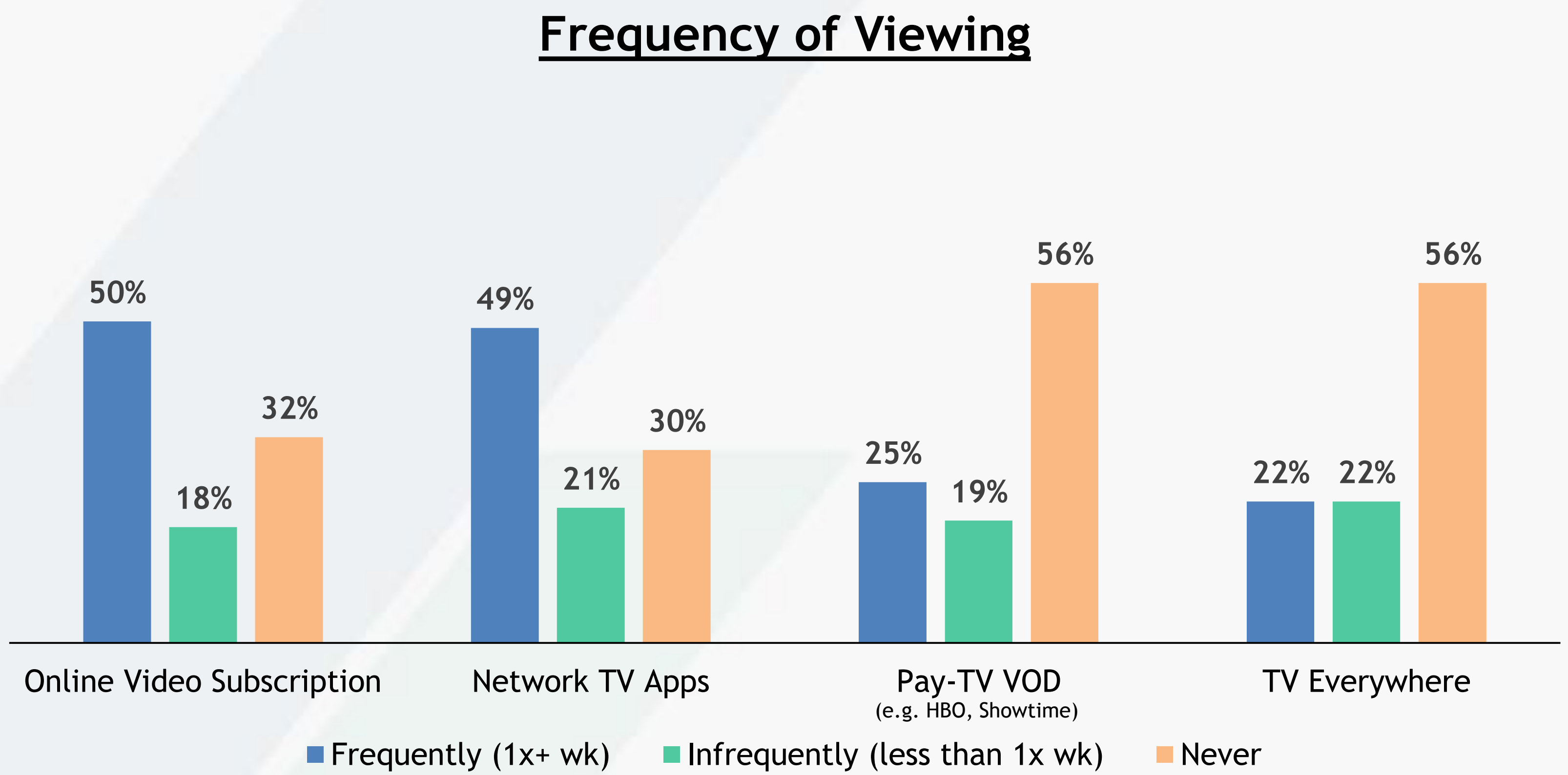
In 2017, approximately 70% of OTT video viewers accessed content via a Subscription (may or may not be in addition to other methods)



OTT SVOD is defined as the online delivery of subscription on-demand services and direct-to-consumer live linear networks (e.g. Netflix, Amazon Prime Video, Hulu)

Source: Kagan, a media research group within the TMT offering of S&P Global Market Intelligence, 2017; based on industry data and Kagan estimates.

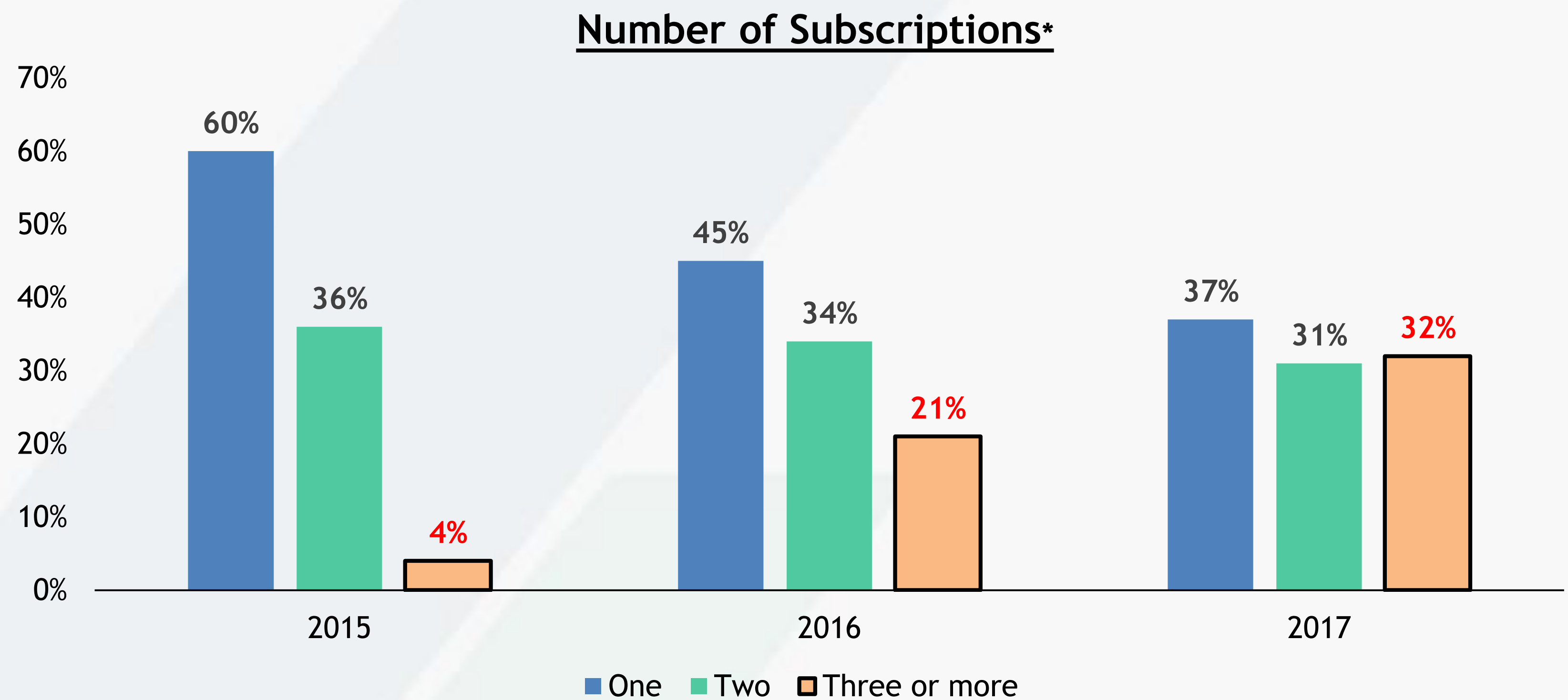
50% Of Internet Users Access An Online Video Subscription Once A Week, Followed Closely By Network TV Apps



VAB: YOU DOWN WITH OTT?

Source: 2017 SNL Kagan, a division of S&P Global Market Intelligence; U.S. 3Q 2017 Survey Summary Report. Base: 2,526 A18+ internet users.
Q. Over the past three (3) months, how often did you perform these activities?

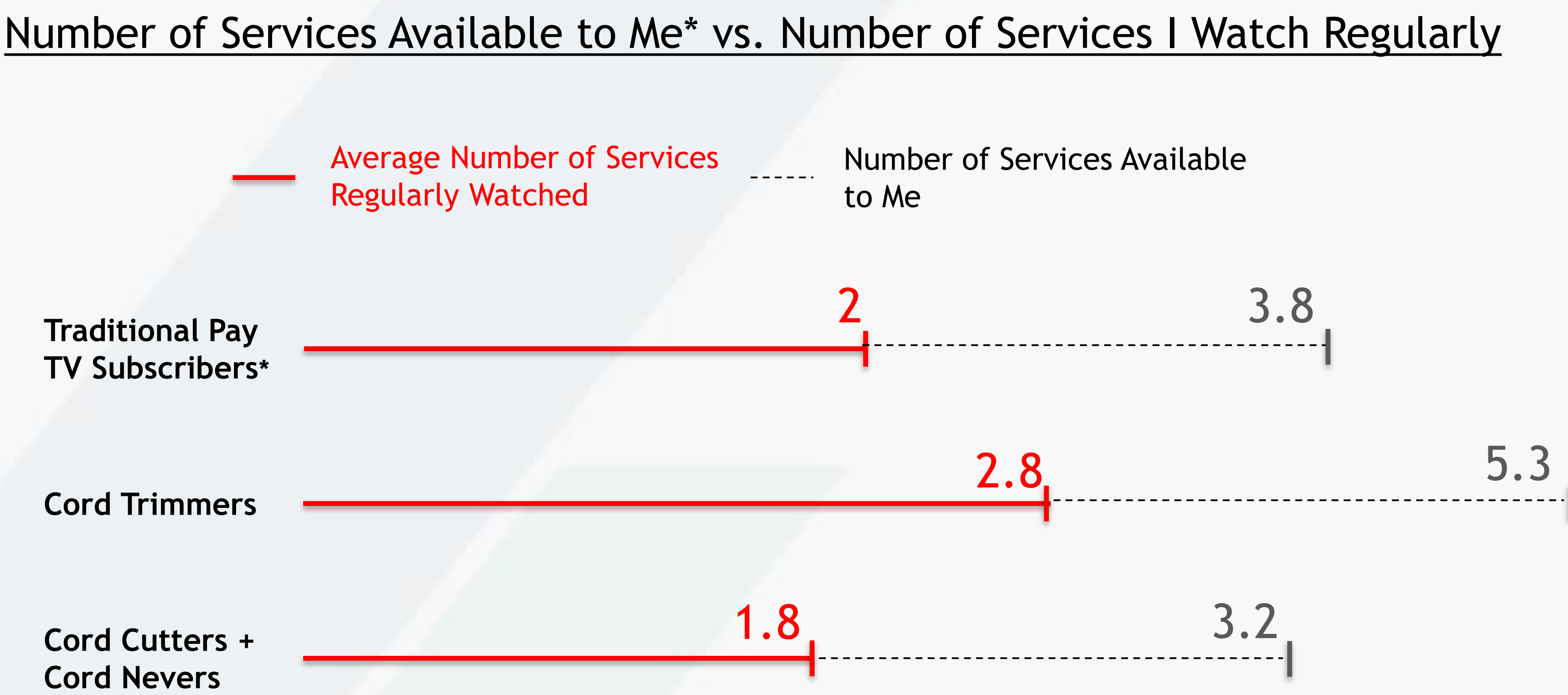
Nearly One-Third of OTT Subscribers Hold 3 or More Means of Accessing OTT Content, An Eight-Fold Increase vs. Just 2 Years Ago



*'Subscriptions' includes Netflix, Hulu, Amazon, Network Standalones (HBO Now, CBS All Access, etc.) and vMVPDs (Sling, YouTube TV, etc)

Source: Hub "What's TV Worth", April 2017; Survey fielded to 2,026, ages 16-74

However, Consumers Actually Only Watch Half Of The Subscription Video Services That They Have Access To

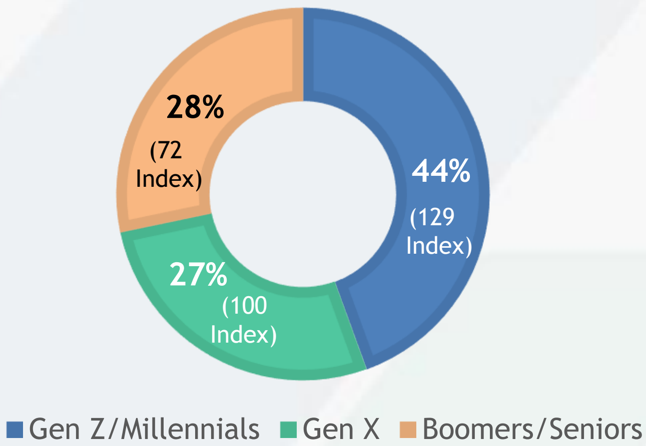


Source: PwC Consumer Intelligence Services video survey, 2017 from "Consumer Intelligence Series: I stream, you stream" Report.

 *Due to heightened levels of password sharing, PwC reports on access to a service rather than subscription to a service. * Reflects Cable/Telco/Satellite subscribers

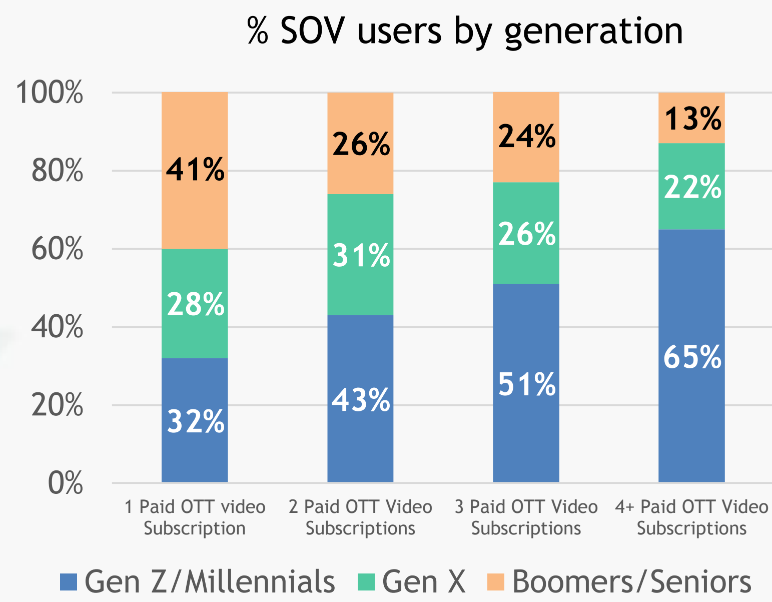
Millennials And Gen X Are Most Likely To Be Streaming OTT Content And Are Highly Likely To Have 4+ Subscriptions

SVOD usage is seen across all generations, with heaviest concentration in Millennials & Gen Z



Indices are to population size of each generation

The # of subs is highest for the younger generations

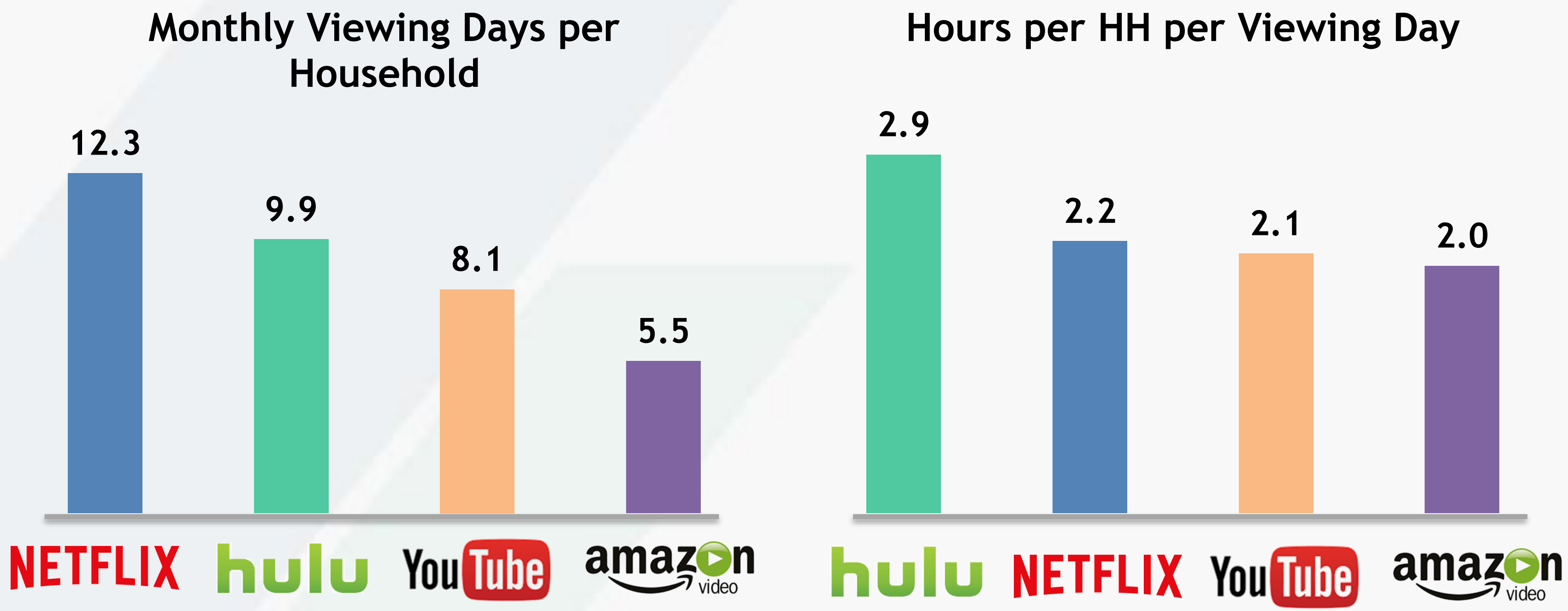


Source: 2017 SNL Kagan, a division of S&P Global Market Intelligence

Currently, The Four Major OTT Streaming Services (+YouTube) Average 2+ Hours Of Usage Per Viewing Day Per User Household

However, this usage pales in comparison to ad-supported TV which averages ***7.9 hours of usage*** per active TV household ***everyday***

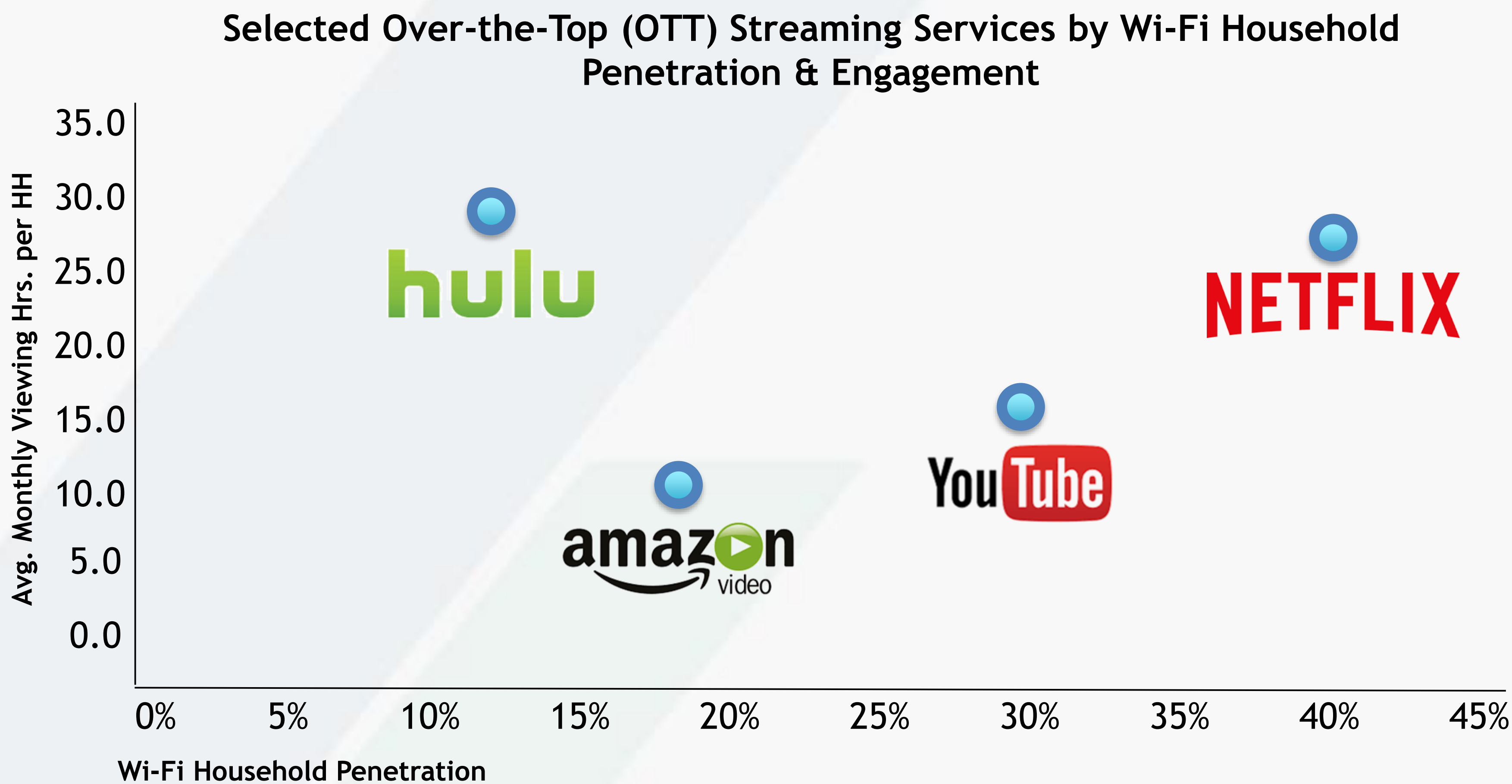
Viewing Metrics for Selected Over-the-Top (OTT) Streaming Services



VAB: YOU DOWN WITH OTT?

Source: comScore OTT Intelligence, U.S., April 2017; streaming usage based on consumption across TV-connected devices only. TV data based on Nielsen Npower R&F Time Period Report, 4/1/17 – 4/30/17, Total Day, Live+SD, Households, ad-supported cable TV + broadcast TV.

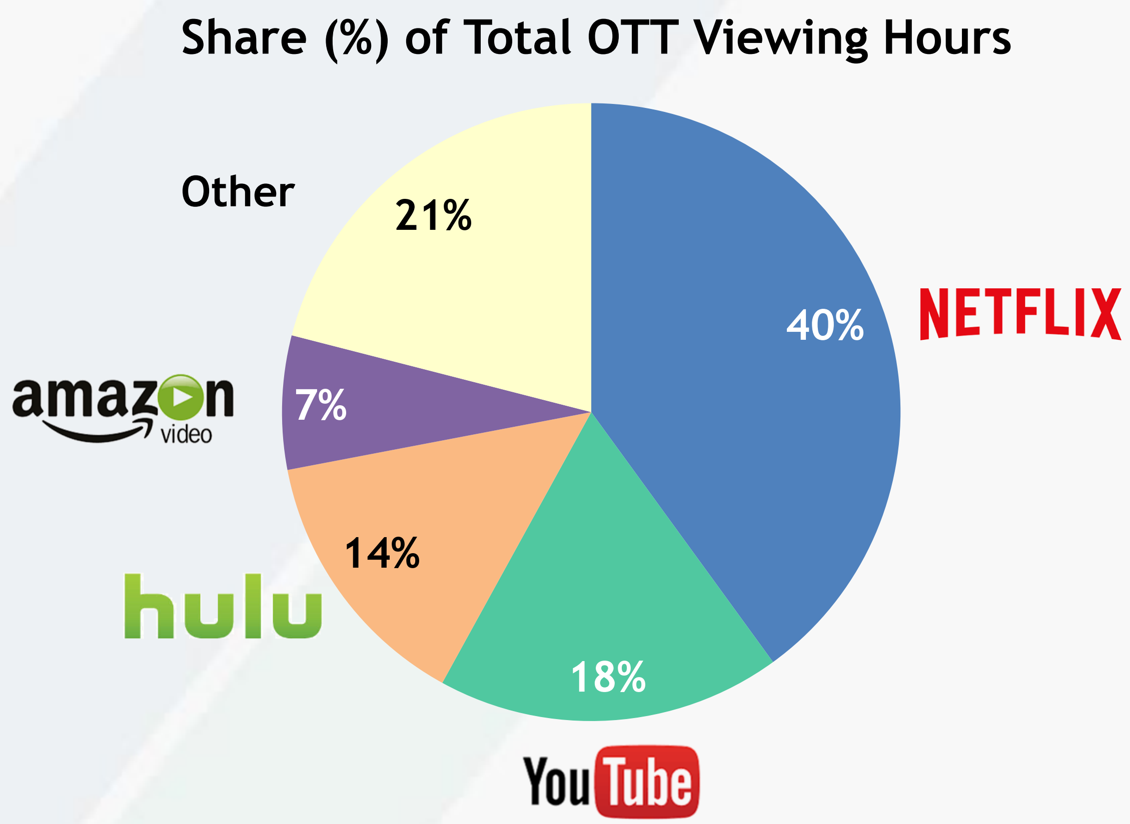
While Netflix Leads Major OTT Streaming Services In HH Penetration, It Trails Hulu For The Most Streaming Hours Per HH



How to read the chart: Netflix is watched in 40% of Wi-Fi households for an average of 27 hours per month per user household

Source: comScore OTT Intelligence, U.S., April 2017; streaming usage based on consumption across TV-connected devices only.

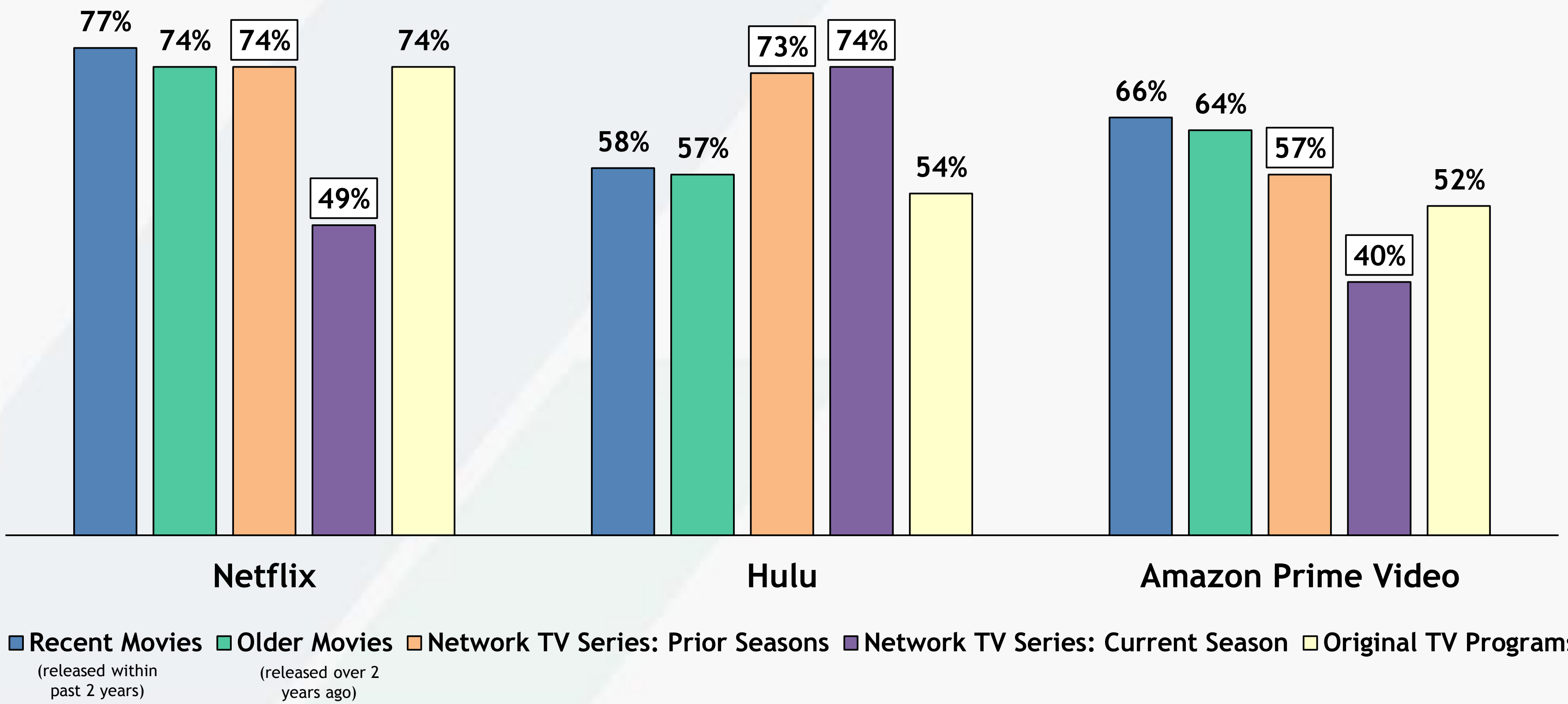
The Four Major OTT Streaming Services Account For Nearly 80% Of OTT Viewing Time For OTT Households



Source: comScore OTT Intelligence, U.S., April 2017

Among The Major SVOD Services, Acquired Network TV Content Is As Popular, Or Even More Popular, Than Original Series

Content Types Viewed on Netflix, Hulu & Amazon Prime Video

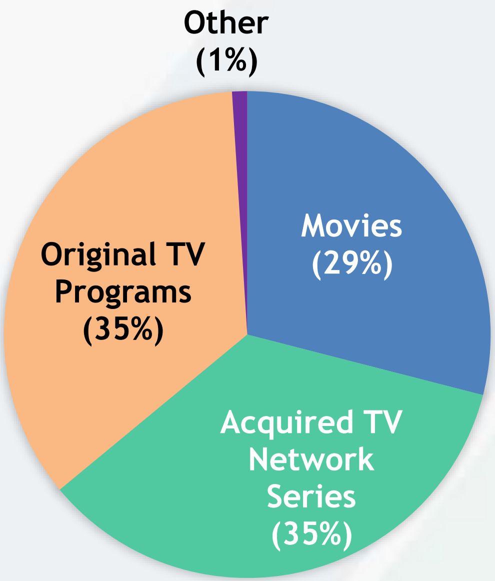


Source: Kagan, a media research group within the TMT offering of 2018 S&P Global Market Intelligence. Results from an online consumer survey conducted in September 2017, base: Netflix users – 1,480; Hulu users – 549; Amazon Prime Video users – 938. Question: You indicated that you currently have a subscription to (online video service). Which of the following types of video content do you view from the service?

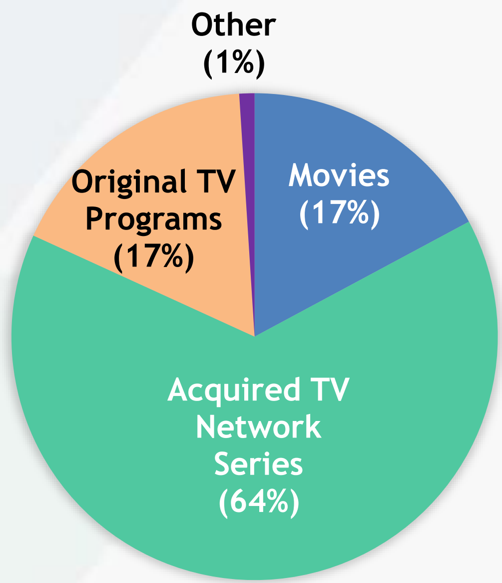
Collectively, Subscribers Also Find Acquired Network TV Series To Be More Enjoyable Than Original Content On These Services

Content Most Enjoyed on Netflix, Hulu and Amazon Prime Video

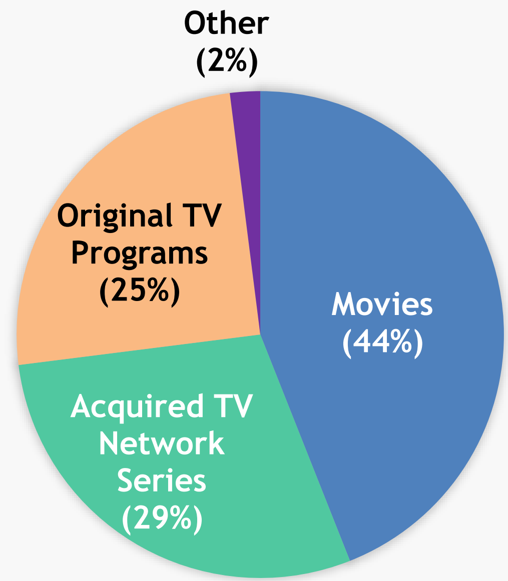
NETFLIX



hulu



amazon video



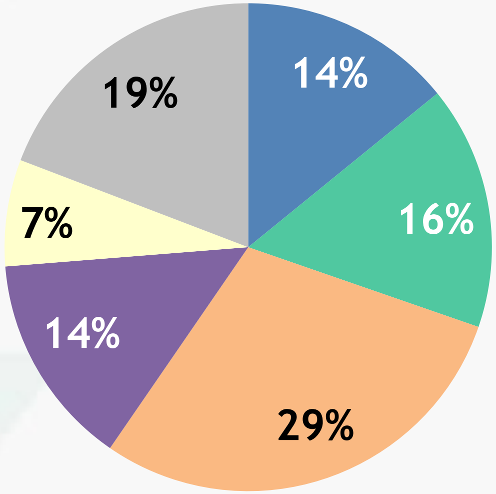
Source: Kagan, a media research group within the TMT offering of 2018 S&P Global Market Intelligence. Results from an online consumer survey conducted in September 2017, base: Netflix users – 1,480; Hulu users – 549; Amazon Prime Video users – 938. Question: Of the content you view on (online video service) which would you say is the content you most enjoy viewing? "Movies" include recent movies (released within past 2 years) and older movies (released over 2 years ago). "Acquired Network TV Series" includes prior seasons of network TV series and current season of network TV episodes.

Furthermore, Within Households That Watch Network TV Apps, These Apps + Hulu Account For More Viewing Time Than Netflix

10.1 MM HHs

That View Network TV Apps via OTT
(on connected-TV devices)

TV Network App Households: Share (%) of Total OTT Viewing Time



Source: comScore OTT Intelligence, U.S., April 2017. *Network TV App definition excludes premium networks such as HBO and Showtime and Skinny Bundles such as Sling. HHs based on consumption across TV-connected devices only.

MEMBERS ONLY

In Regards To “Virtual” Skinny Bundles, They Are Only In A Small Fraction Of U.S. HHs

3.1 MM

U.S. Skinny Bundle HHs

Skinny Bundle HHs Watch

5.3 Hours

of Skinny Bundle Content per Viewing Day

91%

Of Skinny Bundle Homes Use a Streaming Stick/Box

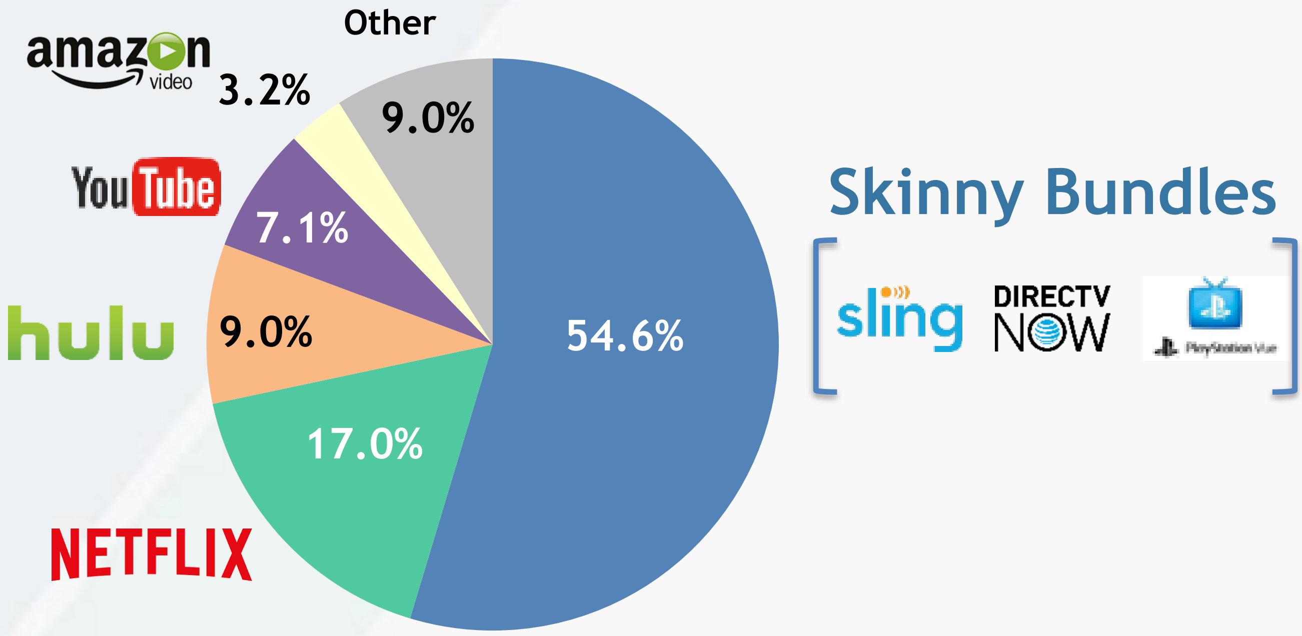
sling TELEVISION

Is the Most Popular Skinny Bundle in More Than 2 Million Homes

Source: comScore OTT Intelligence, U.S., April 2017. *Virtual Skinny Bundle HHs defined as viewing Sling, PlayStation Vue or DirecTV Now.

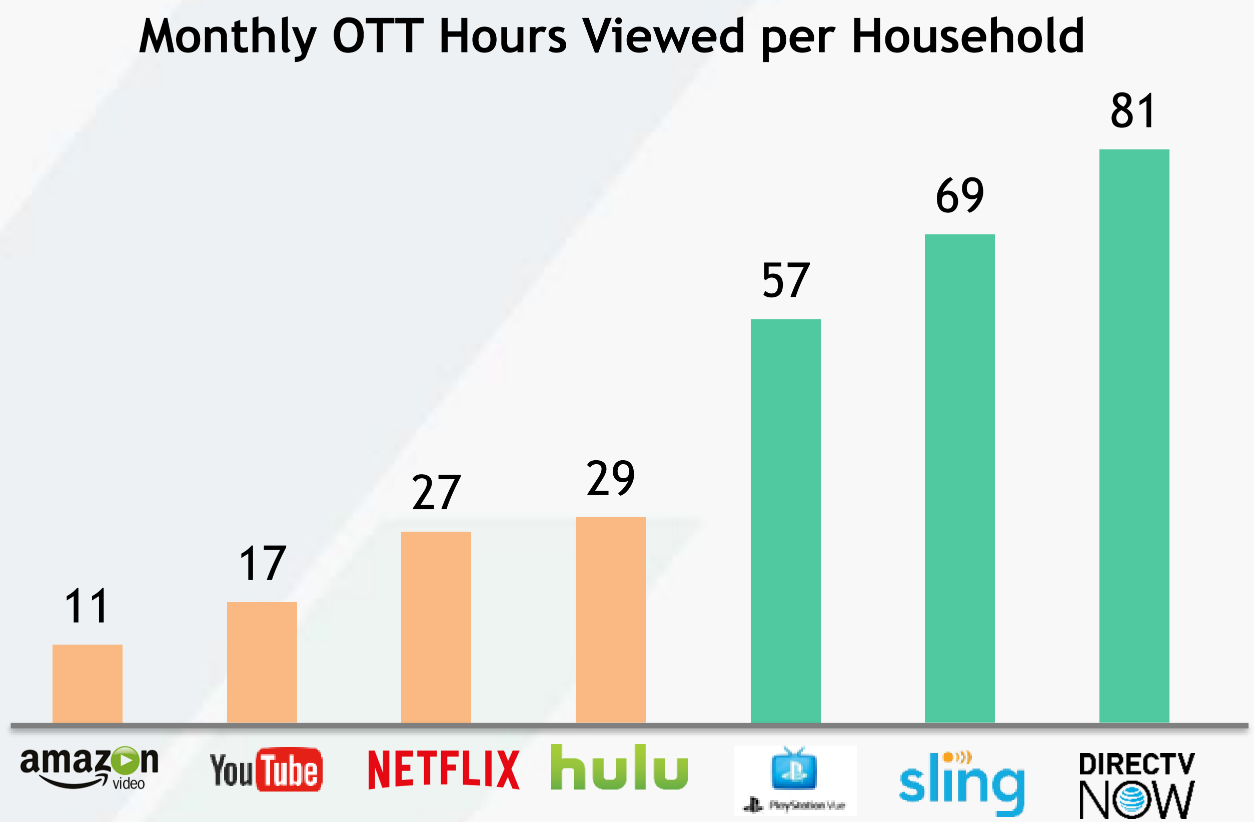
However, "Virtual" Skinny Bundles Account For More Than Half Of OTT Viewing Time in "Virtual" Skinny Bundle Households

Virtual Skinny Bundle Households:
Share (%) of Total OTT Viewing Time



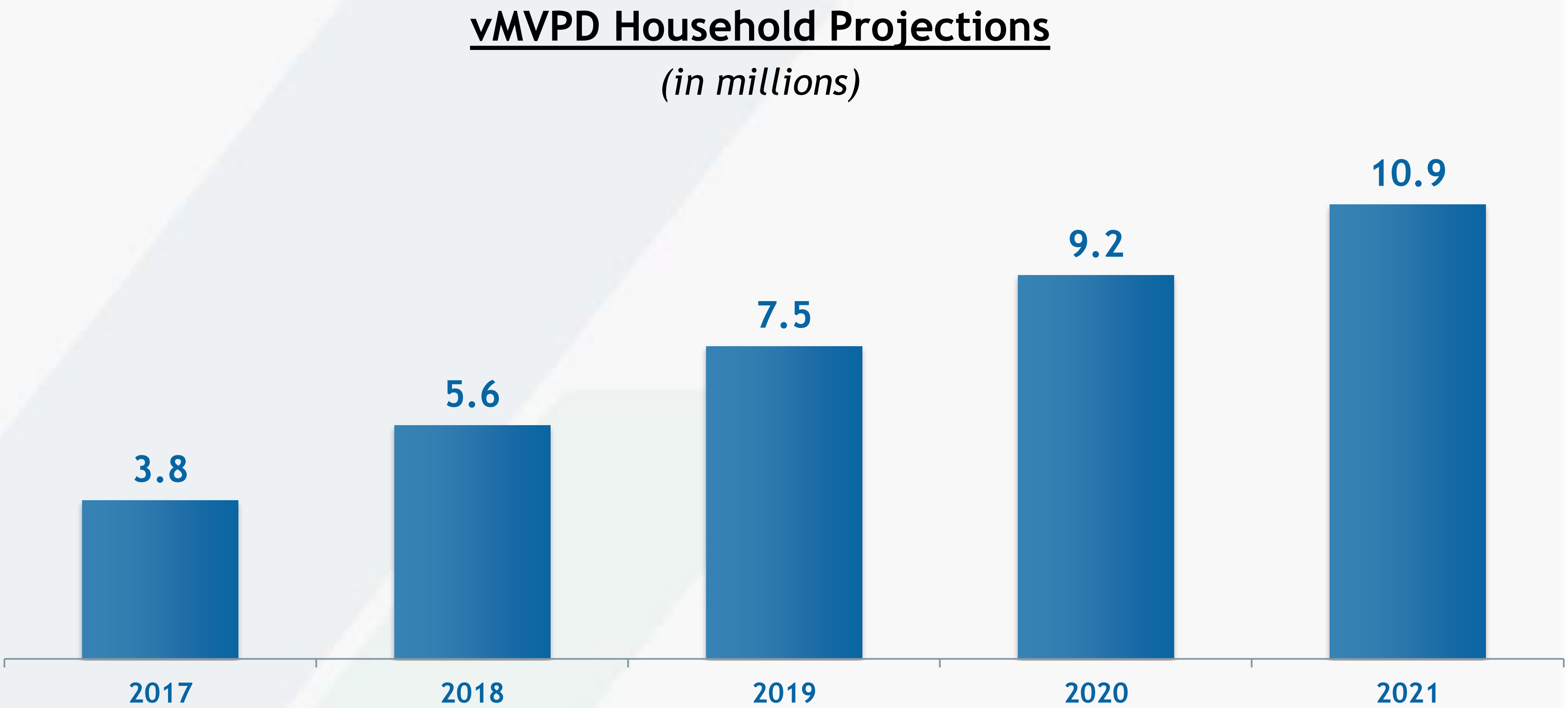
Source: comScore OTT Intelligence, U.S., April 2017. *Virtual Skinny Bundle HHs defined as viewing Sling, PlayStation Vue or DirecTV Now.

Sling, Playstation Vue & DirecTV Boast Very High Engagement On A Per HH Basis Vs. Popular OTT Services



Source: comScore OTT Intelligence, U.S., April 2017

vMVPD Subscriptions Are Projected To Top 10 Million Homes By 2021



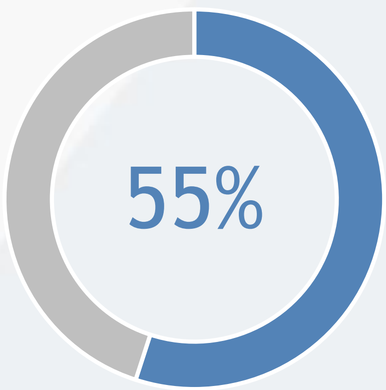
Source: Kagan, a media research group within the TMT offering of S&P Global Market Intelligence, June 2017; virtual service providers characterized by unmanaged (Internet/OTT) delivery of aggregated live, linear networks and on-demand content similar to a traditional multichannel offering for a monthly subscription.

The Math of OTT: *More* Convenience

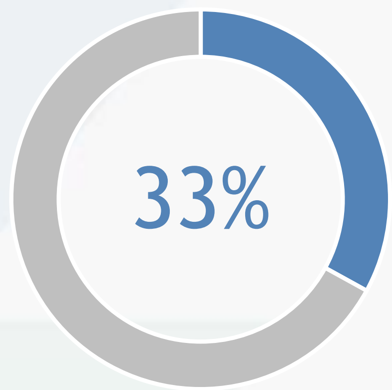
81% **of streamers say it's important to them to watch TV programs whenever they want**

Many Consumers Don't Keep Their Video Subscriptions After Signing Up For A Trial Or Just Share Someone Else's Passwords

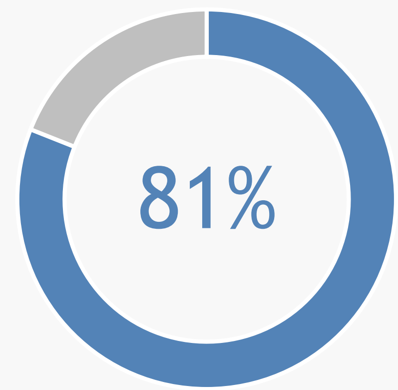
The #1 Reason for Ending a Subscription is "I didn't use it enough" (29%)



of Cord Trimmers "Regularly" Subscribe to a Trial Version of a Service



Don't Typically Keep the Subscription After the Trial Period is Over



of Focus Group Participants Report That They Share Passwords With Friends and Family

Source: PwC Consumer Intelligence Services video survey, 2017 from "Consumer Intelligence Series: I stream, you stream" Report.

Hulu and *HBO Now* Experience The Largest Subscriber Churn

Most Consumers cite cost and desire for more content as the reasons for dropping the service

OTT subscription video churn (% non-subscribers)	Netflix	Amazon Prime Video	Hulu	HBO Now
Recently dropped (within the last year)	5%	13%	24%	32%
Dropped a while ago (over a yr ago)	11%	13%	45%	52%

Reasons for dropping OTT subscription		Netflix	Amazon Prime Video	Hulu	HBO NOW
Cost	Price/price hike	32%	21%	22%	34%
	Trial offer ended	19%	36%	27%	25%
TV-specific Content	Not enough new TV content	21%	20%	21%	13%
	Not enough older TV content	8%	10%	10%	5%
Content	Not enough new movies	22%	22%	21%	21%
	Other services have more content	12%	10%	22%	15%
	Not enough original/exclusive content	8%	12%	13%	10%
	Not enough older movies	12%	12%	12%	8%
	Content available elsewhere	8%	11%	11%	7%
	Only subscribe for new season	5%	6%	8%	13%
Experience	Poor streaming experience	10%	9%	11%	7%
	Customer service issues	4%	5%	6%	7%
	Poor app experience	3%	6%	8%	5%
	Other	6%	0%	5%	1%

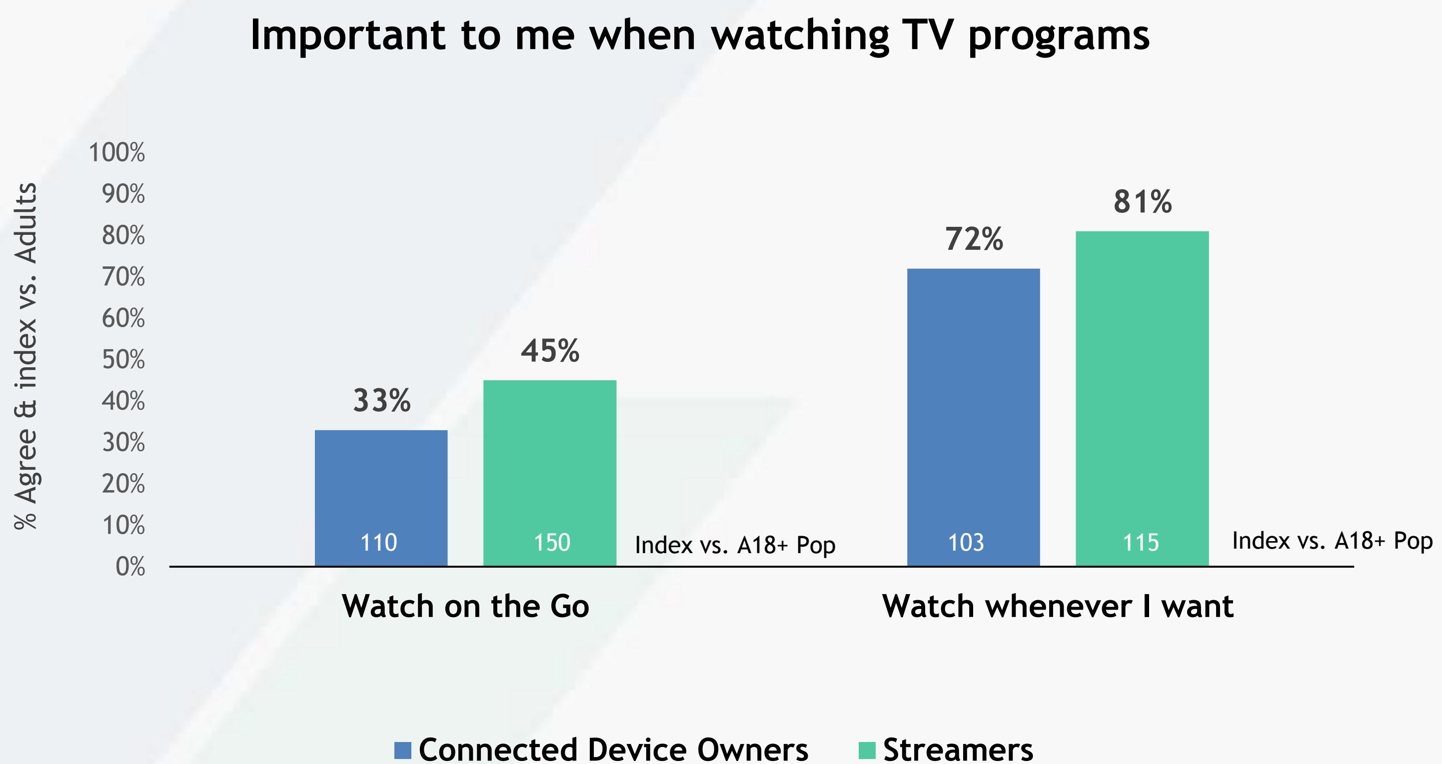
VAB: YOU DOWN WITH OTT?

Source: 2017 SNL Kagan, a division of S&P Global Market Intelligence; U.S. 3Q 2017 Survey Summary Report

VAB VIDEO ADVERTISING BUREAU

OTT Is About Convenience, Both From A Time & Place Perspective

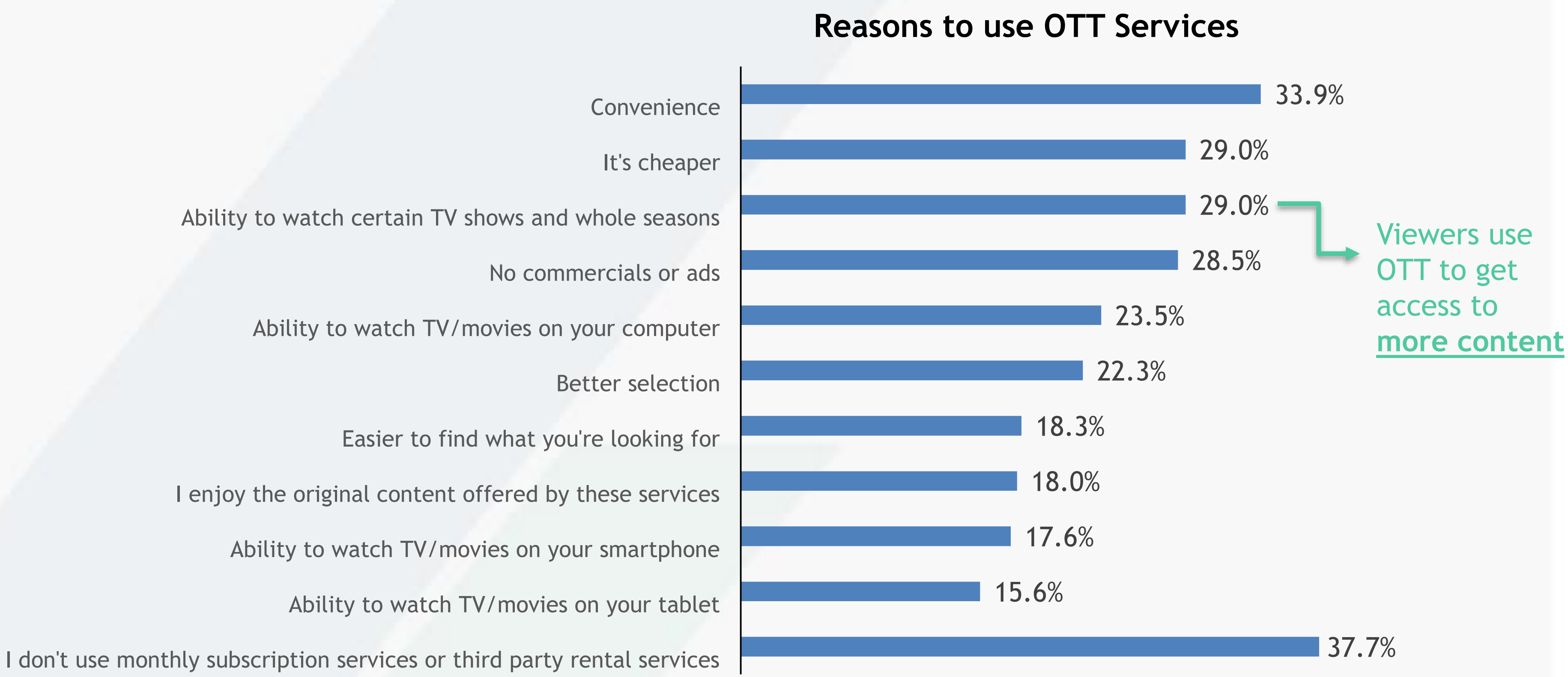
Flexibility on when and where they watch is important for OTT viewers



Source: Gfk MRI 2016 Doublebase: Definitions – Connected Device Owner (Television Sets Most Recent Purchase-Features Smart TV/Internet Connectable or Internet Video Devices for TV Household Owns Any or All Household Owns Video Game Systems); Streamers Definition (Watch TV through a TV network's app or through another online streaming TV service.)

VIDEO ADVERTISING BUREAU

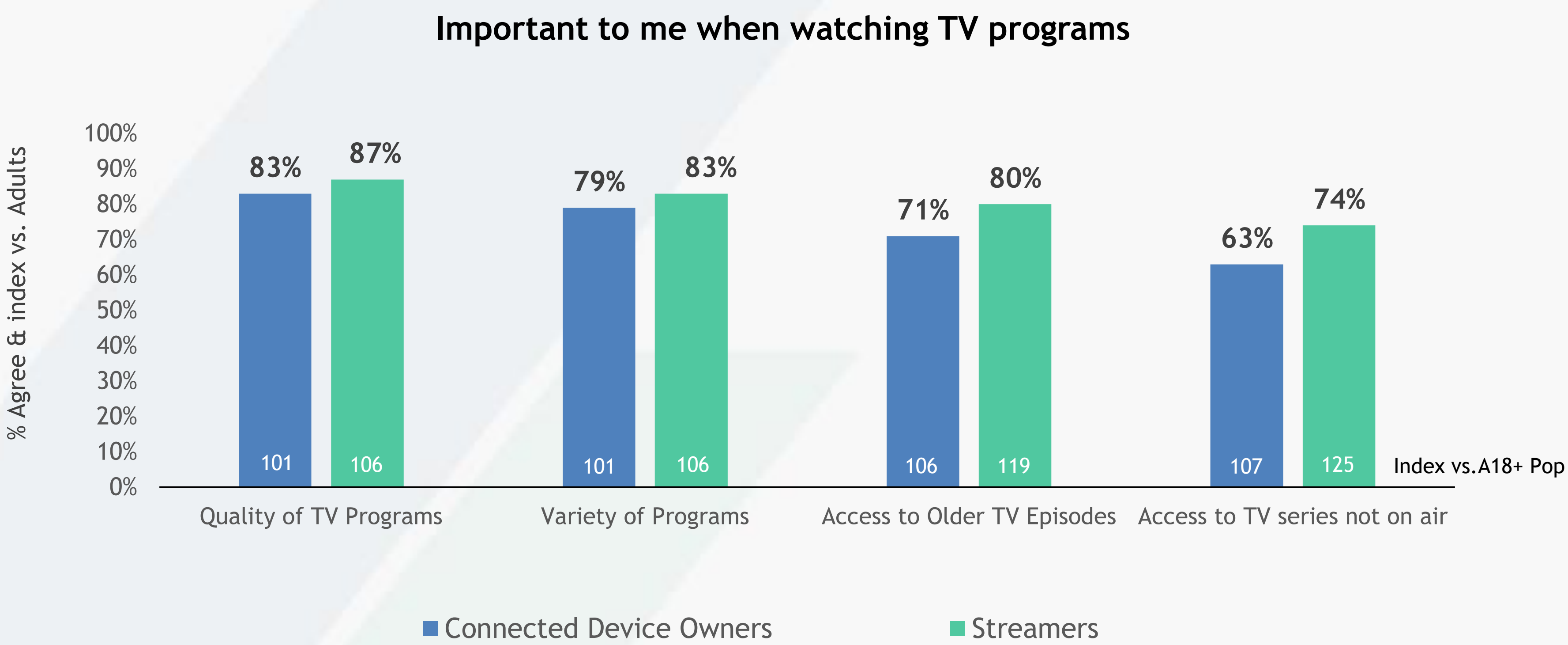
Additional Research Continues To Validate That Convenience Is The Primary Reason Why Viewers Use OTT Services



Source: TiVo Q3 2017 Online Video and Pay TV Trends Report, December 2017

OTT Viewers Also Crave Quality, Engaging TV Programming

They also demand quality programming and access to a variety of library TV content



Source: Gfk MRI 2016 Doublebase: Definitions – Connected Device Owner (Television Sets Most Recent Purchase-Features Smart TV/Internet Connectable or Internet Video Devices for TV Household Owns Any or All Household Owns Video Game Systems); Streamers Definition (Watch TV through a TV network's app or through another online streaming TV service.)

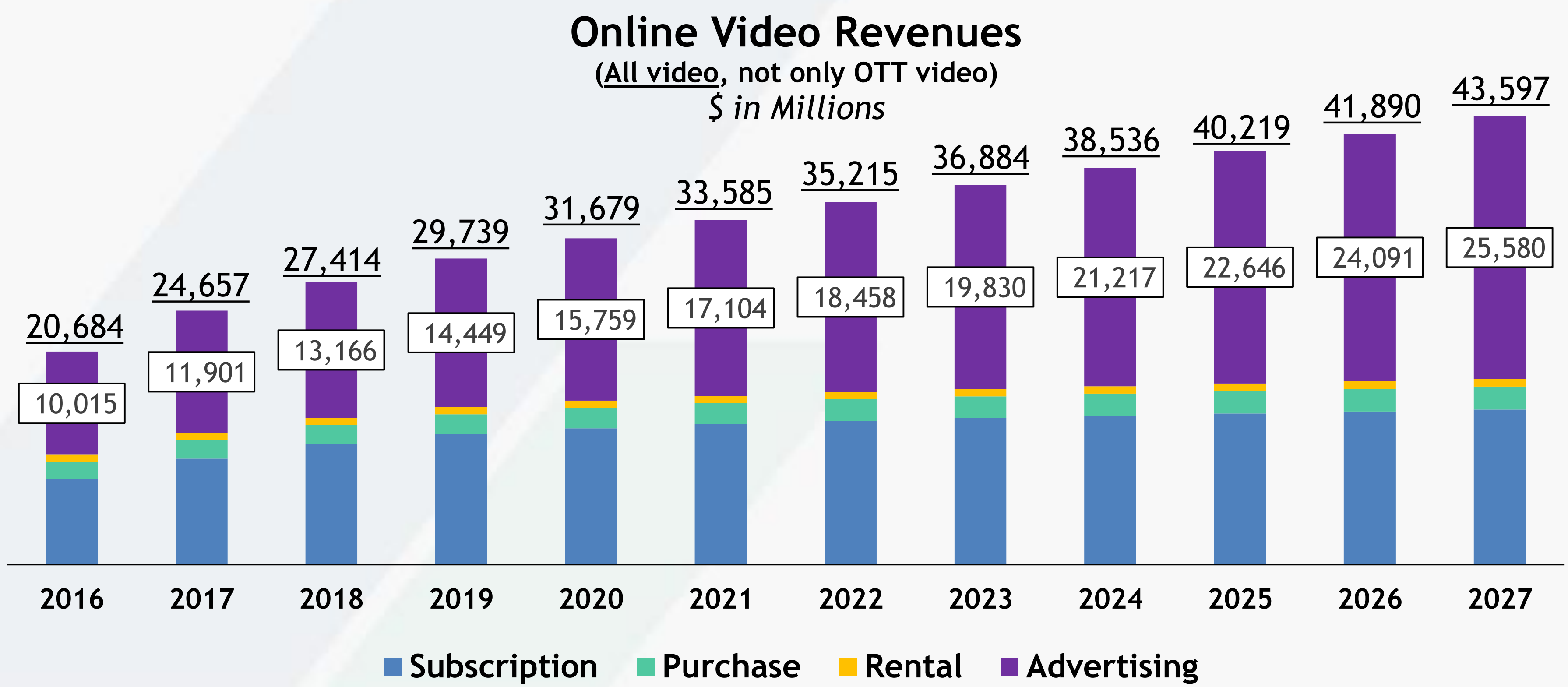
VAB VIDEO ADVERTISING BUREAU

The Math of OTT: *More* Advertising Opportunities

65% of people who use a second screen while streaming have looked up info on a product advertised in a TV show

Advertising Is The Largest Revenue Model Across The *Entire* Online Video Ecosystem & It's Share Is Projected To Grow

Currently, advertising comprises 45% of all online video revenue and is projected to grow to almost 60% over the next 10 years

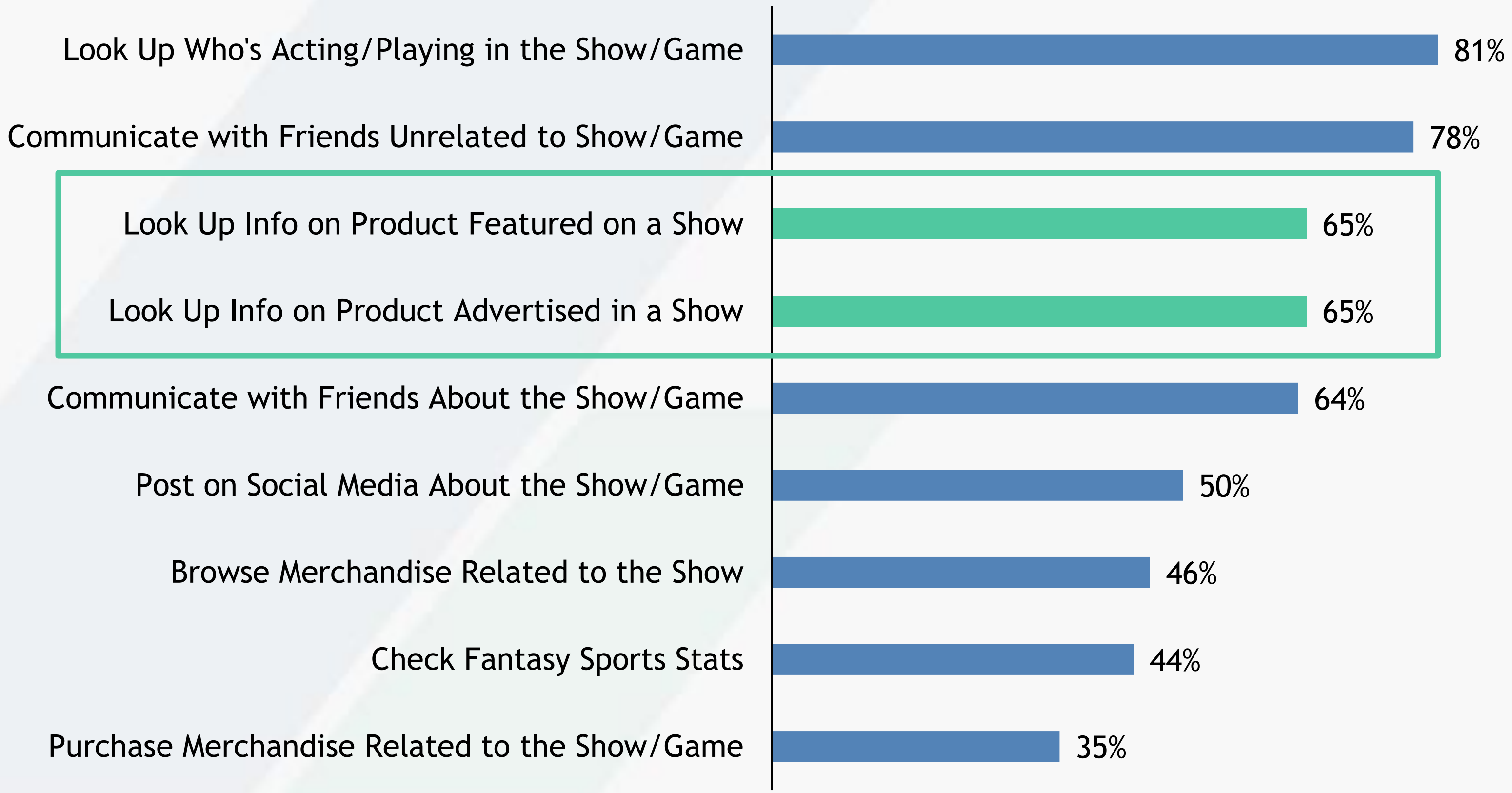


Source: 2017 SNL Kagan, a division of S&P Global Market Intelligence; "The State of the Online Video Delivery," 2017 Edition

VIDEO ADVERTISING BUREAU

Two-Thirds Of Second Screen Users Look Up Info About A Product They See While Streaming A TV Show

% of Those Using A Second Screen for Each of the Following
(Frequently + Sometimes)

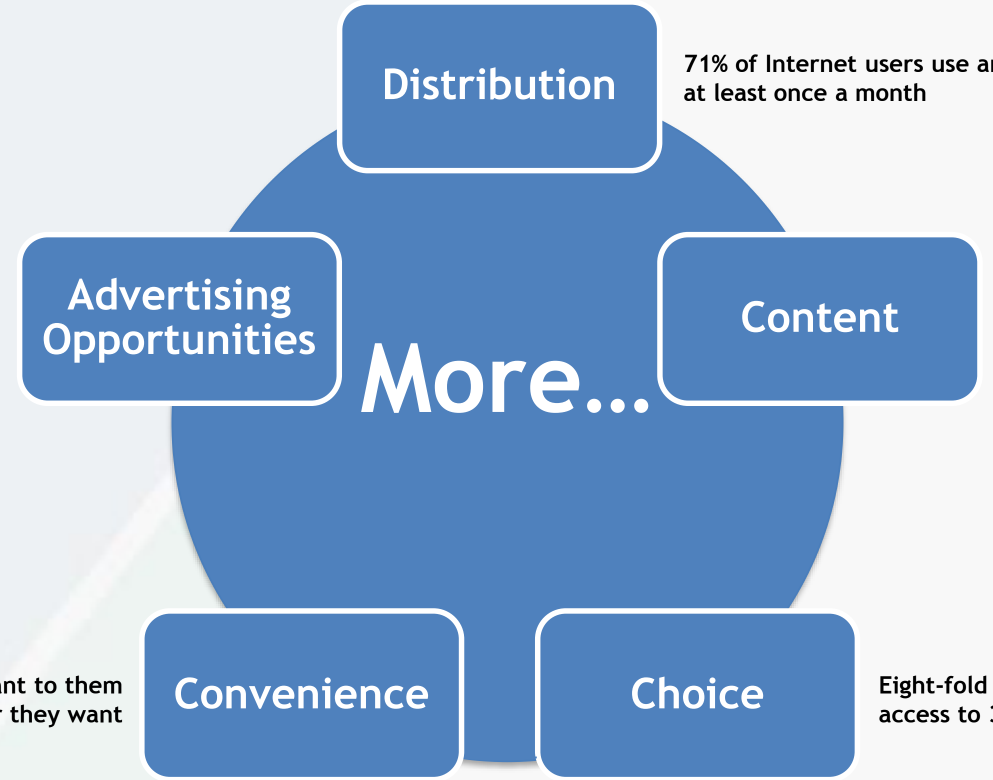


Source: PwC Consumer Intelligence Services video survey, 2017 from “Consumer Intelligence Series: I stream, you stream” Report.

So, Are You Down With OTT?

If you like more then you should be since the math of OTT is a formula of addition, not subtraction.

Consumers have a voracious appetite for video content, especially for premium multiplatform TV, and they can satisfy their cravings anywhere, anytime through a wide selection of devices and streaming services



71% of Internet users use an OTT service at least once a month

65% of people who use a second screen while streaming have looked up info on a product advertised in a TV show

70% of OTT HHs also have a multichannel subscription

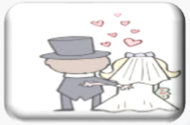
81% of streamers say it's important to them to watch TV programs whenever they want

Eight-fold increase in people who have access to 3+ OTT subscription services

Targeting & Measurement of OTT

OTT Viewers Skew Younger, More Educated, Affluent, And Employed Than The Average Population

Note: these targets do not reflect OTT-only viewers; a large majority of people within these targets also have an MVPD subscription

		Device Owners	Streamers
	Flat M/F	50%/50%	51%/49%
	Skews Millennial	44% 18-34 (125)	47% 18-34 (133)
	Skews towards kids at home	50% kids in HH (128)	47% kids in HH (133)
	Well educated	32% are college+ (105)	33% are college+ (110)
	Skews Affluent	51% have HHI $75k+ (112)	48% HHI $75k+ (106)
	Majority full-time employed	56% Full Time (115)	56% Full Time (114)

Source: Gfk MRI 2016 Doublebase: Note, these groups aren't *exclusively* OTT users; they are owners of OTT devices or viewers of streaming content.
Definitions – Connected Device Owner (Television Sets Most Recent Purchase-Features Smart TV/Internet Connectable or Internet Video Devices for TV Household Owns Any or All Household Owns Video Game Systems); Streamers Definition (Watch TV through a TV network's app or through another online streaming TV service.)

VAB VIDEO ADVERTISING BUREAU

They Pursue The New & Different And Seek To Live An Impressive Lifestyle

		Device Owners	Streamers

Enjoy novelty and pursuing new things

"Risk taking is exciting"

Device Owners	Streamers
46% (108)	49% (114)

Like attention and seek to impress others

"I like to live a life that impresses others"

Device Owners	Streamers
31% (106)	34% (115)

"I enjoy being the center of attention"

Device Owners	Streamers
27% (105)	31% (120)

Source: Gfk MRI 2016 Doublebase: Definitions – Connected Device Owner (Television Sets Most Recent Purchase-Features Smart TV/Internet Connectable or Internet Video Devices for TV Household Owns Any or All Household Owns Video Game Systems; Streamers Definition (Watch TV through a TV network's app or through another online streaming TV service.)

VAB VIDEO ADVERTISING BUREAU

Targeting & Serving Ads In An OTT / Connected TV Environment

- OTT offers Dynamic Ad Insertion (DAI) delivered instream via VAST ad tag delivery, in a full screen, largely viewable experience. DAI enables OTT advertisers to swap out ad creatives in linear, live and video on demand content
- Since OTT content is delivered over the internet to connected TVs with persistent IP addresses, advertisers can dynamically target and serve ads to specific households
- Addressability can also be enabled via individual app and device-level data (i.e. Roku ID for Advertisers)
- Cookies are of limited use in OTT, though advertisers can leverage 3rd party data (ex: Acxiom, Neustar and Nielsen Catalina) to enrich audience targets. Advertiser CRM data may also be matched with platform registration data for targeting
- Typical targeting parameters include: device, demographics, time of day / day of week, content and category, location etc.

Source: IAB 2017 “Advanced TV Targeting Overview,” OTT / Connected TV section.

Metrics Vary By Service/Device…And Also Client's Level of Data Sophistication

However, the metrics are largely digital-legacy, which adds complexity in determining "media-bucket" funding source and apples-to-apples video measurement

Buying Currency/Metrics
(aka, what an advertiser is putting a buy together based on)

- Impressions
- Completions
- Their derivatives – Completion Rate and Delivered Percent
- Data by device (TV, PC, Mobile)

Advertiser/Brand KPIs
(aka "how do I know this 'worked')

- Attribution: Lifts in site visits & store visits; conversion rate (exposures:purchases)
- Brand Health: Lifts in brand favorability; likelihood to consider, recommend, or purchase

3rd Party Measurement
(aka "who is checking the homework')

- Audience Validation: Nielsen DAR, Nielsen custom TAR, comScore vCE
- Brand Health: Millward Brown, Research Now
- Sales ROI/Visit Attribution: Experian, IRI, Datalogix, Nielsen, FourSquare Attribution, Millward Brown

Glossary

- **Ad Networks**: provides an outsourced sales capability for publishers and a means to aggregate inventory and audiences from numerous sources in a single buying opportunity for media buyers
- **Buy-Side / Demand-Side Platforms (DSPs)**: a technology platform that provides centralized & aggregated media buying from multiple sources including ad exchanges, ad networks and sell side platforms, often leveraging real-time bidding capabilities of these sources
- **Multichannel HHs**: Households that subscribe to a service offering multiple channels of video programming through either a cable, telco or satellite provider (often referred to as an MVPD – multichannel video programming distributor)
- **OTA HHs (Over-The-Air)**: Households that receive broadcast network signals using an antennae; it does not exclude households that also access OTT content
- **OTT (Over-The-Top)**: Premium long form video content that is streamed over the internet through an app or device onto a TV (or PC, Tablet, or Smartphone) without requiring users to subscribe to a wired cable, telco or satellite TV service
- **OTT Aggregator**: wide range of content from multiple providers delivered over the internet through one streaming source (i.e. Netflix) without the involvement of a traditional multichannel subscription
- **OTT-only HHs:** Households that rely on unmanaged Internet or OTT delivery to view television shows or movies in lieu of a traditional multichannel subscription
- **Sell-Side / Supply-Side Platforms (SSPs)**: a technology platform that provides outsourced media selling and ad network management services for publishers. The business model resembles that of an ad network in that it aggregates ad inventory however they serve publishers exclusively and does not provide services for advertisers
- **Standalone App**: content from one provider delivered directly to the consumer over the internet without the involvement of a traditional multichannel subscription (i.e. CBS All Access)
- **TV Everywhere (TVE)**: apps that allow viewers to access content over the internet by logging in with their Multichannel Video Programming Distributor (MVPD) subscription user name / password authentication (i.e. Watch ESPN, Fox Now)
- **vMPVDs (virtual multichannel video programming distributor)**: unmanaged (Internet/OTT) delivery of aggregated live, linear networks and on-demand content similar to a traditional multichannel offering for a monthly subscription

For More Information Visit Us Online

TheVAB.com

Follow us:

@VideoAdBureau

Like us:

facebook.com/VideoAdvertisingBureau

VIDEO ADVERTISING BUREAU