

***IAB internet advertising
revenue report***
2016 first six months results
November 2016

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

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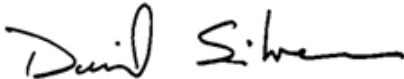
Background

About the IAB internet advertising revenue report

Conducted by PwC Advisory Services LLC (“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, publicly available online corporate data, and information provided by online ad selling companies.

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.



David Silverman
PwC

Executive summary

IAB internet advertising revenue report 2016 second quarter and first six months highlights

Internet advertising revenues (“revenues”) in the United States totaled \$32.7 billion for the first six months of 2016, with Q1 2016 accounting for approximately \$15.8 billion and Q2 2016 accounting for approximately \$16.9 billion. Revenues for the first six months of 2016 increased 19.1% over the first six months of 2015.

Key trends underlying Half-Year (HY) 2016 results

Revenues increase 19.1% in HY 2016 — Internet advertising revenues in the United States totaled \$16.9 billion in the second quarter of 2016, an increase of 6.6% from the 2016 first-quarter total of \$15.8 billion and an increase of 18.1% from the 2015 second-quarter total of \$14.3 billion. Year-to-date revenues through June 2016 totaled \$32.7 billion, up 19.1% from the \$27.5 billion reported in 2015.

“These half-year revenues are a testament to the role of digital screens—especially mobile screens—in consumers’ increasingly connected lives. Marketers and brands clearly recognize the innate power of digital to offer immersive experiences and secure real-time engagement.”

— Randall Rothenberg, President and CEO, IAB

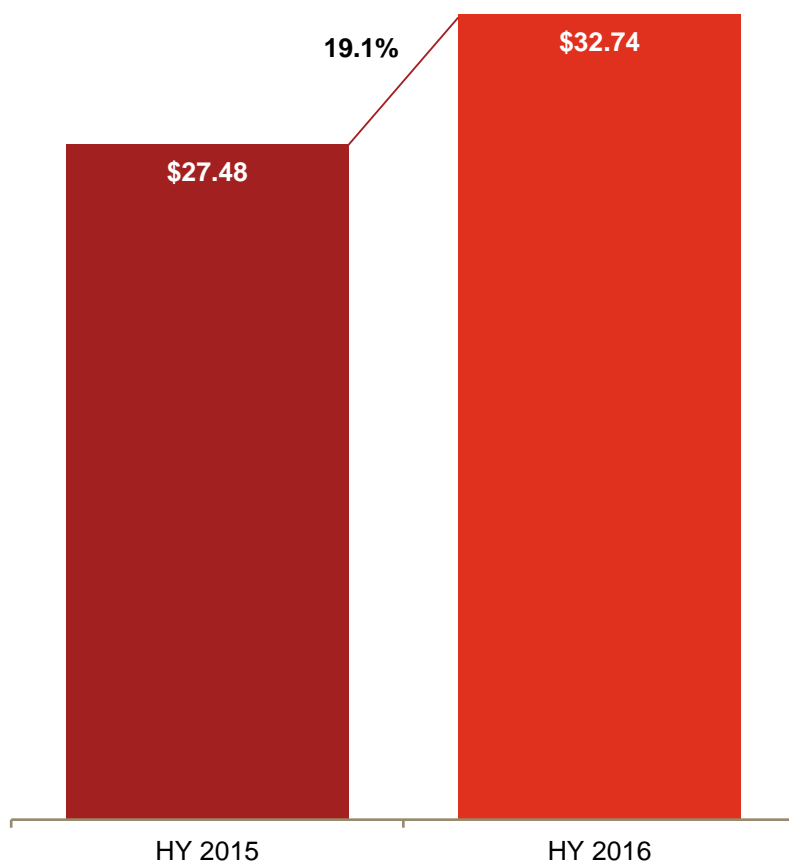
Social advertising increases 57.1% in HY 2016 — Social advertising in the United States totaled \$7.0 billion during HY 2016, up from \$4.4 billion in the first six months of 2015.

“The continued strong growth in internet advertising comes at a time when traditional media struggles to hold onto its audience share. Social media, in particular, has filled in that gap by enabling advertisers to reach consumers in new ways.”

— David Silverman, Partner, PwC

Year-to-date revenues show strong growth

HY 2015 vs. HY 2016 (\$ billions)



Revenues for HY 2016 totalled \$32.7 billion, \$5.3 billion (19.1%) higher than in HY 2015

Source: IAB/PwC Internet Ad Revenue Report, HY 2016.

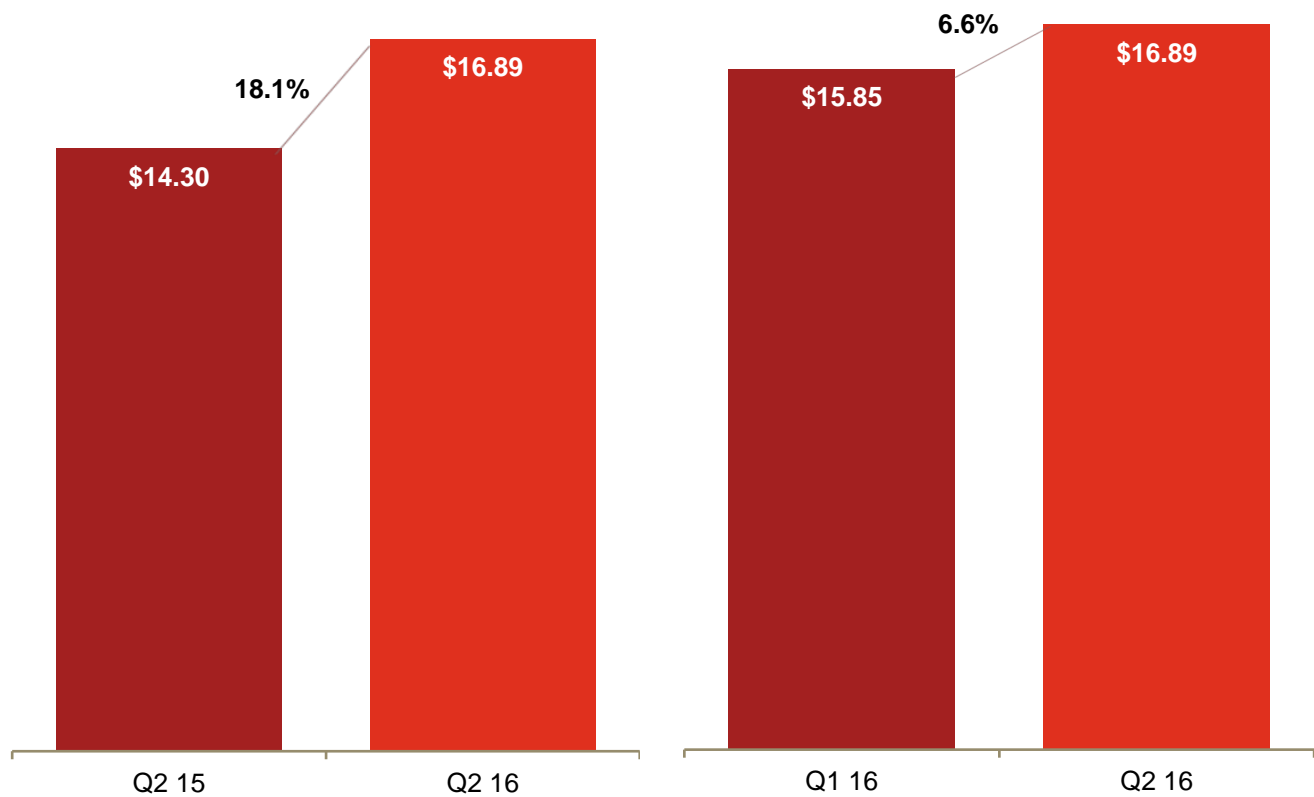
Detailed findings

Revenues totaled \$16.9 billion in Q2 2016

Total 2016 second-quarter revenues were \$2.6 billion (18.1%) higher than in the second quarter of 2015 and \$1.0 billion (6.6%) higher than in the first quarter of 2016.

Q2 2015 vs. Q2 2016 (\$ billions)

Q1 2016 vs. Q2 2016 (\$ billions)

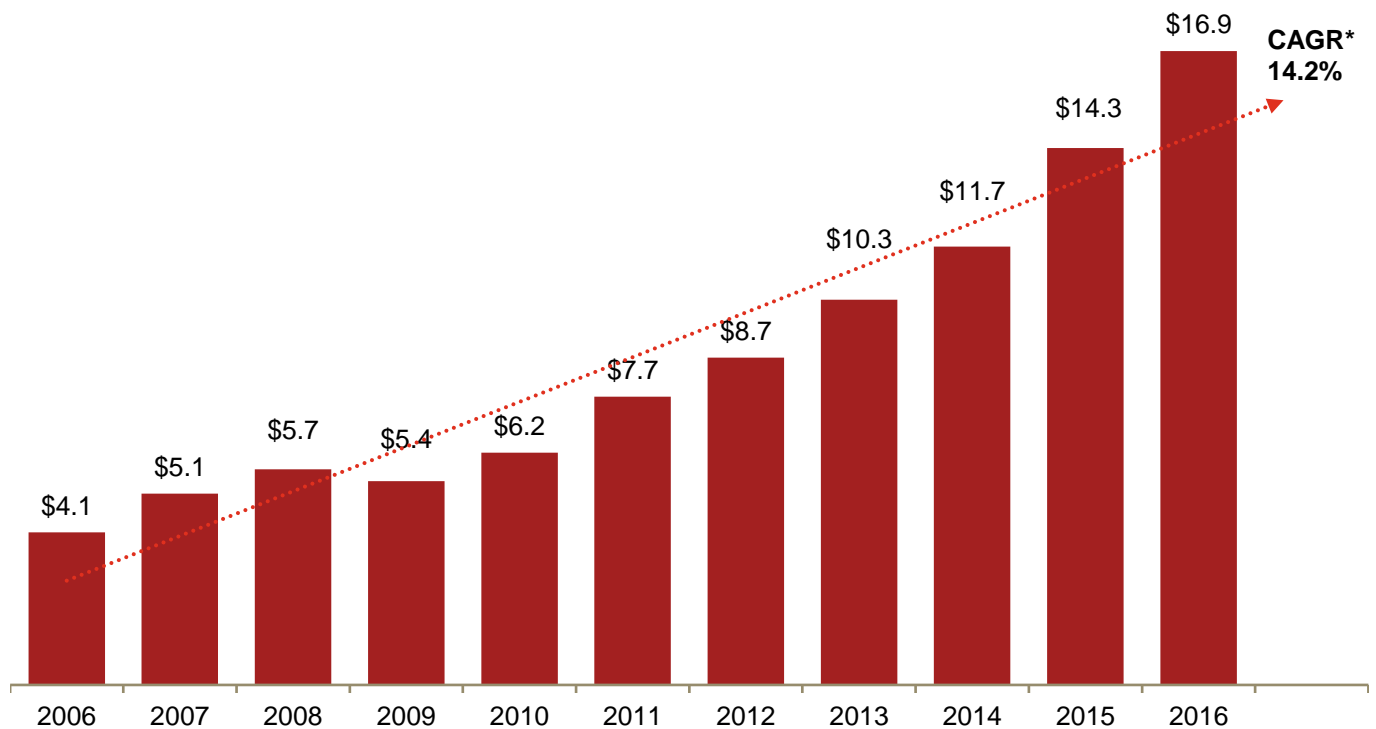


Source: IAB/PwC Internet Ad Revenue Report, HY 2016

Continued strong second-quarter revenue growth

2016 second-quarter revenues increased 18.1% on a year-over-year basis and bested the 10-year compound annual growth rate (CAGR) from 2006-2016 of 14.2%. Despite the strong growth from the prior year, the second quarter is slightly below the record setting 2015 fourth quarter of \$17.4 billion.

Second-quarter revenue 2006-2016 (\$ billions)



Source: IAB/PwC Internet Ad Revenue Report, HY 2016

* CAGR: Compound Annual Growth Rate

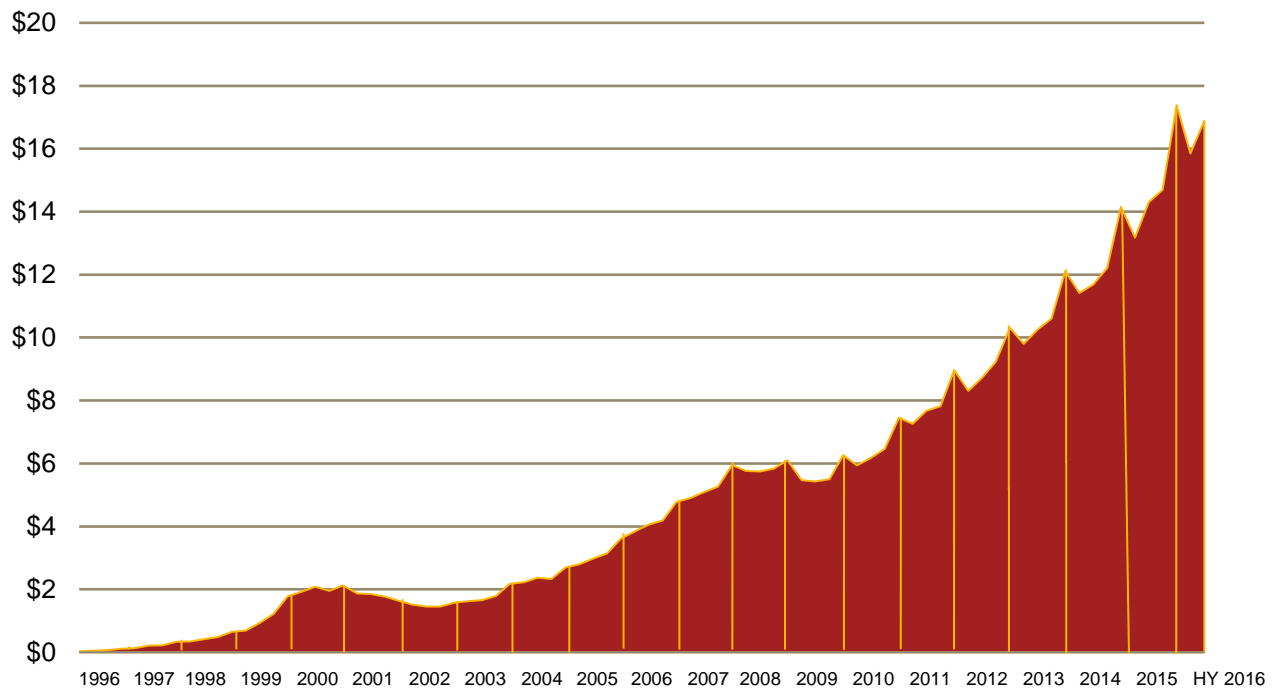
Continued historical quarterly revenue trends

Quarterly growth continued upward trend

From the momentum built in 2010, internet advertising continues to show strong growth. After a recurring seasonal dip in Q1, Q2 2016 revenues continued the upward trend.

Since 2010, a strong seasonal trend has emerged for internet advertising revenues. With each annual cycle, revenue peaks in the fourth quarter, and is followed by a dip in the first quarter before the upward trend starts again in the second quarter.

Quarterly revenue growth trends 1996-2016 (\$ billions)



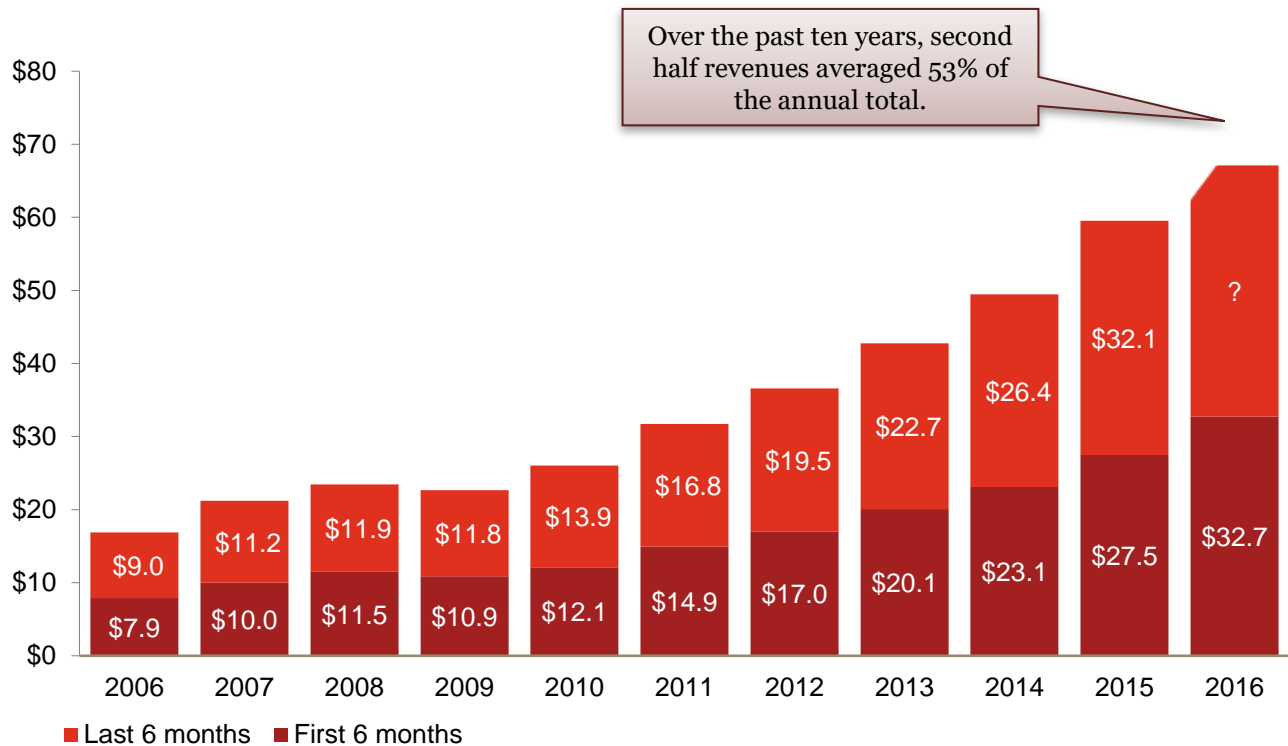
Source: IAB/PwC Internet Ad Revenue Report, HY 2016

Historical revenue mix – first half vs. second half

First-half revenues reached \$32.7 billion

Applying historical seasonal data, the first six months of 2016's revenues, \$32.7 billion are on an expected annual run-rate to make 2016 the highest year in revenues, and on pace to exceed the previous highest annual total of \$59.6 billion reported in 2015.

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



Source: IAB/PwC Internet Ad Revenue Report, HY 2016

Historical data findings

Annual and quarterly revenue growth

	Revenue (in mil)	Q/Q Growth	Y/Y Growth		Revenue (in mil)	Q/Q Growth	Y/Y Growth
Q1 2003	\$1,632	3%	7%	Q1 2010	\$5,942	-5%	9%
Q2 2003	\$1,660	2%	14%	Q2 2010	\$6,185	4%	14%
Q3 2003	\$1,793	8%	24%	Q3 2010	\$6,465	5%	18%
Q4 2003	\$2,182	22%	38%	Q4 2010	\$7,449	15%	19%
Total 2003	\$7,267		21%	Total 2010	\$26,041		15%
Q1 2004	\$2,230	2%	37%	Q1 2011	\$7,264	-2%	22%
Q2 2004	\$2,369	6%	43%	Q2 2011	\$7,678	6%	24%
Q3 2004	\$2,333	-2%	30%	Q3 2011	\$7,824	2%	21%
Q4 2004	\$2,694	15%	24%	Q4 2011	\$8,970	15%	20%
Total 2004	\$9,626		33%	Total 2011	\$31,735		22%
Q1 2005	\$2,802	4%	25%	Q1 2012	\$8,307	-7%	14%
Q2 2005	\$2,985	7%	26%	Q2 2012	\$8,722	5%	14%
Q3 2005	\$3,147	5%	35%	Q3 2012	\$9,236	6%	18%
Q4 2005	\$3,608	15%	34%	Q4 2012	\$10,307	12%	15%
Total 2005	\$12,542		30%	Total 2012	\$36,570		15%
Q1 2006	\$3,848	7%	37%	Q1 2013	\$9,806	-5%	18%
Q2 2006	\$4,061	6%	36%	Q2 2013	\$10,260	5%	18%
Q3 2006	\$4,186	3%	33%	Q3 2013	\$10,609	3%	15%
Q4 2006	\$4,784	14%	33%	Q4 2013	\$12,106	14%	17%
Total 2006	\$16,879		35%	Total 2013	\$42,781		17%
Q1 2007	\$4,899	2%	27%	Q1 2014	\$11,414	-6%	16%
Q2 2007	\$5,094	4%	25%	Q2 2014	\$11,678	2%	14%
Q3 2007	\$5,267	3%	26%	Q3 2014	\$12,207	5%	15%
Q4 2007	\$5,946	13%	24%	Q4 2014	\$14,152	16%	17%
Total 2007	\$21,206		26%	Total 2014	\$49,451		16%
Q1 2008	\$5,765	-3%	18%	Q1 2015	\$13,179	-7%	16%
Q2 2008	\$5,745	0%	13%	Q2 2015	\$14,302	9%	23%
Q3 2008	\$5,838	2%	11%	Q3 2015	\$14,688	3%	20%
Q4 2008	\$6,100	4%	2%	Q4 2015	\$17,382	18%	23%
Total 2008	\$23,448		11%	Total 2015	\$59,550		20%
Q1 2009	\$5,468	-10%	-5%	Q1 2016	\$15,849	-9%	20%
Q2 2009	\$5,432	-1%	-5%	Q2 2016	\$16,889	7%	18%
Q3 2009	\$5,500	1%	-6%				
Q4 2009	\$6,261	14%	3%				
Total 2009	\$22,661		-3%				

Source: IAB/PwC Internet Ad Revenue Report, HY 2016 10

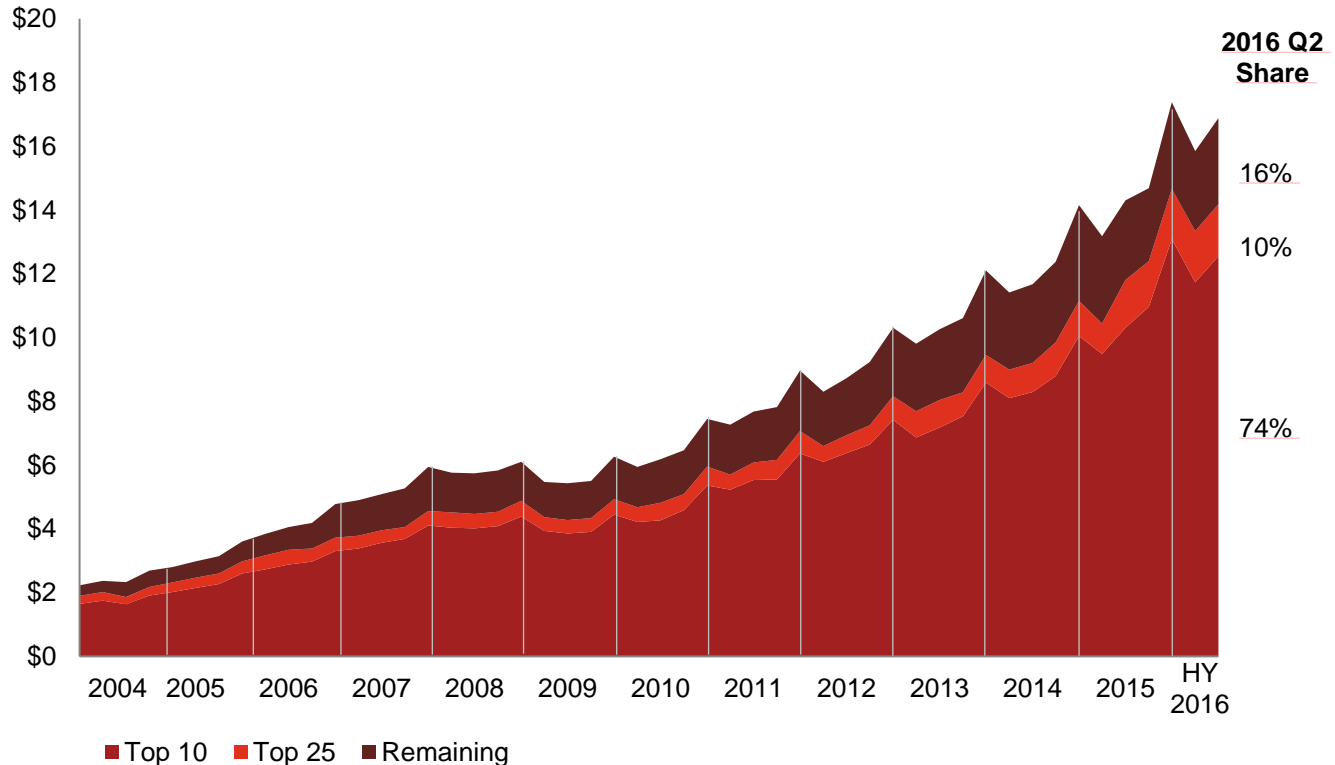
Revenue concentration

Top 10 companies command 74% of revenues in Q2 2016

Online advertising revenues remain concentrated with the 10 leading ad-selling companies, accounting for 74% of total revenues in Q2 2016, up slightly from the 72% reported in Q2 2015. Companies ranked 11th to 25th accounted for 10% of revenues in Q2 2016, a slight decrease from the 11% reported in Q2 2015.

Despite the emergence of a few heavyweights in internet advertising publishing, the concentration of top-10 revenues have remained relatively unchanged over the past ten years, fluctuating between 69% and 74%.

% share of total revenues



Source: IAB/PwC Internet Ad Revenue Report, HY 2016.

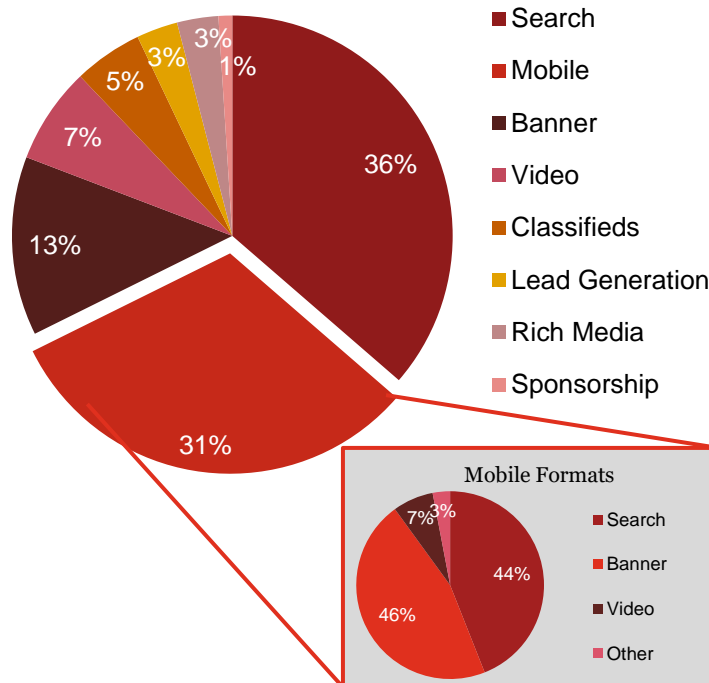
Ad format – second quarter 2016 results

Mobile surpasses Search as the lead ad format for the first time

- Desktop Search accounted for \$4.5 billion (27% of total) of Q2 2016 revenues, compared with \$5.2 billion (36% of total) in Q2 2015.
 - Inclusive of Mobile Search revenue, the Search format totaled revenues of \$8.4 billion (49% of total) in Q2 2016, up 17% from Q2 2015 (\$7.1 billion).
- Desktop Display-related advertising accounted for \$3.2 billion or 19% of total revenues during Q2 2016, down 8% from the \$3.5 billion (24% of total) reported in Q2 2015. Display-related advertising includes Banner Ads (10% of revenues, or \$1.7 billion), Video (7% or \$1.2 billion), Rich Media (1% or \$244 million), and Sponsorship (1% or \$96 million).
 - Inclusive of Mobile Display-related revenue, the Display-related format totaled revenues of \$7.3 billion (43% of total) in Q2 2016, up 25% from Q2 2015 (\$5.8 billion). Display-related advertising includes Banner Ads, inclusive of Rich Media and Sponsorship (\$5.2 billion), and Video (\$2.0 billion).
- Mobile revenues increased 86% from the \$4.4 billion (31% of total) reported in Q2 2015 to \$8.2 billion (48% of total) in Q2 2016. Mobile revenues consisted of Mobile Search (\$3.9 billion), Mobile Display-related* (\$4.0 billion), and Mobile Other** (\$256 million).
- Desktop Classifieds revenues totaled \$531 million or 3% of Q2 2016 revenues, down 29% from the \$752 million (5% of total) reported in Q2 2015.
- Desktop Lead Generation revenues accounted for 3% of Q2 2016 revenues, or \$482 million, consistent with the \$461 million (3% of total) reported in Q2 2015.

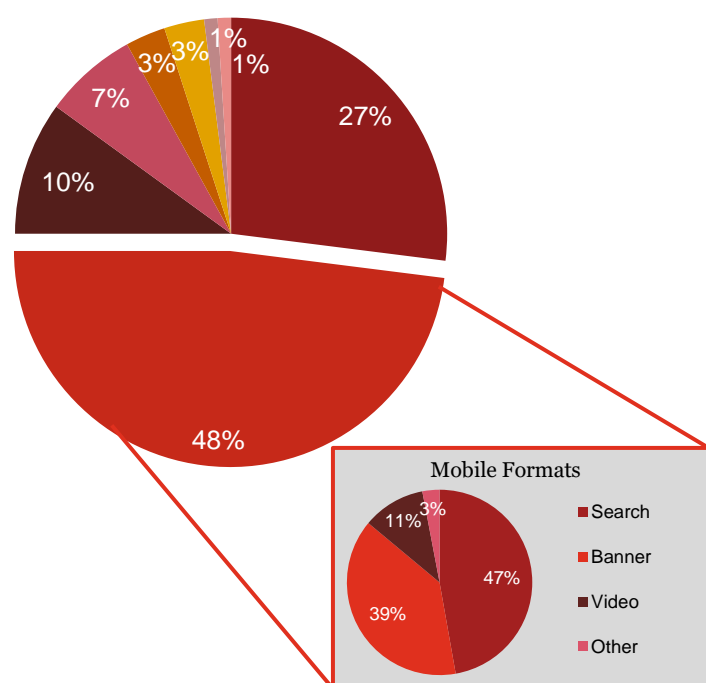
Ad formats – Q2 2015

Total - \$14.3 billion***



Ad formats – Q2 2016

Total - \$16.9 billion***



Source: IAB/PwC Internet Ad Revenue Report, HY 2016

* Display-related formats include: Banners (Banners, Rich Media, and Sponsorship) and Video.

** Other includes: Classifieds, Lead Generation, and Unspecified Other ("Unspecified Other" category was not specified by respondents).

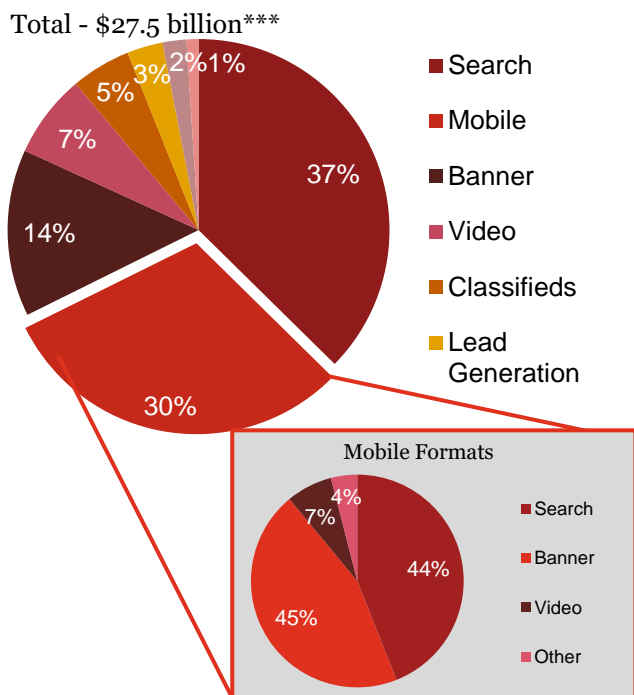
*** Amounts may not equal 100% due to rounding and omission of minor categories.

Ad format – first half 2016 results

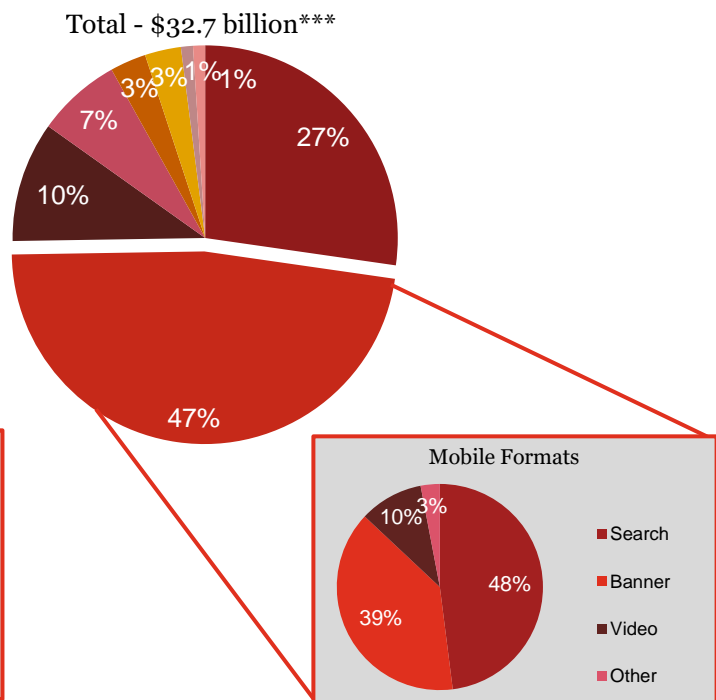
Mobile continued its increase in revenue share, with Mobile Display leading Mobile ad formats

- Desktop Search accounted for \$8.9 billion (27% of total) of HY 2016 revenues, down 12% from the \$10.1 billion (37% of total) in HY 2015.
 - Inclusive of Mobile Search revenue, the Search format totaled revenues of \$16.3 billion (50% of total) in HY 2016, up 19% from HY 2015 (\$13.7 billion).
- Desktop Display-related advertising accounted for \$6.3 billion (19% of total) of HY 2016 revenues, down 7% from the \$6.7 billion (25% of total) reported in HY 2015. Desktop Display-related advertising includes Banner Ads (10% of HY 2016 revenues, or \$3.4 billion), Video (7% or \$2.3 billion), Rich Media (1% or \$491 million), and Sponsorship (1% or \$186 million).
 - Inclusive of Mobile Display-related revenue, the Display-related format totaled revenues of \$13.9 billion (43% of total) in HY 2016, up 26% from HY 2015 (\$11.0 billion). Display-related advertising includes Banner Ads, inclusive of Rich Media and Sponsorship (\$10.0 billion), and Video (\$3.9 billion).
- Mobile revenues increased 89% from the \$8.2 billion (30% of total) reported at HY 2015 to \$15.5 billion (47% of total) at HY 2016. Mobile revenues consisted of Mobile Search (\$7.4 billion), Mobile Display-related* (\$7.6 billion), and Mobile Other** (\$455 million).
- Desktop Classifieds revenues totaled \$1.1 billion or 3% of HY 2016 revenues, down 29% from the \$1.5 billion (5% of total) reported in HY 2015.
- Desktop Lead Generation revenues accounted for 3% of HY 2016 revenues, or \$947 million, consistent with the \$931 million (3% of total) reported in HY 2015.

Ad formats – first half 2015



Ad formats – first half 2016



Source: IAB/PwC Internet Ad Revenue Report, HY 2016

* Display-related formats include: Banners (Banners, Rich Media, and Sponsorship) and Video.

** Other includes: Classifieds, Lead Generation, and Unspecified Other ("Unspecified Other" category was not specified by respondents).

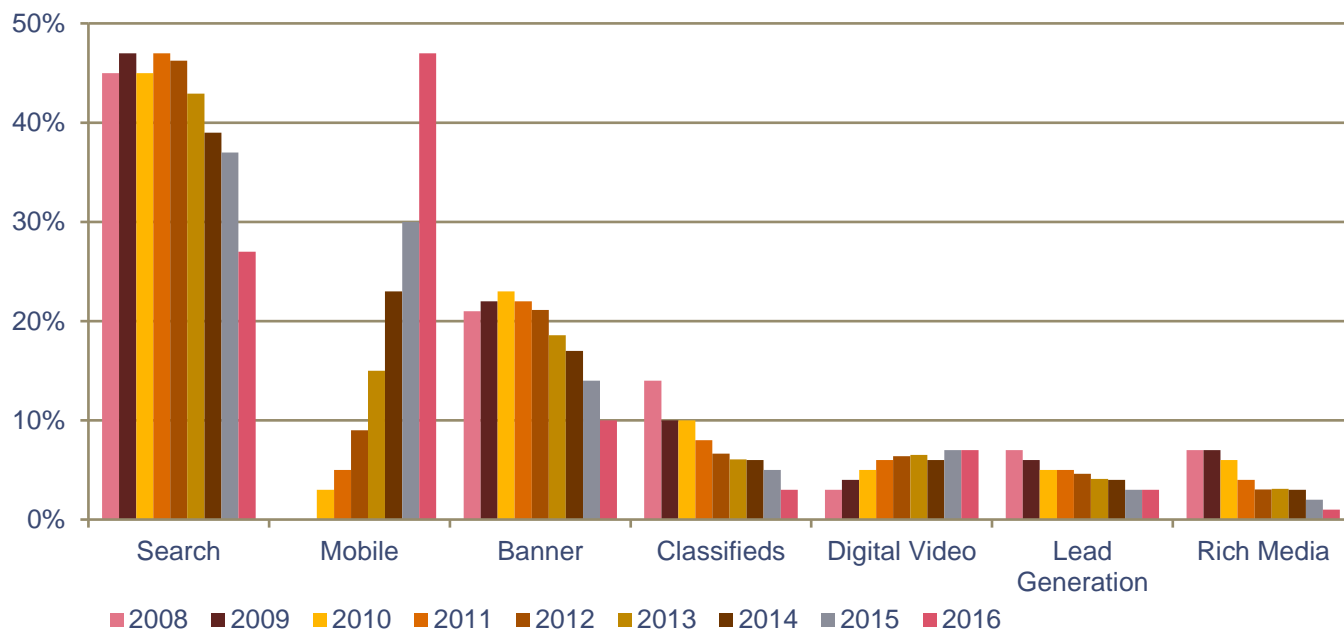
*** Amounts may not equal 100% due to rounding and omission of minor categories.

Historical format trends

For the first time Mobile tops Search to become the leading ad format

- Mobile ad revenues continued to gain share, representing 47% of total HY 2016 revenues, as compared to 30% of total revenues reported in HY 2015 and 23% in HY 2014; and Mobile, like Desktop, is comprised of multiple formats.
- Desktop Search lost its leading share and now represents 27% of HY 2016 revenues. Decline in its overall share is attributed to growth in Mobile and Mobile Search, which are included in the Mobile category.
- Desktop Search, Banner Ads, Classifieds, and Rich Media are down slightly as a percentage of total revenue due to the substantial growth of Mobile.
- Desktop Video and Lead Generation remained constant as a percentage of total revenue in comparison to HY 2015 results, a result of the 13% and 2% increase in revenue from the previous year, respectively.

Advertising format share, 2008 - 2016* (% of total revenue)



Source: IAB/PwC Internet Ad Revenue Report, HY 2016.

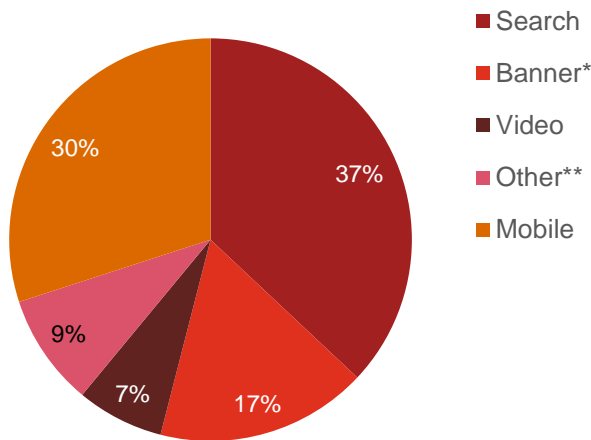
* Format definitions may have changed over the time period depicted, both within the survey process and as interpreted by survey respondents.

As eyeballs shift to Mobile – Display and Search follow

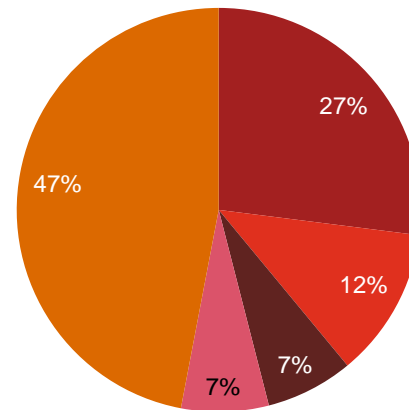
We have noted a significant shift of Display and Search activities to mobile devices.

- Mobile now represents 47% of Search and Display-related revenue, up from 30% in 2015.
- When we reallocate mobile activities to traditional formats, we note that Search makes up half.
- Display-related formats increased from 40% in 2015 to 43% in 2016 when mobile revenues are included.

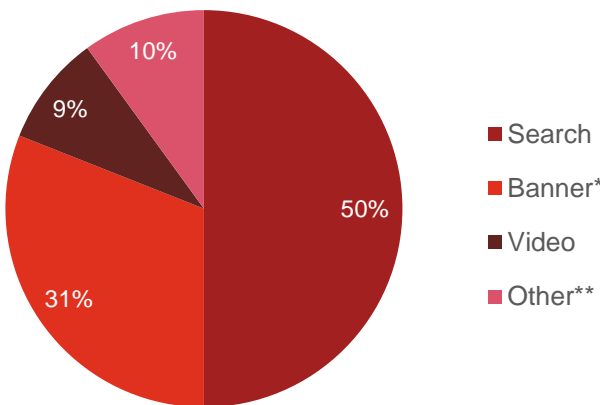
Ad formats Mobile Separated – HY 2015



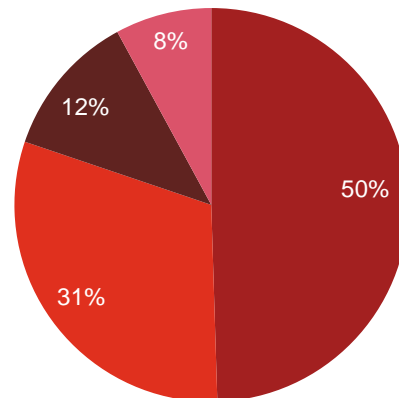
Ad formats Mobile Separated – HY 2016



Ad Formats Mobile Included – HY 2015



Ad Formats Mobile Included – HY 2016



Source: IAB/PwC Internet Ad Revenue Report, HY 2016

* Display-related formats include: Banners (Banners, Rich Media, and Sponsorship) and Video.

** Other includes: Classifieds, Lead Generation, and Unspecified Other ("Unspecified Other" category was not specified by respondents).

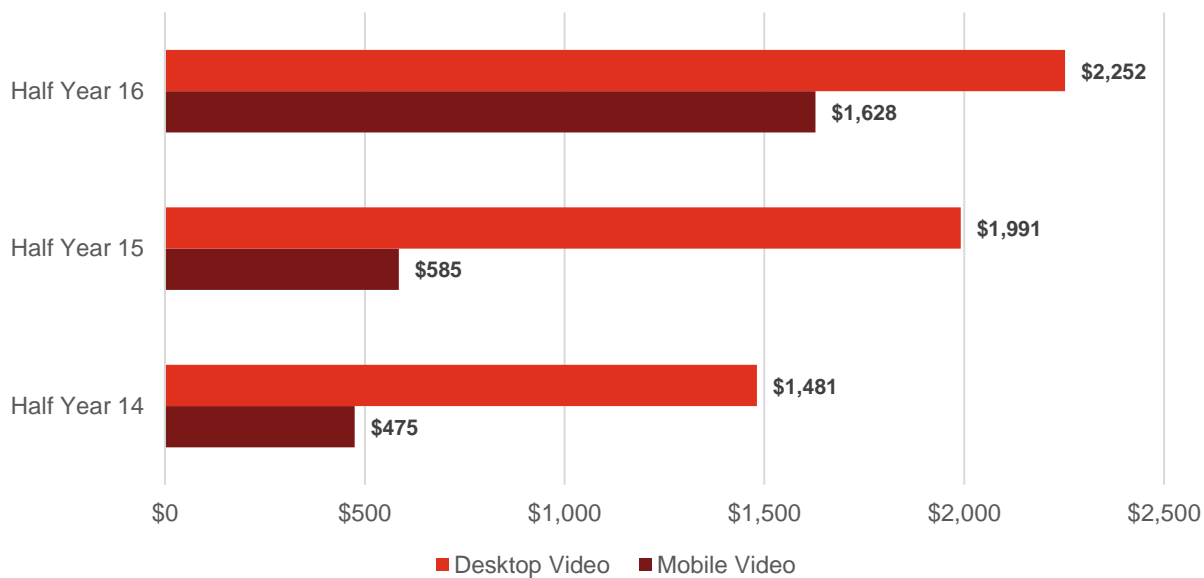
***Amounts may not equal 100% due to rounding and omission of minor categories.

Across desktop and mobile, Digital Video generated the greatest gain of any format

Though Digital Video experienced modest growth from HY 15 to HY 16 on Desktop, the format recorded tremendous growth on Mobile.

- Total digital video, including mobile and desktop, rose to \$3.9 billion in HY 2016, up 51% from \$2.6 billion in HY 2015.
- Digital video on smartphones and tablets saw strong triple-digit growth, reaching \$1.6 billion in HY 2016, an impressive 178% rise from HY 2015.
- As eyeballs shift to mobile devices, digital video was the only ad format on desktop devices that had meaningful growth, increasing 13% over HY 2015.

Historical Digital Video Revenues, Half-Year (\$ millions)



Source: IAB/PwC Internet Ad Revenue Report, HY 2016

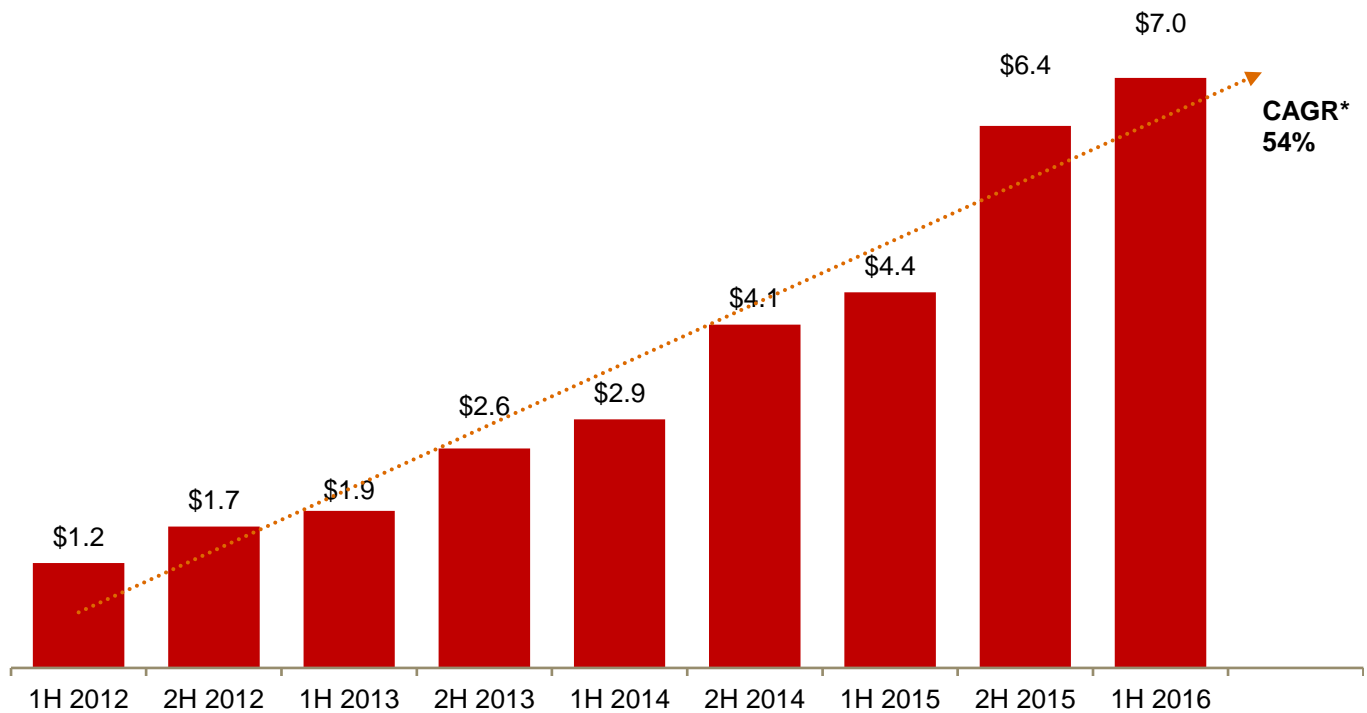
Social media advertising revenue

Strong growth each half-year in social

For the first half of 2016, Social media revenue was \$7.0 billion, up 57% from HY 2015. Social has experienced growth at each half-year since we first measured it in 2012. These steady increases are reflected in the 54% compound annual growth rate of social from HY 2012 to HY 2016. Social's continued growth has played a key role in the growth of Mobile, as Social is a significant activity on Mobile.

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 2012-2016 (\$ billions)



Source: IAB/PwC Internet Ad Revenue Report, HY 2016

* CAGR: Compound Annual Growth Rate

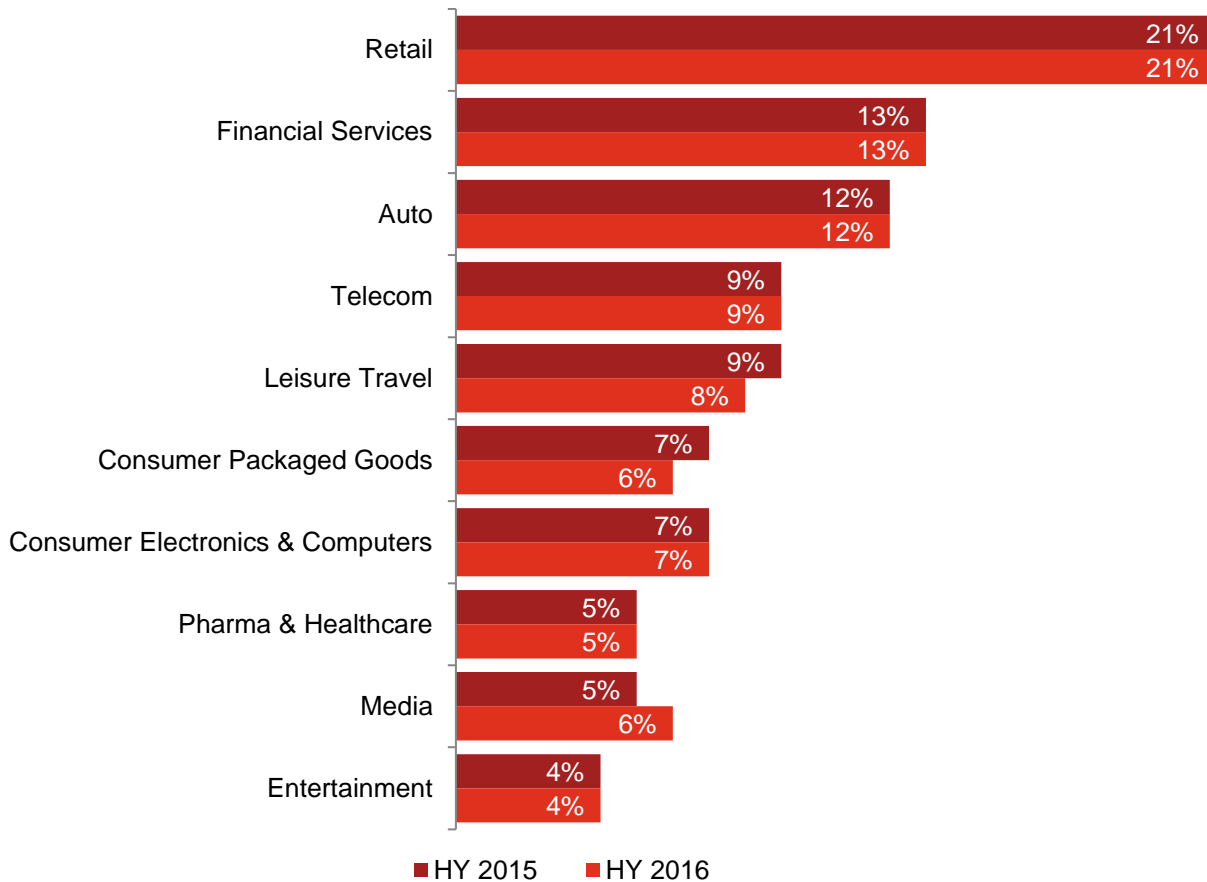
Ad revenues by industry category

Retail drives advertising, as dollars shift to digital

- Retail advertisers continue to represent the largest category of internet ad spending, accounting for 21% of total revenues in HY 2016, consistent with the 21% reported in HY 2015.
- Financial Services advertisers accounted for 13% of revenues in HY 2016, consistent with the 13% reported in HY 2015.
- Automotive advertisers accounted for 12% of revenues in HY 2016, consistent with the 12% reported in HY 2015.
- Telecom companies accounted for 9% of revenues in HY 2016, consistent with the 9% reported in HY 2015.
- Leisure Travel (airfare, hotels, and resorts) accounted for 8% of revenues in HY 2016, down from the 9% reported in HY 2015.
- Consumer Packaged Goods represented 6% in HY 2016, down from the 7% reported in HY 2015.
- Consumer Electronics and Computers represented 7% of revenues in HY 2016, consistent the 7% reported in HY 2015.
- Pharmaceutical/Healthcare accounted for 5% in HY 2016, consistent with the 5% reported in HY 2015.
- Media accounted for 6% in HY 2016, up from the 5% reported in HY 2015.
- Entertainment accounted for 4% of HY 2016 revenues, consistent with the 4% reported in HY 2015.

Industry advertising – year-over-year comparison

Internet ad revenues by major industry category*, year to date: 2015 vs. 2016



Source: IAB/PwC Internet Ad Revenue Report, HY 2016

* Industry category definitions may have changed over the time period depicted, both within the survey process and as interpreted by survey respondents. Amounts do not total to 100% as minor categories are not displayed.

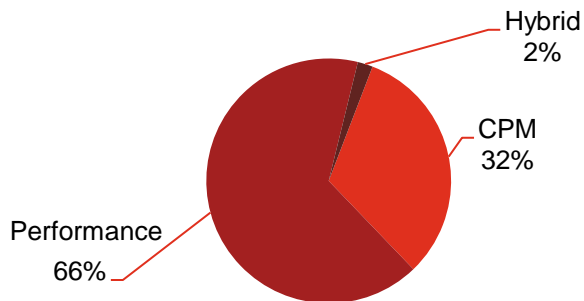
Revenues by pricing model

Performance-based pricing shows slight downtick

- Approximately 65% of HY 2016 revenues were priced on a performance basis, down from the 66% reported in HY 2015.
- Approximately 34% of HY 2016 revenues were priced on a cost per medium/thousand (CPM) or impression basis, up from the 32% reported in HY 2015.
- Approximately 1% of HY 2016 revenues were priced on a hybrid basis, down from the 2% reported in HY 2015.

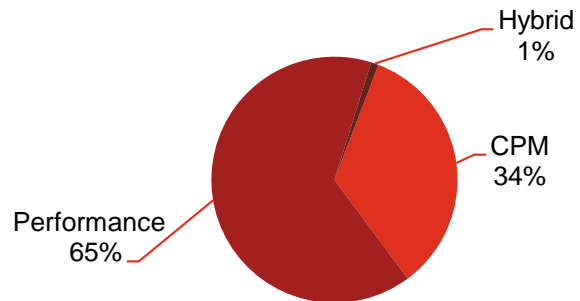
Pricing models – HY 2015

Total - \$27.5 billion



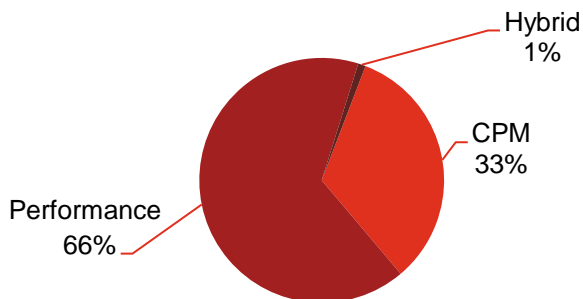
Pricing models – HY 2016

Total - \$32.7 billion



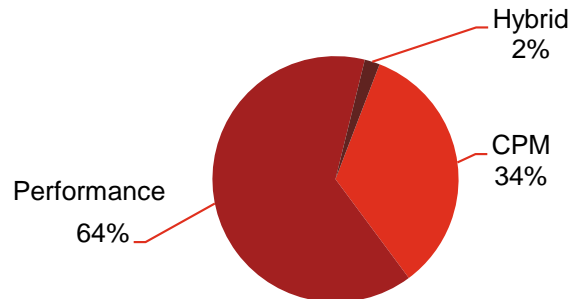
Pricing models – Q2 2015

Total - \$14.3 billion



Pricing models – Q2 2016

Total - \$16.9 billion



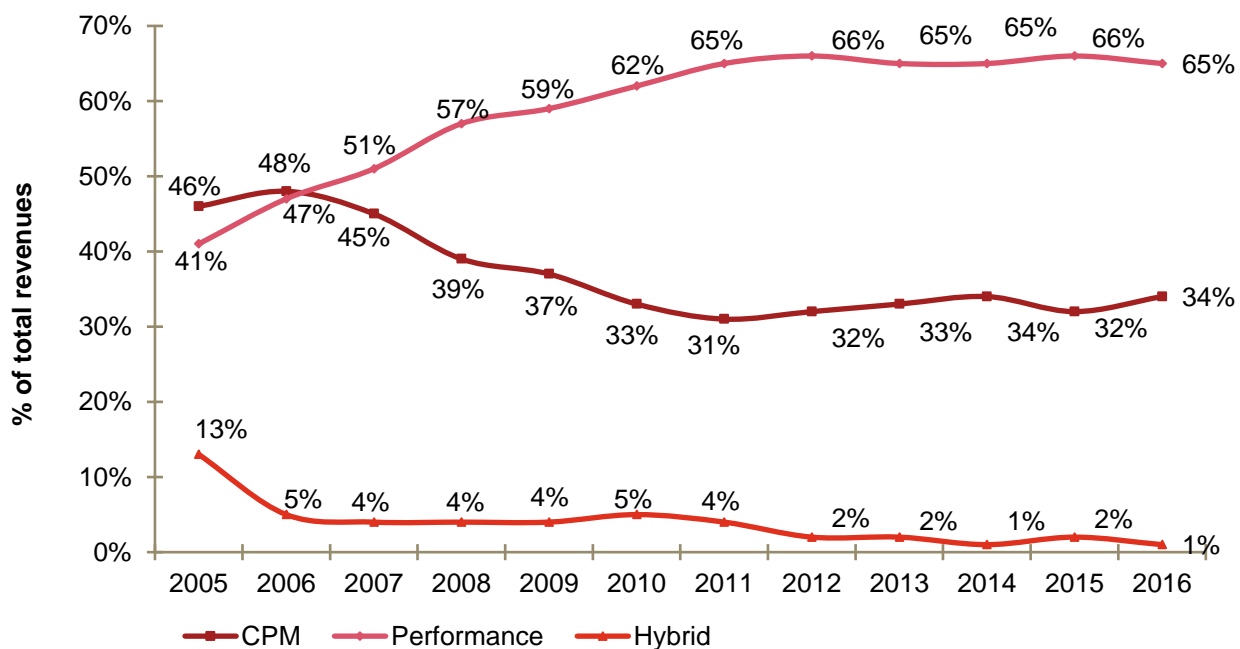
Source: IAB/PwC Internet Ad Revenue Report, HY 2016

Historical pricing model trends

Performance-based pricing remains the preferred model

- Performance-based pricing, the leading pricing model since 2006, declined slightly to 65% of total revenue in HY 2016.
- CPM/impression-based pricing increased in the first six months of 2016, up to 34% of revenues from 32% in HY 2015.
- Hybrid pricing declined to 1% of total revenues in HY 2016, down from the 2% reported in HY 2015.

Internet ad revenues by pricing model*



Source: IAB/PwC Internet Ad Revenue Report, HY 2016

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

Appendix

Definitions of leading industry categories

The industry categories used in the "IAB Internet Advertising Revenue Report" were sourced from the North American Standard Industrial Classification (SIC) Manual.[†]

Retail	Includes mail order/catalog, apparel, restaurants/fast food, home furnishings/textiles, toys, pet food/supplies, appliances, jewelry, drugstores, retail stores, and cosmetics stores.
Automotive	Includes all automotive-related categories including sale/purchase of vehicles and parts and maintenance.
Entertainment	Includes film, music, TV, box office, video games, and amusement & recreation.
Consumer packaged goods	Includes packaged goods, food products, household products, and tobacco.
Leisure travel	Includes travel, hotel, airlines, and resorts.
Consumer Electronics and Computers	Includes hardware (computers, computer storage devices, and computer peripheral equipment), consumer electronics, prepackaged software (operating, utility, and applications programs), local area network systems and network systems integration, computer processing, and data preparation and data processing services.
Financial Services	Includes commercial banks, credit agencies, personal credit institutions, consumer finance companies, loan companies, business credit institutions, and credit card agencies. Also includes companies engaged in the underwriting, purchase, sale, or brokerage of securities and other financial contracts.
Telecommunications	Includes point-to-point communications services, including cellular phone services, paging services, wireless internet access, and wireless video services. Includes multichannel video providers on a subscription fee basis (e.g., cable television, wireless cable television, and direct broadcast satellite services).
Pharmaceutical & Healthcare	Includes pharmaceutical products, facilities, services, researchers, and biological products. Also comprises establishments providing healthcare and social assistance for individuals as well as personal care, toiletries, and cosmetic products.
Media	Includes establishments primarily engaged in radio and television broadcasting (network and station) including commercial, religious, educational, and other radio or television stations. Also includes establishments primarily engaged in publishing newspapers, periodicals, and books.

[†]Survey participants reported results based on the 20 industry categories, listed on page 25, which were used specifically for the "IAB Internet Advertising Revenue Report." This is consistent with other relevant industry categorization sources that measure advertising spending by industry. For purposes of this report, PwC classified a number of individual categories under "Retail."

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	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: <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
Email	Banner ads, links or advertiser sponsorships that appear in email newsletters, email marketing campaigns and other commercial email communications. This includes both ads within an email or the entire email.
Search	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: <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	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). All IAB Rising Stars ad formats are considered Rich Media. Video commercials that appear in video players are considered Video Ads, not Rich Media. "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: <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 (cont.)

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 Display-related advertising.</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 rich media 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.</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, audio, sponsorships, and rich media), and Other 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>
Impression-based	<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</p>

Survey scope and methodology

Survey scope

The Interactive Advertising Bureau (IAB) retained PwC to establish a benchmark for measuring the growth of internet/online/mobile advertising revenues. 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.

Survey industry categories

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

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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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
- IAB Measurement Certification Compliance auditing
- 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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