



The Digital Advertising
Stats You Need for | 2018



Intro

2017 was another big year for advertisers, publishers, and ad tech providers. We saw the continued dominance of client-side header bidding as well as the advent of server-to-server; the announcement of a new ad tech consortium to make cookieless, cross-device targeting a reality; a promising industry response to fraud in the form of ads.txt; and the beginnings of a potential **machine learning revolution** in ad tech.

But if there's one thing that's clear about our industry, it's this: Change is the rule, not the exception – so, you can expect a whole lot more of it in 2018. In order to help you prepare, we've compiled this data-driven guide. Inside, you'll find the numbers, charts, and graphs you need to refine your 2018 strategy, including information on emerging formats, header bidding adoption, the state of the duopoly, and more! Read on, arm yourself with knowledge, and get ready for a productive 2018!

Table of Contents

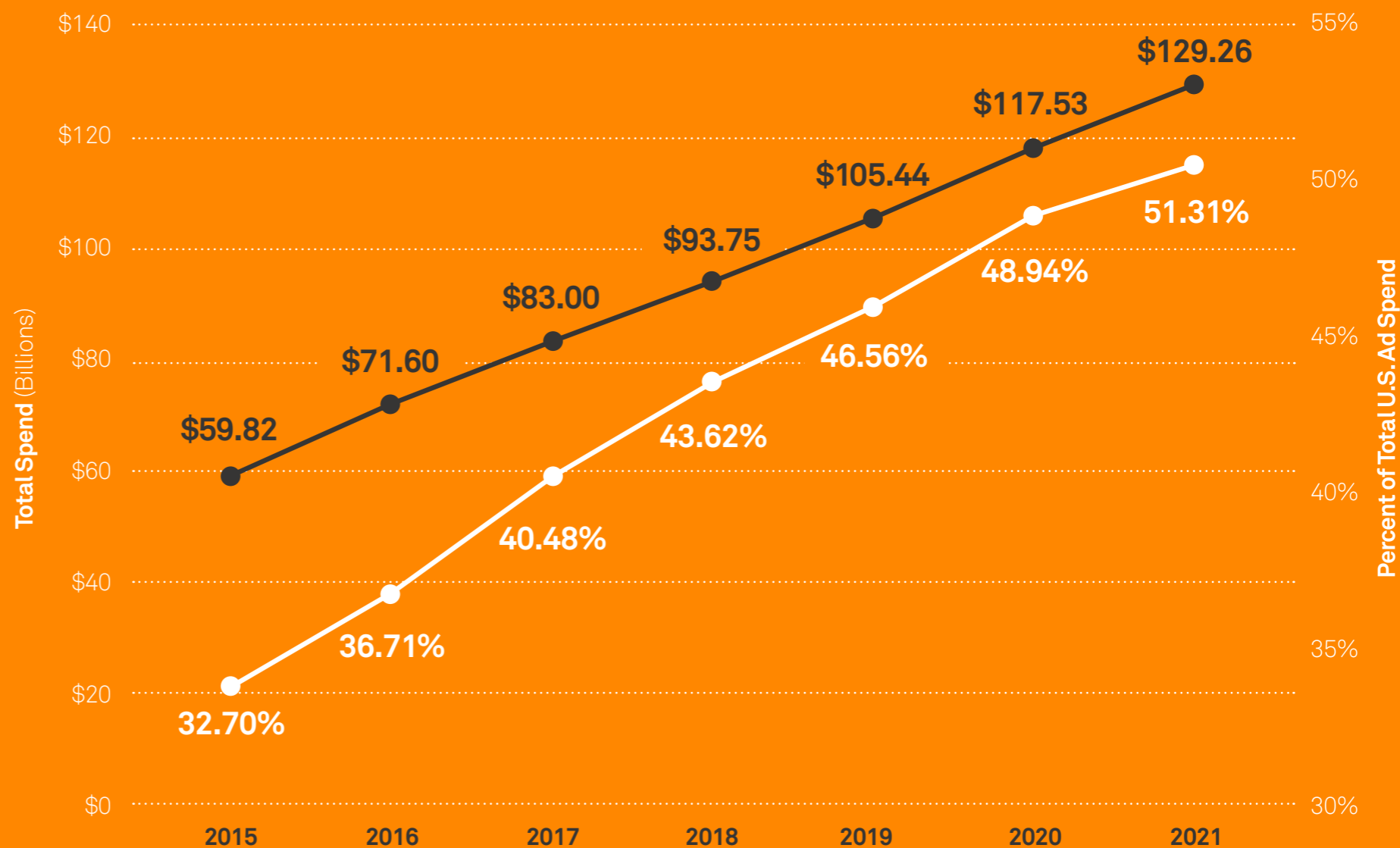
The U.S. Digital and Programmatic Landscape	4
Digital Advertising Around the World	9
Video	15
Native	23
Mobile	28
Ad Fraud	34
Machine Learning and AI	39
Header Bidding	43
Duopoly	48



The U.S. Digital and Programmatic Landscape

Total Projected U.S. Digital Ad Spend

■ Digital Ad Spending (billions)
■ Percent of Total U.S. Ad Spend

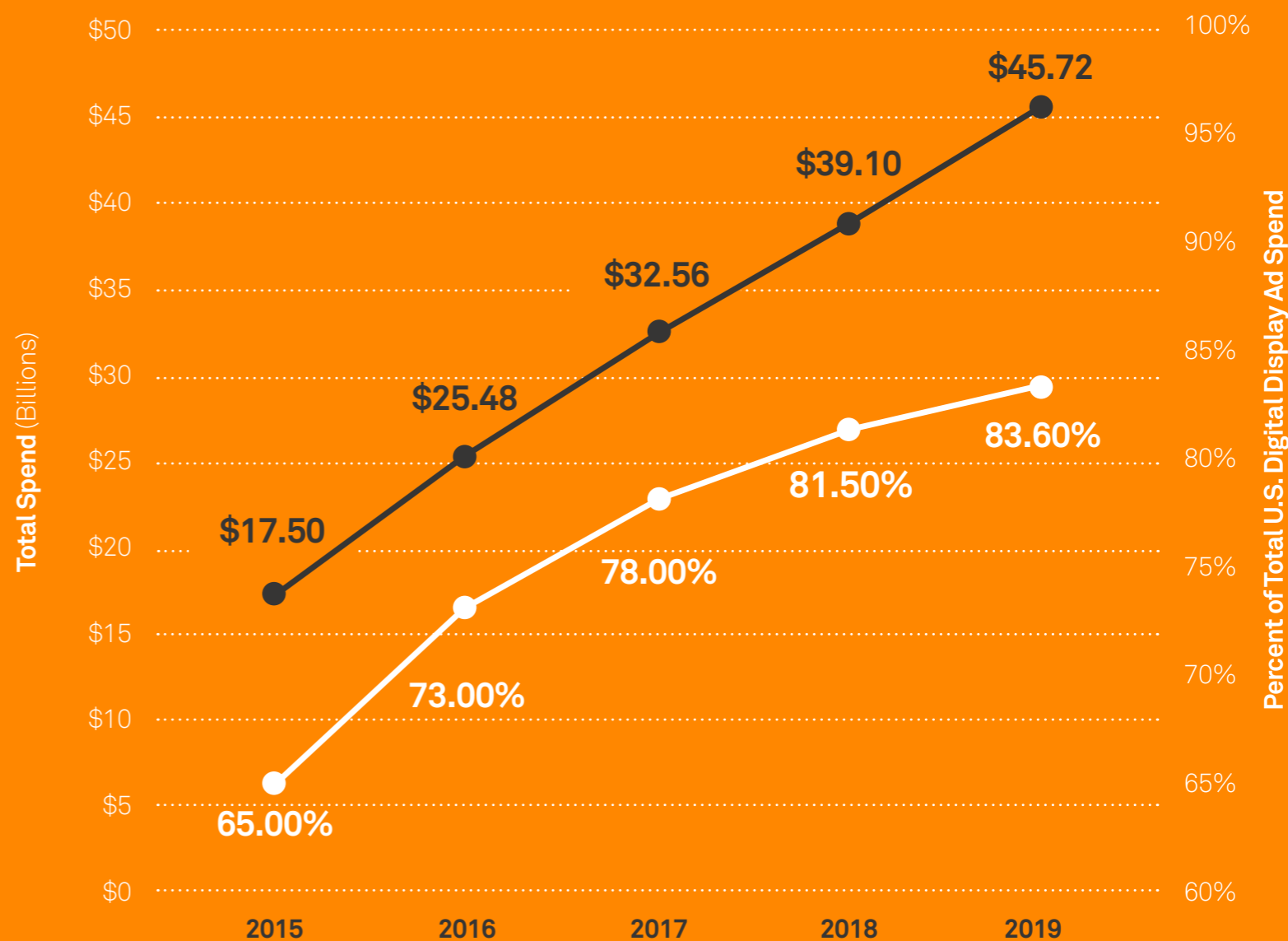


Some good news: Digital ad spend continues to rise and take up a bigger share of all ad dollars. By 2021, digital ad spend is expected to represent a majority of all U.S. ad spend.

Total Projected U.S. Programmatic Ad Spend (Display)

- Programmatic Digital Ad Spending (billions)
- Percent of Total Digital Display Ad Spend

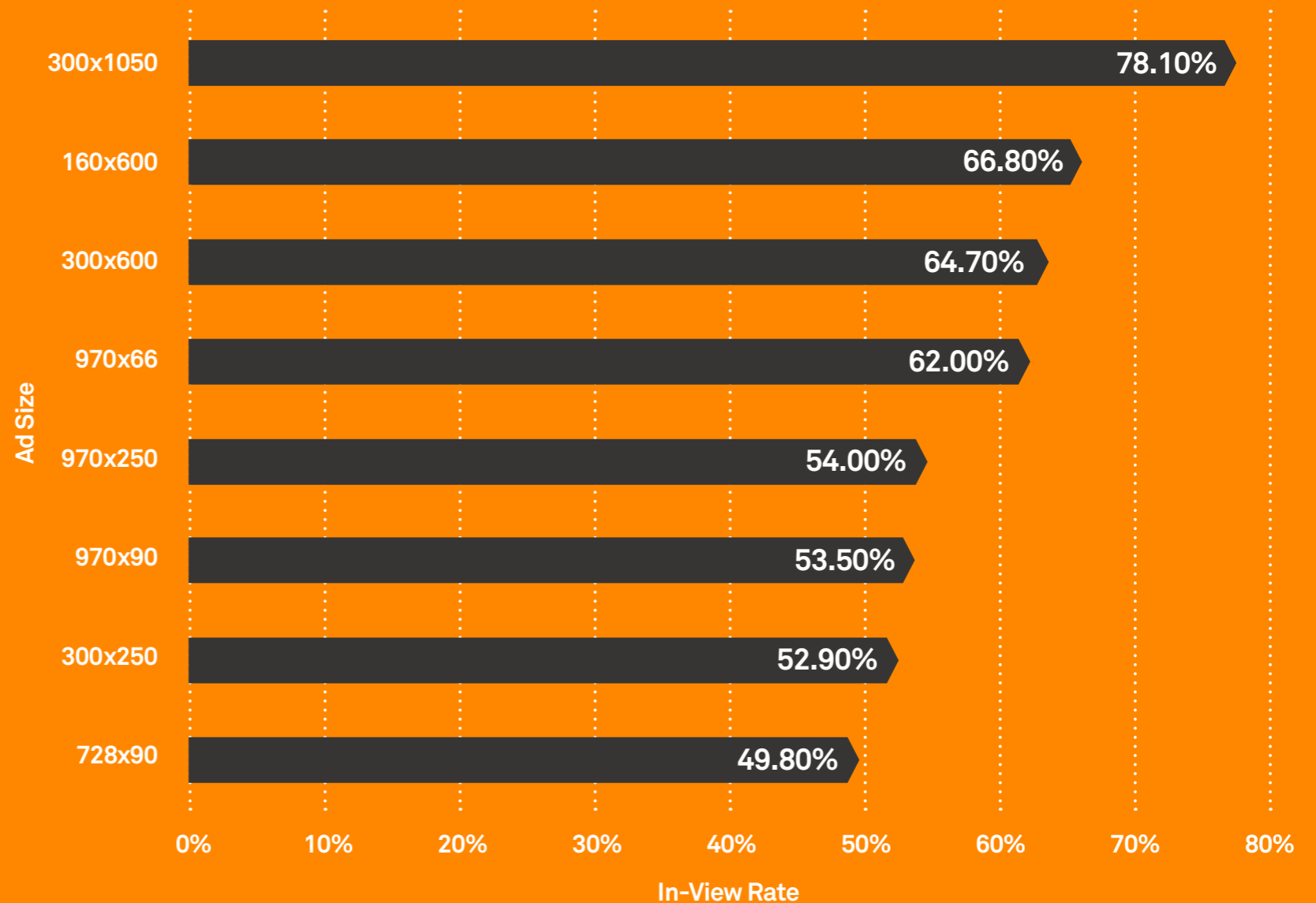
Even better, 2017 saw total programmatic spend increase more and take up a bigger piece of the total digital pie, though growth seems to be levelling off.



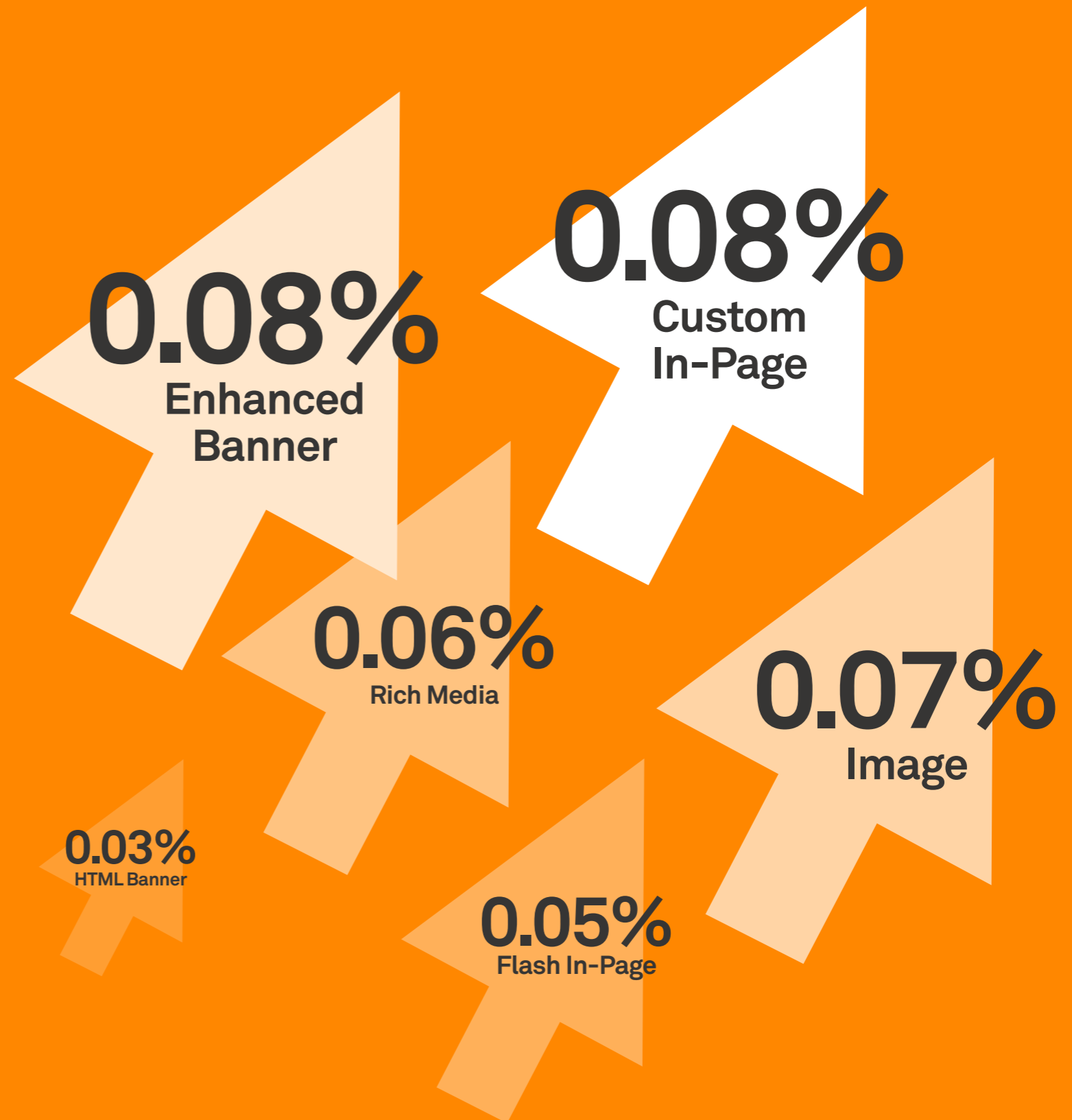
U.S. Desktop Display Viewability Rates by Ad Size



Total viewability for desktop display ads is 53.6%, meaning that nearly half of all display ads purchased are never seen by anyone.



U.S. Display Ad Click-Through Rates by Format



Enhanced banner and custom in-page ads attract the most clicks in the display category.



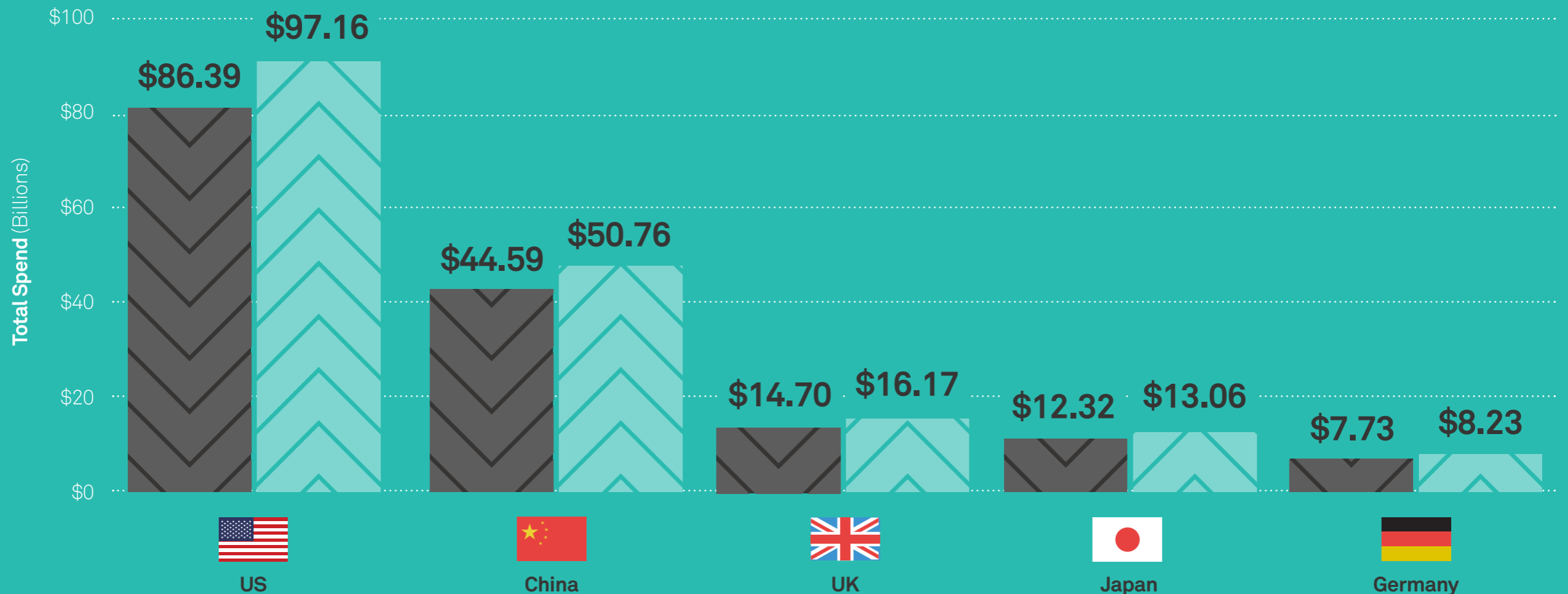
Digital Advertising Around the World

Projected Digital Ad Spend by Country: 2017 vs. 2018

(Markets of \$7B and above)

Of the top five digital ad markets, **China** is expected to see the most growth in 2018 at **13.9%**.

■ 2017
■ 2018

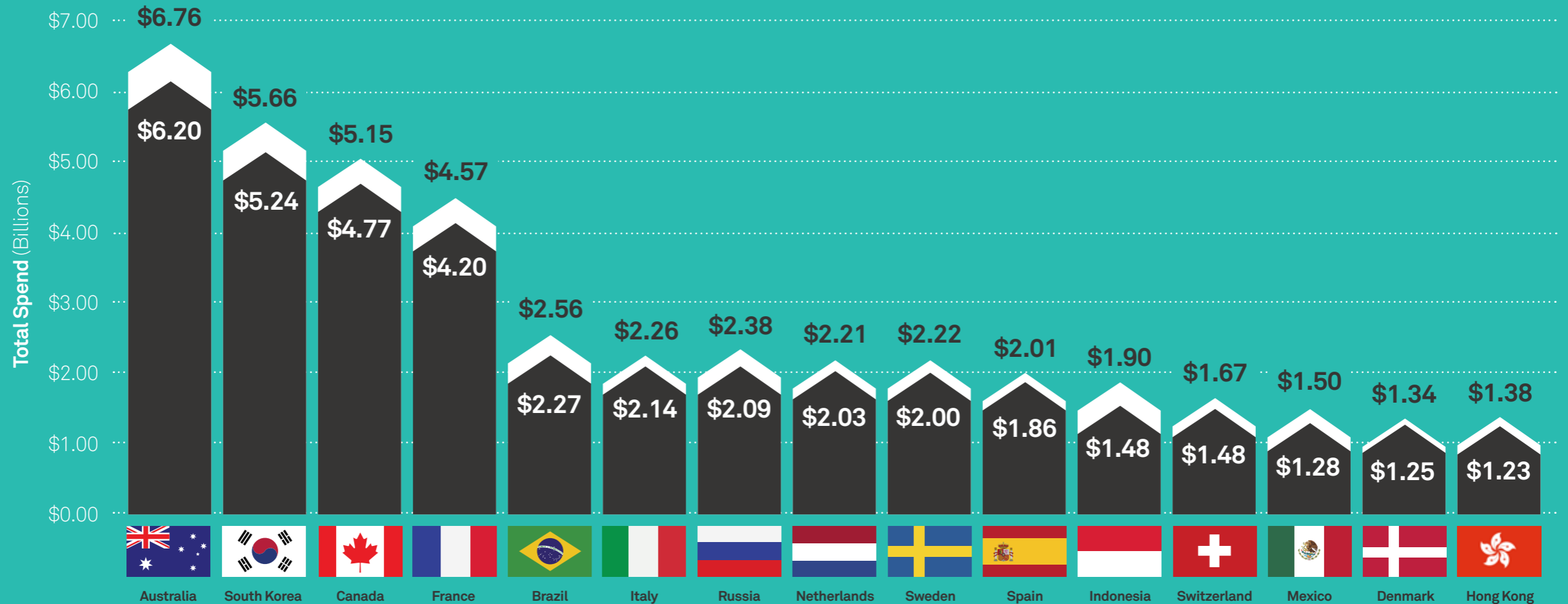


Projected Digital Ad Spend by Country: 2017 vs. 2018

(Markets between \$1B and \$7B)

■ 2017
 ■ 2017 + 2018

Digital ad spend in **Indonesia** is expected to grow a whopping **27.8%** in 2018. Other countries expecting substantial growth are **Mexico** at **17.4%**, **Russia** at **13.8%**, and **Brazil** at **12.8%**.

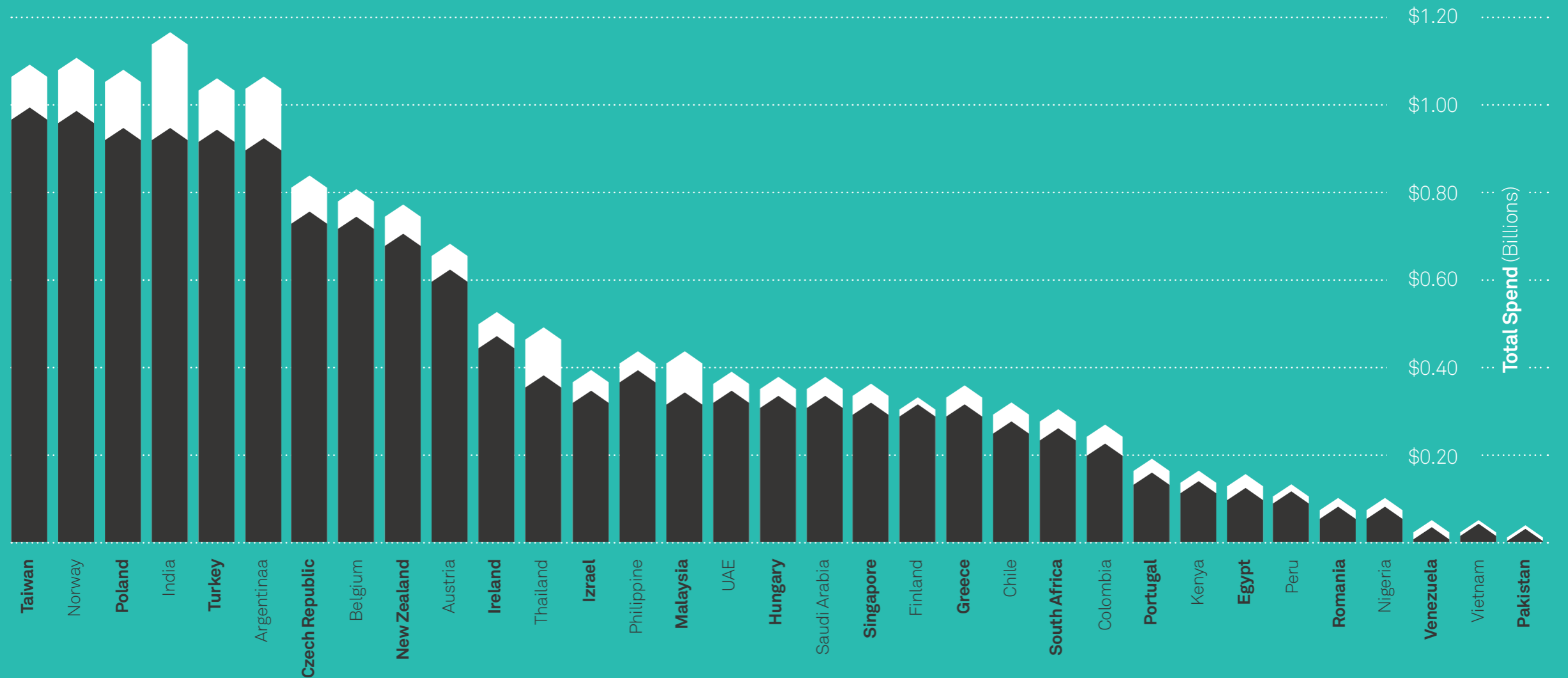


Projected Digital Ad Spend by Country: 2017 vs. 2018

(Markets below \$1B)

■ 2017
 ■ 2017 + 2018

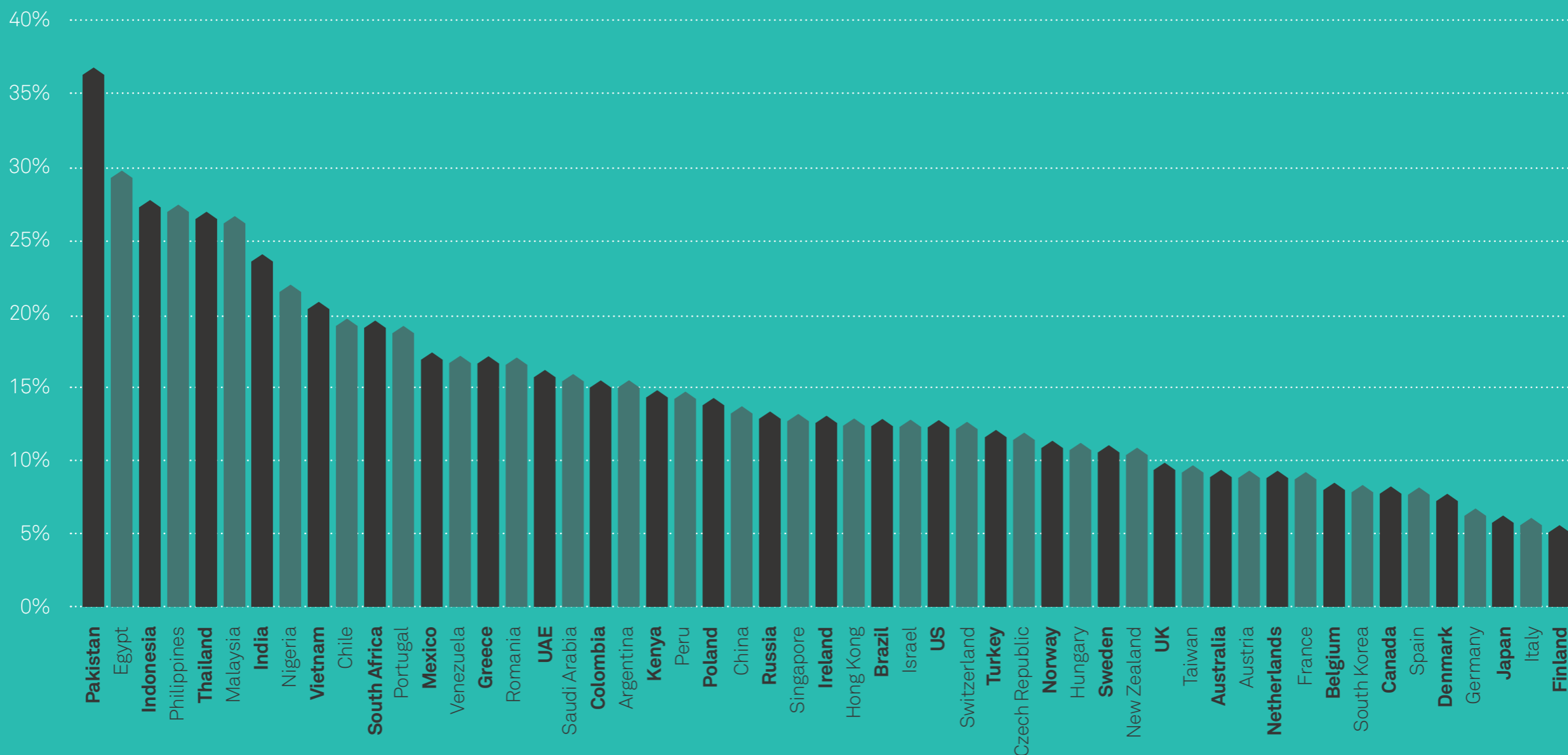
While all of these countries had relatively low digital ad spend in 2017, nearly all of them are expecting **double-digit growth in 2018**. **India** especially stands out, with an expected **24.0% growth rate in 2018** and a population of **over 1 billion potential consumers**.



Source: PWC Outlook

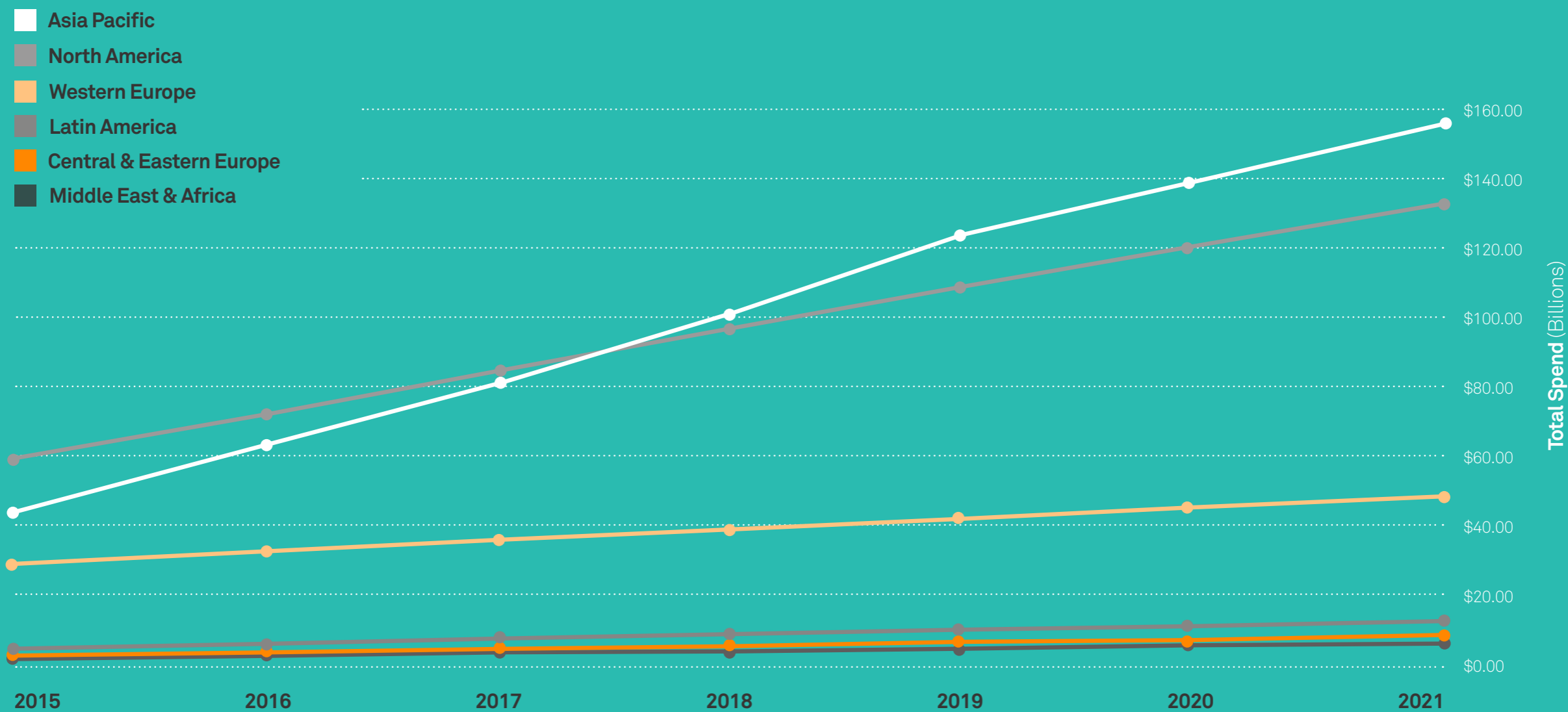
How much will digital ad spend grow this year in each country?

2018 Projected Digital Ad Spend Growth by Country



Projected Digital Ad Spend by Region Through 2021

Looking at the broader regional trends, this is the year **Asia-Pacific** is expected to overtake North America as the world's leading destination for digital ad dollars.

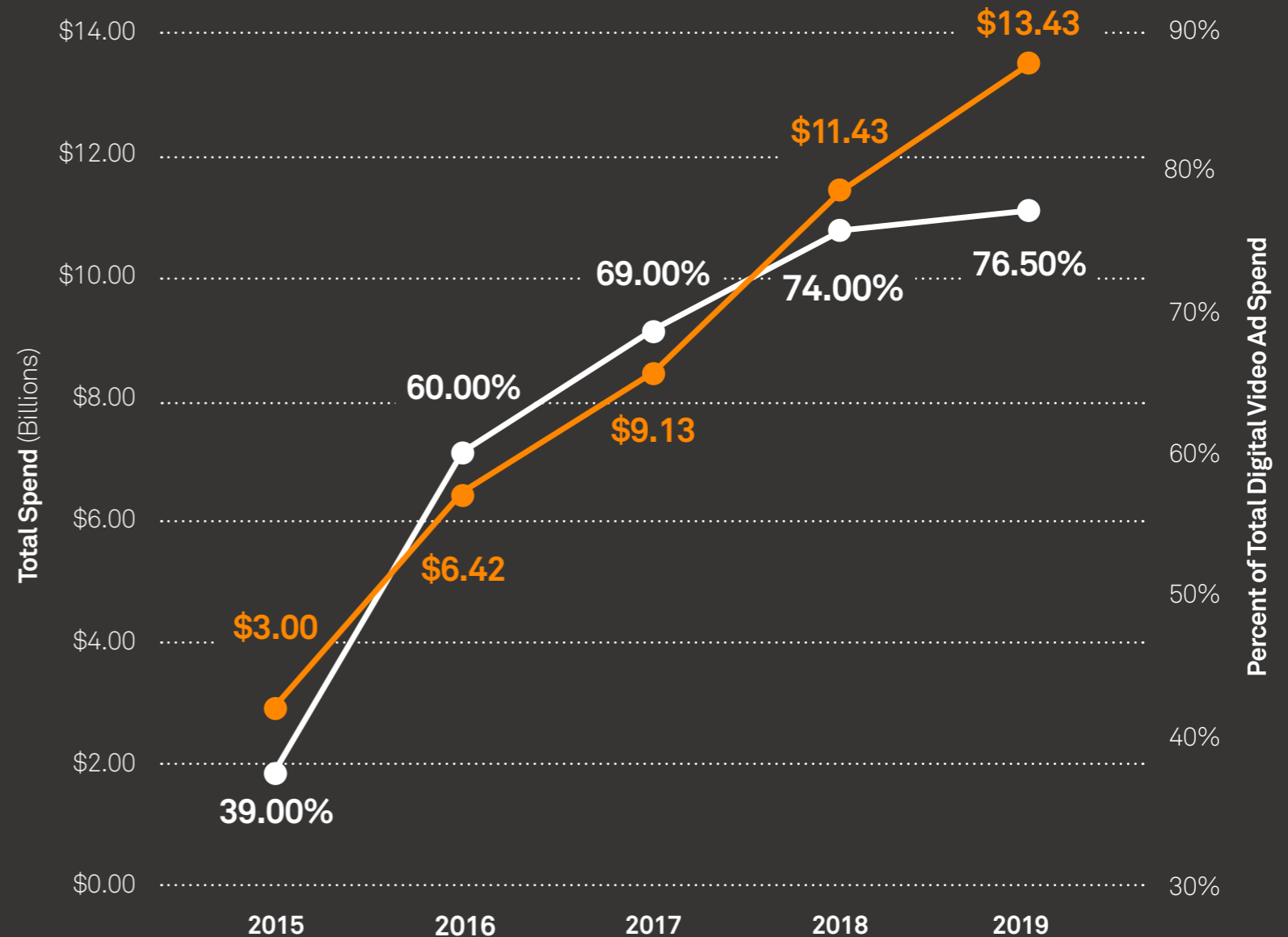




Video

Total Projected U.S. Programmatic Video Ad Spend

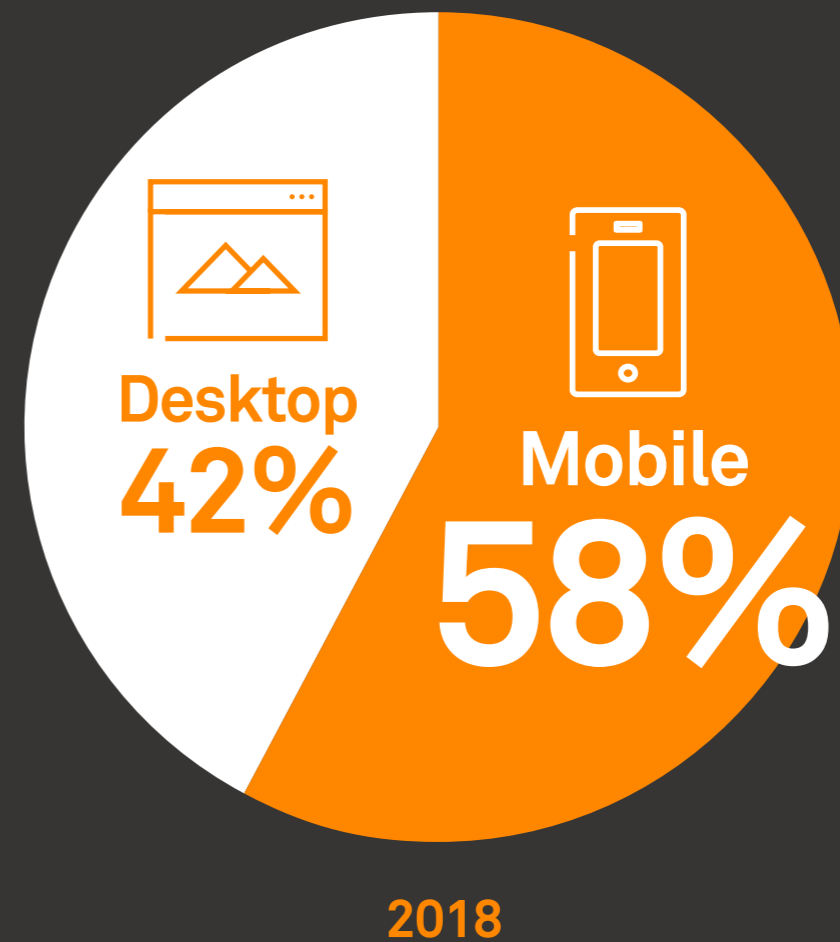
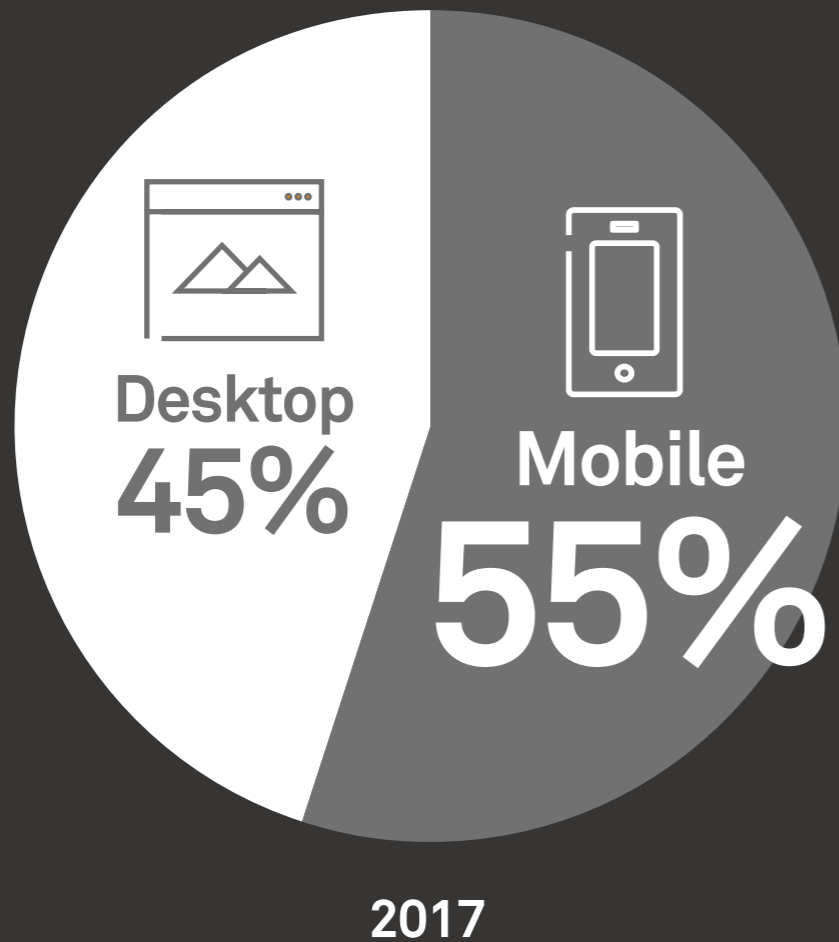
- Programmatic Digital Video Ad Spending (billions)
- Percent of Total Digital Video Ad Spending



The last two years have seen a huge influx of dollars into the US programmatic video market. Growth is expected to continue, but at a **slower pace in 2018** and beyond.

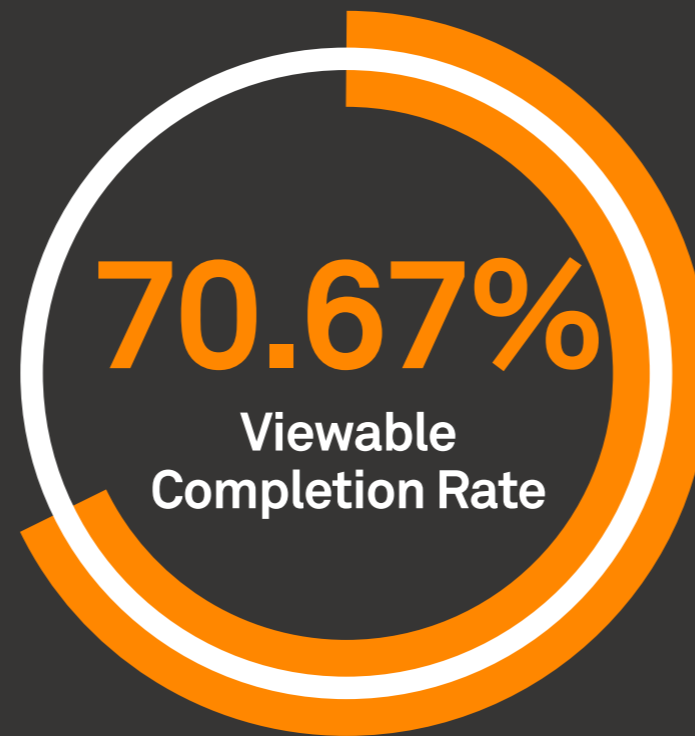
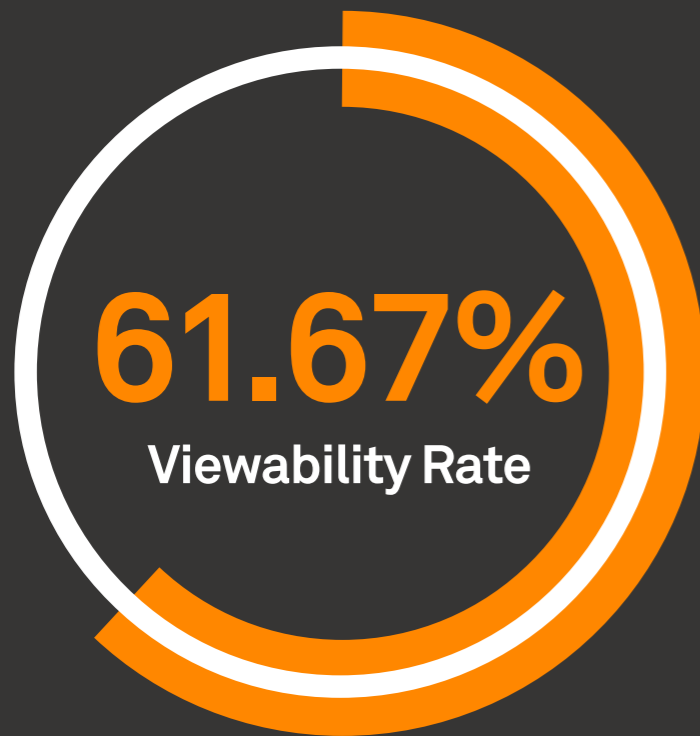
Projected Share of Programmatic Video Ad Spend by Device, 2017 vs. 2018

2017 is the year **mobile overtook desktop** in programmatic video ad spend. The gap is expected to widen further in **2018**.



2017 Video Ad Benchmarks

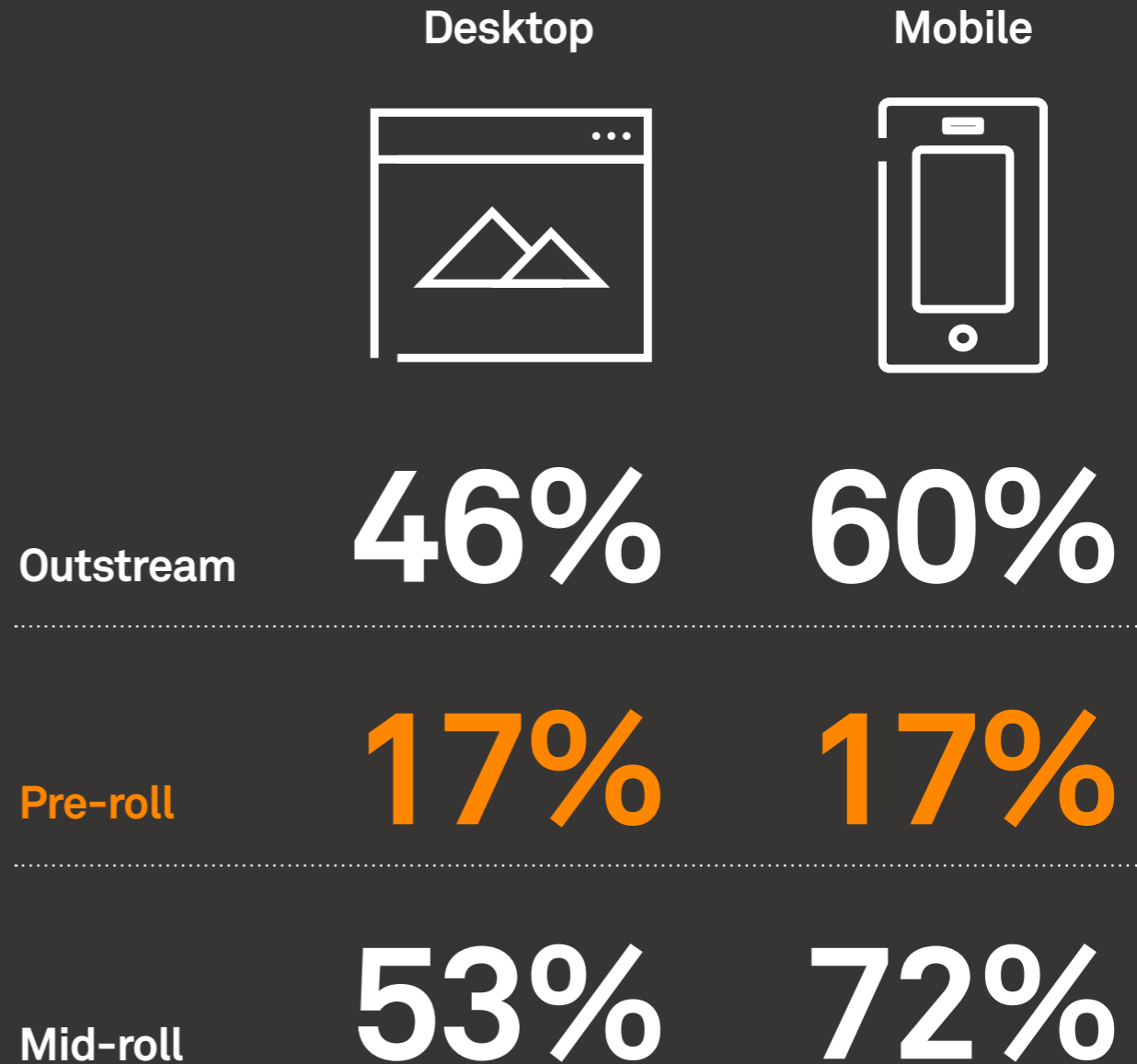
The completion benchmarks every video advertiser needs to know.



Video Ad Formats Users Report as Interruptive

(U.S. Internet Users)

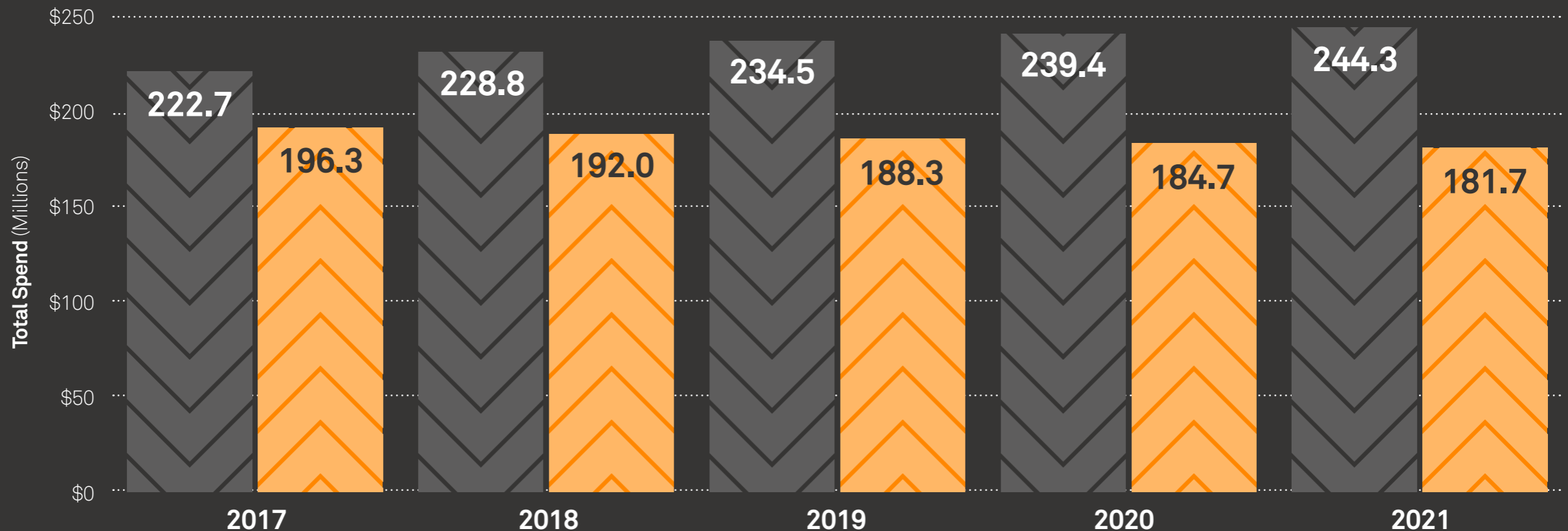
Publishers and advertisers may want to be weary of **mid-roll ads** – on both **desktop** and **mobile** – as users are most likely to say they find them interruptive.



Projected U.S. Viewership: Digital video vs. Broadcast TV, 2017-2021

Cord-cutting: Through **2018** and beyond, people will be watching **less broadcast TV** and **more digital video** every year, fleeing broadcast for digital options, including **Over-The-Top (OTT)** content via **Connected TV (CTV)** devices.

■ Digital Video Viewers
■ Broadcast TV Viewers



Average Time per Day Spent with Video for U.S. Adults: TV vs. Digital Time per day

(Hours:Minutes)

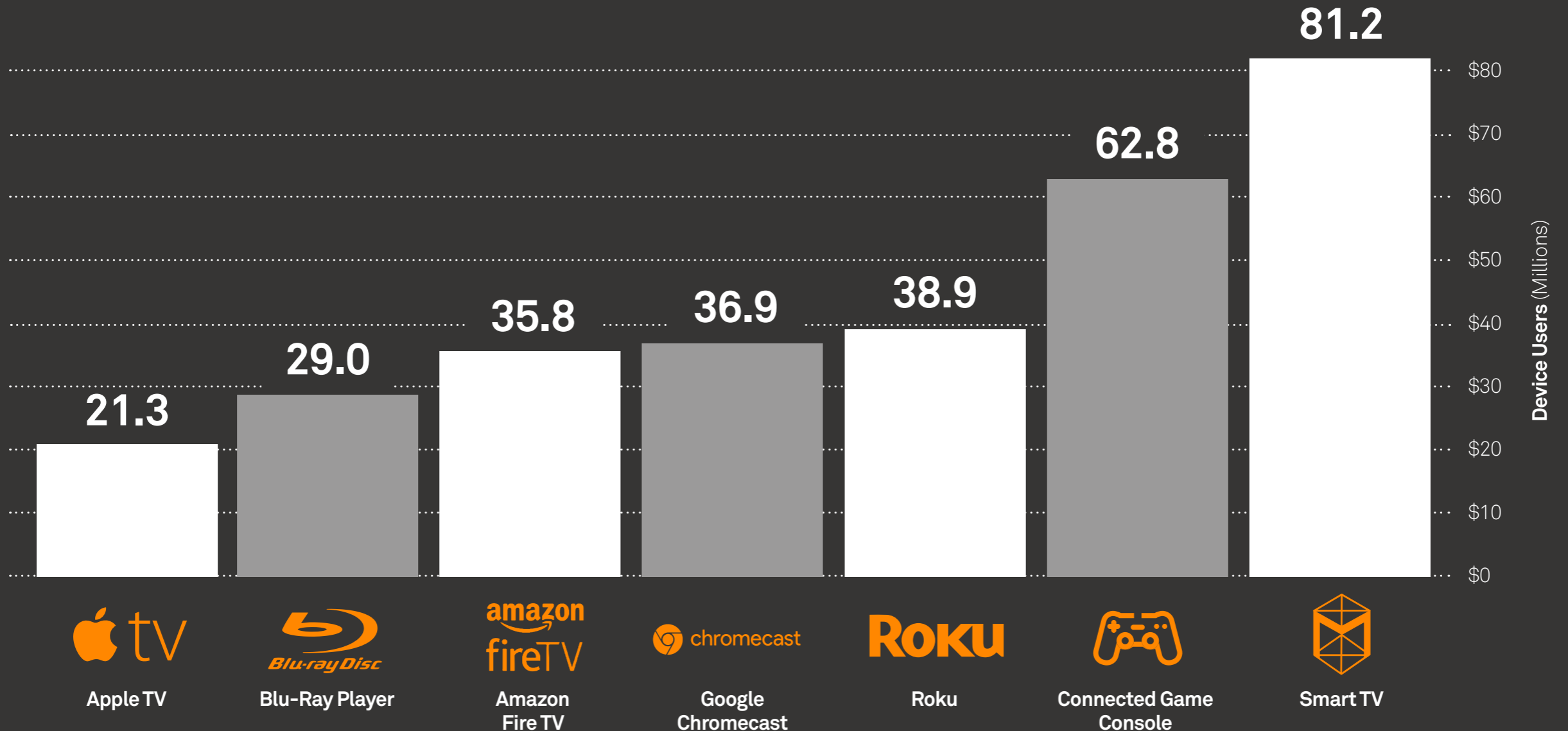
- TV
- Digital Video

Consequently, as digital video grows, we're seeing users spend less and less time per day watching broadcast TV.



U.S. CTV Users by Device

With over **168 million** users in the U.S. alone, **CTV** keeps on growing. But which **CTV devices** are **the cord-cutters** flocking to?



Native

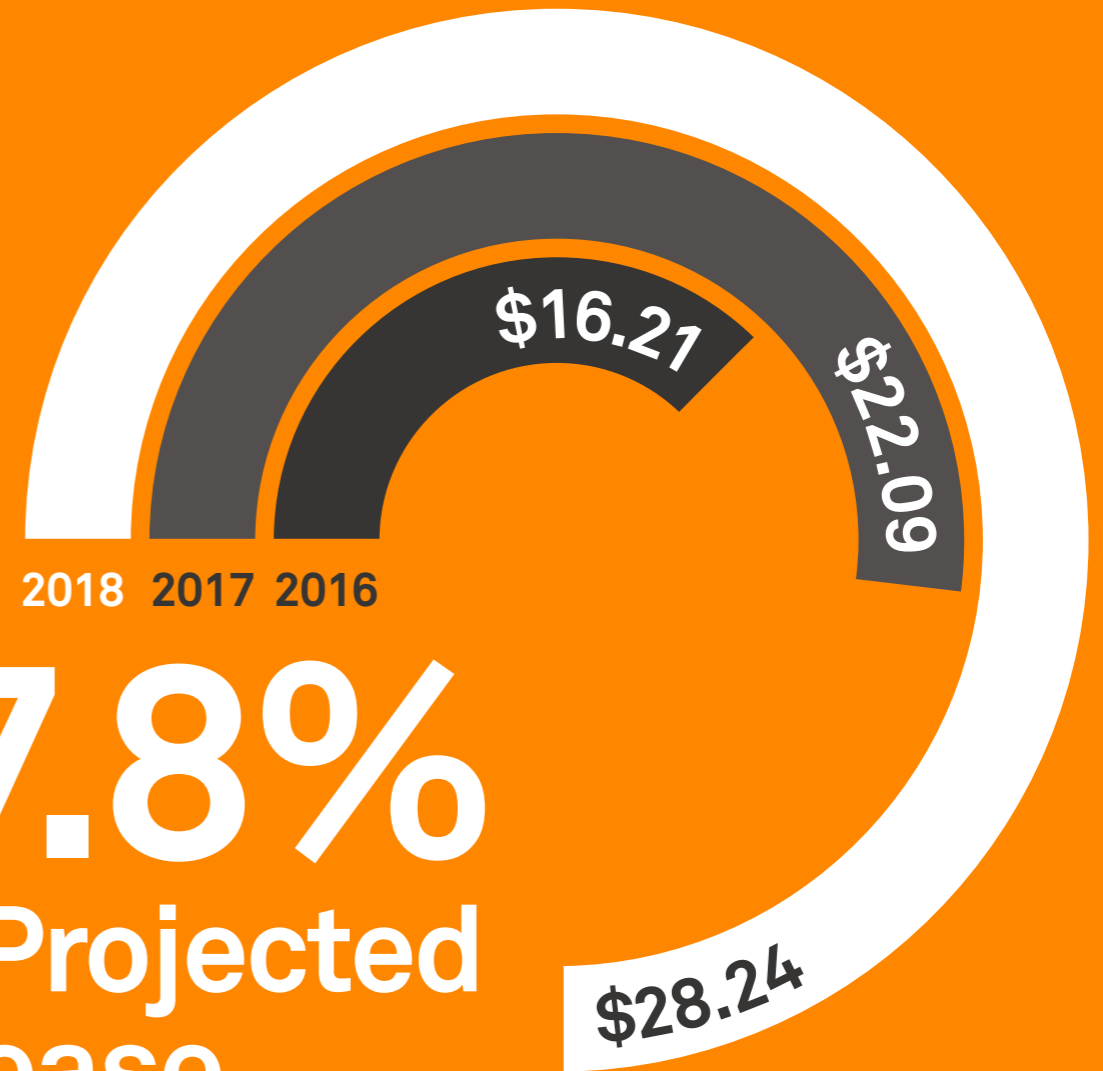
Total Projected U.S. Native Ad Spend

(billions)

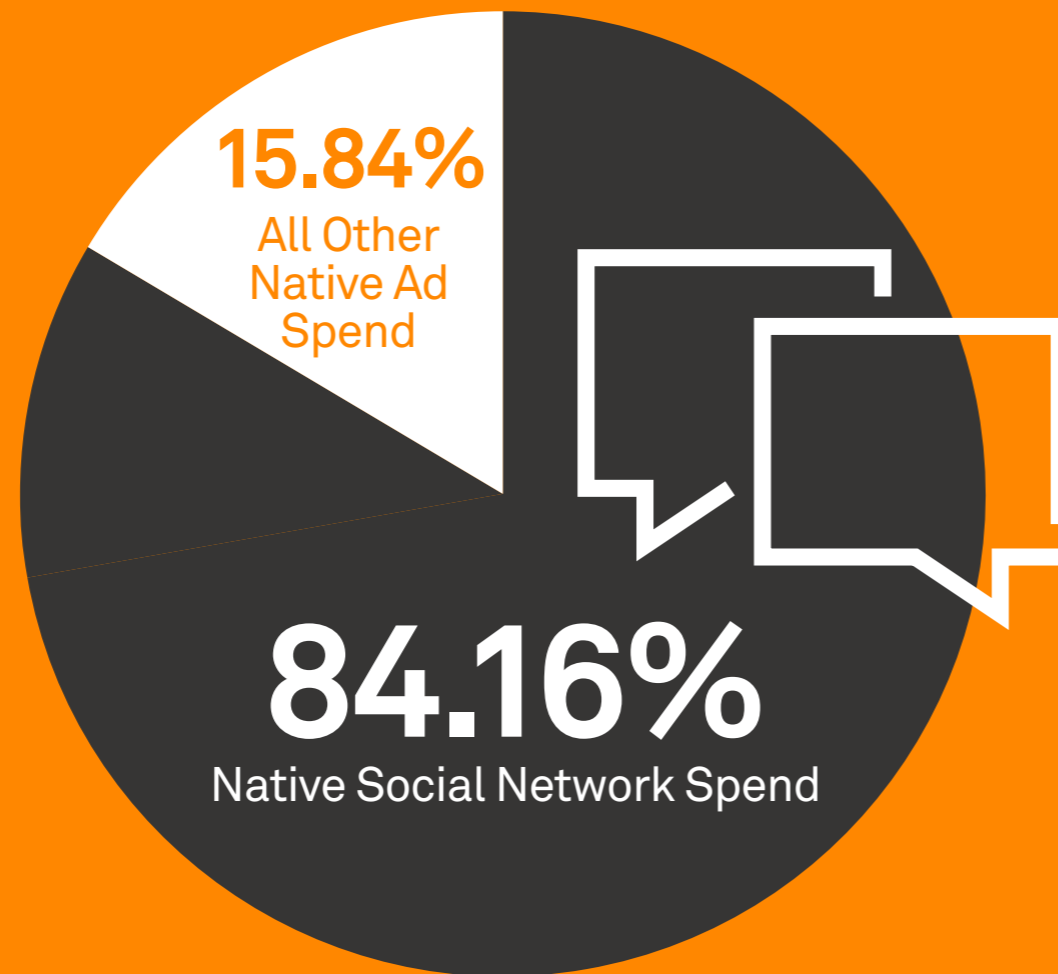


Native ad spend in the US is estimated to reach \$28 billion in 2018, a 27.8% percent increase from 2017.

27.8%
YoY Projected Increase

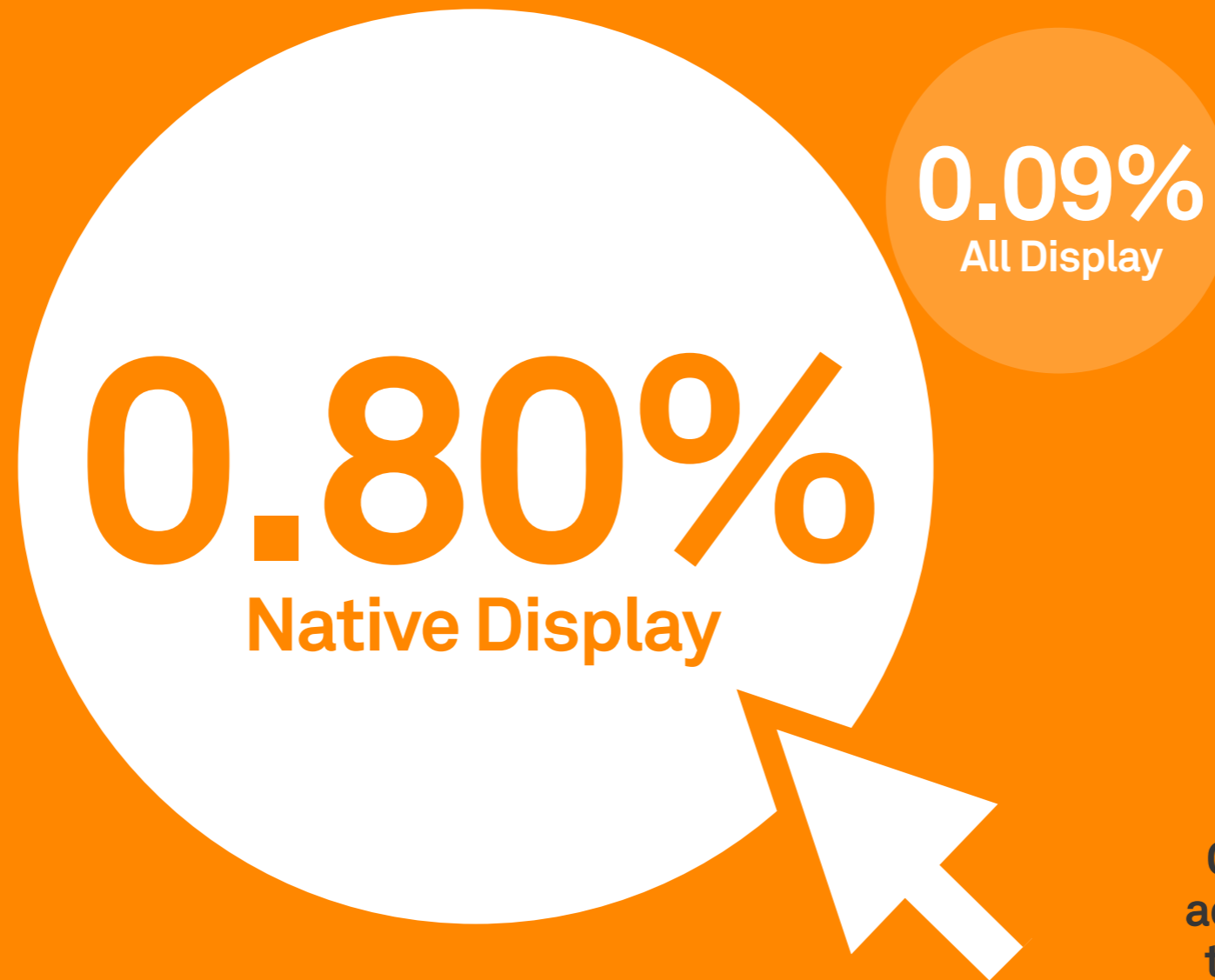


2017 Share of Total Native Ad Spend: Social Networks vs. All Other Native Display



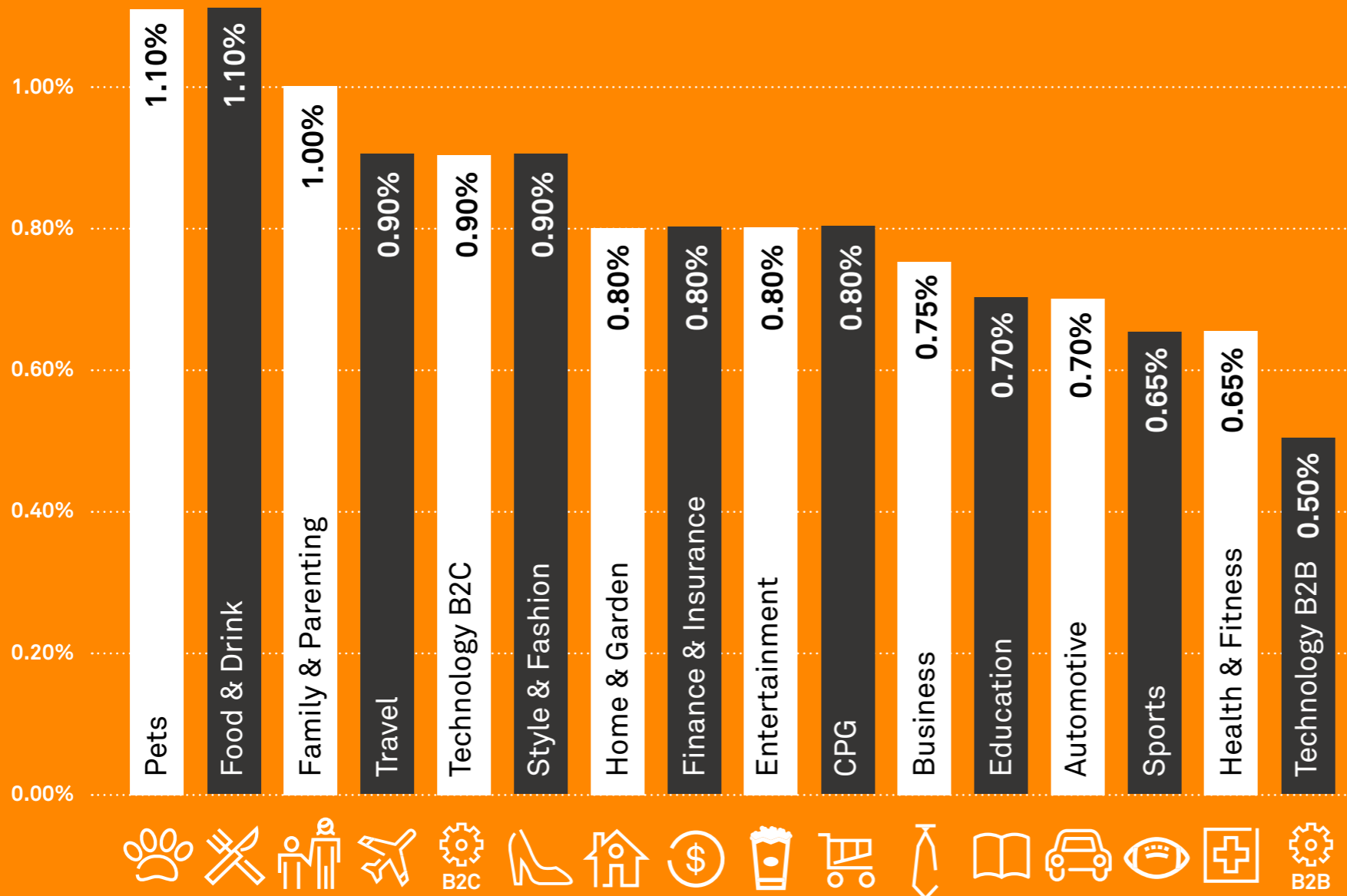
The vast majority of that spend goes to **social networks**. Native advertising on the open internet – what most people probably think of when they think native – accounted for just under **\$3.5 billion** in spend.

Click-Through Rates (CTR): All Display vs. Native Display



CTRs for native display ads are 8.8x higher than the average display ad.

Native Ad Click-Through Rates by Brand Category

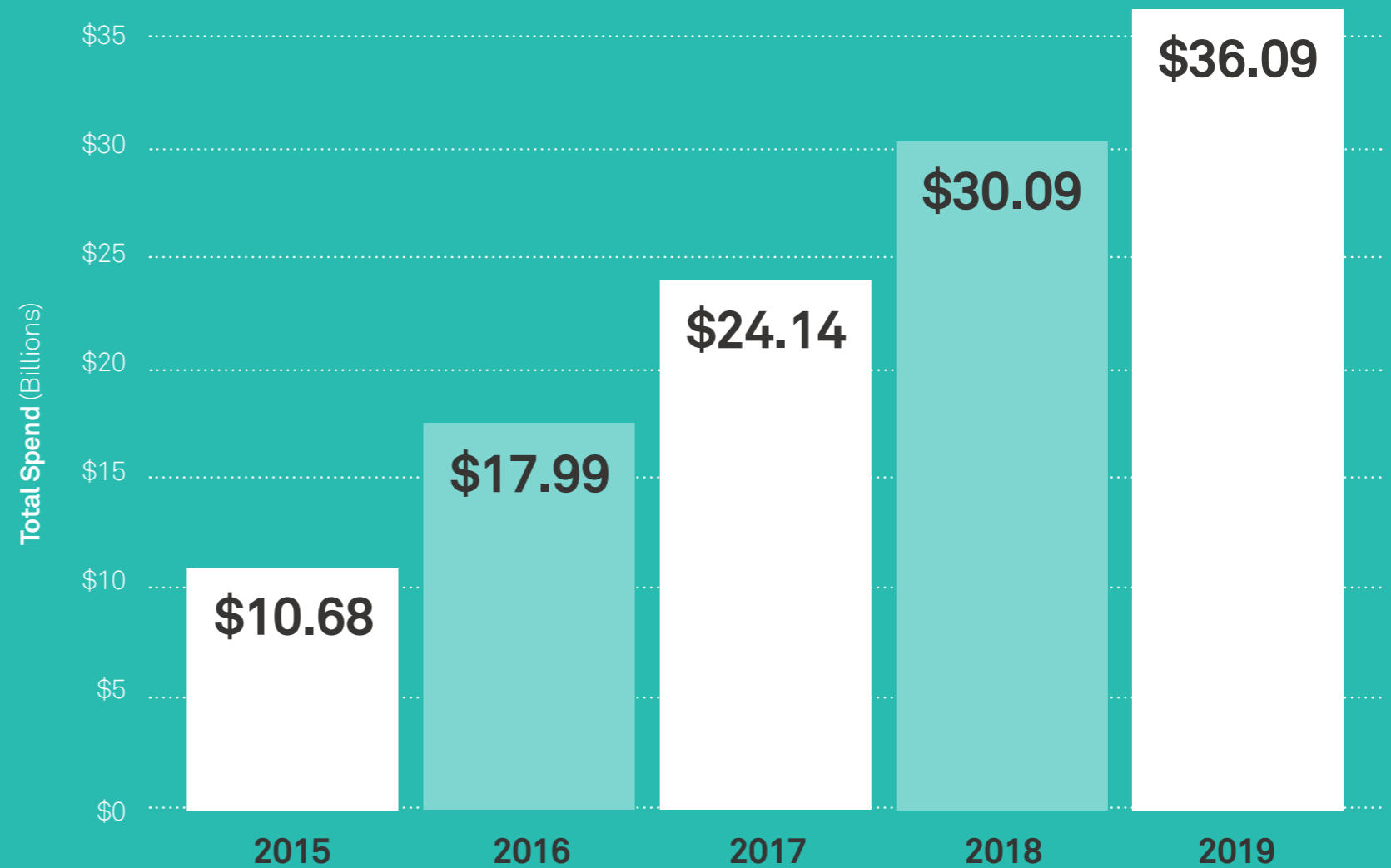


Native ads have performed particularly well for advertisers in the **Pets, Food & Drink, and Family & Parenting** brand categories.

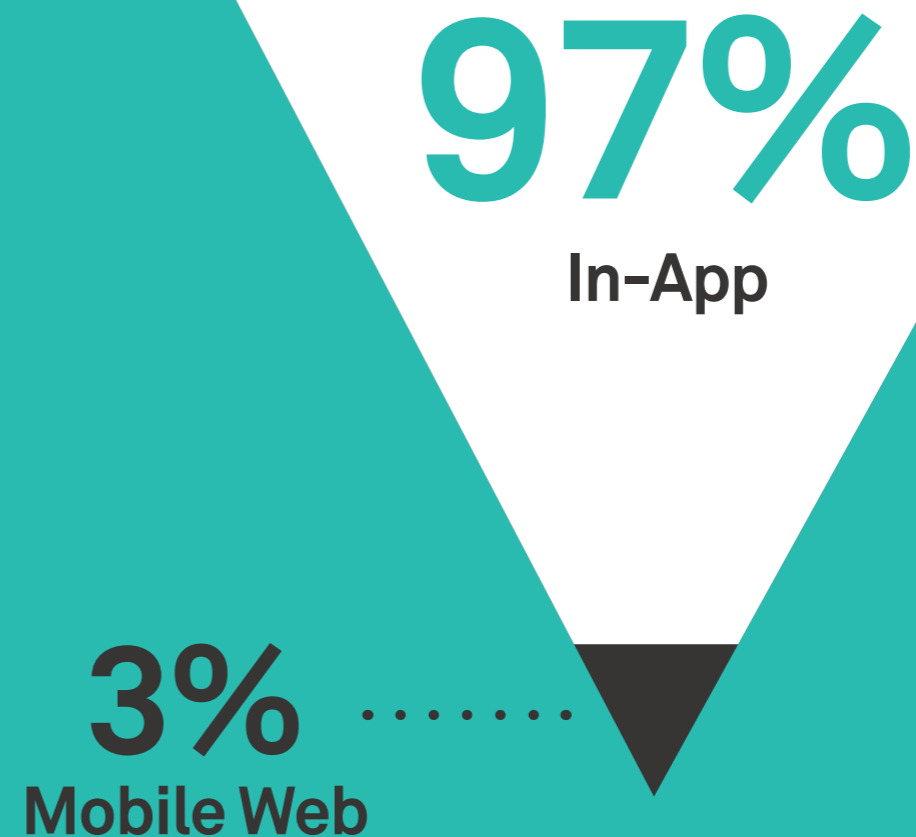
Mobile

Total Projected U.S. Mobile Programmatic Ad Spend

Programmatic mobile spend in the US continues to rise, and made up 74.1% of all programmatic display spend in 2017. That share is expected to climb to 77.0% in 2018.



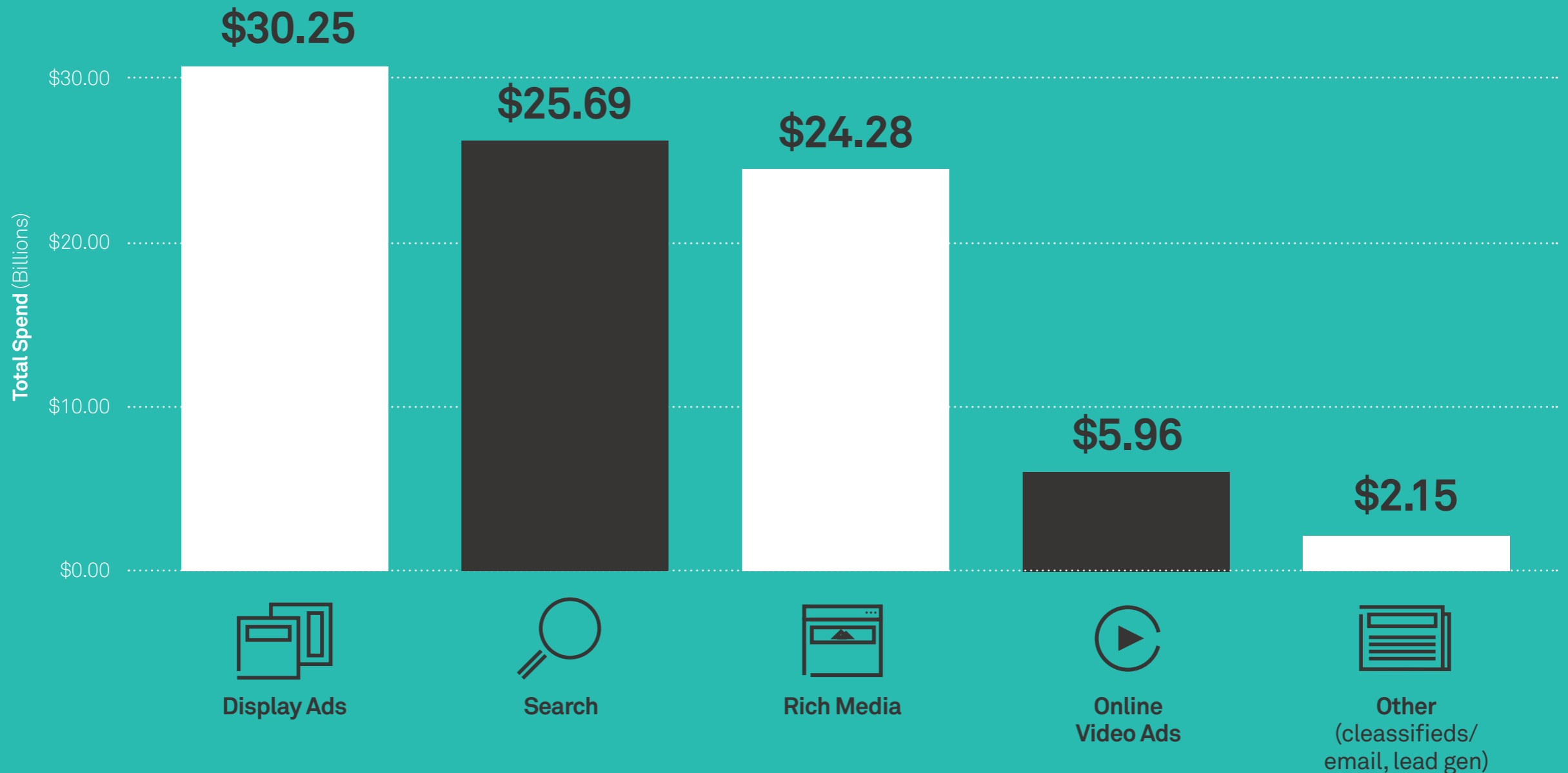
U.S. Programmatic Mobile Ad Spend: In-App vs. Mobile Web



In-app ads dominate mobile programmatic ad spend. That shouldn't be a surprise considering the average U.S. consumer spends 89% of their time on their smart phone in-app.

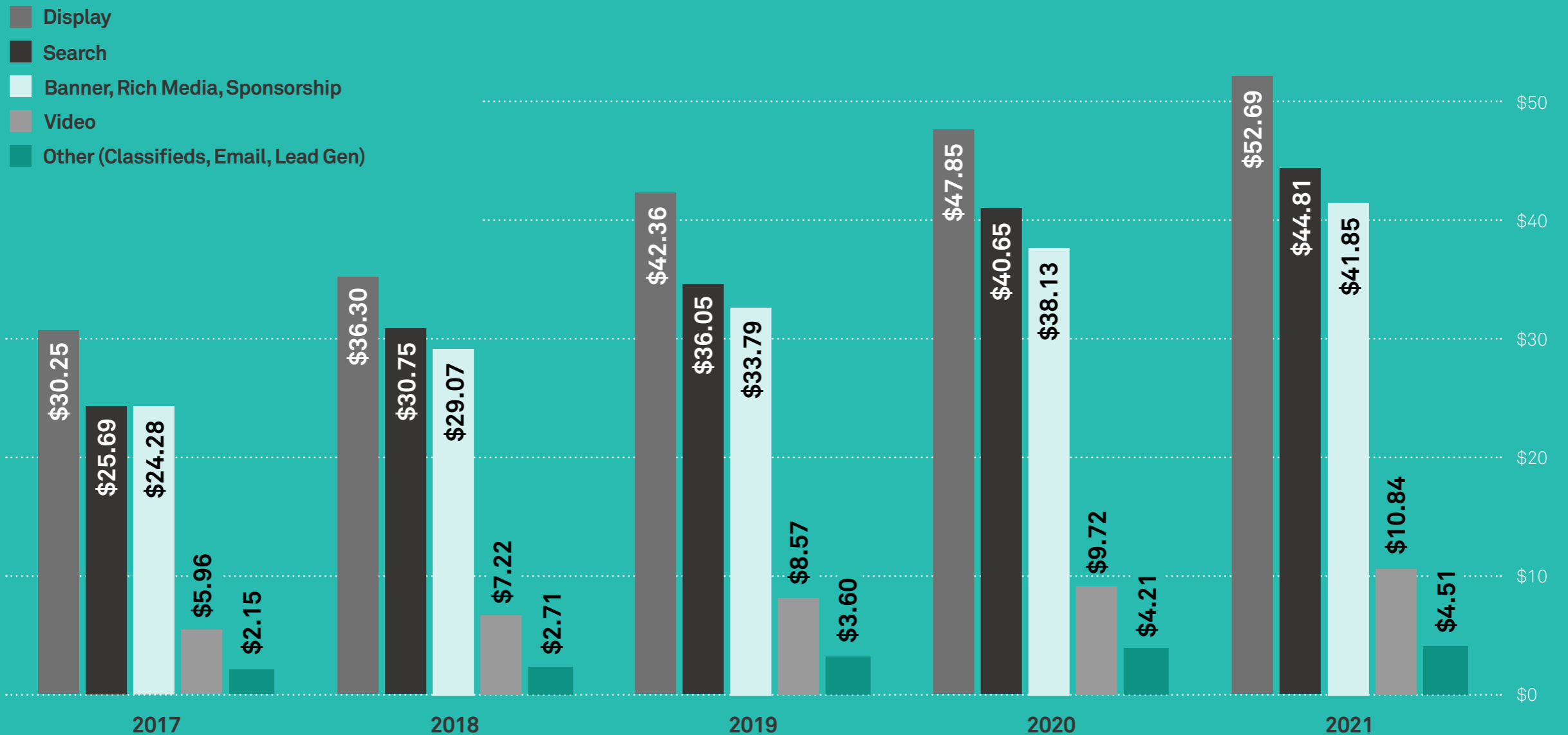
2017 U.S. Mobile Ad Spend by Ad Format

Display, search, and rich media are the formats driving mobile ad spend.



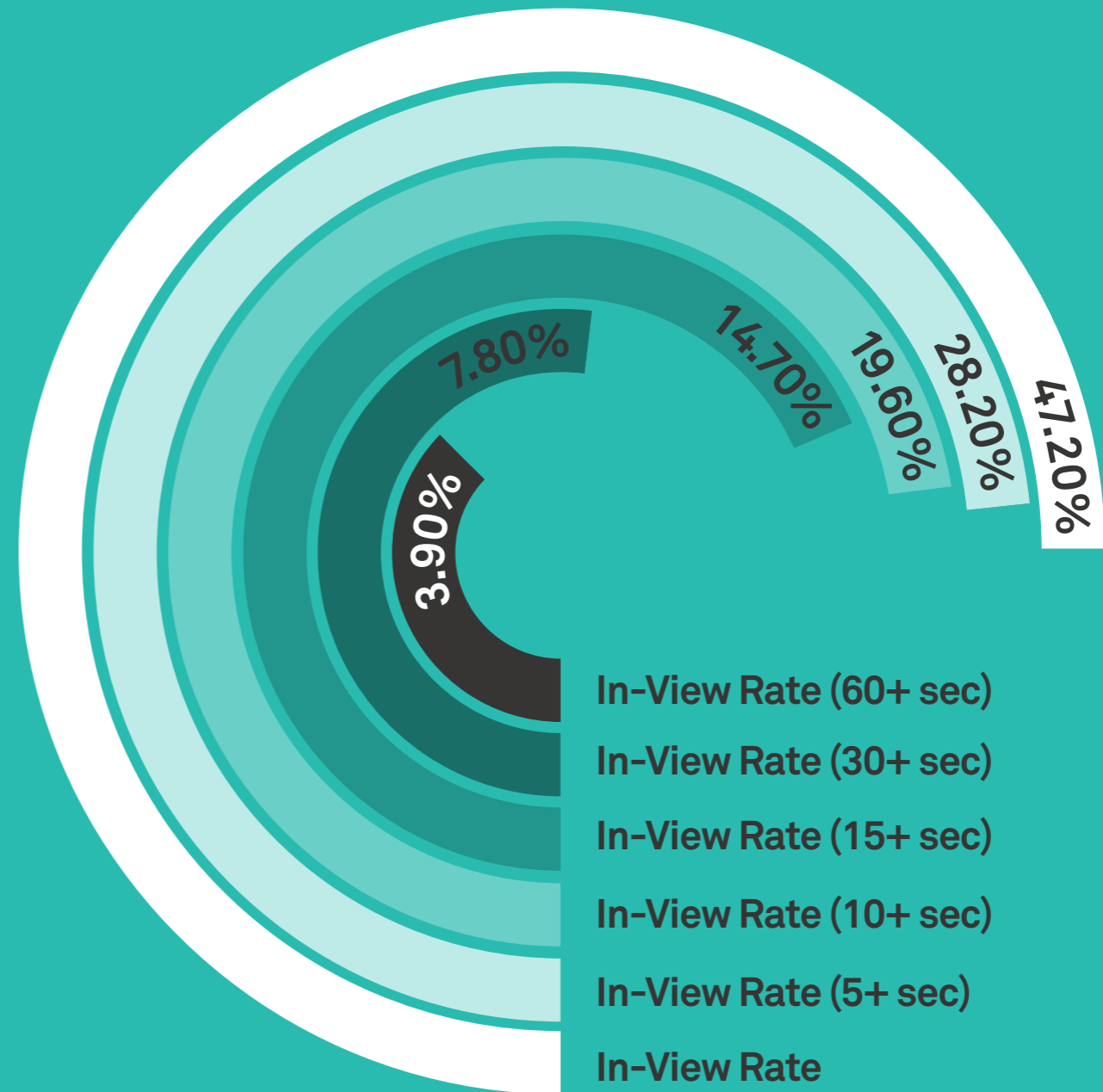
Projected U.S. Mobile Ad Spend by Format, 2017-2021

We expect each of those formats to grow in the coming years, especially **video, display, and search.**



U.S. Mobile Display Ad Viewability Rates

Performance benchmark:
How long are mobile ads in view?





Ad Fraud

Global Estimated Ad Revenue Lost to Fraud

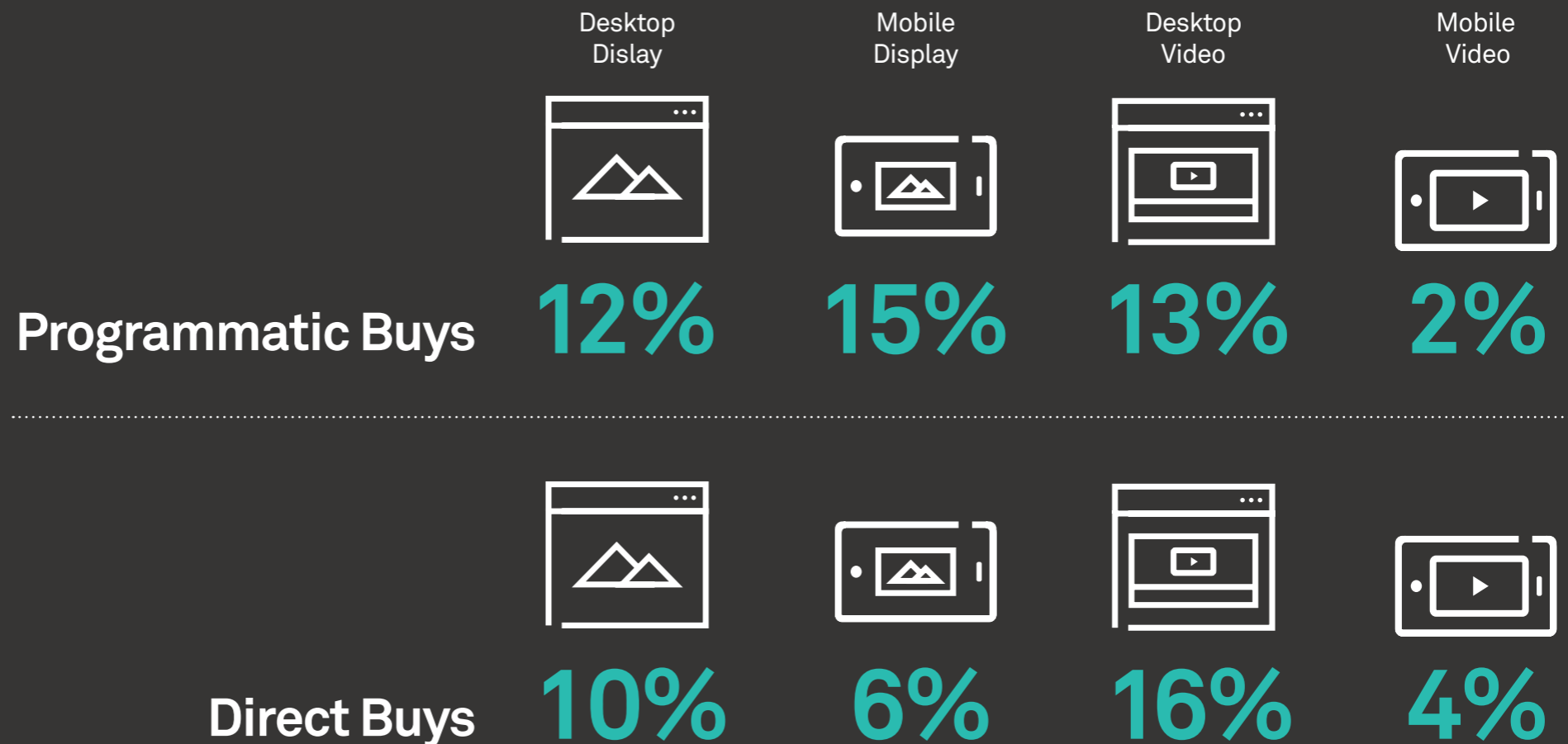
Ad fraud accounted for over \$14 billion in lost revenue in 2017. By 2022, that total is expected to rise 214% to \$44 billion – unless we band together to stop it in its tracks.



Estimated Global Ad Fraud Rates by Format and Transaction Type

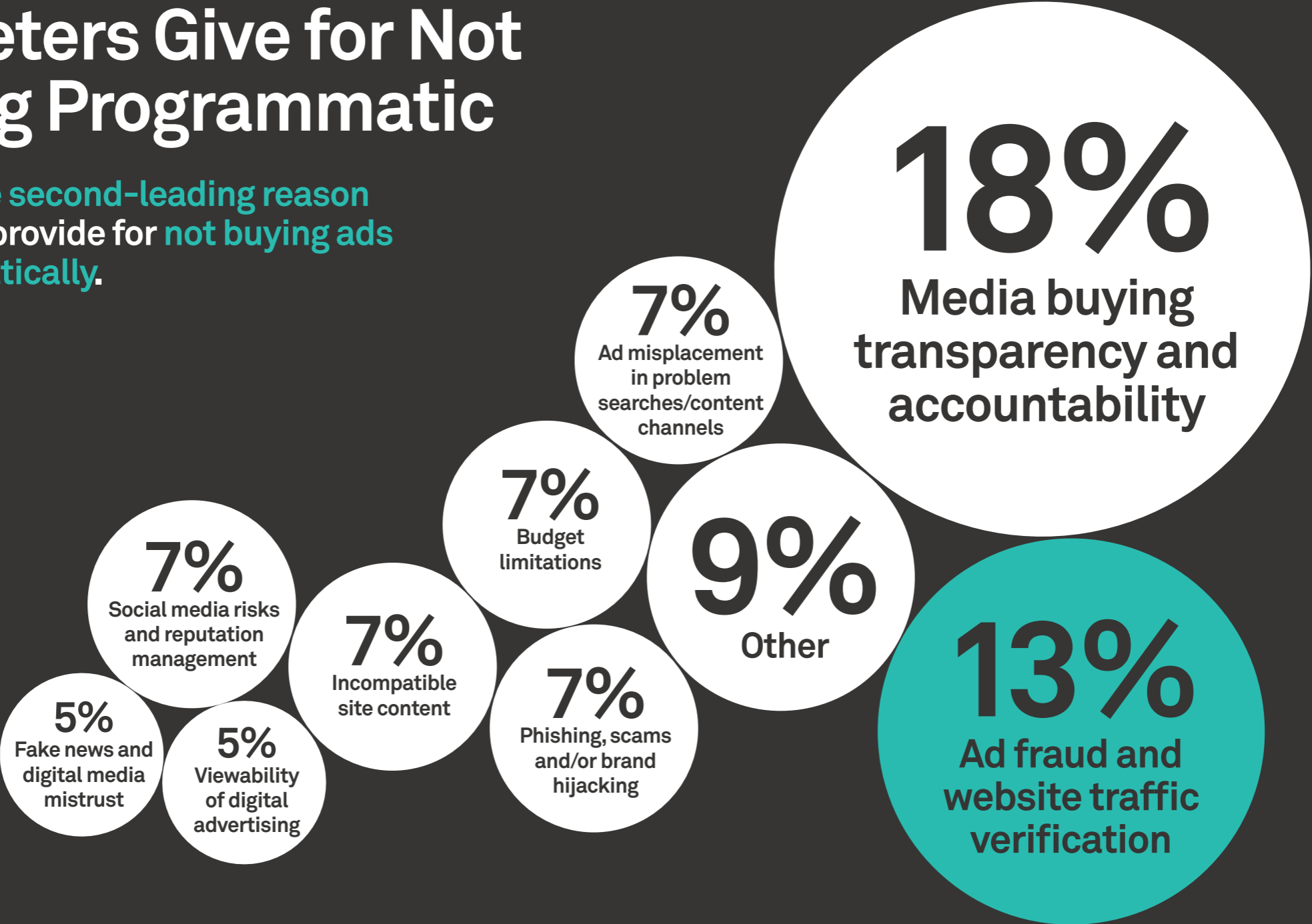
When it comes to **programmatic, mobile display** inventory presents the highest risk of fraud.

Detected Rate of Ad Fraud



Reasons Senior Marketers Give for Not Buying Programmatic

Fraud is the second-leading reason marketers provide for not buying ads programmatically.



How Mobile Ad Executives Say They're Responding to Ad Fraud

Given the heightened fraud risk in mobile programmatic, Forrester asked **250 marketing leaders** how they're fighting back. Many of their responses are **applicable across all formats and channels**.

48%

We use data and analytics tools to understand and measure suspicious patterns for mobile ad fraud

53%

We have assigned fraud-related KPIs to our media buying agency and ad networks

32%

Require clarity from vendors on how they combat fraud

43%

Third-party traffic validation technology

25%

We reduced the media budget assigned to in-app advertising

31%

We reduced the media budget assigned to mobile web advertising

32%

Require clarity from vendors on how they combat fraud

28%

We implement target white lists

25%


We subscribe to a blacklist service

19%

We aggressively update blacklists

6%

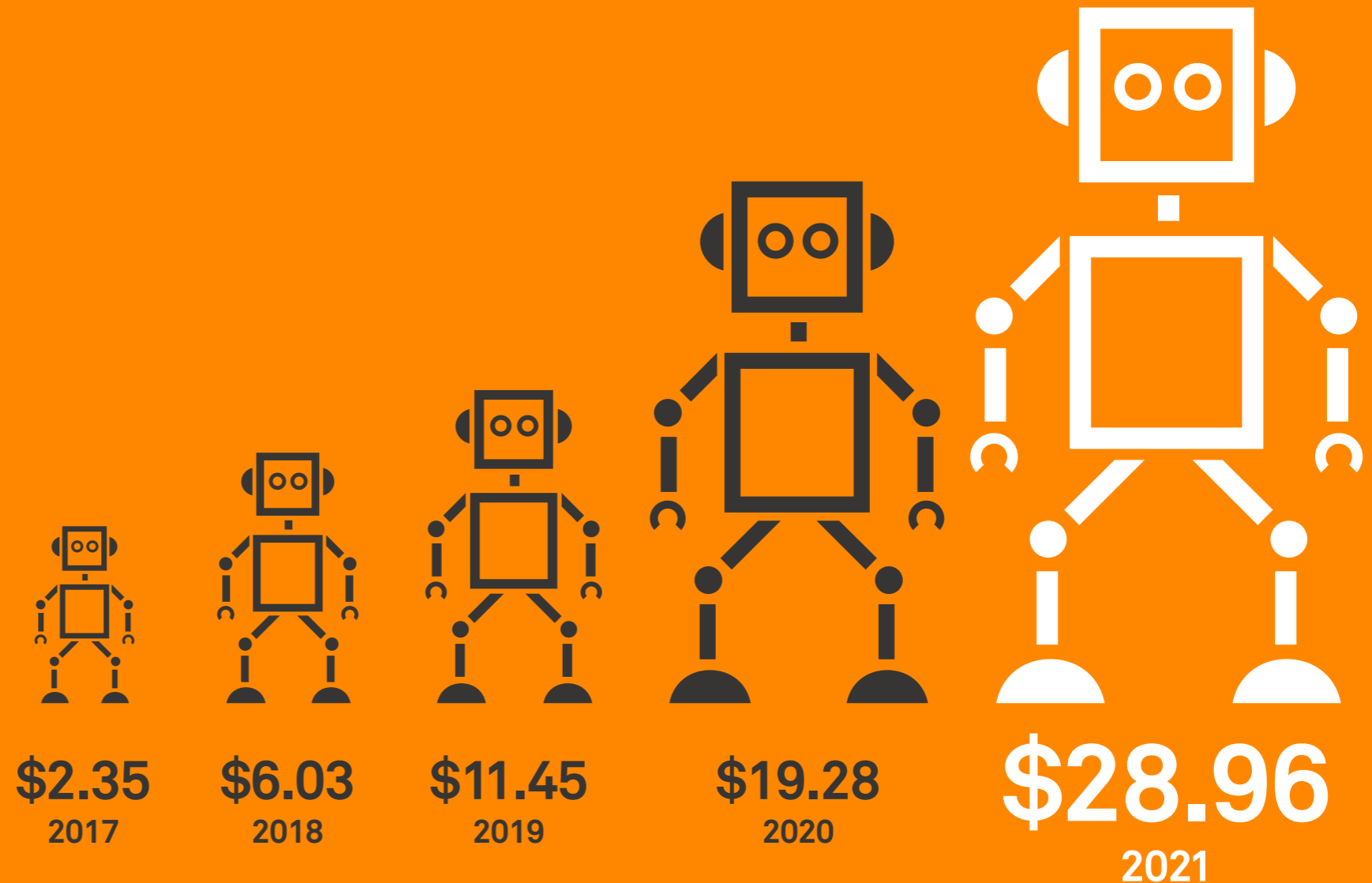
Have not responded yet but plan to



Machine Learning and AI

Projected Worldwide AI Technology Investment

Companies across nearly all industries are expected to rapidly embrace artificial intelligence in 2018 and beyond.



Retail Marketers' Attitudes Toward AI in Marketing

80%

AI marketing will revolutionize the marketer's role

79%

Changes the role of marketing toward more strategic work

86%

Makes marketing teams more efficient

86%

Makes marketing teams more effective

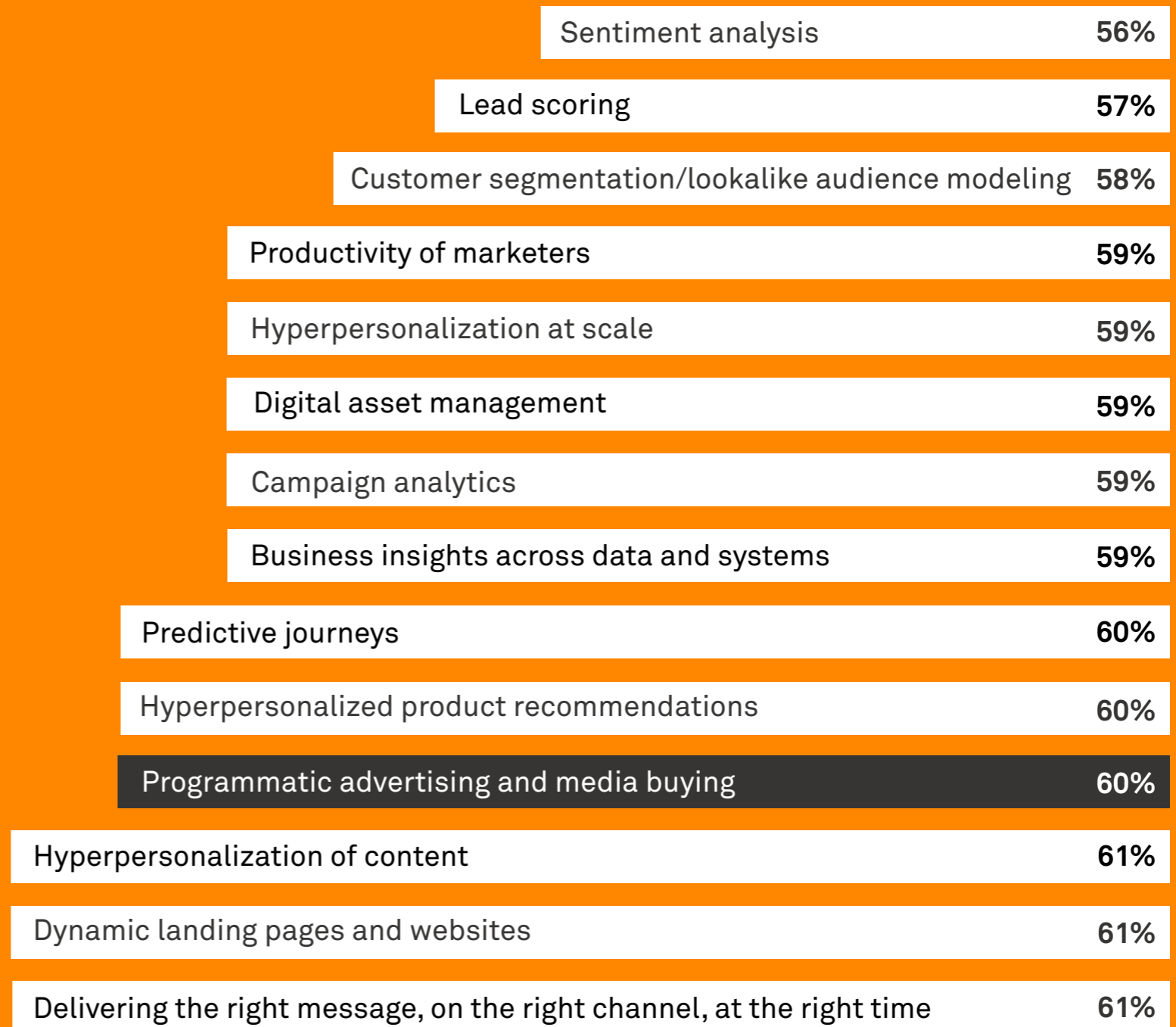
82%

Allows marketing staff to focus on value-generating tasks as AI automates workflows

Marketers are especially excited about what AI can do for them. **80%** of surveyed marketers say AI will revolutionize their role.

Areas Marketing Leaders Believe AI Can Help Them

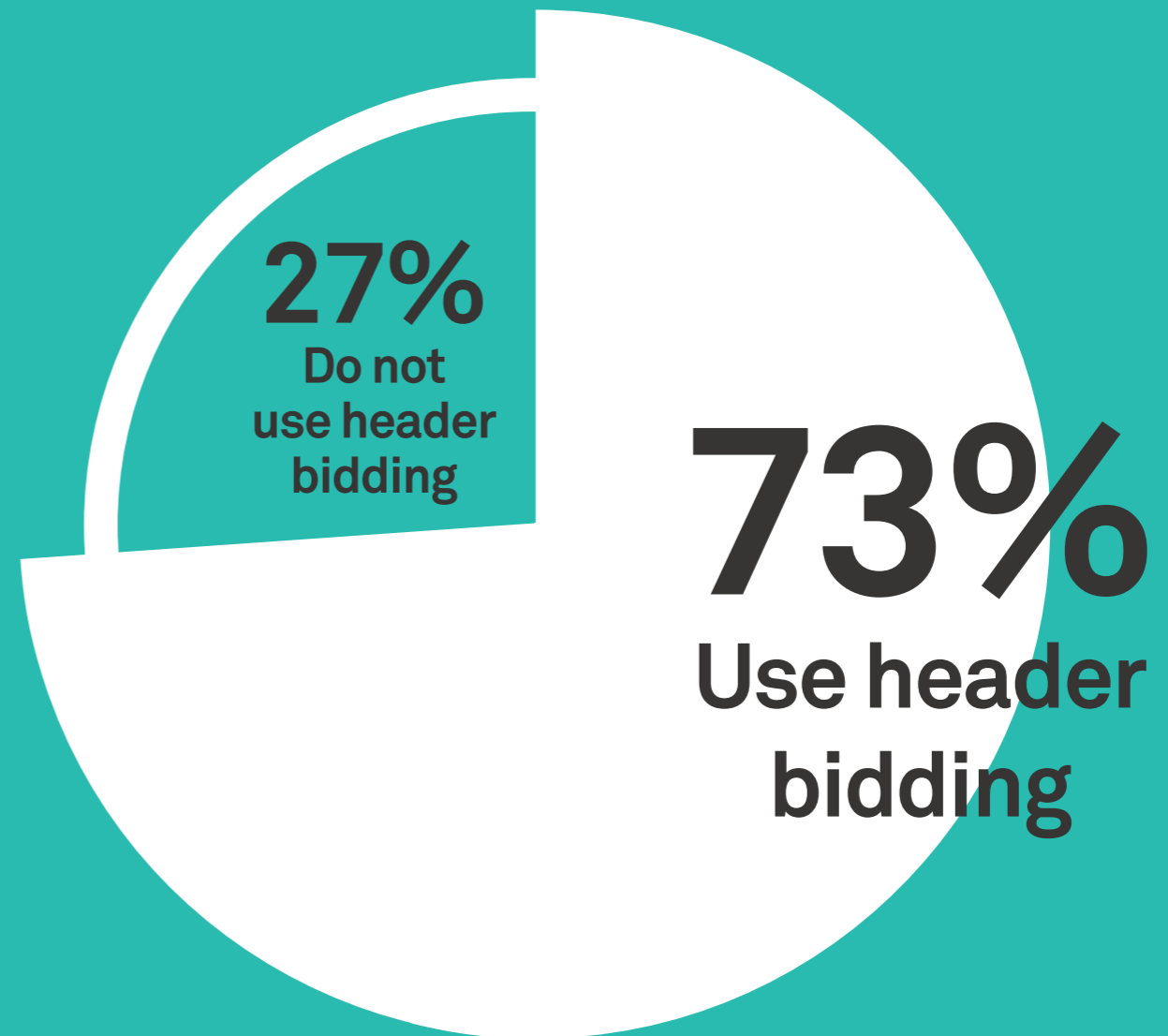
60% marketing leaders already believe AI can help them run more effective programmatic campaigns. We agree, which is why we put machine learning at the center of our new DSP: the [AppNexus Programmable Platform \(APP\)](#).





Header Bidding

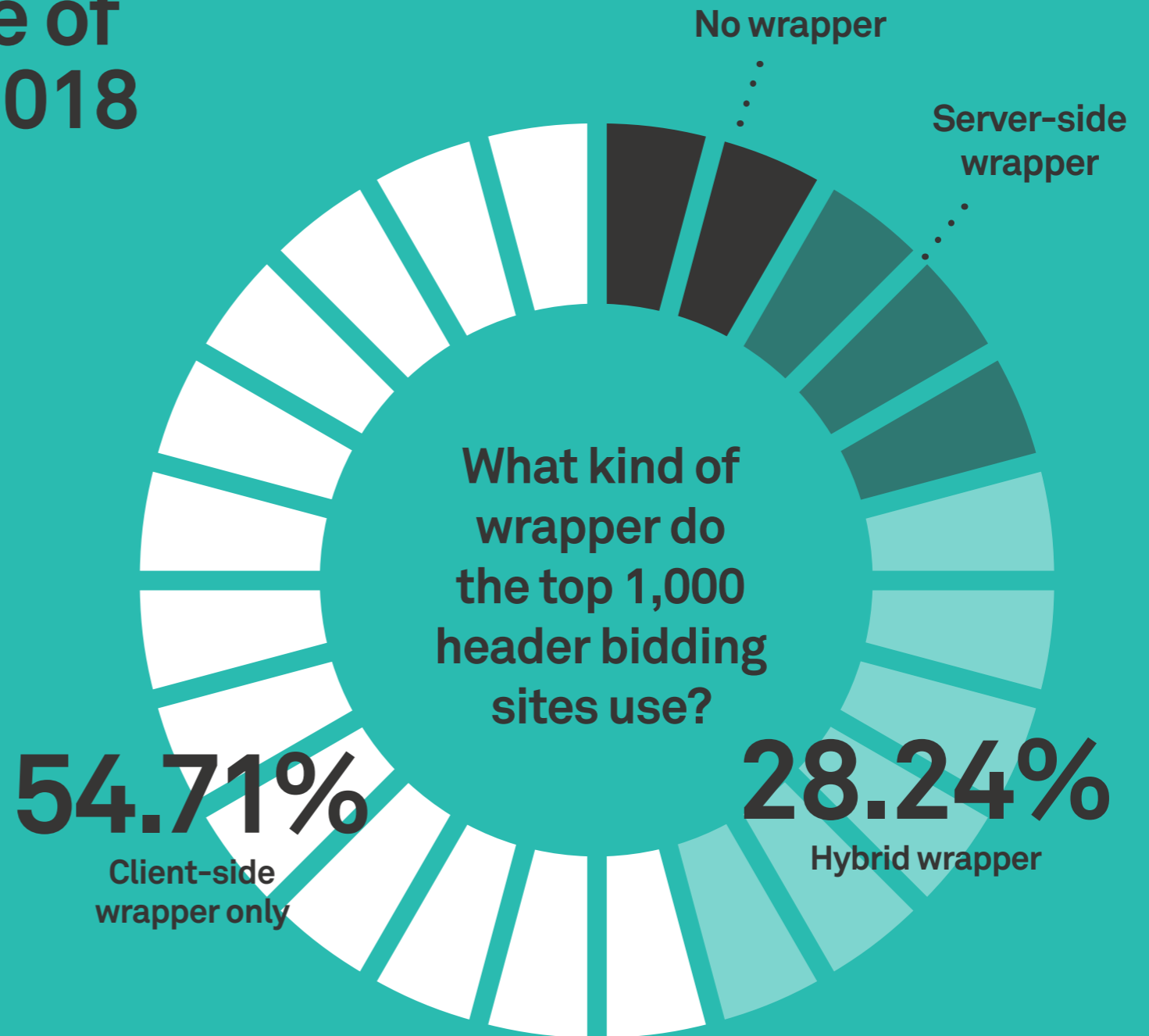
Percent of Top 1,000 U.S. Web Sites Using Header Bidding, January 2018



The vast majority of the most popular, programmatic ad-supported sites on the internet have adopted **header bidding**.

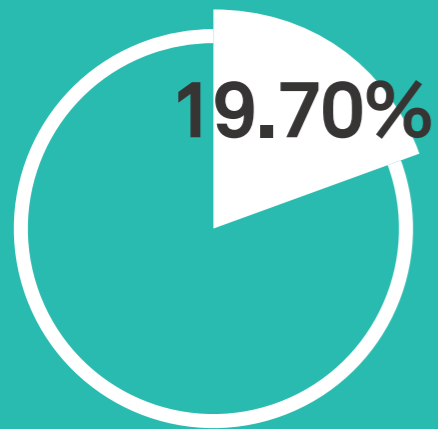
Header Bidding Sites in Top 1,000 by Type of Wrapper, January 2018

Right now, more than half of header bidding adopters are only using a client-side wrapper. But **server-side header bidding** can help publishers add more demand partners without increasing latency. **7.91%** of header bidding adopters are using a **server-side wrapper**, while **28.24%** are deploying.

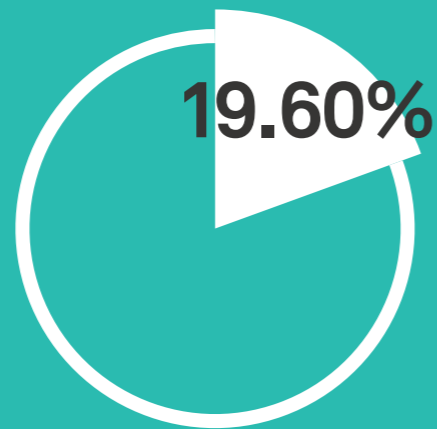


Header Bidding Sites in Top 1,000 by Type of Wrapper, January 2018

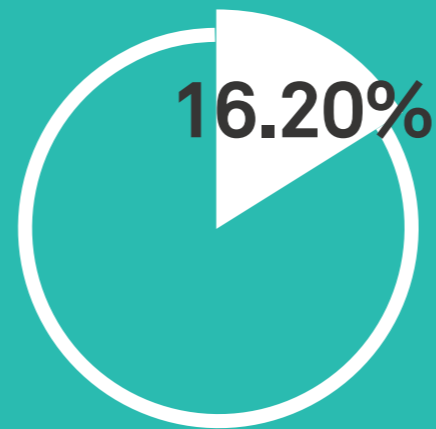
What wrappers are publishers using?



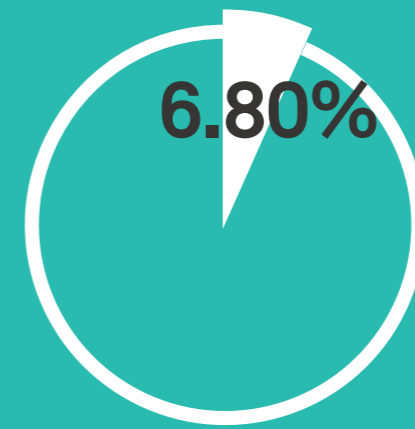
Index Exchange



In-House Wrapper Built on Prebid



Vendor Wrapper Built on Prebid



Vendor Wrapper (Non-Prebid)

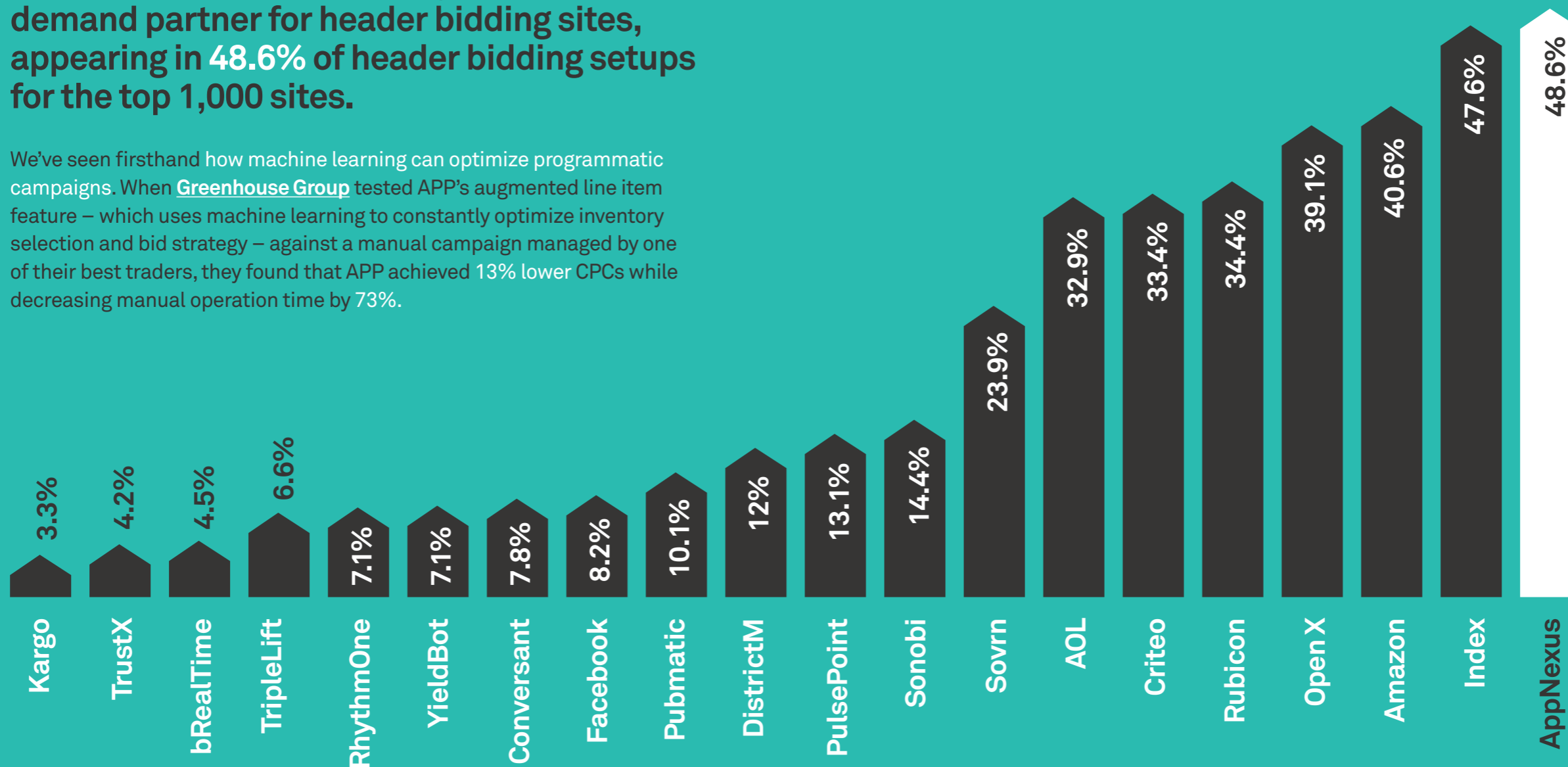


In-House Wrapper (Non-Prebid)

Top 20 Header Bidding Demand Partners

AppNexus is the most widely-adopted demand partner for header bidding sites, appearing in **48.6%** of header bidding setups for the top 1,000 sites.

We've seen firsthand how machine learning can optimize programmatic campaigns. When [Greenhouse Group](#) tested APP's augmented line item feature – which uses machine learning to constantly optimize inventory selection and bid strategy – against a manual campaign managed by one of their best traders, they found that APP achieved 13% lower CPCs while decreasing manual operation time by 73%.

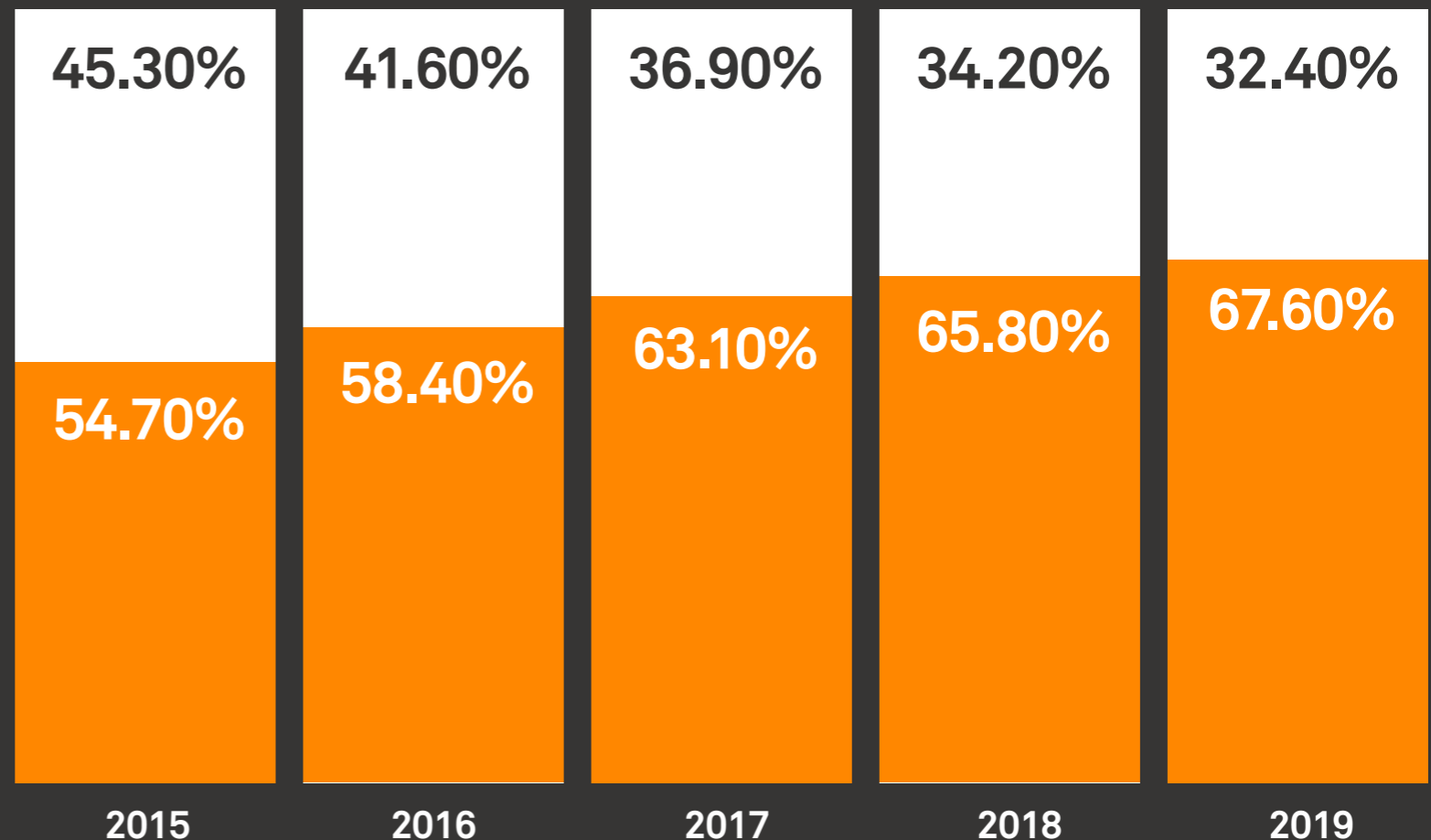




Duopoly

Duopoly vs. All Publishers: Estimated Share of Total U.S. Digital Ad Revenue

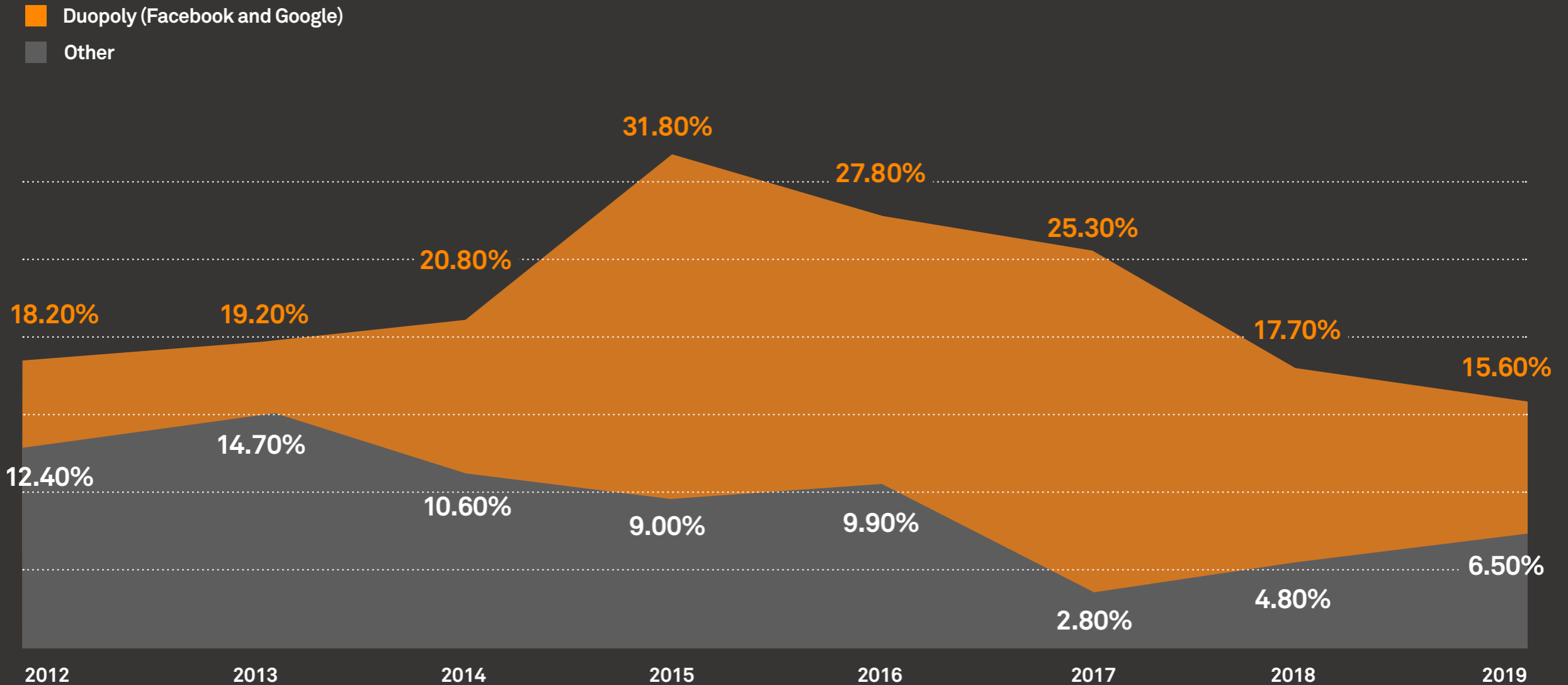
■ Duopoly (Facebook and Google)
■ Other



Facebook and Google took up a whopping **63.1%** of U.S. digital ad revenue in **2017**, and their share is projected to grow further in the **next two years**.

Duopoly vs. All Publishers: Yearly Estimated Digital Ad Revenue Growth

The concentration has gotten worse since 2015, when Google and Facebook began capturing new digital ad revenue at a much higher rate compared to publishers and other platforms.



Duopoly vs. All Other Publishers: Estimated Share of U.S. Mobile Ad Revenue



Duopoly
(Facebook & Google)

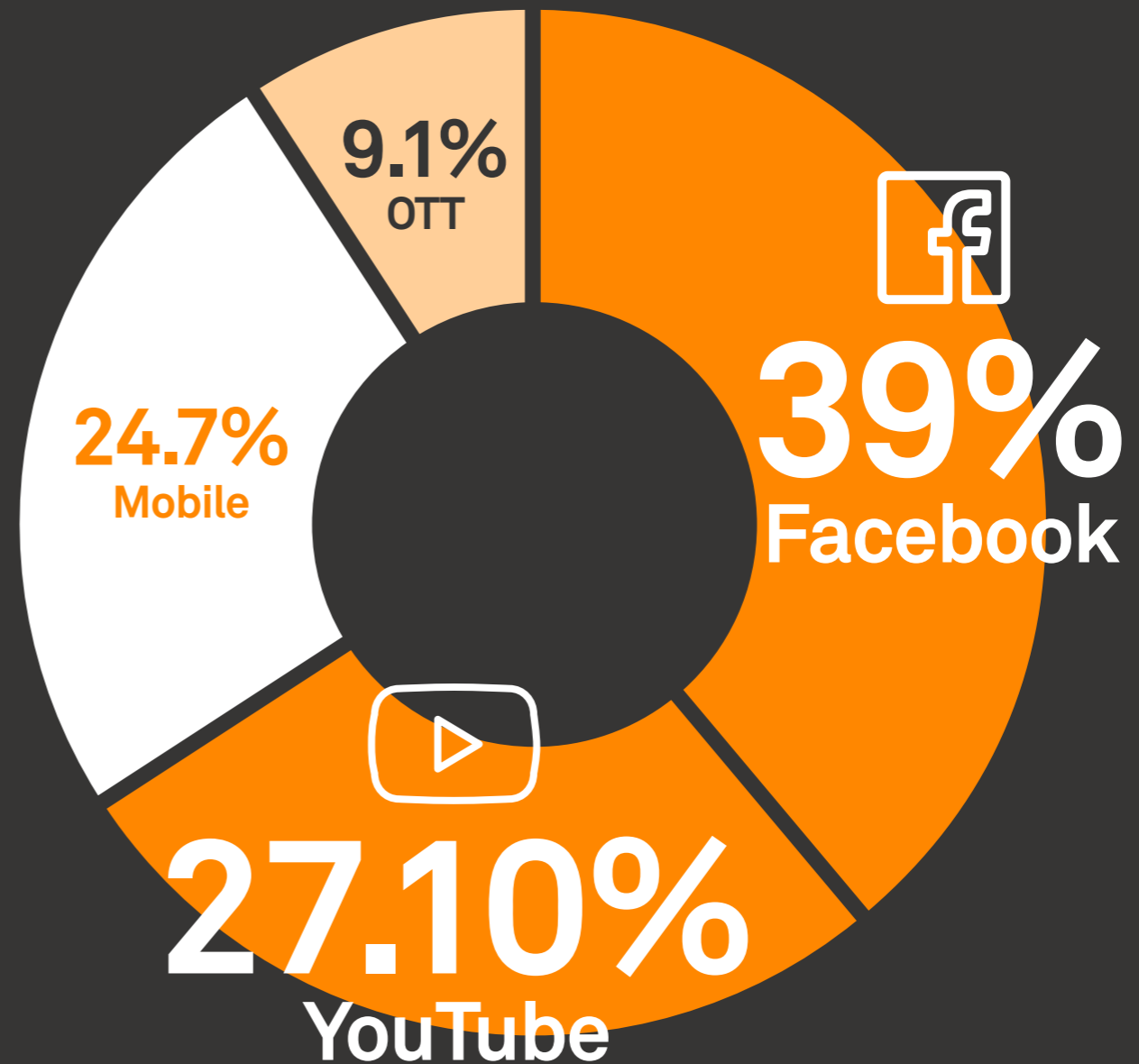
58.50%

Other
41.50%



The **duopoly** captures a lower – but still a clear majority – share of **mobile ad revenue** as well. In **2018**, that share is expected to jump from **58.5%** to **60.9%**.

Where Digital Video Ad Revenue is Going, According to Senior U.S. Marketers



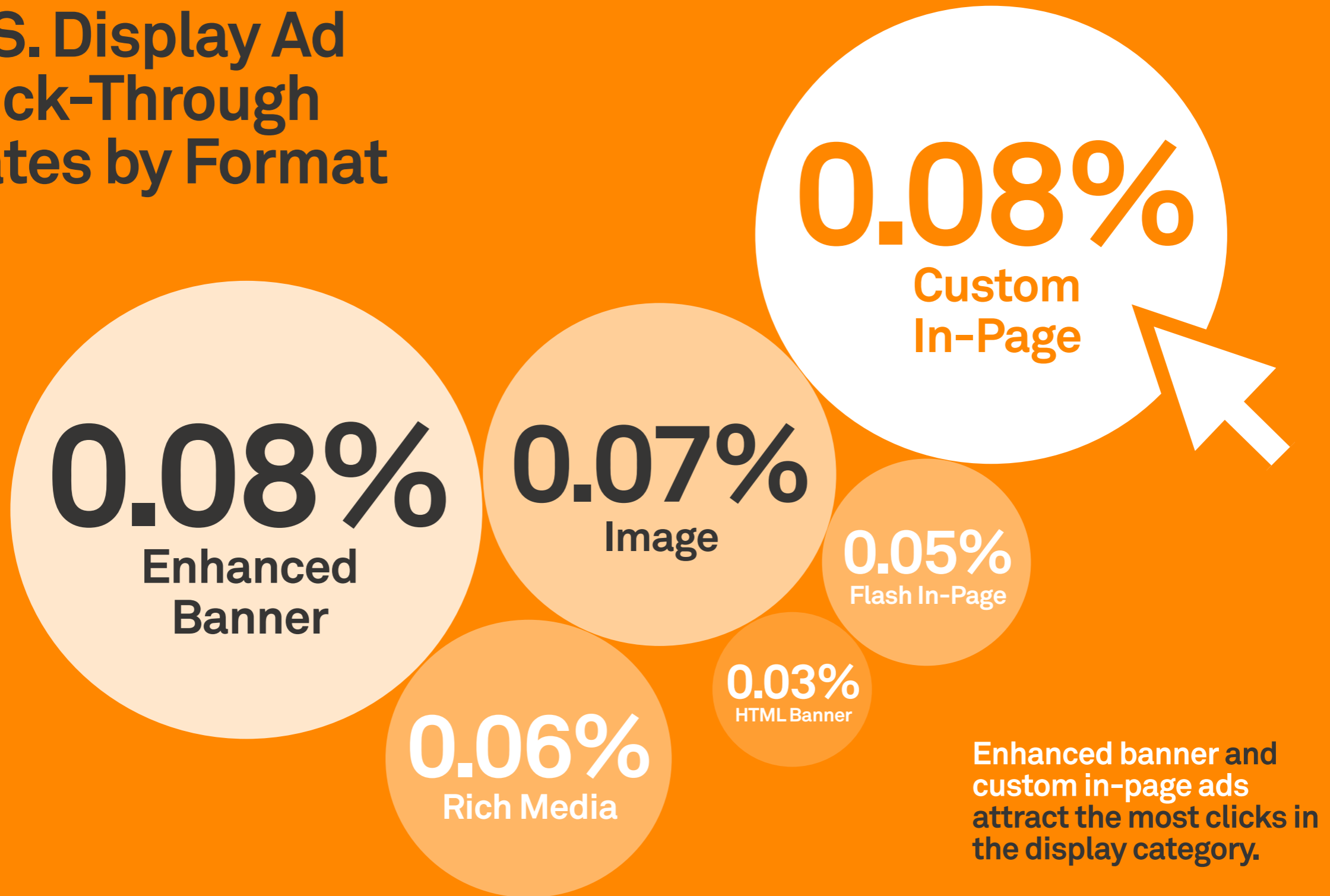
The issue persists in **video** as well. Between **Facebook** and **YouTube**, marketers estimate the duopoly takes in **66.1%** of all digital video ad revenue.



Disclaimer

All rights reserved. The information contained in this white paper is believed to be reliable and current as of the date of publication, but accuracy cannot be guaranteed. Recommendations or forward-looking statements contained in this white paper are based on estimates of future results at the time of publication and are inherently uncertain. Actual results may vary materially from those expressed or implied in any such recommendations and forward-looking statements. AppNexus is under no obligation to, and expressly disclaims any obligation to, update or alter its forward-looking statements, whether as a result of new information, subsequent events or otherwise.

U.S. Display Ad Click-Through Rates by Format



Enhanced banner and custom in-page ads attract the most clicks in the display category.