www.iab.com
www.pwc.com/e&m

IAB internet advertising revenue report

2017 full year results

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

May 2018

pwc

Contents

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 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.

David Silverman
PwC

Executive summary

2017 full year highlights

Internet advertising revenues ("revenues") in the United States totaled $88.0 billion for the full year ("FY") of 2017, with Q4 2017 accounting for approximately $26.1 billion and Q3 2017 accounting for approximately $21.8 billion. Revenues for FY 2017 increased 21.4% over FY 2016.

Key trends underlying FY 2017 results

Fourth quarter revenues exhibit strong growth in FY 2017
Internet advertising revenues in the United States totaled $26.1 billion in the fourth quarter of 2017, an increase of 20.0% from the 2017 third quarter total of $21.8 billion and an increase of 20.8% from the 2016 fourth quarter total of $21.6 billion.

The shift to mobile continues
Advertising revenues delivered on mobile devices totaled $49.9 billion in FY 2017, a 36.2% increase from the prior full year revenues of $36.6 billion. Advertising delivered on mobile devices now makes up 56.7% of total internet advertising revenues.

"Consumers are increasingly spending a tremendous amount of time with interactive screens and content–from mobile to desktop and audio to OTT–and brands are in lockstep with a growing commitment to digital ad buys. Mobile captured more than half of the total digital ad spend last year and we can easily expect that share to continue to climb. Video also saw significant growth. That is no surprise—especially after seeing buyers clamoring to get into last week's NewFronts presentations in New York."

— Randall Rothenberg, President and CEO, IAB

"Digital advertising revenues have been steadily rising for several years and buyers continue to increase their investment. From mobile to video, consumers are constantly turning to interactive screens, whether for information, entertainment, shopping, sharing, or more."

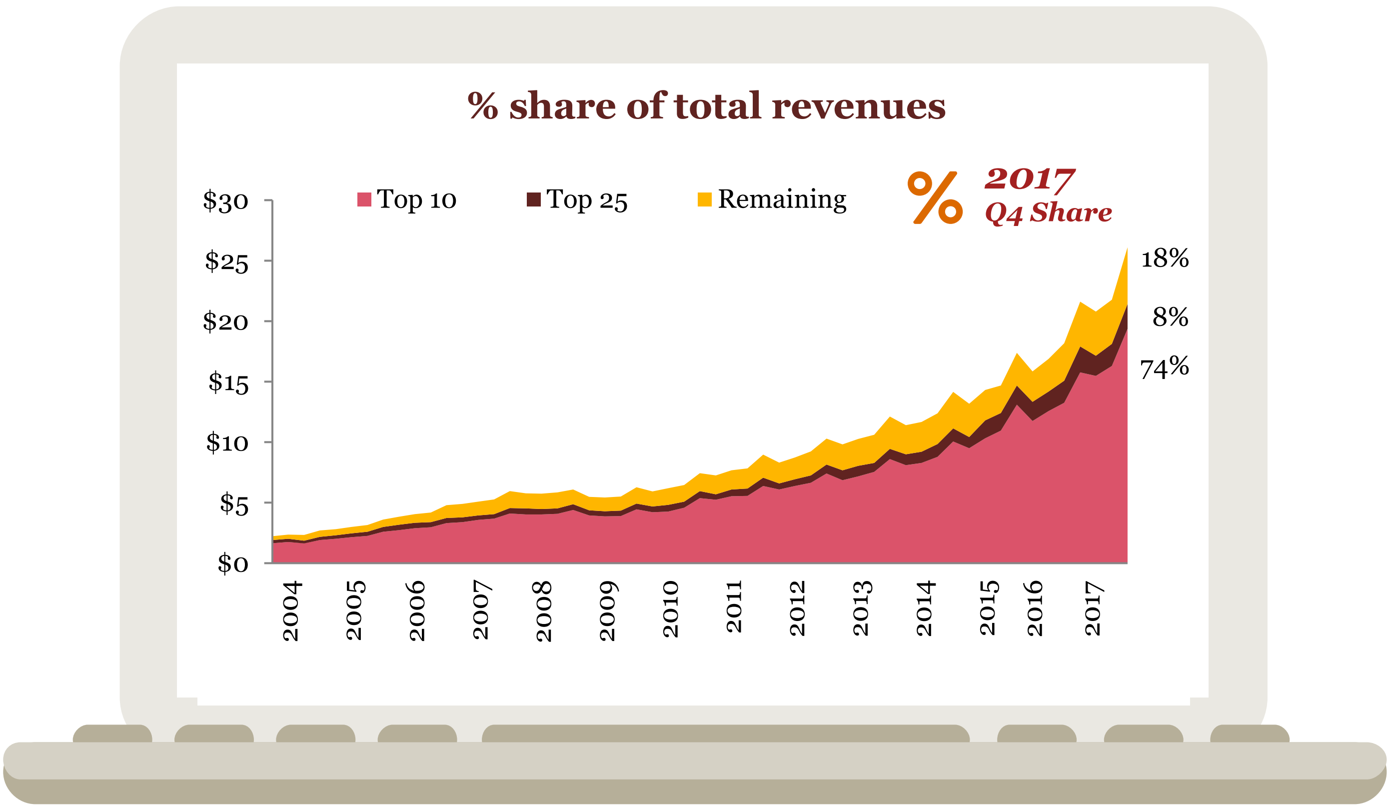
— David Silverman, Partner, PwC

Key growth drivers

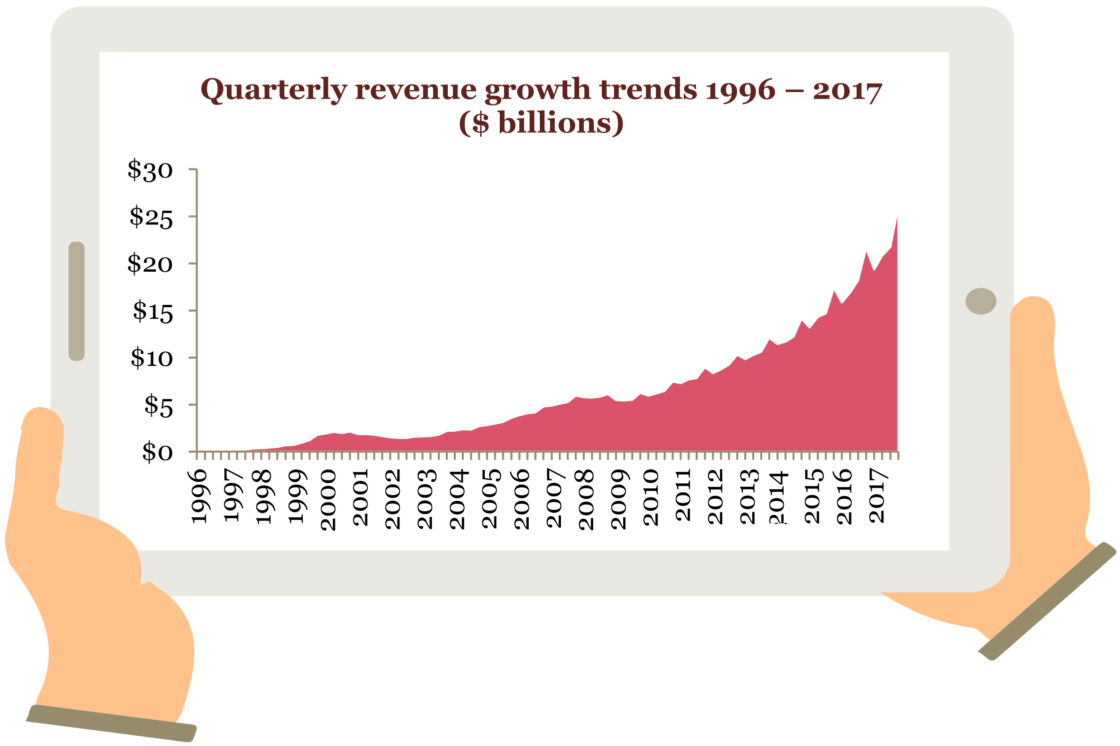
Exploring the drivers of growth

Over the past 21 years the internet has grown from a nascent industry to the largest ad supported media in the United States. During this period, leading companies have been significant contributors of driving growth. Yet over the same period we have seen dramatic changes in the composition of the leading companies. For instance, since 2008, the 10 leading ad selling companies in any given year have consistently represented at least 67% of total internet advertising revenues, typically fluctuating between 70% and 75%. At the same time, of the top 10 companies in 20017, only 3 were a top 10 company in 2008. The FY 2017 report takes a deeper look at what may be fueling this trend (current and future) and driving growth in the overall market.

Consistent with the study's overall scope and methodology, the findings presented here are at an anonymized, aggregate level. Insights gained and inferences drawn are based upon information gathered from survey responses, interviews with leading industry participants, and additional market research.



Enabling advertising scalability



Enabling technology

Advances in underlying technology have been a primary enabler of growth in the industry. Advances in access, bandwidth and speed have been continuous over the 21 years and have been the back bone of growth enablement. These improvements have not only helped to improve the user experience but also unlock new formats and devices that have greatly contributed to the industry growth. The emergence of mobile, video, and audio all began with advances in access, bandwidth, and speed.

Current technological advances in big data, predictive analytics, artificial intelligence, and robotic process automation (RPA) have all greatly impacted the industry and will continue to do so for the foreseeable future. The volume of digital data being created on the internet is increasing exponentially. Every year the digital universe doubles in size with many estimates indicating a 50X growth between 2010 and 2020*. These large volumes of data provide the raw ingredients to enable greater advertising efficiency. The ability to apply analytics and AI to massive volumes of data enable marketers to target end users in ways not previously possible. Furthermore, these same advances when combined with RPA have allowed for increased automation throughout the ecosystem – driving further efficiencies.

These technological advances when working together, have given marketers the ability to target an end user across platforms and devices. This ability to efficiently target an end user wherever they happen to be is a major advancement in the marketer's tool kit.

* "Inside Big Data, Exponential Growth of Data", February 2017

Lastly, advancements in analytics and data visualization have provided advertisers with greater insights into the effectiveness and efficiency of their marketing spend. No matter the medium on which a marketer is advertising, the same questions have always persisted with respect to advertising efficacy: What is working? Where? With whom? At what cost? With real-time feedback, advertisers can now see what is working and quickly adjust their ad campaigns to improve overall effectiveness.

Lots of eyeballs (and ears)

Marketers have always been enamored by large audiences. The larger an audience, the more likely an advertiser is able to reach their relevant target. With the advancements in technology noted above, the ability to target a consumer within a large audience is greatly improved, which has further enhanced the ad buying efficiency.

Large audiences have always converged on popular sites, and in today's internet the largest beneficiaries have been on popular social media, video, and audio sites as well as shopping and shopping-related, news, and special interest sites. Sites that can bring together large and/or relevant audiences are benefiting the most. Furthermore, advances in programmatic advertising have enabled the aggregation of audiences from disparate sites to more effectively identify and target the relevant end user.

The democratization of advertising

20 years ago, small- and medium-sized businesses ("SMBs") could not easily advertise without significant upfront expenditure and a substantial risk on return to their marketing and advertising spend. For many such businesses, the cost of advertising was a risk that could not be easily taken. Digital advertising's evolution has greatly democratized the ability for all businesses, regardless of size and budget, to target audiences based upon geographies (location), demographics, psychographics, and behavior.

Self-service platforms combined with low marketing spend requirements have opened up this mass media to all forms of business; it doesn't matter if you are a fortune 500 company or a local pizza place. SMBs that were initially attracted to the industry through paid search and certain performance-based ad formats have continued to advertise through growing social media sites, easy-to-use self-service platforms, and industry-specific lead generation platforms. Digital advertising has successfully delivered lower price points with reduced risk, plus the benefit of transparency into advertising effectiveness and ROI.

Through the use of self-service platforms, flexible budgets, and ROI transparency, companies can quickly ramp up or turn down budgeted spend, based upon their achieved ROI. This flexibility greatly lowers the risk associated with the advertising process and has facilitated more inclusive participation.

The impact of the direct brand economy

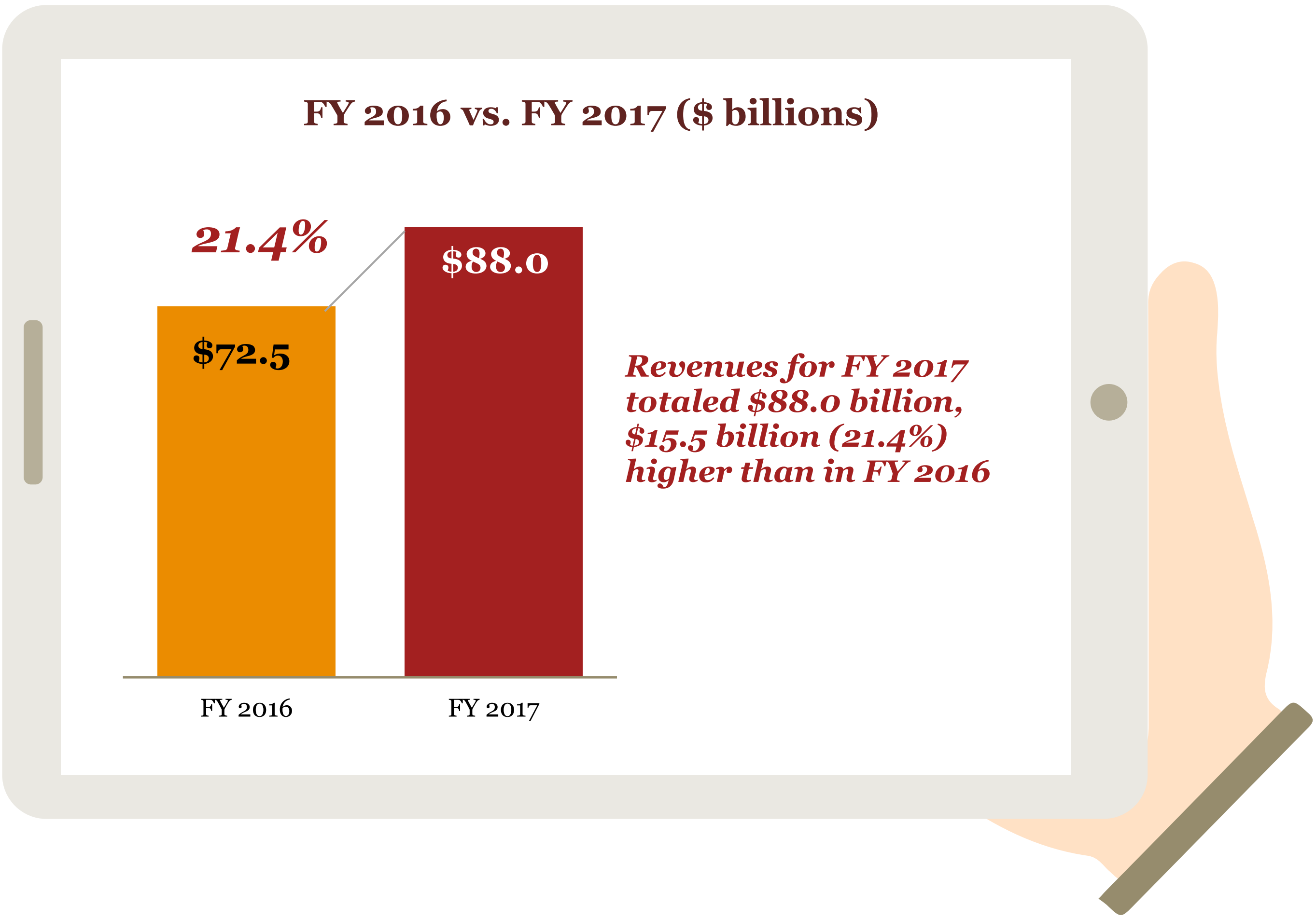
With the advent of the direct brand economy, an entire genre of companies that did not previously exist are requiring efficient advertisements that can be directed at a specific desired audience. With most of the purchases relating to direct brands being made over the internet, ad campaigns targeted at internet users make perfect sense. Small startups are able to fuel rapid growth by having transparency into the effectiveness of their advertising campaigns and can continue to reinvest in customer acquisition through digital advertising, as long as the ROI remains positive – so long as there is positive ROI, advertising spend increases, facilitating faster and more efficient scalability. This becomes a major driver of growth.

Emerging growth drivers

Technological advances and new business models make for a healthier, more robust advertising environment. And, while some digital advertising companies are already seeing the benefits, opportunity remains, as not all digital advertising companies and platforms are participating in the innovative solutions at the same rate or with the same reach. Our discussions with leading industry participants suggest that a lack of self-service tools, prohibitive minimum advertising buys, and reliance on direct sales or programmatic platforms that do not cater to small businesses may be restricting the number of advertisers who are aware of and active on all but the most popular platforms. There is room for the further democratization of digital advertising, which may come in the form of the next generation of technological advances.

New technologies like artificial intelligence (AI), augmented reality (AR), virtual reality (VR), and voice-based systems will most certainly create new opportunities for growth within the industry. Continued advances in AI and data & analytics will enable companies to create more personalized experiences than what we see today. VR, AR and voice-based systems will help to create new opportunities for brand engagement and potentially increase the available amount of advertising inventory. Though many of these technologies are still in the early stages, we expect advertisers to be just as exploratory in determining how these technologies can be implemented to connect with current and future customers. As we have seen throughout the brief history of the internet advertising market, the ecosystem has been built on disruption and change. These emerging growth drivers will certainly continue to bring disruption along with opportunity, and companies must be ready to respond.

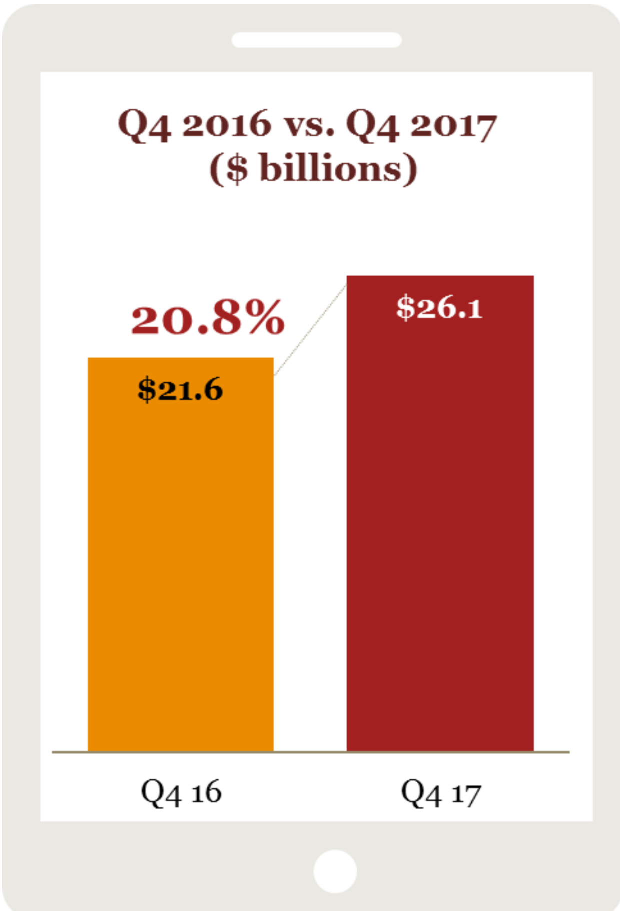
Revenue continues to grow year over year

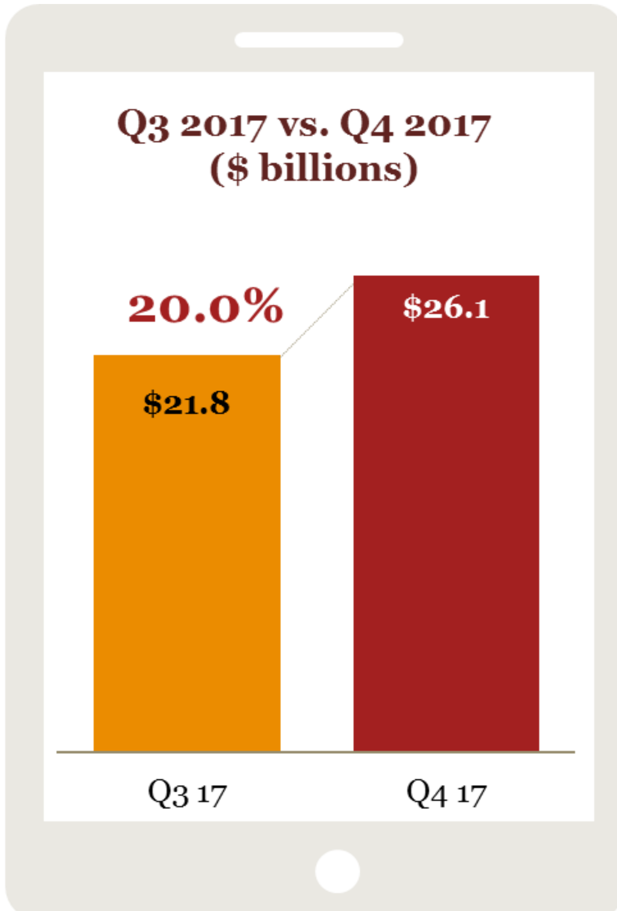


Detailed findings

Revenues totaled $26.1 billion in Q4 2017

Total 2017 fourth quarter revenues were $26.1 billion (20.8%) higher than in the fourth quarter of 2016 and $4.3 billion (20%) higher than in the third quarter of 2017.





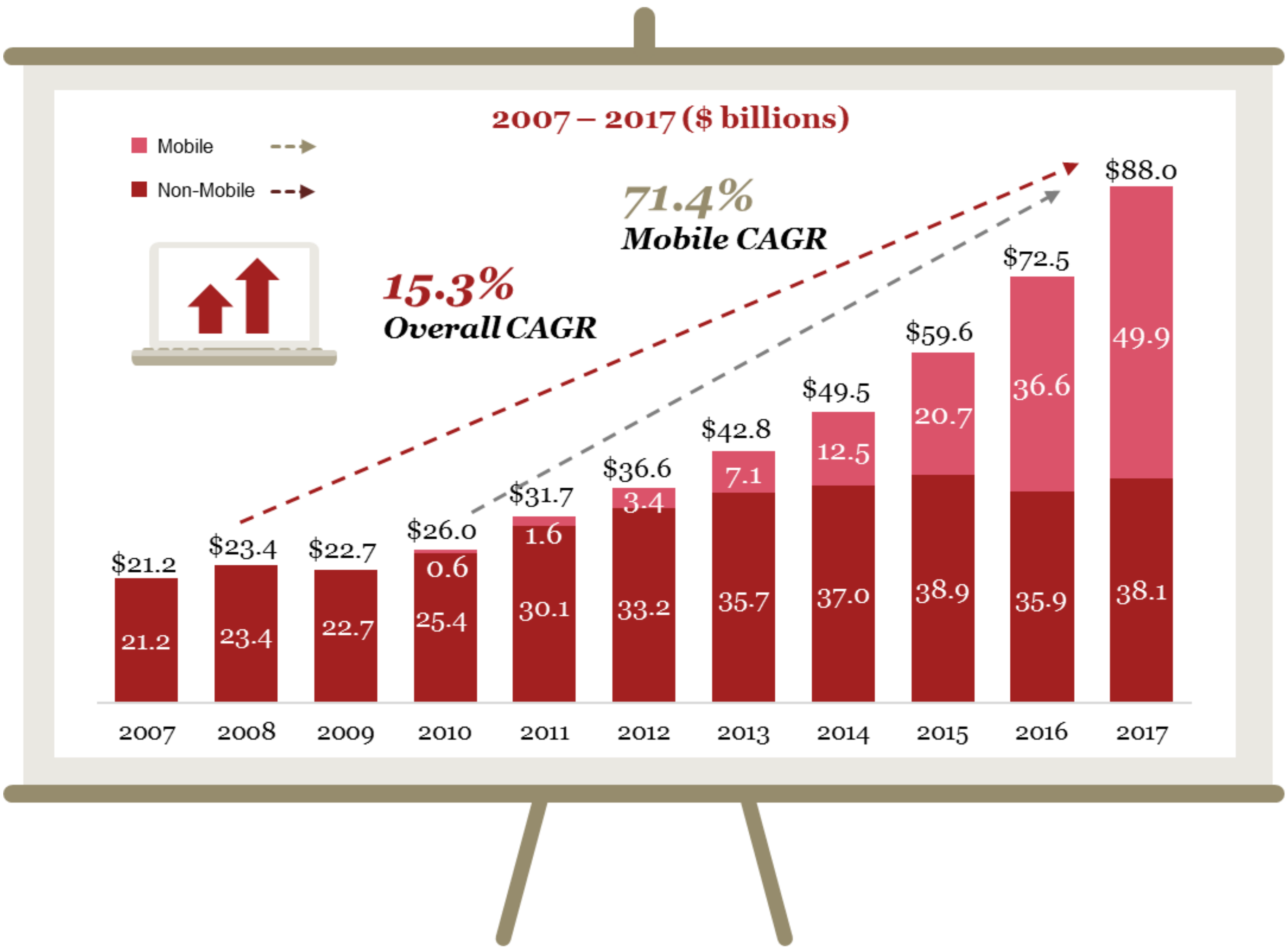
Shift to mobile continues, but rate of growth starts to decline

Mobile internet advertising dominated total revenues in 2017

On a year-over-year basis, mobile advertising revenue increased 36.2%, increasing its share of total revenues from 50.5% in FY 2016 to 56.7% in FY 2017. The result is a 5-year CAGR of 71.4%, continuing the increasing trend of total revenues from 2012 – 2017.

Despite the continued shift to mobile, desktop revenues stay the course growing 5.8% to $38.1 billion.

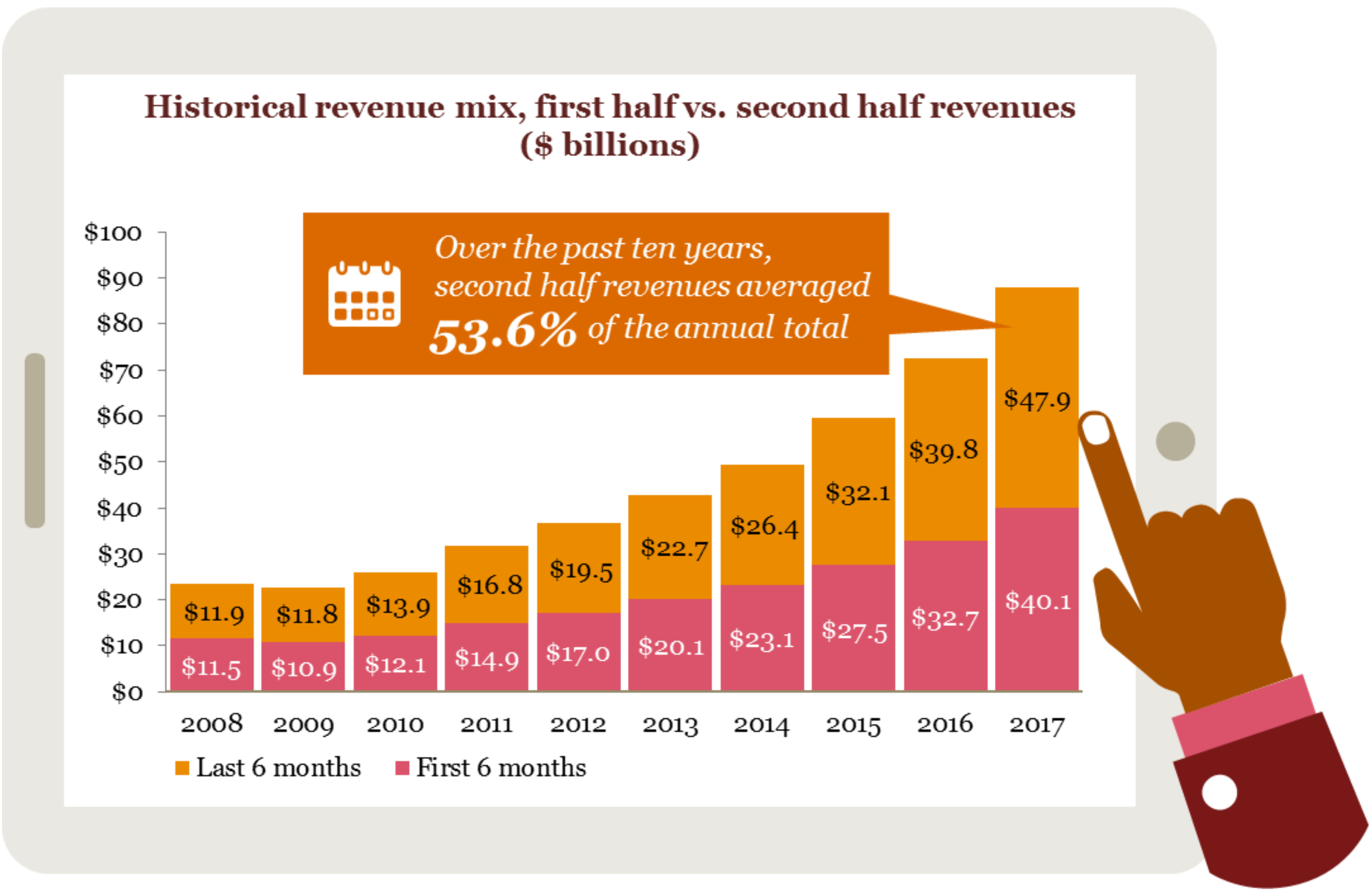
Total internet advertising revenues have grown at a 15.3% CAGR over the past 10 years, far outpacing every other media.



Historical revenue mix – First half vs. second half

Second-half revenues reached $47.9 billion

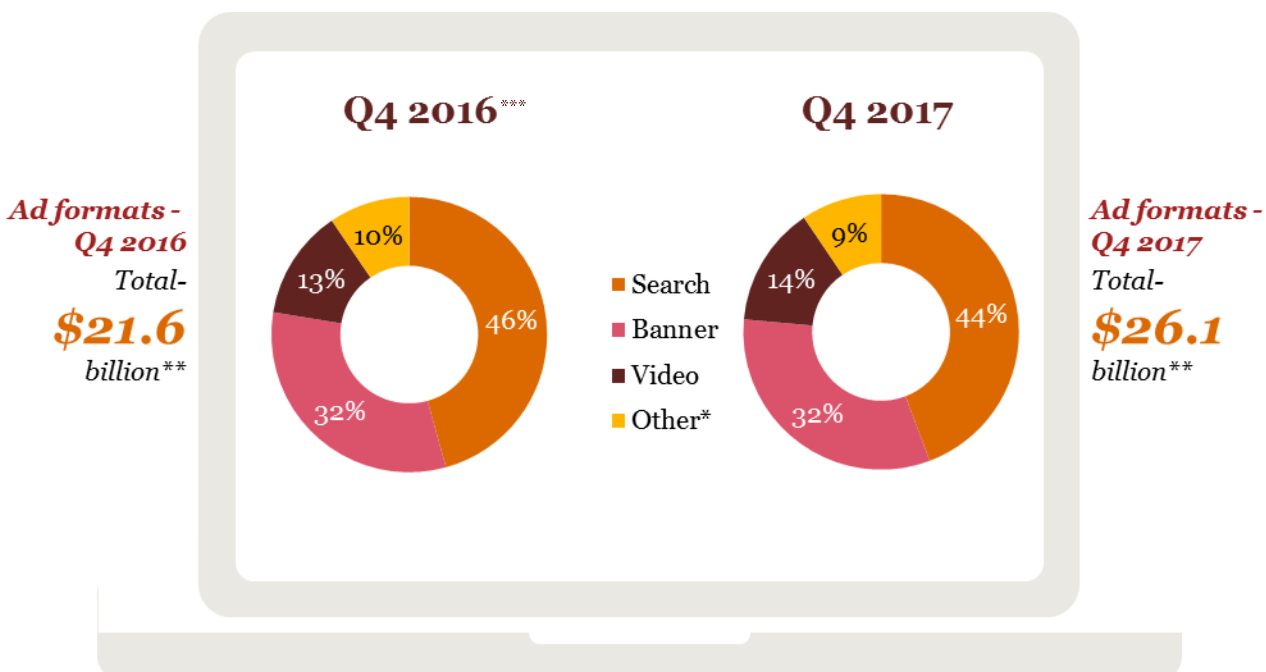
Second-half revenues totaled $47.9 billion in 2017, an increase of $8.1 billion from second-half revenues of 2016. Second-half revenues represented 54.4% of total revenues in 2017, a slight decrease from the 54.8% reported in 2016, but consistent with the broader trend of increased revenues in the second half of each year. The continued industry growth and the seasonal spike in fourth quarter ad spend both contribute to the historically high proportion of revenues in the second half of the year.



Ad format – Fourth-quarter 2017 results

Search-related revenues lost total revenue share, while digital video revenues exhibited steady growth in Q4 2017.

- Search revenues totaled $11.5 billion in Q4 2017, up 17% from Q4 2016 ($9.9 billion). Search's representation of 44% of total internet advertising revenue for Q4 2017 is a slight year-over-year decrease from Q4 2016's 46%.
- Video revenues totaled $3.6 billion for Q4 2017, up $0.9 billion or 31.4%, from Q4 2016's $2.8 billion.
- Banner revenues totaled $8.4 billion in Q4 2017, up 22.6% from Q4 2016 ($6.9 billion). Banner advertising includes Banners, Sponsorships, and Rich Media.
- The Other* category totaled $2.5 billion which was up 19.4% from Q4 2016 ($2.1 billion). Growth in the category was driven primarily by Lead Generation and Audio.



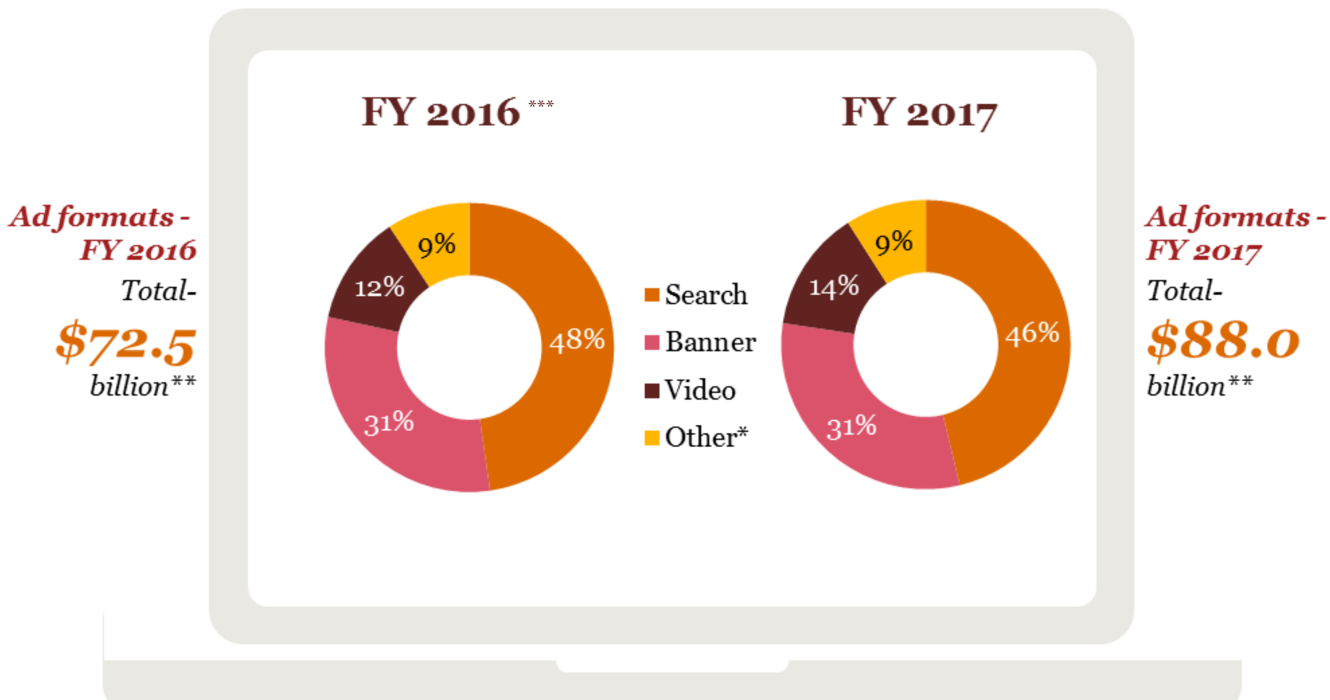
* Other includes: "Classifieds," "Lead Generation," "Audio," and "Unspecified Other."
** For the purposes of this study, minor categories have been excluded, resulting in a <100% total.
*** Certain prior year amounts have been reclassified based on new findings:

($ millions)	As originally reported	As revised
Search	$10,009	$9,869
Banner	$7,021	$6,891
Video	$2,835	$2,788
Other	$1,743	$2,060

Ad format – Full year 2017 results

FY 2017 trends mirrored those of Q4, with search-related revenues growing in number, but decreasing in overall revenue share

- Search revenues totaled $40.6 billion in FY 2017, up 17.5% from FY 2016 ($34.6 billion).
- Search's representation of 46% of total internet advertising revenue for FY 2017 is a slight year-over-year decrease from FY 2016's 48%.
- Video revenues totaled $11.9 billion for FY 2017, up $3 billion or 33% from FY 2016.
- Banner revenues totaled $27.5 billion in FY 2017, up 23% from FY 2016 ($22.3 billion). Banner advertising includes Banners, Sponsorships, and Rich Media.
- The Other* category totaled $8.0 billion which was up 19.2% from FY 2016 ($6.7 billion). Growth in the category was driven primarily by Lead Generation, Audio, and Classified.



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

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

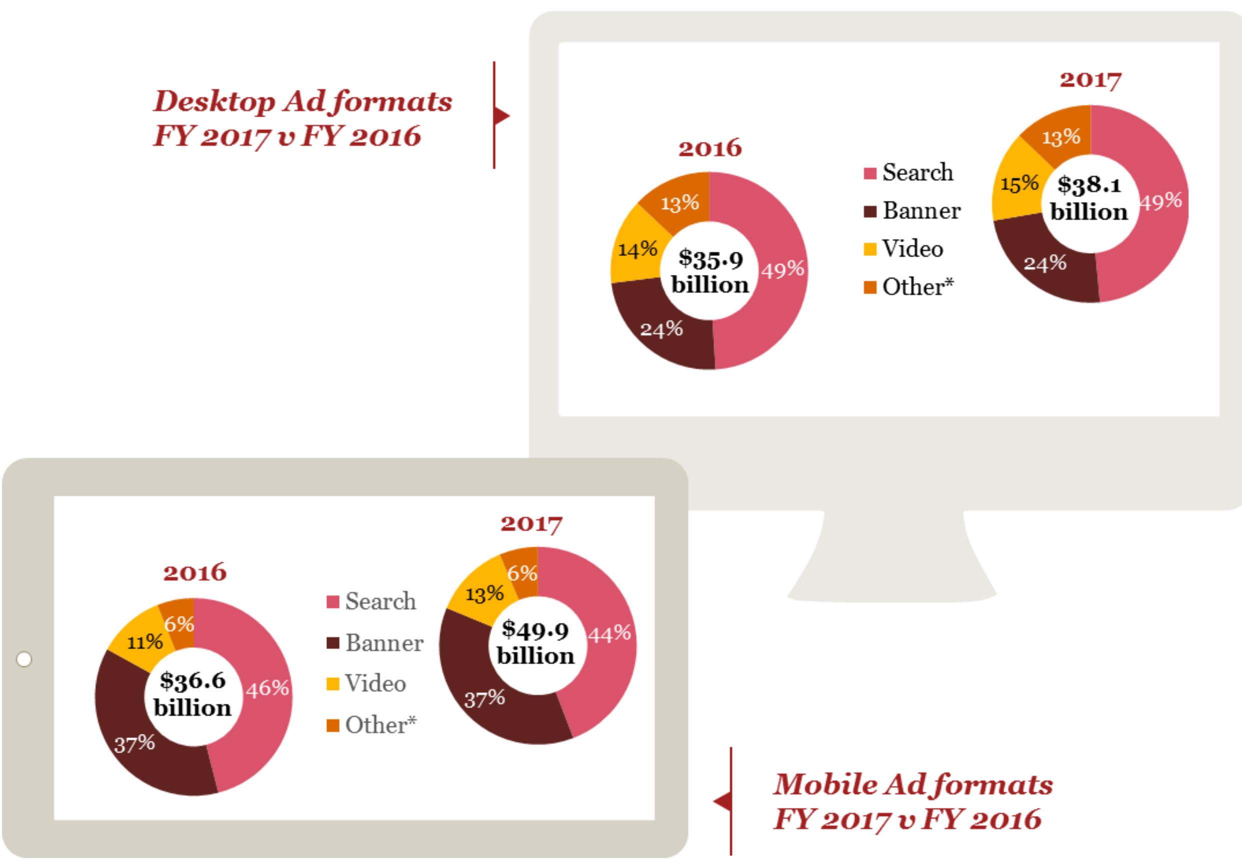
*** Certain prior year amounts have been reclassified based on new findings:

($ millions)	As originally reported	As revised
Search	$34,980	$34,575
Banner	$22,625	$22,288
Video	$9,054	$8,926
Other	$5,862	$6,732

Digital video gains while search slips on mobile

Across desktop and mobile platforms, digital video gains

- Reflecting similar trends across the industry, Search experienced single digit growth on desktop with stronger growth on mobile, 4% and 31% respectively. However, as a percentage of total desktop advertising revenue, Search contributed 49% ($18.5 billion). On mobile, Search represented 44% ($22.1 billion) of total mobile advertising revenue.
- Like Search, Banner Advertising saw growth across desktop and mobile platforms in FY 17, 5% and 35% respectively. On desktop, Banner Advertising represented 24% ($9.0 billion) of total desktop advertising revenue. Banner Advertising represented 37% ($18.4 billion) of total mobile advertising revenue.
- In FY 17, the Digital Video format also grew across both desktop and mobile platforms, 16% and 54% respectively, outpacing all other digital ad formats. Digital Video represented 15% ($5.7 billion) of total desktop advertising revenue and 13% ($6.2 billion) of total mobile advertising revenue.

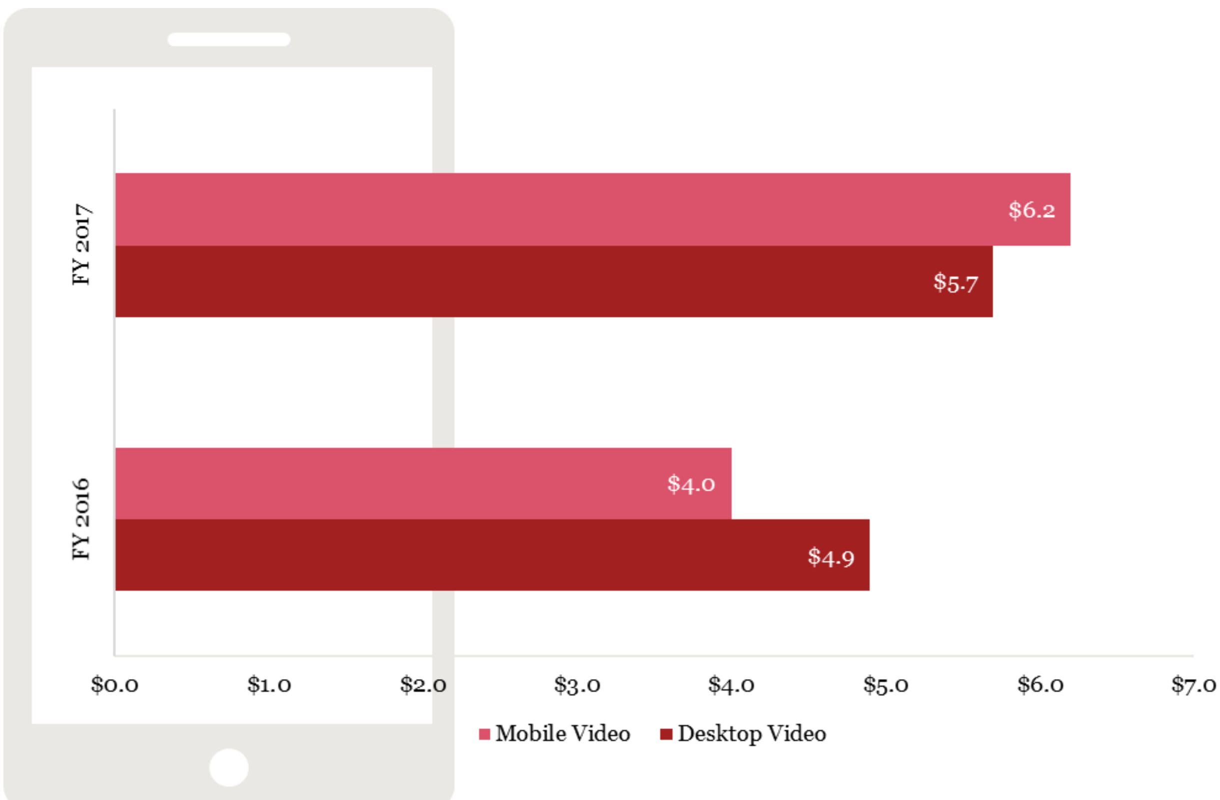


* Other includes: Classifieds, Lead Generation, and Audio.

Mobile overtakes desktop in digital video

In FY 17, mobile video revenue surpasses desktop video revenue for the first time

- Total digital video, including mobile and desktop, rose to $11.9 billion in FY 2017, up 33% from $8.9 billion in FY 2016.
- Growth of digital video on smartphones and tablets continued, reaching $6.2 billion in FY 2017, a 53.5% rise from FY 2016.
- Digital video continued to serve as the key growth driver in mobile and desktop in FY 2017, increasing 54% and 16% over FY 2016, respectively.



Historical Digital Video Revenues, Full Year ($ billions)

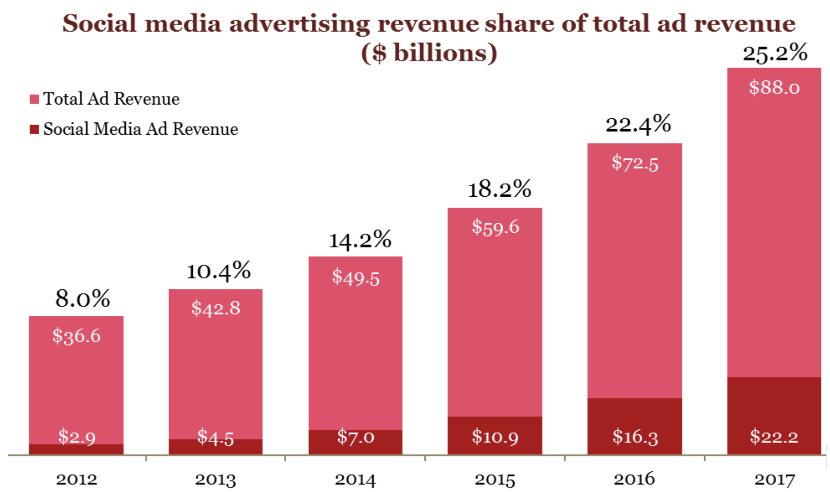
*Certain prior year amounts have been reclassified based on new findings:

($millions)	As originally reported	As revised
Video	$9,054	$8,926

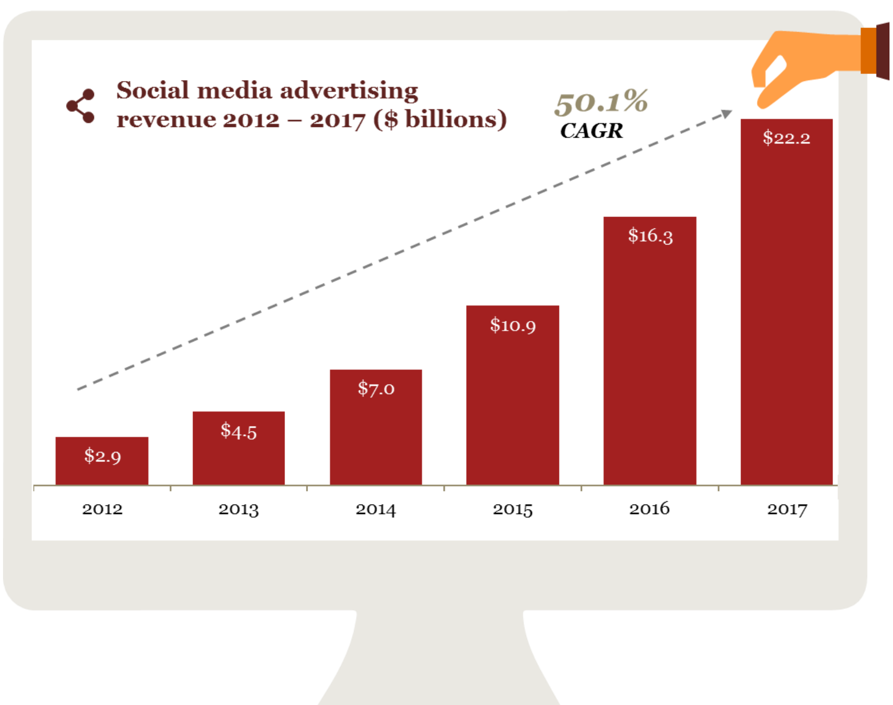
Social media's share of the pie increased

Social media continues to capture a greater piece of the market

Social media advertising revenue growth continued in 2017, growing 36% from the prior year to $22.2 billion. Social media now represents 25.2% of overall revenue.



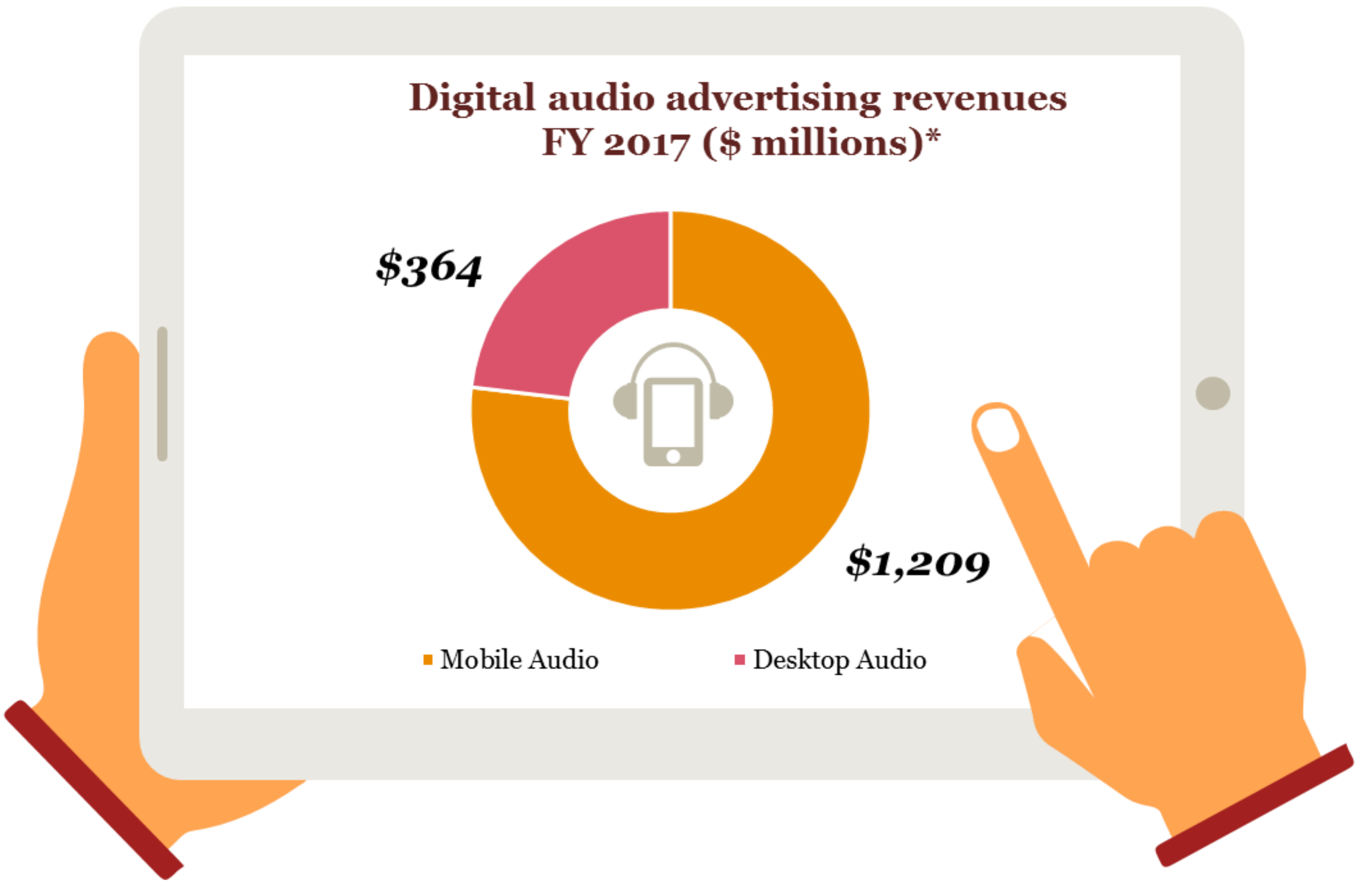
Over the past 5 years Social Media growth has had a CAGR of 50.1%resulting in a significant increased share of overall revenues – going from 8.0% to more than 25% in just six years.



Digital audio achieved new heights

In 2017, digital audio advertising revenue reached $1.6 billion

This represents a 39% increase over FY 2016's revenue of $1.1 billion. Additionally, digital audio percentage of total internet advertising revenue spend increased from 1.6% in FY 16 to 1.8% in FY 17.

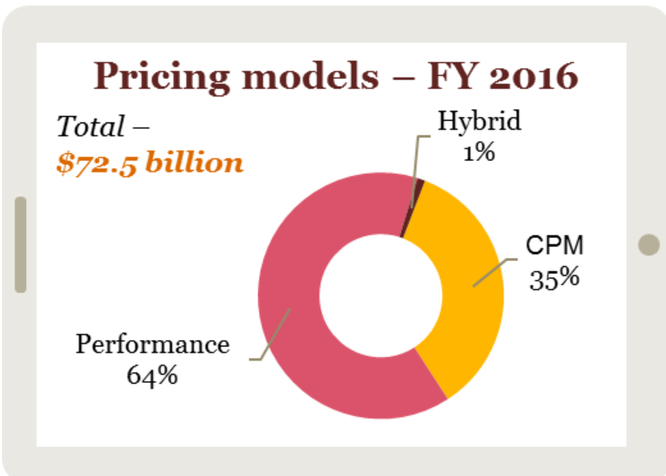


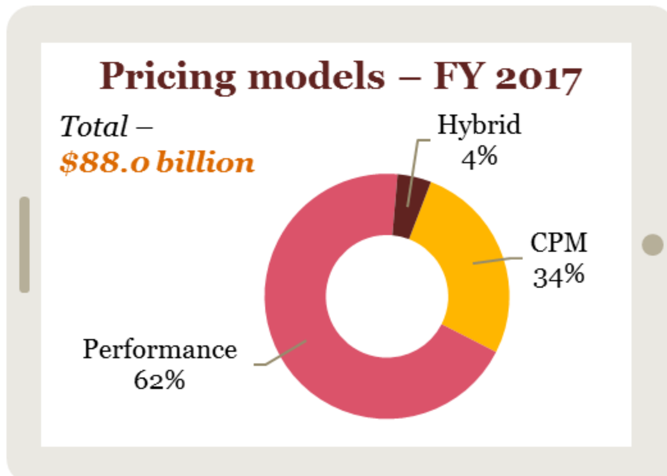
*Podcast advertising revenue is not included in the digital audio advertising revenue figures for FY 2016 or FY 2017.

Revenues by pricing model

Hybrid shows a large increase compared to other years

- 62% of FY 2017 revenues were priced on a performance basis, down slightly from the 64% reported in FY 2016.
- 34% of FY 2017 revenues were priced on a cost per thousand (CPM) or impression basis, down slightly from the 35% reported in FY 2016.
- 4% of FY 2017 revenues were priced on a hybrid basis, an impressive gain from the 1% reported in FY 2016.

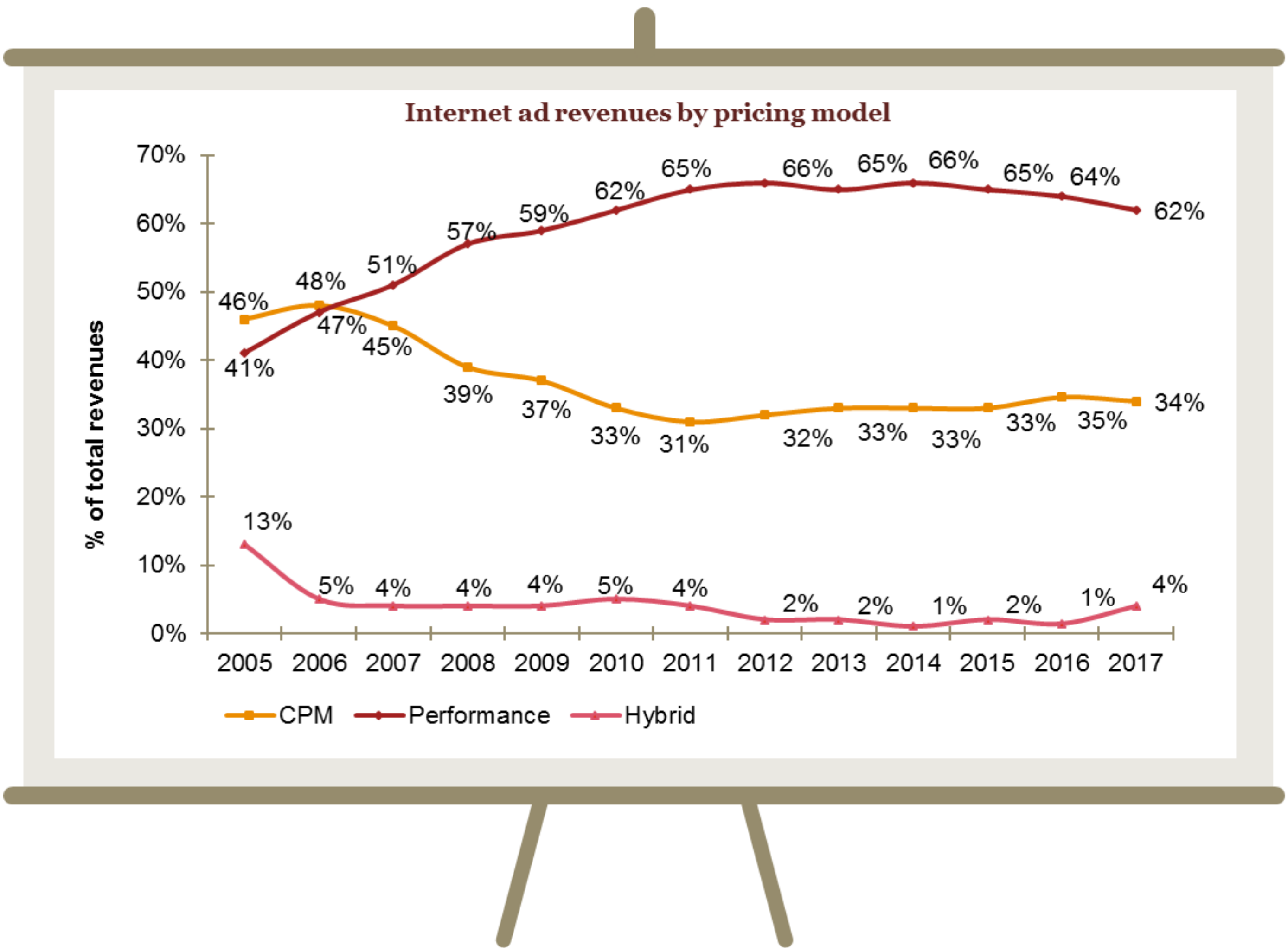




Historical pricing model trends

Hybrid showed a significant uptick from 1% to 4% year-over-year

- Performance-based pricing, the leading pricing model since 2006, fell two percentage points to 62% of total revenue in FY 2017.
- CPM pricing fell one percentage point from FY 2016 accounting for 34% of revenue in FY 2017.
- Hybrid pricing increased to nearly 4% of total revenues in FY 2017, up from the 1% reported in FY 2016.

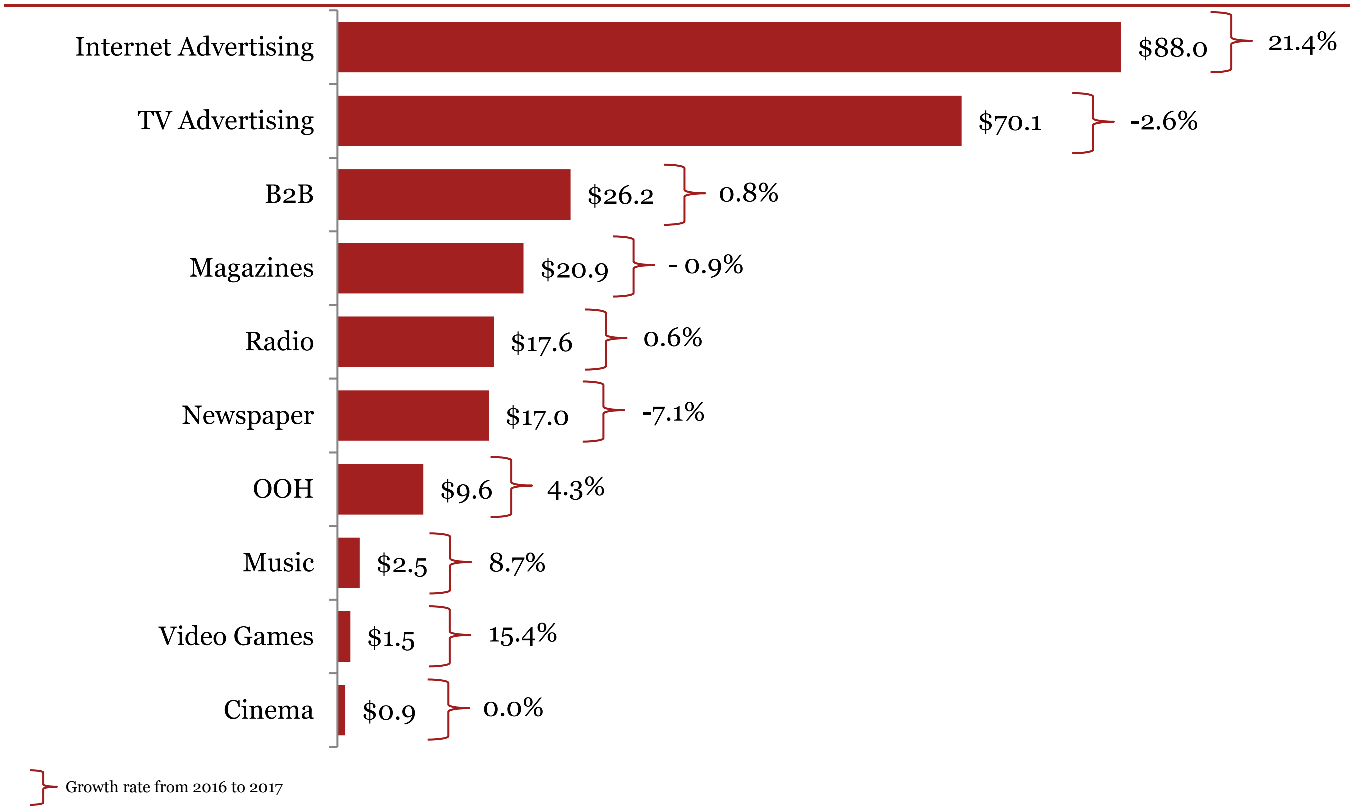


Advertising market share by media

Internet advertising continued to be the leading source of advertising revenue in 2017

Internet has continued to grow in share and significance compared to other U.S. ad- supported media*, leading TV advertising by $17.9 billion in full year 2017.

Advertising revenue market share by media – 2017 ($ billions)

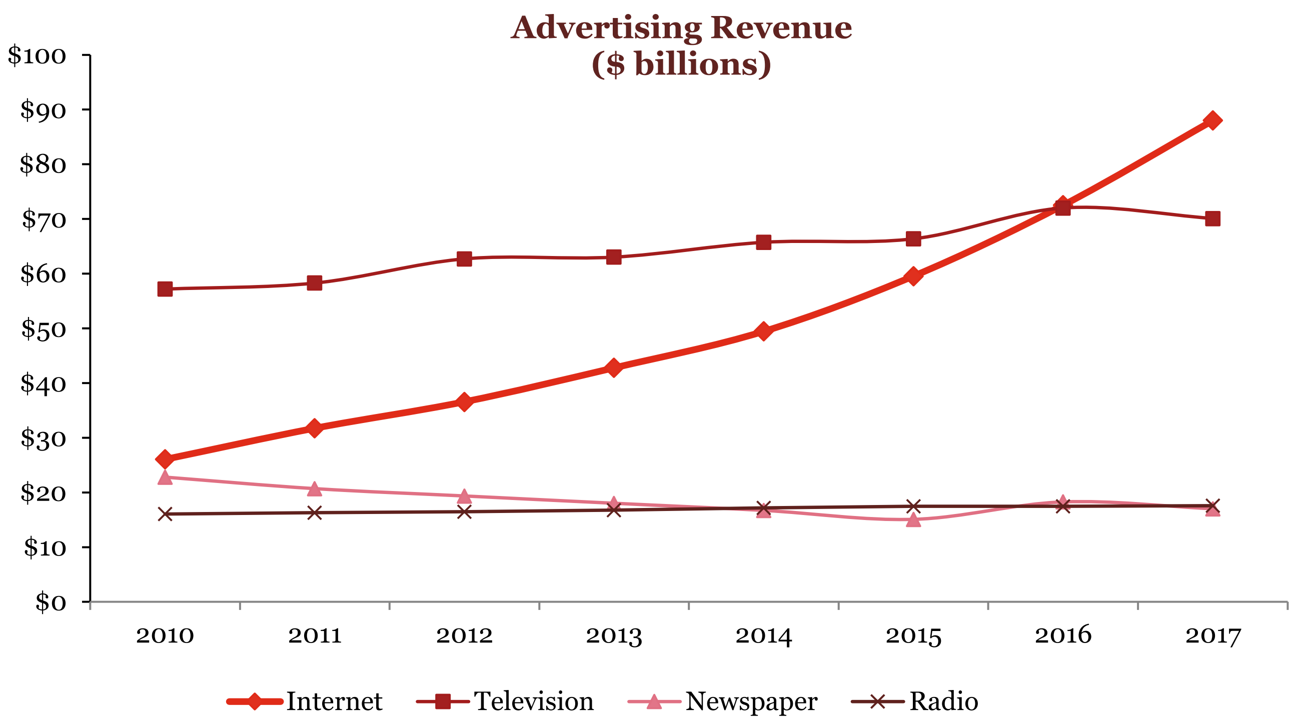


* The total U.S. advertising market includes other segments not charted here.

Historical advertising market share

Internet advertising extends its lead and market share, while television growth slows

In every year since 2010, the annual growth rate of Internet advertising has exceeded that of other advertising media. Internet advertising has experienced double-digit annual growth in every year except 2009; no other media has experienced double-digit growth in any year.



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	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: • 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: • 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: • 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	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: • 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; Music or spoken word audio content delivered within a different website or application, e.g., in-game music services. Digital Audio is currently included in Other.
Digital video advertising	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. 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.

Mobile advertising	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). Mobile advertising formats include: Search, Display-related (banner ads, video, audio, sponsorships, and rich media), and Other advertising served to mobile devices.
Social media advertising	Advertising delivered on social platforms, including social networking and social gaming websites and apps, across all device types, including desktop, laptop, smartphone and tablet.
Impression-based	Cost-per-thousand (CPM) pricing model
Performance-based	Cost-per-click, sale, lead, acquisition, or application (e.g., credit card application) or straight revenue share (e.g., % commission paid upon sale)
Hybrid	Any mix of impression-based pricing plus performance-based compensation within one ad campaign

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.

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%**

	Revenue (in mil)	Q/Q growth	Y/Y growth
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%**
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	$15,849	-9%	20%
Q2 2016	$16,889	7%	18%
Q3 2016	$18,175	8%	24%
Q4 2016	$21,607	19%	24%
Total 2016	**$72,521**		**22%**
Q1 2017	$19,352	-10%	22%
Q2 2017	$20,786	7%	23%
Q3 2017	$21,764	4.7%	20%
Q4 2017	$26,106	20%	21%
Total 2017	**$88,008**		**21%**

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

Executive committee

Randall Rothenberg	**Allie Kline**	**Vivek Shah**
President and CEO	Oath	j2 Global
Scott Schiller	**Meredith Kopit Levien**	**John Toohey**
NBC Universal	The New York Times Company	Charter Communications
Rik van der Kooi	**David Moore**	**Lauren Wiener**
Microsoft Advertising	Xaxis	Tremor Video
Stu Ingis	**David Morri**	
Venable LLP	CBS Corporation	
Troy Young	**Sridhar Ramaswamy**	
Hearst Magazines Digital Media	Google	

Ex-Officio

Founding Chairman	Treasurer	Secretary
Rich LeFurgy	**John Toohey**	**Stu Ingis**
Archer Advisors	Charter Communications	Venable LLP

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

For more information, contact one of the following PwC professionals:

New York
David Silverman
Partner, Assurance Services
646.471.5421
david.silverman@pwc.com

New York
Brian Gaffney
Manager, Advisory Services
646.471.4722
brian.gaffney@pwc.com

PwC has exercised reasonable care in the collecting, processing, and reporting of this information but has not independently verified, validated, or audited the data to verify the accuracy or completeness of the information. PwC gives no express or implied warranties, including but not limited to any warranties of merchantability or fitness for a particular purpose or use and shall not be liable to any entity or person using this document, or have any liability with respect to this document.

This content is for general information purposes only, and should not be used as a substitute for consultation with professional advisors.