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IAB internet advertising revenue report

2018 first six months results

An industry survey conducted by PwC and
sponsored by the Interactive Advertising Bureau

November 2018



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Background

About the IAB internet advertising revenue report

Conducted by PricewaterhouseCoopers LLP (“PwC”) on an ongoing basis, with results released quarterly, the “IAB internet advertising revenue report” was initiated by the interactive advertising Bureau (IAB) in 1996. This report utilizes data and information reported directly to PwC from companies selling advertising on the internet as well as publicly available corporate data.

The results reported are considered to be a reasonable measurement of internet/online/mobile advertising revenues because much of the data is compiled directly from information supplied by companies selling advertising online. The report includes data reflecting desktop and mobile online advertising revenues from websites, commercial online services, ad networks and exchanges, mobile devices, and email providers, as well as other companies selling online advertising.

The report is conducted independently by PwC on behalf of the IAB. PwC does not audit the information and provides no opinion or other form of assurance with respect to the information. Only aggregate results are published and individual company information is held in strict confidence with PwC. Further details regarding scope and methodology are provided in the appendix to this report.

Executive summary

Digital revenues increased 23.1% in HY 2018

Internet advertising revenues in the United States totaled \$49.5 billion for the first six months of 2018, with Q1 2018 accounting for approximately \$23.9 billion and Q2 2018 accounting for approximately \$25.6 billion. Revenues for the first six months of 2018 increased 23.1% over the first six months of 2017.*

Advertising revenues delivered on mobile devices totaled \$30.9 billion in HY 2018, a 42.0% increase from the prior half year revenues of \$21.8 billion. Advertising delivered on a mobile device now makes up 62.5% of total internet advertising revenues.

Quarter over quarter digital revenues increase 7.2% for Q2 2018

Internet advertising revenues in the United States totaled \$25.6 billion in the second quarter of 2018, an increase of 7.2% from the 2018 first quarter total of \$23.9 billion and an increase of 22.9% from the 2017 second quarter total of \$20.8 billion.

“ This landmark figure cements digital advertising— whether display, search or mobile video—as one of the most powerful mechanisms of all time for brands to build relationships with consumers. It’s a truth upon which direct-to-consumer brands have built their businesses, and from which all businesses can benefit.”

| Randall Rothenberg, President and CEO, IAB

“ Over the course of the last 23 years, this report has served as the official tracking mechanism of the size of the digital advertising industry and the trends propelling its ongoing rise. This 2018 half year report continues to drive awareness of the great influence of this industry, and specifically the great transformation that has occurred in the advertising ecosystem.”

| David Silverman, Partner, PwC

* Digital audio advertising revenues have been revised for HY 2016 and HY 2017 to include Podcast advertising.

See page 3 for impact to HY total digital advertising revenues.

See page 17 for the impact to HY digital audio revenues.

See page 24 for impact to the quarterly digital advertising revenues.

Half year growth

Digital revenues totaled \$49.5B in HY 2018

Revenues for HY 2018 totaled \$49.5 billion, \$9.3 billion (23.1%) higher than in HY 2017.

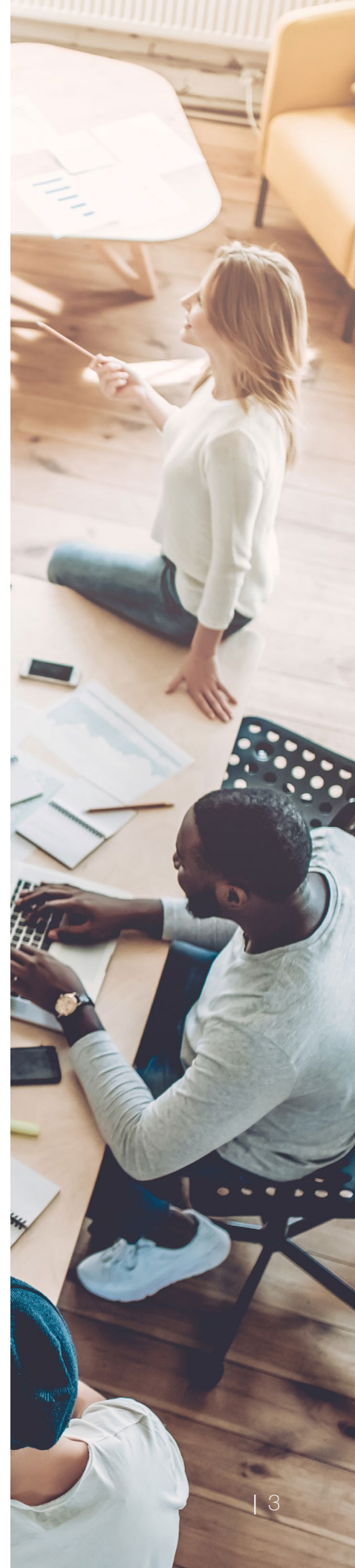
HY 2017 vs. HY 2018 revenue (\$ billions)



* Digital audio advertising revenues have been revised for HY 2016 and HY 2017 to include Podcast advertising.

(\$ millions)	As originally reported	As revised
HY 2016	\$32,738	\$32,789
HY 2017	\$40,138	\$40,251

Source: IAB/PwC Internet Ad Revenue Report, HY 2018



Key growth drivers

Over an 8 year period, including the last six months, the US digital advertising industry has sustained double-digit growth. This growth, which is unique amongst all other ad-supported media is, in part, attributable to the following underlying drivers disrupting the industry today.

Digital advertising is improving its agility

The ever-increasing sophistication of digital advertising has proven to be invaluable to consumers, brands, and advertising agencies over the last several years. Enabled by data analytics, and, more recently, machine learning, digital advertising has evolved from ubiquity to specificity in a way that has raised consumer concerns and expectations. As advertising continues to refine its capabilities, it is more likely to be experienced as insightful and useful rather than invasive. Consumers, particularly Millennials and older members of Gen Z, are becoming more accepting of relevant advertising as digital acquaintance. Consumers now welcome active advertising that responds to and reflects, in real time, social activity, location, and brand and product preferences. This ability to be agile within the consumer's connected experience is an emerging revenue driver and will continue to grow as ad platforms and presentations become smarter and more contextual.

This increasing agility in digital advertising is of particular interest to direct-to-consumer

brands. This agility will enable more effective and efficient advertising and lower the cost of customer acquisition. As the cost of customer acquisition yields an increasingly profitable return on advertising investment, the direct brand companies will continue to commit larger portions of their budgets to advertising efforts, funding further growth.

Mobile commerce drives mobile advertising

The explosion of eCommerce continues to disrupt the retail industry. Consumers are no longer complacent shopping in a physical space—they are in search of on-demand inspiration, information, and delivery. With the advent of the direct brand economy, where most of these purchases are being made over the internet, and the streamlining of purchases using shoppable photos and mobile pay, advertisers have shifted focus to transform online traffic into buy 'clicks'.

Mobile commerce (mCommerce) is creating further disruption in the retail industry, making it even easier for consumers to shop and buy and blurring the lines between the physical and online marketplace. Growth in mCommerce means advertisers can reach the constantly connected consumer at any time, in real time and where they transact.

Furthermore, the use of personal mobile devices allows advertisers the ability to overlay big data analysis with intimate insights into users' lifestyle, behaviors

and preferences. Advertisers can create targeted and effective ad content, while their marketer counterparts are able to evaluate ad campaigns in real time and quickly adjust to improve overall effectiveness. With all of these benefits, mCommerce will continue to drive growth in mobile advertising.

Digital audio will take advertising off screen

The growing digital audio industry is providing advertisers with fresh ways to engage consumers, at home and on the go. Consumers are increasingly turning to audio for quick and convenient access to news, music, spoken word, and other forms of entertainment. The medium, primarily comprised of streaming audio, radio, and podcasts, is rapidly expanding onto its next platform, smart speakers. Smart speakers, one of the fastest growing consumer tech products in the United States, represent the next stage of progress for consumer engagement and burgeoning advertiser participation.

As users become more comfortable with and reliant upon voice assistance, they are expected to spend less time with more traditional entertainment media, and advertisers are paying attention. Some services are even beginning to launch self-service ad platforms, making audio ad creation, audience targeting, and response tracking easier than ever before. These trends indicate that the next level of audio engagement is fast approaching

with smart speaker manufacturers considering integrating social engagement (through partnerships with or self-built social media platforms) in hopes of making an increasingly intuitive and customizable experience.

Currently, digital audio advertising heard through smart speakers is limited to ads inserted into existing audio media content, most often streamed music and podcasts. However, as brands increase the number of stand-alone apps, and as smart speaker manufacturers launch their own audio ad platforms and services, there is an expectation that digital audio advertising revenue will follow.

Gen Z will influence the digital advertiser mix

As expected, the up-and-coming generation of advertising targets, Generation Z, has already influenced today's digital advertising mix, and that influence is only projected to grow. By 2019, Gen Zers will outnumber Millennials, and will have earned the superlative of being the youngest generation to adopt mobile devices. According to a recent study, social media is Gen Z's preferred source of shopping inspiration, with search engines and eCommerce sites serving as primary sources for product comparison and research. Digital advertisers also note that Gen Z shoppers are the most likely of all

consumers to use "buy" buttons (56%) and shoppable photos (34%) to complete a purchase.¹

However, the Gen Z rush to an increasingly mobile existence is not without its pain points. As mobile screen time continues to rise across all generations, digital advertisers will encounter increasingly short attention spans.² Gen Zers also display the highest propensity to avoid traditional advertising, skipping ads faster and more often. Non-skippable pre-roll ads are unpopular with Gen Z, as evidenced by the rise in ad blocking software (which Gen Z is also the most likely generation to use).³ With these trends in mind, less invasive strategies, such as mobile reward videos, are likely to achieve positive results. Digital advertisers are finding that leveraging humor in ads (offering entertainment rather than traditional marketing messaging) and investing in other alternative methods (such as forming relationships with social media influencers and subsidizing shoppable social media experiences) are the keys to unlocking this generation's eyes and ears.

Digital video will continue to grow and expand

As the rate at which data traveling across networks has increased, digital advertising has also become faster, riding the virtual wave to a greater

share of advertising spend and higher revenues. The digital advertising format that has, perhaps, experienced the greatest benefit from these infrastructure advancements is digital video, enjoying an enhanced reputation for being responsive and relevant. Once constrained to screens with cables, digital video ads are now nearly as free to roam as their cord-cutting viewers.

Driving revenue growth in digital video advertising is the increasing inventory on video sharing sites and through OTT services; however, the key to its growing dominance may be best explained by the rise of digital video on social media platforms, introducing innovative formats and new pricing models, including premium placements and ad campaigns capable of running across an expanding universe of screens. Add to this demand the convenience of self-service platforms for advertisers, particularly direct to consumer brands, with robust analytics, and the appeal of the channel is apparent.

Future near-term growth in mobile digital video ad spending is expected to be fueled by the launch of 5G. In addition to enabling more interactive mobile and desktop digital video advertising, 5G is expected to increase the capabilities of digital out of home advertising networks as well.

1. PwC Holiday Outlook, 2018

2. PwC Global Entertainment & Media Outlook, 2018

3. PwC Perspectives from the Global Entertainment and Media Outlook 2017–2021

Quarterly growth

Digital revenues increased to \$25.6 billion in Q2 2018

Total internet revenues in the second quarter of 2018 were \$4.8 billion (22.9%) higher than in the second quarter of 2017 and \$1.7 billion (7.2%) higher than in the first quarter of 2018.

Q2 2017 vs. Q2 2018 revenue (\$ billions)



Q1 2017 vs. Q1 2018 revenue (\$ billions)



Source: IAB/PwC Internet Ad Revenue Report, HY 2018

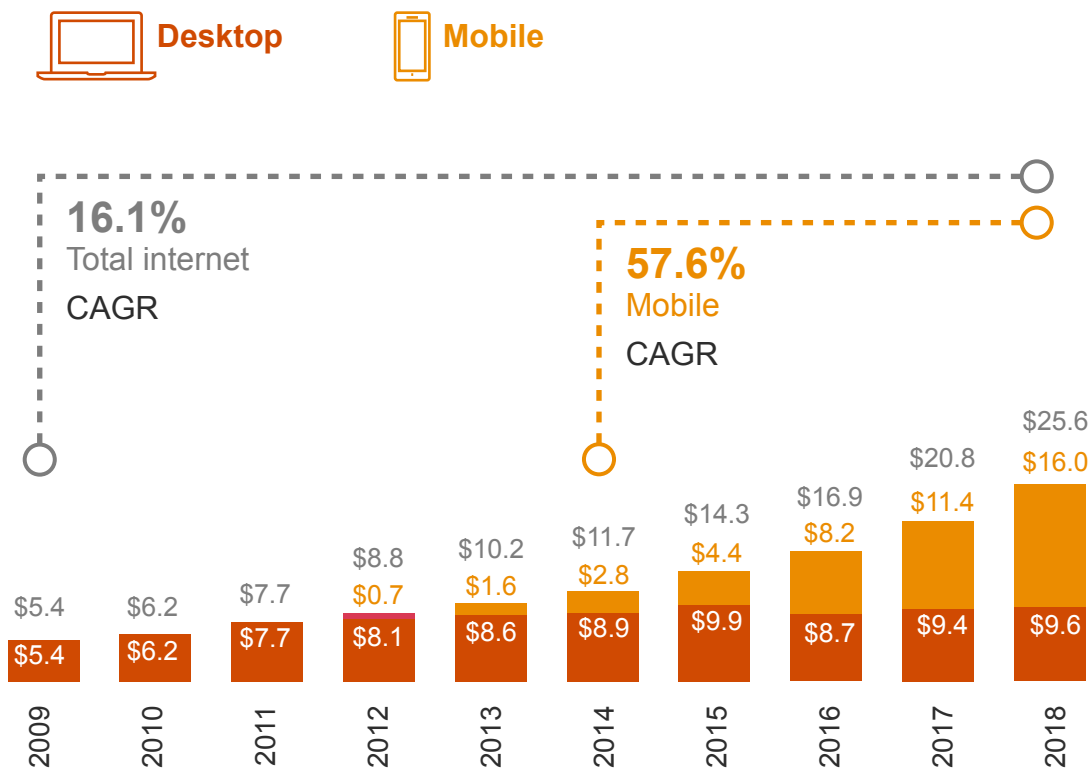


Desktop vs. mobile

Total mobile ad revenues continued to grow, increasing its share of internet advertising revenue to 62.5% in the first half of 2018.

On a year-over-year basis, mobile internet advertising revenues increased 42.0%, increasing its share of total revenues from 54.1% in HY 2017 to 62.5% in HY 2018. Reflecting the industry's overall growth is a compounded annual growth rate (CAGR) over the past 10 years of 16.1% which over the past few years has been largely driven by the growth of mobile. The rapid growth of the mobile advertising platform has resulted in a 5-year mobile specific CAGR of 57.6%, highlighting the key growth driver during the period.

Desktop vs. mobile internet advertising revenue (Second quarter results, \$ billions)



Source: IAB/PwC Internet Ad Revenue Report, HY 2018

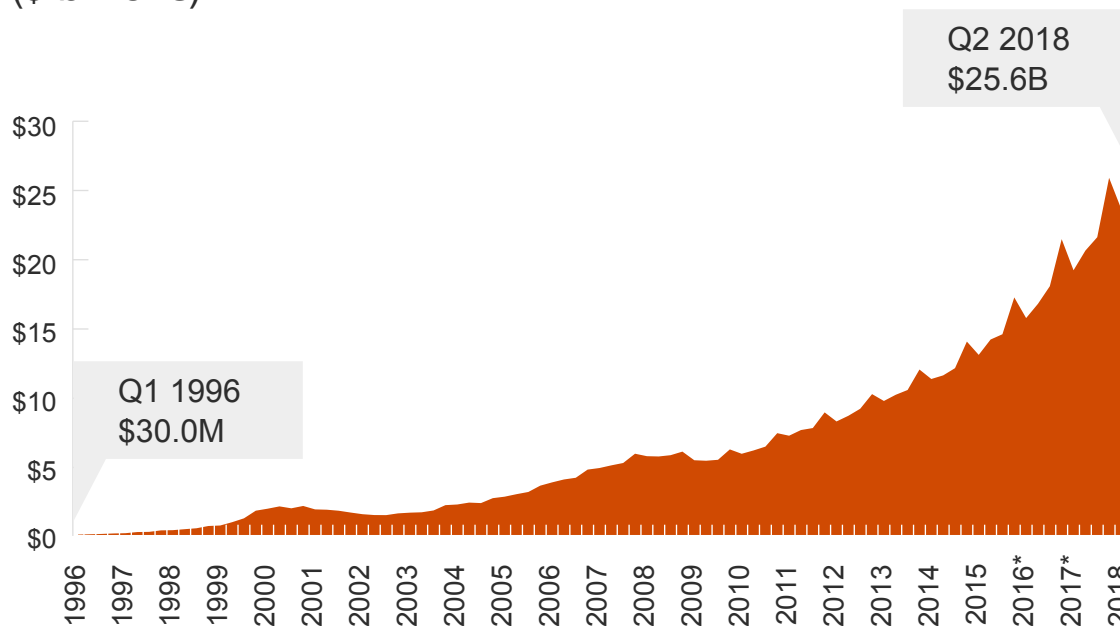
Historical quarterly revenue trends

Quarterly growth continued upward trend reaching \$25.6 billion in Q2 2018

Following the momentum built in 2010, internet advertising continues to show strong growth. Q2 revenues continue to trend upward, recovering from the Q1 seasonal dip, but remain below the high mark set in Q4 2017.

As a testament to how much the market has grown, Q2 2018 revenue (\$25.6 billion) alone tops 2009's full year total of \$22.7 billion.

Quarterly revenue growth trends 1996–2018 (\$ billions)



* Digital audio advertising revenues have been revised for HY 2016 and HY 2017 to include Podcast advertising.

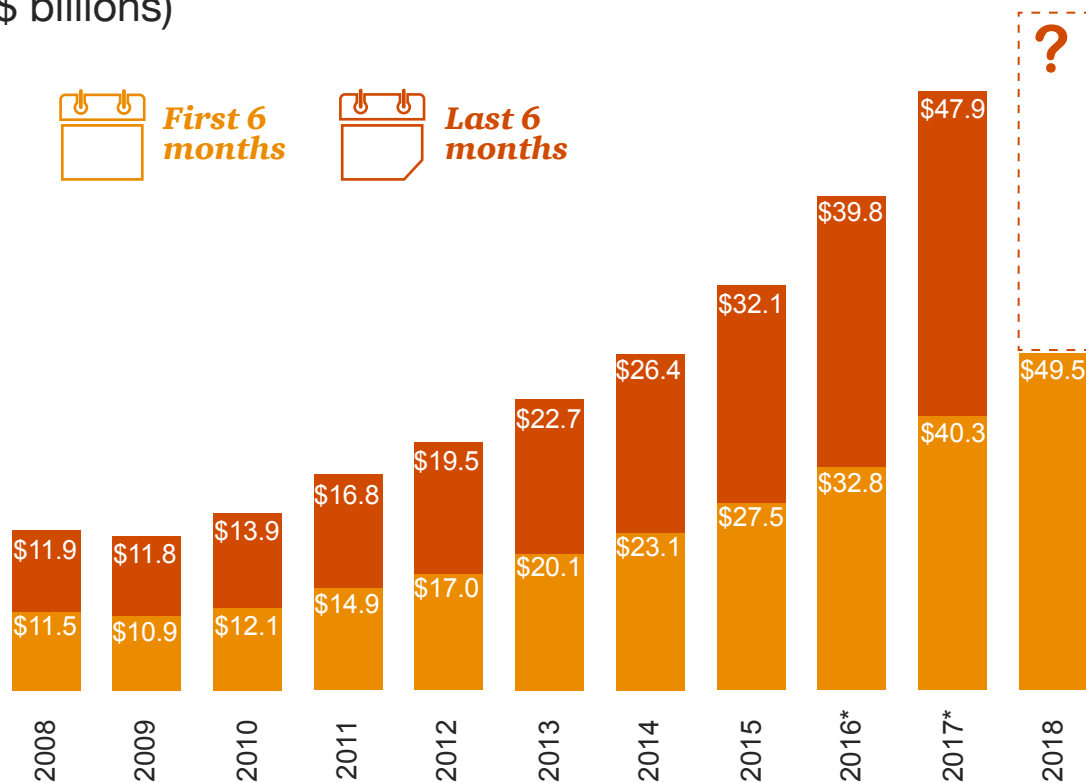
Source: IAB/PwC Internet Ad Revenue Report, HY 2018

Historical revenue mix

First half revenues soar to \$49.5 billion

2018 half year revenues reached \$49.5 billion, compared to the \$40.3 billion reached in half year 2017. This significant growth year over year, for the first 6 months, has not been reached since the first 6 months of 2011.

Historical revenue mix, first half vs. second half (\$ billions)



* Digital audio advertising revenues have been revised for HY 2016 and HY 2017 to include Podcast advertising.

Source: IAB/PwC Internet Ad Revenue Report, HY 2018

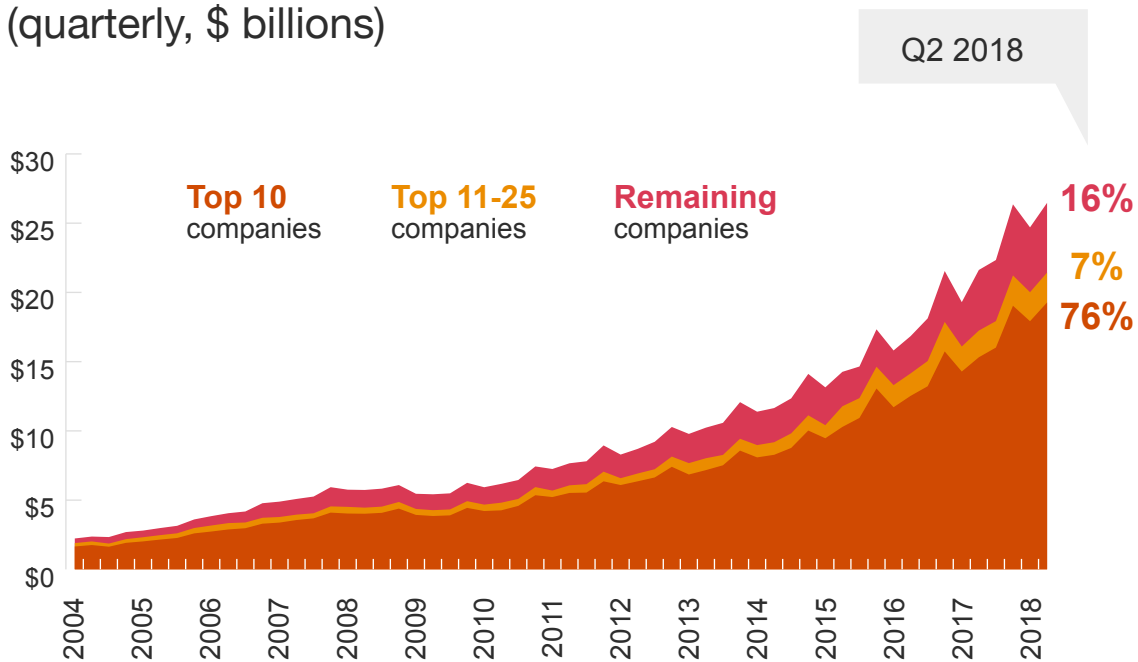
Revenue concentration

Top 10 companies account for 76% of total ad revenues in Q2 2018

Internet advertising revenues remain concentrated with the 10 leading ad-selling companies, accounting for 76% of total revenues in Q2 2018, an increase from the percentage reported in Q2 2017 (75%). Companies ranked 11th to 25th accounted for 7% of revenues in Q2 2018, a two percentage point decrease from the 9% reported in Q2 2017.

The concentration of top 10 revenues has fluctuated between 66% and 76% over the past ten years.

% share of total revenues (quarterly, \$ billions)



Note: Totals may not equal 100% due to rounding.

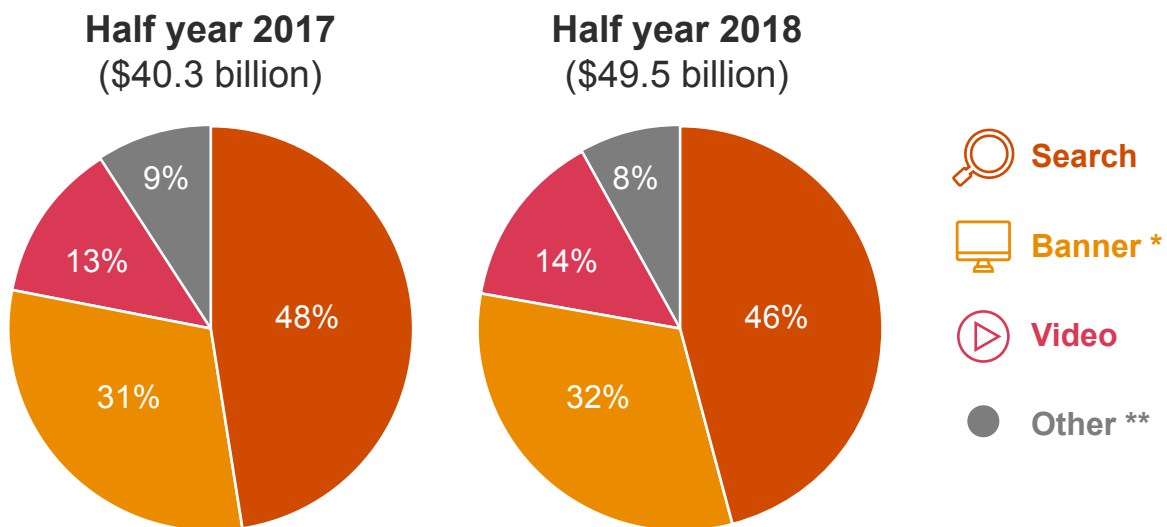
Source: IAB/PwC Internet Ad Revenue Report, HY 2018

HY 2018 results

Digital video advertising revenue showed the largest growth among formats in the first six months of 2018

- Search totaled revenues of \$22.8 billion in HY 2018, up 19.3% from HY 2017 (\$19.1 billion).
- Search's representation of 46.1% of total internet advertising revenue for HY 2018 is a year-over-year decrease from HY 2017's 47.5%.
- Digital video totaled \$7.0 billion for HY 2018, up \$1.8 billion or 34.8% from HY 2017.
- Banner* revenues totaled \$15.7 billion in HY 2018, representing a 27.4% increase from HY 2017 (\$12.4 billion). Banner related advertising includes ad banners/display (\$13.8 billion), rich media (\$1.4 billion), and sponsorships (\$451 million).
- The Other** category, which accounted for 8% of total HY 2018 revenues was primarily composed of classifieds (\$1.6 billion), lead generation (\$1.4 billion), and audio (\$0.9 billion).

Advertising format revenue, half year results



* Banner includes: Ad Banners/Display, Rich Media, and Sponsorship.
 ** Other includes: Classifieds, Lead Generation, Audio, and Unspecified.
 Note: Totals may not equal 100% due to rounding.

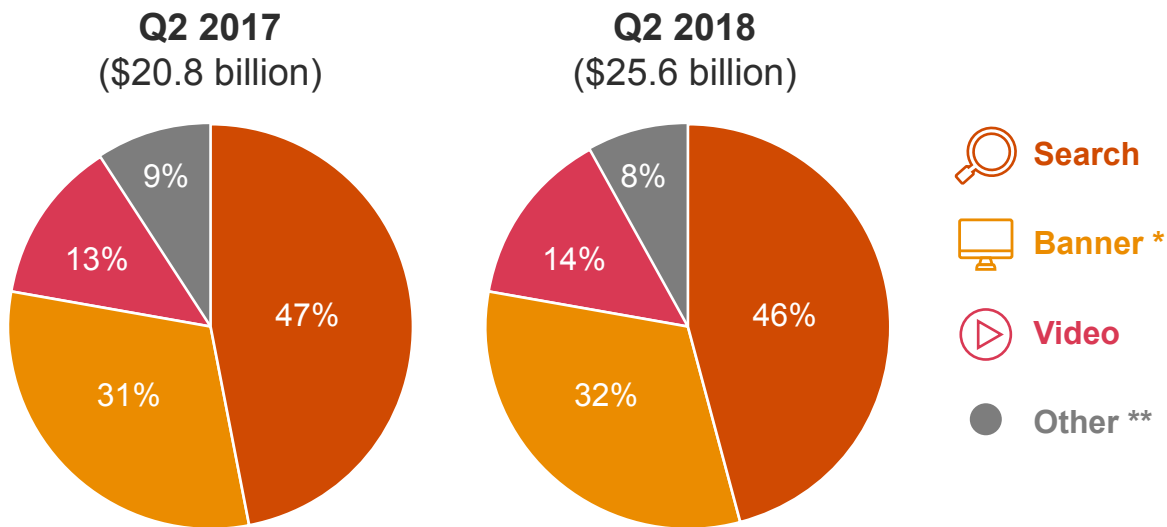
Source: IAB/PwC Internet Ad Revenue Report, HY 2018

Q2 2018 results

Search related revenues as a percentage of total revenues decreased while digital video revenues continue to increase across desktop and mobile

- The Search format totaled revenues of \$11.8 billion in Q2 2018, up 21.3% from Q2 2017 (\$9.7 billion). The Search format's representation of 46.1% of total internet advertising revenue for Q2 2018 is a slight year-over-year decrease from Q2 2017's 46.7%.
- Digital video totaled \$3.7 billion for Q2 2018, up \$0.9 billion or 34.4%, from Q2 2017's \$2.7 billion.
- Banner* revenues totaled \$8.1 billion in Q2 2018, representing a 24.5% increase from Q2 2017 (\$6.5 billion). Banner related advertising includes ad banners/display (\$7.1 billion), rich media (\$739 million), and sponsorships (\$234 million).
- The Other** category, which accounted for 8.0% of Q2 2018 revenues is primarily comprised of classifieds (\$0.8 billion), lead generation (\$0.7 billion), and audio (\$0.5 billion).

Advertising format revenue, second quarter results



* Banner includes: Ad Banners/Display, Rich Media, and Sponsorship.

** Other includes: Classifieds, Lead Generation, Audio, and Unspecified.

Note: Totals may not equal 100% due to rounding.

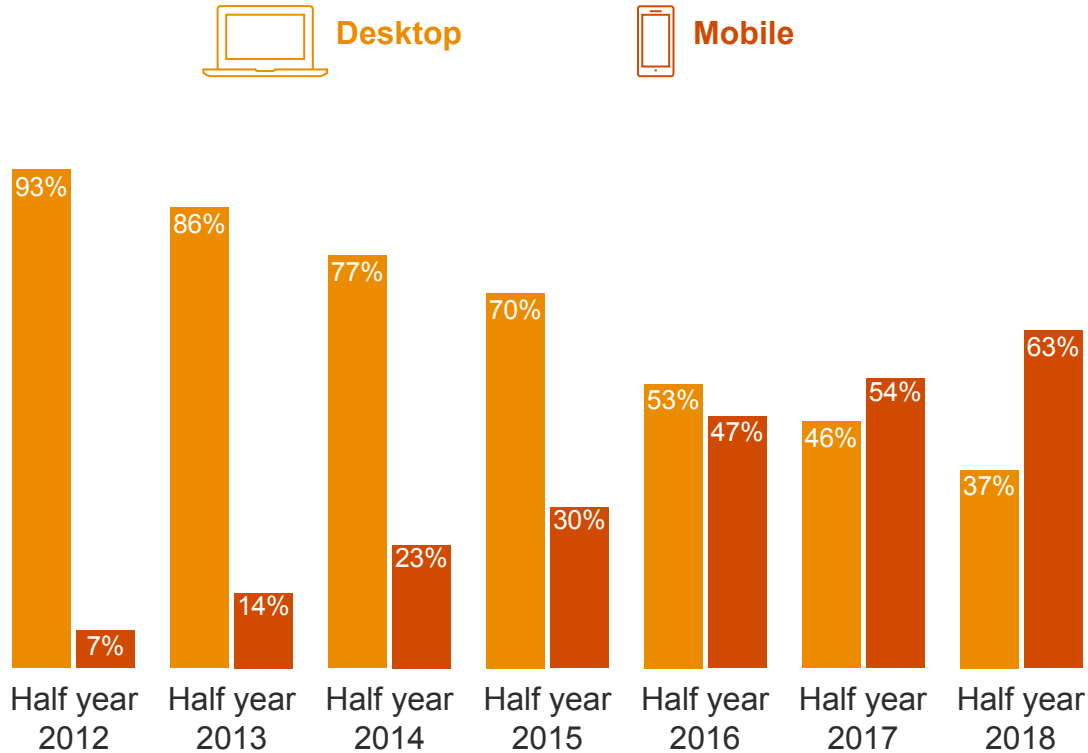
Source: IAB/PwC Internet Ad Revenue Report, HY 2018

Historical trends (desktop vs. mobile)

Mobile reigns as the leading ad device

- Mobile ad revenues are those revenues generated on mobile devices including smartphones and tablets.
- Mobile ad revenues represented 62.5% of total HY 2018 revenues, as compared to 54.1% of total revenues reported in HY 2017 and 47.4% in HY 2016.

Historical desktop vs. mobile trends, half year results (\$ billions)



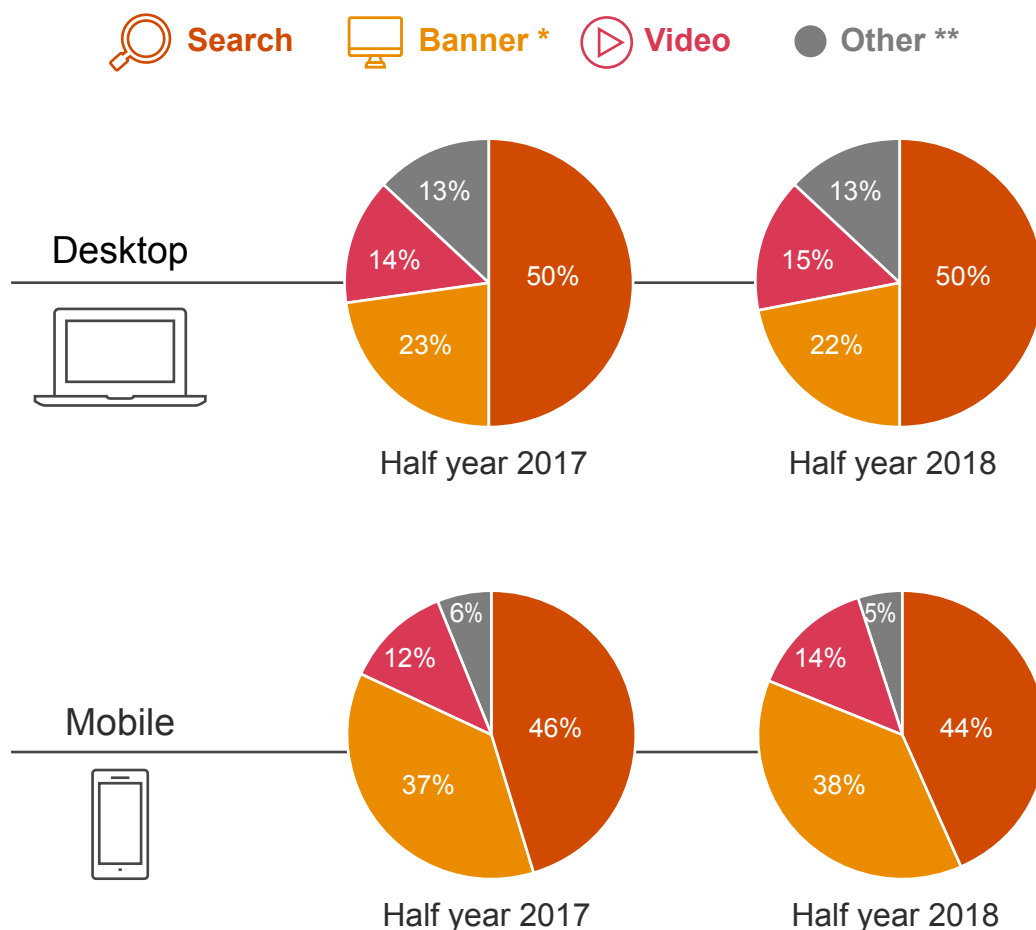
Source: IAB/PwC Internet Ad Revenue Report, HY 2018

Formats (desktop and mobile)

Across desktop and mobile platforms, search slips while digital video gains

- Search growth slowed on the desktop platforms to 0.8% in 2018, accounting for 18.7% of total digital advertising revenue (22.9% in HY 2017). Search experienced significant growth on mobile platforms, up 36.5% in HY 2018.
- Search saw a reduction in its percent of total revenue across all platforms, representing 46.1% of total revenues in HY 2018, down from 47.5% in the prior year.
- For HY 2018, digital video grew across both desktop and mobile platforms, 8.9% and 60.5% respectively.

Advertising format revenue, desktop vs. mobile



* Banner includes: Ad Banners/Display, Rich Media, and Sponsorship.

** Other includes: Classifieds, Lead Generation, Audio, and Unspecified.

Note: Totals may not equal 100% due to rounding.

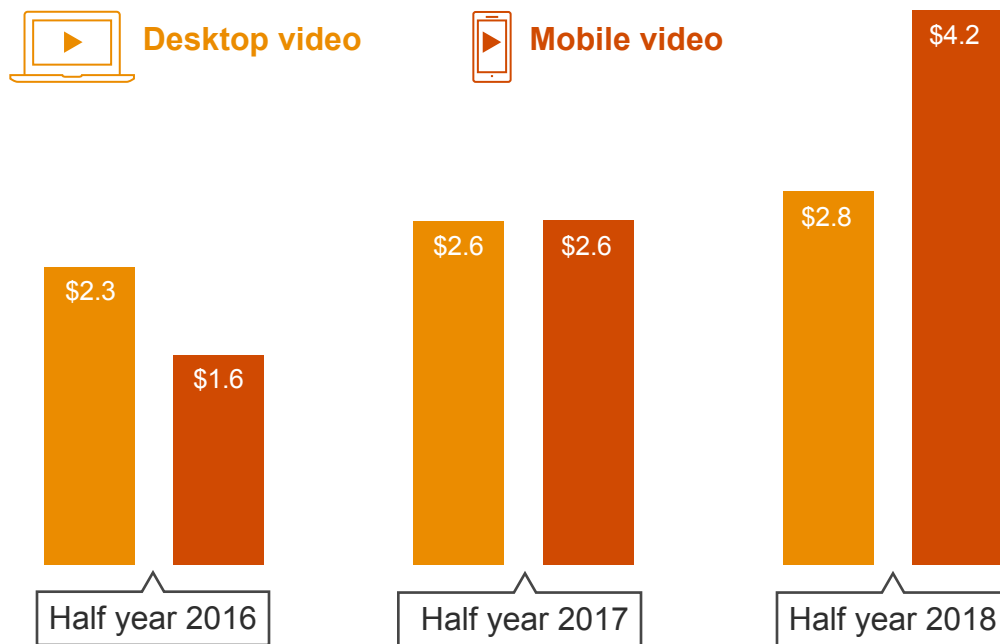
Source: IAB/PwC Internet Ad Revenue Report, HY 2018

Digital video (desktop vs. mobile)

Digital video continued to serve as a key growth driver in mobile and desktop in HY 2018

- Total digital video, including mobile and desktop, rose to \$7.0 billion in HY 2018, up 34.8% from \$5.2 billion in HY 2017.
- Digital video ad revenues on mobile devices now comprise 59.7% of all digital video ad revenues, up from 50.1% in the prior year.
- Growth of digital video on smartphones and tablets continued, reaching \$4.2 billion in HY 2018, a 60.5% increase from HY 2017.

Historical digital video revenues, half year results (\$ billions)



Source: IAB/PwC Internet Ad Revenue Report, HY 2018

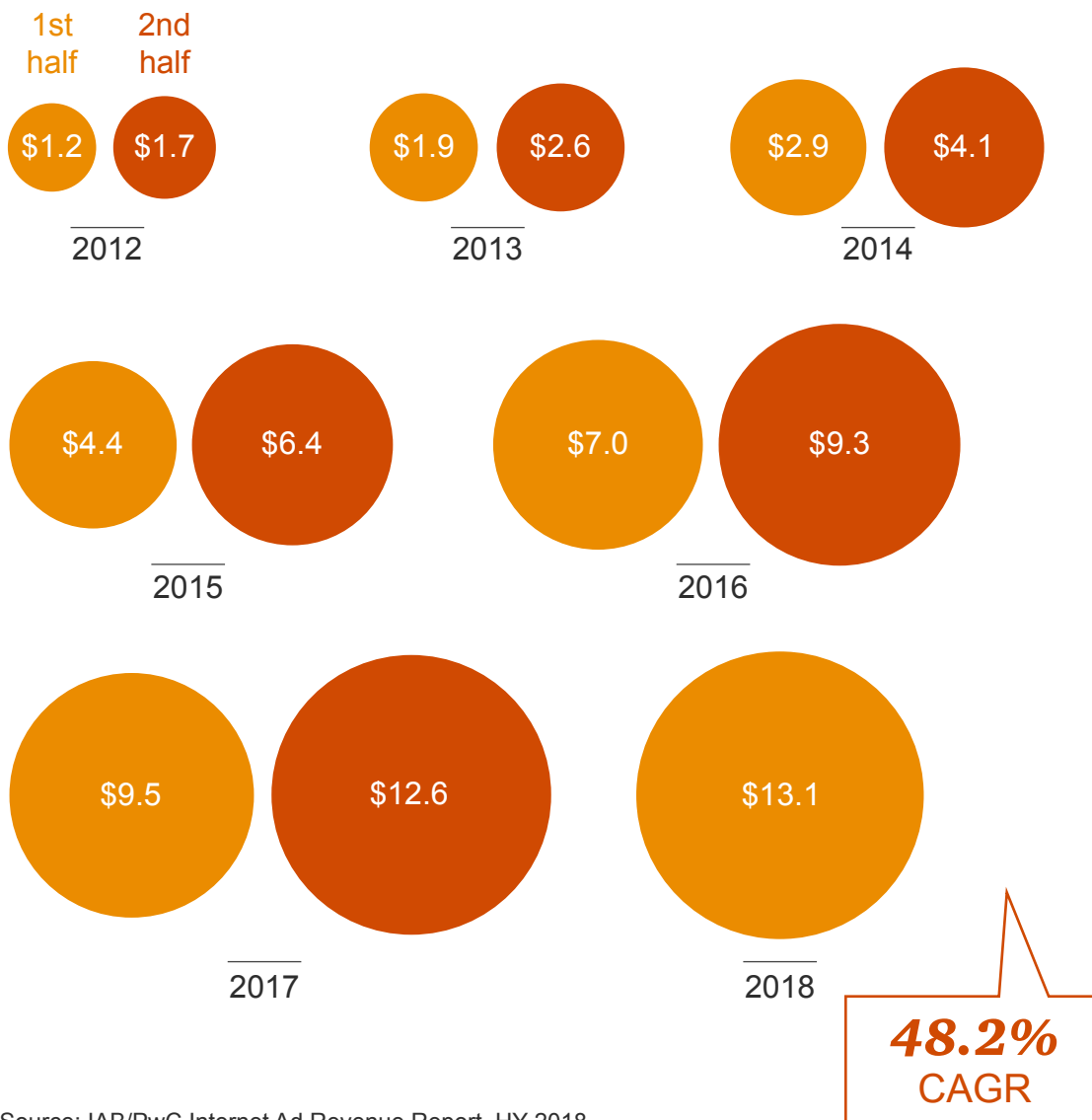
Social media

Social media advertising revenue continued to drive the overall industry growth

For the first half of 2018, social media revenue was \$13.1 billion. Year-over-year, social media revenue was up 37.5% from HY 2017. Social media continues its half year growth trends—increases are reflected in the 48.2% CAGR from 2012 to 2018.

Note: We define social media as advertising delivered on social platforms, including social networking and social gaming websites and apps, across all device types, including desktop, laptop, smartphone and tablet.

Social media advertising revenue, half year results (\$ billions)



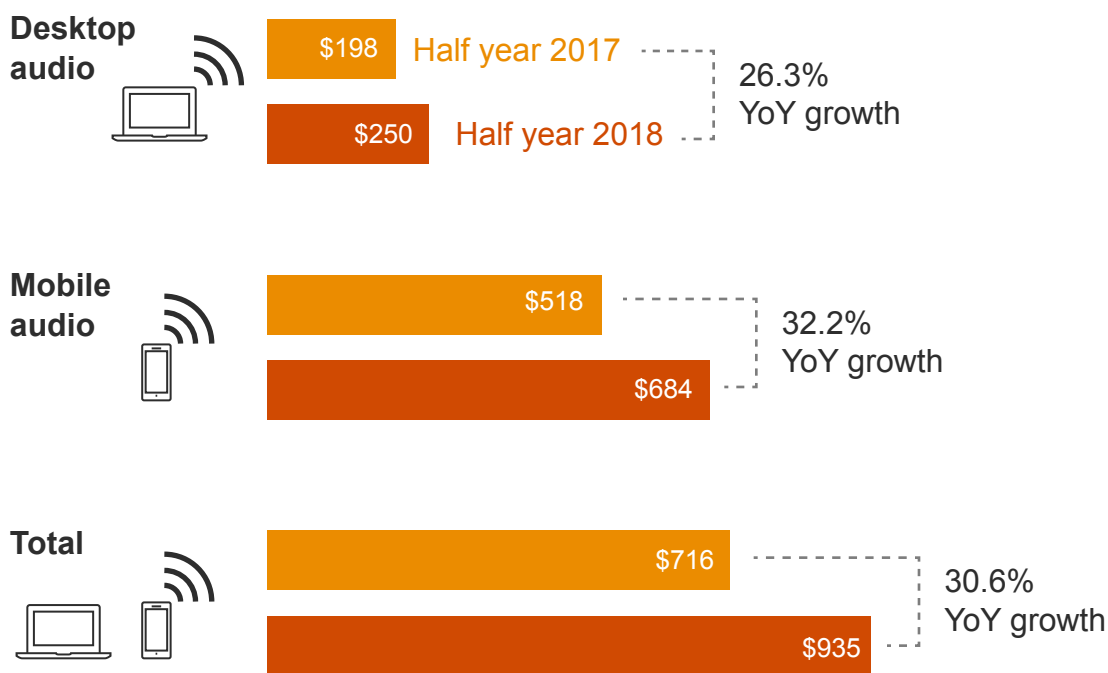
Source: IAB/PwC Internet Ad Revenue Report, HY 2018

Digital audio

The first six months of 2018 saw \$935 million in digital audio advertising revenue

This represents a 30.6% increase over HY 2017's revenue of \$716 million*. Additionally, digital audio advertising's percentage of total internet advertising revenue spend increased from 1.8% in HY 17 to 1.9% in HY 18.

Digital audio advertising revenue, half year results (\$ millions)



Digital audio advertising revenues have been revised for HY 2016 and HY 2017 to include Podcast advertising.

Source: IAB/PwC Internet Ad Revenue Report, HY 2018

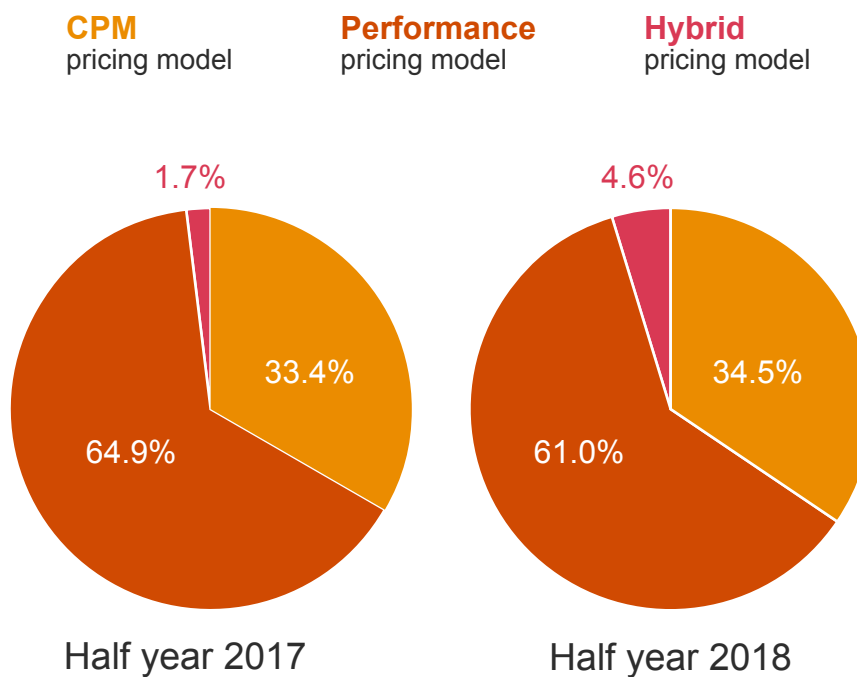
(\$ millions)	As originally reported	As revised
HY 2016	\$425.2	\$475.6
HY 2017	\$603.1	\$715.6

Pricing models

A portion of CPM pricing model shifted to the hybrid model

- 61.0% of HY 2018 internet advertising revenues were priced on a performance basis, down a few points from the 64.9% reported in HY 2017. The decrease in use of this pricing model has shifted to the hybrid model.
- 35.5% of HY 2018 internet advertising revenues were priced on a CPM basis, up slightly from the 33.4% reported in HY 2017.
- 4.6% of HY 2018 internet advertising revenues were priced on a hybrid basis, a significant gain from the 1.7% reported in HY 2017. Increase in hybrid is due to an uptick in direct submissions; most likely attributed to the changing landscape of how publishers monetize ad space on their sites.

Revenue by pricing model, half year basis (\$ billions)



Note: Totals may not equal 100% due to rounding.

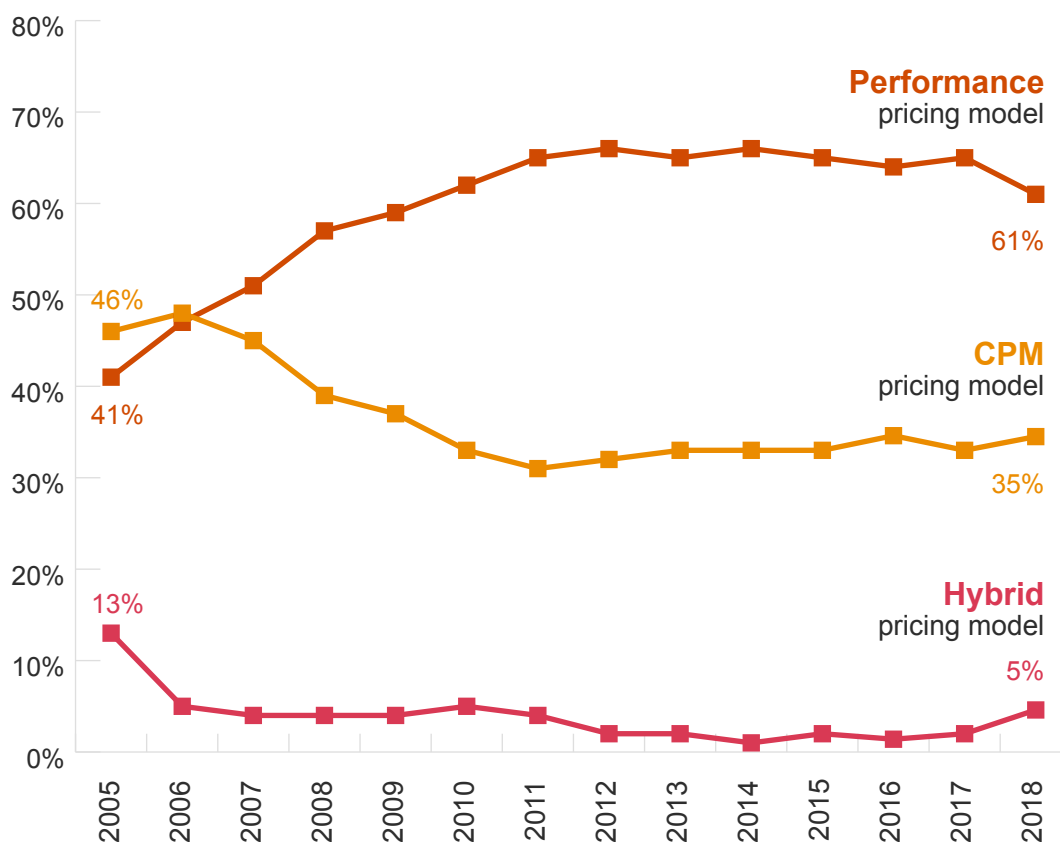
Source: IAB/PwC Internet Ad Revenue Report, HY 2018

Historical pricing model trends

Hybrid pricing saw significant growth in HY 18

- Performance-based pricing, the leading pricing model since 2006, dipped slightly to 61.0% of total internet advertising revenues in HY 2018.
- CPM pricing ticked up in HY 2018, up to 34.5% of revenue from 33.4% in HY 2017.
- Hybrid pricing increased to 4.6% of total internet advertising revenues in HY 2018, up from the 1.7% reported in HY 2017.

Internet advertising revenue by pricing model,* 2005-2018 (% of total revenue)



* Pricing model definitions may have changed over the time period depicted both within the survey process and as interpreted by survey respondents.

Note: Totals may not equal 100% due to rounding.

Source: IAB/PwC Internet Ad Revenue Report, HY 2018



Appendix

Definitions of advertising formats and pricing models

Banner advertising	Advertiser pays an online company for space on one or more of the online company's pages to display a static or linked banner or logo.
Sponsorship	<p>Advertiser pays for custom content and/or experiences, which may or may not include ad elements such as display advertising, brand logos, advertorial, or pre-roll video. Sponsorships fall into several categories:</p> <ul style="list-style-type: none">• Spotlights are custom-built pages incorporating an advertiser's brand and housing a collection of content usually around a theme.• Advergaming can range from an advertiser buying all the ad units around a game or a "sponsored by" link to creating a custom branded game experience.• Content & section sponsorship is when an advertiser exclusively sponsors a particular section of the site or email (usually existing content) re-skinned with the advertiser's branding.• Sweepstakes & contests can range from branded sweepstakes on the site to a full-fledged branded contest with submissions and judging.
Search	<p>Fees advertisers pay online companies to list and/or link their company site domain name to a specific search word or phrase (includes paid search revenues). Search categories include:</p> <ul style="list-style-type: none">• Paid listings—payments made for clicks on text links that appear at the top or side of search results for specific keywords. The more a marketer pays, the higher the position it gets. Marketers only pay when a user clicks on the text link.• Contextual search—payments made for clicks on text links that appear in an article based on the context of the content, instead of a user-submitted keyword. Payment only occurs when the link is clicked.• Paid inclusion—payments made to guarantee that a marketer's URL is indexed by a search engine (i.e. advertiser isn't paid only for clicks, as in paid listings).• Site optimization—payments made to optimize a site in order to improve the site's ranking in search engine results pages (SERPs). (For example, site owner pays a company to tweak the site architecture and code, so that search engine algorithms will better index each page of the site).
Lead generation	Fees paid by advertisers to online companies that refer qualified potential customers (e.g., auto dealers which pay a fee in exchange for receiving a qualified purchase inquiry online) or provide consumer information (demographic, contact, and behavioral) where the consumer opts in to being contacted by a marketer (email, postal, telephone, fax). These processes are priced on a performance basis (e.g., cost-per-action, -lead or -inquiry), and can include user applications (e.g., for a credit card), surveys, contests (e.g., sweepstakes) or registrations.
Classifieds and auctions	Fees paid to advertisers by online companies to list specific products or services (e.g., online job boards and employment listings, real estate listings, automotive listings, auction-based listings, yellow pages).
Rich media	<p>Display-related ads that integrate some component of streaming interactivity. Rich media ads often include flash or java script, but not content, and can allow users to view and interact with products or services (e.g., scrolling or clicking within the ad opens a multimedia product description, expansion, animation, video or a "virtual test-drive" within the ad).</p> <p>All IAB Rising Stars ad formats are considered rich media. Video commercials that appear in video players are considered video ads, not rich media.</p> <p>"Interstitials" have been consolidated within the rich media category and represent full- or partial-page text and image server-push advertisements which appear in the transition between two pages of content. Forms of interstitials can include a variation of the following terms:</p> <ul style="list-style-type: none">• Splash screens—a preliminary page that precedes the regular home page of a website that usually promotes a particular site feature or provides advertising. A splash page is timed to move onto the home page after a short period of time.• Pop-up ads and pop-under ads—an advertisement that appear in a separate window which automatically loads over an existing content window, without an associated banner.• Daughter windows—an advertisement that runs in a separate window associated with a concurrently displayed banner. The content and banner are typically displayed first, followed by the daughter window.• Superstitials—ads that are distinct from interstitials because of the much higher ad quality, and that they play instantly (ads are fully downloaded before they are displayed).

Definitions of advertising formats and pricing models

Digital audio	<p>Partially or entirely advertising-supported audio programming available to consumers on a streaming basis, delivered via the wired and mobile internet. This includes a wide range of services, such as the following:</p> <ul style="list-style-type: none">• Online audio streams of terrestrial radio stations;• Purely online radio stations, with either professional or amateur DJs;• Personalized (i.e., without human editors/DJs) and on-demand, streamed audio services that create playlists based on user preferences of artists, tracks, or genres; <p>Music or spoken word audio content delivered within a different website or application, e.g., in-game music services.</p> <p>Digital audio is currently included in other.</p> <p>A podcast is a digital audio program, often comprised of a series of episodes, which may be livestreamed for immediate listening, or downloaded from the Internet to a computer or mobile device, for on demand listening.</p>
Digital video advertising	<p>Advertising that appears before, during or after digital video content in a video player (i.e. pre-roll, mid-roll, post-roll video ads). Digital video ads include TV commercials online and can appear in streaming content or in downloadable video. Display-related ads on a page (that are not in a player) that contain video are categorized as Digital video ads.</p> <p>Video overlays are also categorized as digital video advertising. Video overlays include small ads that appear on top of digital video content. They can appear to be display, video, rich media, text or another ad format but are contained within the video player. OTT revenue is included in digital video advertising revenues, however, is not separately accounted for from participating companies.</p>
Mobile advertising	<p>Advertising tailored to and delivered through wireless mobile devices such as smartphones, feature phones (e.g. lower-end mobile phones capable of accessing mobile content), and media tablets. Typically taking the form of static or rich media display ads, text messaging ads, search ads, or audio/video spots, such advertising generally appears within mobile websites (e.g. websites optimized for viewing on mobile devices), mobile apps (e.g. applications for smartphones running proprietary or open operating systems), text messaging services (i.e. SMS, MMS) or within mobile search results (i.e., 411 listings, directories, mobile-optimized search engines).</p> <p>Mobile advertising formats include: search, display-related (banner ads, video, sponsorships, and rich media), and other (lead generation, classifieds and directories, and audio) advertising served to mobile devices.</p>
Social media advertising	<p>Advertising delivered on social platforms, including social networking and social gaming websites and apps, across all device types, including desktop, laptop, smartphone and tablet.</p>
CPM	<p>Cost-per-thousand (CPM) pricing model.</p>
Performance-based	<p>Cost-per-click, sale, lead, acquisition, or application (e.g., credit card application) or straight revenue share (e.g., % commission paid upon sale).</p>
Hybrid	<p>Any mix of impression-based pricing plus performance-based compensation within one ad campaign. Shoppable ads may fall across CPM and performance pricing models.</p>

Survey scope and methodology

Survey scope The “IAB internet advertising revenue report” is part of an ongoing IAB mission to provide an accurate barometer of internet advertising growth.

To achieve differentiation from existing estimates and accomplish industry-wide acceptance, key aspects of the survey include:

- Obtaining historical data directly from companies generating internet/online/mobile advertising revenues;
- Making the survey as inclusive as possible, encompassing all forms of internet/online/mobile advertising, including websites, consumer online services, ad networks and exchanges, mobile devices, and email providers; and
- Ensuring and maintaining a confidential process, releasing only aggregate data.
- Methodology

PwC performs the following:

- Compiles a database of industry participants selling internet/online and mobile advertising revenues;
- Conducts a quantitative mailing survey with leading industry players, including web publishers, ad networks and exchanges, commercial online service providers, mobile providers, email providers, and other online media companies;
- Acquires supplemental data through the use of publicly disclosed information;
- Requests and compiles several specific data items, including monthly gross commissionable advertising revenue by industry category and transaction;
- Identifies non-participating companies and applies a conservative revenue estimate based on available public sources; and,
- Analyzes the findings, identifies and reports key trends.



Historical data findings

Annual and quarterly revenue growth

	Revenue (in mil)	Q/Q growth	Y/Y growth
Q1 2003	\$1,632	3%	7%
Q2 2003	\$1,660	2%	14%
Q3 2003	\$1,793	8%	24%
Q4 2003	\$2,182	22%	38%
Total 2003	\$7,267		21%
Q1 2004	\$2,230	2%	37%
Q2 2004	\$2,369	6%	43%
Q3 2004	\$2,333	-2%	30%
Q4 2004	\$2,694	15%	24%
Total 2004	\$9,626		33%
Q1 2005	\$2,802	4%	25%
Q2 2005	\$2,985	7%	26%
Q3 2005	\$3,147	5%	35%
Q4 2005	\$3,608	15%	34%
Total 2005	\$12,542		30%
Q1 2006	\$3,848	7%	37%
Q2 2006	\$4,061	6%	36%
Q3 2006	\$4,186	3%	33%
Q4 2006	\$4,784	14%	33%
Total 2006	\$16,879		35%
Q1 2007	\$4,899	2%	27%
Q2 2007	\$5,094	4%	25%
Q3 2007	\$5,267	3%	26%
Q4 2007	\$5,946	13%	24%
Total 2007	\$21,206		26%
Q1 2008	\$5,765	-3%	18%
Q2 2008	\$5,745	0%	13%
Q3 2008	\$5,838	2%	11%
Q4 2008	\$6,100	4%	2%
Total 2008	\$23,448		11%
Q1 2009	\$5,468	-10%	-5%
Q2 2009	\$5,432	-1%	-5%
Q3 2009	\$5,500	1%	-6%
Q4 2009	\$6,261	14%	3%
Total 2009	\$22,661		-3%
Q1 2010	\$5,942	-5%	9%
Q2 2010	\$6,185	4%	14%
Q3 2010	\$6,465	5%	18%
Q4 2010	\$7,449	15%	19%
Total 2010	\$26,041		15%

	Revenue (in mil)	Q/Q growth	Y/Y growth
Q1 2011	\$7,264	-2%	22%
Q2 2011	\$7,678	6%	24%
Q3 2011	\$7,824	2%	21%
Q4 2011	\$8,970	15%	20%
Total 2011	\$31,735		22%
Q1 2012	\$8,307	-7%	14%
Q2 2012	\$8,722	5%	14%
Q3 2012	\$9,236	6%	18%
Q4 2012	\$10,307	12%	15%
Total 2012	\$36,570		15%
Q1 2013	\$9,806	-5%	18%
Q2 2013	\$10,260	5%	18%
Q3 2013	\$10,609	3%	15%
Q4 2013	\$12,106	14%	17%
Total 2013	\$42,781		17%
Q1 2014	\$11,414	-6%	16%
Q2 2014	\$11,678	2%	14%
Q3 2014	\$12,207	5%	15%
Q4 2014	\$14,152	16%	17%
Total 2014	\$49,451		16%
Q1 2015	\$13,179	-7%	16%
Q2 2015	\$14,302	9%	23%
Q3 2015	\$14,688	3%	20%
Q4 2015	\$17,382	18%	23%
Total 2015	\$59,550		20%
Q1 2016*	\$15,872	-9%	20%
Q2 2016*	\$16,917	7%	18%
Q3 2016*	\$18,204	8%	24%
Q4 2016*	\$21,647	19%	25%
Total 2016*	\$72,639		22%
Q1 2017*	\$19,404	-10%	22%
Q2 2017*	\$20,847	7%	23%
Q3 2017*	\$21,832	5%	20%
Q4 2017*	\$26,183	20%	21%
Total 2017*	\$88,265		22%
Q1 2018	\$23,913	-9%	23%
Q2 2018	\$25,628	7%	23%
Total 2018			

* Digital advertising revenue figures have been adjusted for 2016 and 2017 to include Podcast advertising revenue.

	2016				2017			
(\$ millions)	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
As originally reported	\$15,849	\$16,889	\$18,175	\$21,607	\$19,352	\$20,786	\$21,764	\$26,106
As revised	\$15,872	\$16,917	\$18,204	\$21,647	\$19,404	\$20,847	\$21,832	\$26,183

Source: IAB/PwC Internet Ad Revenue Report, HY 2018

Survey industry categories

- Automotive
- Beer/Wine/Liquor
- Business Products/Services
- Computers (Hardware/Software) and Consumer Electronics
- Consumer Packaged Goods, Food, Non-Alcoholic Beverages and Candy
- Educational Services
- Entertainment (Film, Music, TV, Box Office, Video Games, Amusement/Recreational)
- Financial Services (Banks, Insurance, Securities, Mortgages)
- Personal Care, Toiletries, and Cosmetics
- Drugs and Remedies
- Manufacturing
- Media
- Professional Sports and Sporting & Athletic Goods
- Real Estate
- Restaurants/Fast Food
- Retail, Mail Order, Catalogs and Apparel
- Telecommunications: Telephony, Cable/Satellite TV Services, ISPs
- Toys/Games
- Leisure Travel (Airfare, Hotels, Resorts)
- Business Travel (Airfare, Hotels, Resorts)

About the interactive advertising bureau

The Interactive Advertising Bureau (IAB) empowers the media and marketing industries to thrive in the digital economy. It is comprised of more than 650 leading media and technology companies that are responsible for selling, distributing and optimizing digital advertising and marketing. Together, they account for 86 percent of online advertising in the United States. Working with its member companies, the IAB evaluates and recommends standards and practices and fields critical research on interactive advertising. The organization is committed to professional development, elevating the knowledge, skills, and expertise of individuals across the digital marketing industry. The IAB also educates marketers, agencies, media companies and the wider business community about the value of interactive advertising. Founded in 1996, the IAB is headquartered in New York City.

Overall report guidance provided by IAB leadership

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Joe Zawadzki

MediaMath

PwC's technology and entertainment, media, and communications practices

As business, accounting, and tax advisors to many of the world's leading Entertainment, Media, and Communications (EMC) and Technology (Tech) companies, PwC (www.pwc.com) has an insider's view of trends and developments driving the industry. With approximately 1,200 practitioners serving EMC and Tech clients in the United States, PwC is deeply committed to providing clients with industry experience and resources. In recent years, our pioneering work in EMC and Tech has included developing strategies to leverage digital technology, identifying new sources of financing, and marketplace positioning in industries characterized by consolidation and transformation. Our experience reaches across all geographies and segments of the EMC and Tech sectors, including broadband, wireless, the internet, music, film, television, publishing, advertising, gaming, theme parks, computers and networking, and software. With thousands of practitioners around the world, we're always close at hand to provide deep industry knowledge and resources.

Our services include:

- Business assurance services
- Web audience measurement and advertising delivery auditing and advisory
- Privacy policy structuring, attestation, and compliance advisory
- Mergers & acquisitions assistance
- Tax planning and compliance
- Capital sourcing and IPO assistance
- Marketing & media operations enablement

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