

# Magnifier: Methodology *By Media*



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## Our Unique Approach

MediaRadar provides spend estimates for United States TV, Radio, Print, Online Display, Online Video, Mobile, Paid Social, and AVOD advertising by first performing a hands-on review of advertising as it runs, and then leveraging a variety of resources to apply reasonable cost estimates to the advertising activity we observe. Our approach to reporting spend is unique in several ways:

### Creative Level Detail

Advertiser level spend reporting can only tell you so much. We're able to report how much weight lies behind each specific message by:

- Performing a thorough manual review of each new Creative. Even though MediaRadar relies on automated technology to track ads and occurrences in most media, every new pattern is ultimately manually compared against our existing creative archive, which allows us to consistently distinguish between new ads and recuts.
- Utilizing centralized teams of industry experts to classify all Creatives across all monitored media, ensuring consistency and allowing us to provide the deepest level of cross media reporting around.
- Reporting from the highest to most granular of levels, allowing our clients to trace all reported spend back to the individual Occurrence and Creative level as needed.
- Making each Creative, along with its associated occurrences, easily available for view/download on our website.

### Customization

MediaRadar Spend Reports can be customized at literally any level, including (but not limited to):

- **Creative level Attributes:** Our clients can filter reports to Wireless ads offering a Family Plan, QSR ads for Value Meals, Retail ads featuring Appliances, and much more...
- **Classification:** Our Product Classification allows for groupings as broad as All Beverages or as narrow as Flavored Tea, and our highly detailed ad classification allows us to group data into whatever classification scheme you prefer.
- **Tracking Universe:** The media universe we report on may be tailored to specific needs and we are open to adding niche media channels as needed.
- **Deliverable Formats:** Filters and Layouts can be customized for every Spend Report we produce.

## Consistent Spend Comparison

Our goal is to provide a consistent measure of advertising “communications value”. By using the same average rates for all advertisers in a given media channel, we are able to provide a true fair market comparison of advertisers’ share of voice within a given competitive set, independent of the potentially broad variance in rates different advertisers receive.

## The Details

Our basic formula for estimating spend for each medium can be boiled down to:

$$\text{Estimated Cost} = (\text{Unit Cost}) * (\text{Unit Factor}) * (\text{Audience Factor})$$

### Television

## Gathering Ads and Occurrences

MediaRadar uses proprietary video-based Pattern Recognition (PR) technology to monitor TV airplay across all stations in our tracking universe. Our PR system automatically assigns recognized airplay to existing Patterns, while unrecognized airplay is queued up as a new Pattern for manual review. When a manual Operator indicates that a new Pattern represents ad content, that Pattern is passed onto our classification team who assigns all Creative-Level detail.

Broadcast Network and Cable Television is monitored via East Coast satellite feeds 24 hours a day, 365 days a year. Spot Television is monitored 24 hours a day, 365 days a year, and the monitored broadcast networks’ affiliate stations in the local market are used as a double-check on the network’s commercials.

National Syndication commercial occurrences are identified through an automated cross-market comparison of ad placements within syndicated program telecasts. The matching process takes into account the fact that a syndication telecast airs at different times and/or on different dates across markets. After telecasts have been matched and the national ad occurrences within them have been identified, our systems align the cleared airings across markets and determine the most common airtime (adjusted for time zone). This most common time appears in reports as the airtime of a National Syndication ad occurrence.

National airplay is reported for monitored Broadcast Networks, Cable Networks, and all major Syndicated programming. Spot airplay is reported for all monitored Broadcast Network affiliates.

## Unit Costs: National TV (Cable, Network, Syndication)

Average 30-second Unit Costs are primarily derived from data obtained through Guideline (NetCosts), based on actual purchases that reflect negotiated costs, the actual weighting of upfront and scatter buys, and the incidence of no-charge spots.

- **General Media Network:** Unit Costs are broken out by network, daypart, program category, program sub-category, and day of week.
- **Cable & Spanish-Language Network:** Unit Costs are broken out by network, daypart, program category, and program sub-category.
- **Syndication:** Unit Costs are broken out by syndicator, program category, and program sub-category.

For Network and Cable, MediaRadar supplements Guideline data with rate cards, declarative publisher data, and intelligence available in the public domain. These additional inputs are blended with the Guideline data in a proprietary model to produce an average 30-second cost for each property and program.

For Syndication, the Guideline inputs are entered into a proprietary model to produce an average 30-second cost for each national Syndication program.

## Unit Costs: Spot TV

Average 30-second Unit Costs are primarily derived from data obtained through the Guideline MEDIACOSTS system. MediaRadar receives quarterly reports detailing the average cost of a 30-second spot broken out by market and daypart. The reports are based on actual spot purchases made by MEDIACOSTS contributors and reflect negotiated costs.

MediaRadar supplements MEDIACOSTS data with rate cards, declarative publisher data, and intelligence available in the public domain. These additional inputs are blended with the MEDIACOSTS data in a proprietary model to produce an average 30-second cost for each property and daypart.

Prior to January 2025, Spot TV expenditures were derived from 30-second cost information supplied by contributing television stations, rep firms, and agency sources. Spot cost information was supplemented by industry spot revenue patterns as defined in a survey conducted monthly by the Television Bureau of Advertising (TVB).

## **Unit Factor**

Our Unit Factor for all TV occurrences is calculated as  $(\text{Ad Length}/30)$  except:

For Spot TV, 45-second occurrences are costed at 100% of the Unit Cost.

## **Audience Factor**

All Unit Costs effectively have Audience Factors built in, so we do not apply any additional Audience Factor for TV.

## Gathering Ads and Occurrences

MediaRadar's primary source for most publications is a hard-copy subscription shipped directly to our offices. Additionally, we supplement/improve on this subscription method in the following ways:

- We monitor a modest subset of our tracking universe online, though we only do so after verifying that the ad content in the digital version sufficiently matches that of the hard copy.
- We maintain supplemental in-market subscriptions for most top-tier markets in order to ensure reasonably comprehensive coverage of Free Standing Insert (FSI) activity in these markets, as FSIs are often excluded from out-of-market subscriptions.
- For top National Newspapers and Magazines, we subscribe to a variety of regional and demographically targeted editions to properly track and classify targeted buys.

Regardless of the subscription method, all of our ad and occurrence capture for Print is ultimately the result of a full manual review of each issue.

## Unit Costs

Unlike most other media, Unit Costs for Print are typically broadly and openly published. Newspaper Unit Costs are published at the Column-Inch level, while Magazine Unit Costs are published at the full-page level, and Unit Costs for Inserts (both Bound and Free Standing) reflect a two-page Insert.

However, in all cases, the published "Open Rate" fails to account for the level of bulk discount most of our clients and their competitors would pay. After discussing this point at length with our clientele as well as on-retainer consultants, we have settled on the following discount levels to apply on an across-the-board basis to all Print activity we observe:

- Newspapers: 25% discount applied to Open Rate
- Trade Publications: 30% discount applied to Open Rate
- Consumer Magazines: 35% discount applied to Open Rate
- Inserts: 10% discount applied to Open Rate

Color premiums are factored into the above rates where applicable. Bleed and position premiums are not recognized.

## Unit Factor

- Newspapers: Unit Factor for any given X-Column by Y-Inch ad placement =  $X*Y$
- Magazines (including Trades): In many cases, Unit Factors for specific, standard units (e.g. 1/2 Page, 1/4 Page) are explicitly listed in a Publication's Rate Card. Wherever available, we apply this value directly. For all other cases, we have developed an average Unit Factor over time for all standard ad units (e.g. a 1/4 Page ad is costed at 40% of the Full Page Rate for a given Pub if the Pub does not explicitly list a 1/4 Page rate.)
- Inserts: We actually store two Unit Costs for Inserts; a Base Unit Cost for placing the Insert, and then a (typically much smaller) Incremental Unit Cost per additional (two-page) sheet. So application of the Unit Factor consists of simply adding the appropriate Incremental Unit Cost to the Base Unit Cost.

## Audience Factor

All Run-Of-Press (ROP) Unit Costs effectively have Audience Factors built in, so no additional Audience Factor is needed there.

However, Unit Costs for Inserts are typically listed on a CPM basis, and the CPM itself can vary depending on the size of the audience. Absent a sufficient resource to measure how many of a Publication's subscribers saw a given insert, we have worked with our clients and consultants to establish that, on average, an insert placed by our clientele would go to about 90% of a given Publication's subscriber base. And so our Audience Factor for Inserts =  $.9 * \text{Total Circulation}$  for a given Publication.

### Gathering Ads and Occurrences

MediaRadar uses proprietary, patent-protected, audio pattern recognition (PR) technology that processes radio station recordings to detect and identify radio advertisements. The PR system automatically assigns recognized airplay to existing Patterns, while unrecognized airplay is queued up as a new Pattern for manual review.

MediaRadar uses a hybrid approach to monitoring. Within a given market, airplay for all monitored stations is collected either via over-the-air (OTA) signals or webstreams. Prior to January 2023, collection for all markets was OTA. The collection method, by market, is as follows:

#### OTA Markets

- Atlanta
- Austin\*\*
- Baltimore
- Boston
- Chicago
- Dallas-Ft. Worth
- Denver
- Houston
- Los Angeles
- Miami-Ft. Lauderdale
- Minneapolis-St. Paul
- New York City
- Orlando
- Philadelphia
- Phoenix
- Pittsburgh
- Portland, OR
- Sacramento
- San Antonio\*\*
- San Diego
- San Francisco
- Seattle
- St. Louis
- Tampa-St. Petersburg
- Washington, DC

#### Webstream Markets

- Bakersfield\*
- Brownsville-McAllen\*
- Charlotte
- Cincinnati
- Cleveland
- Detroit
- El Paso\*
- Fresno\*
- Ft. Myers-Naples\*\*
- Hartford-New Haven
- Indianapolis
- Kansas City\*\*
- Knoxville\*\*
- Las Vegas
- Memphis\*\*
- Milwaukee
- Omaha\*\*
- Providence\*\*
- Salt Lake City\*\*
- West Palm Beach\*\*

\*Spanish-Language Only

\*\*Effective January 2023

## Unit Costs

Average 30-second Unit Costs are provided through Guideline and are assigned at the Market-Daypart level based on average cost per rating point.

Prior to January 2023, average 60-second Unit Costs at the Station-Daypart level were provided by on-retainer media buyers, in consultation with radio rep firms, station groups, and individual stations.

## Unit Factor

Occurrences of 30-second ads (and shorter) are assigned a Unit Factor of 1, while occurrences of 60-second ads (and longer) have a 39% premium applied to their Unit Cost and occurrences of 45-second ads have a 16% premium applied to their Unit Cost.

Prior to January 2023, Unit Factor for all Radio occurrences was calculated as  $(\text{Ad Length}/60)$  except for 30-second ads which were costed at 80% of the Unit Cost.

## Audience Factor

Audience impression data is provided through Nielsen Audio and is used to derive monthly average rating points at the Station-Daypart level.

Prior to January 2023, all Unit Costs effectively had Audience Factors built in, so we did not apply any additional Audience Factor for Radio.

## Desktop & Mobile Web Display & Video

### Gathering Ads and Occurrences

We use a hybrid approach to collecting Online (Desktop) Display & Video and Mobile Web Display & Video ads, leveraging both automated spidering and panel-based collection.

- **Automated Spider Collection:** Ads are collected using a spider/bot technology that takes an “intelligent random walk” through the websites in our tracking universe multiple times throughout the day and logs each image occurrence it runs across. This collection is conducted from ~50 U.S. based geo locations.
- **Panel-Based Collection:** Panel collection is driven by live human interest and behavior of 1.2 million panelists, comprised of 850 thousand desktop and 375 thousand mobile panelists. Ads are passively collected as panelists organically browse the internet. The panel is representative of a cross section of consumers throughout the United States. The panel is fully anonymized and adheres to strict privacy standards; as such personally identifiable information, such as demographic and geo-location details, is not collected.

### Estimating Impressions

Ad impressions are calculated using a combination of engagement and experience metrics for each site. Engagement metrics are provided by SimilarWeb for site visitation, average pages per visit, and average duration per visit. Experience metrics measure ad exposure for each site and are derived using industry benchmarks (Google ad rules for banner and video placement), observational data obtained from spider collection, and primary research replicating the site ad-to-content experience.

For Online Display and Mobile Web Display, on a site-by-site basis, impressions are calculated by deriving Total Page Views from Site Visitation and Average Pages per Visit, and then applying a ratio reflecting the ad-to-content experience to estimate total impressions delivery. Impressions are then distributed across all of the ad occurrences collected for each site and aggregated at the ad/site/run week level.

For Online Video and Mobile Web Video, on a site-by-site basis, impressions are calculated by deriving Total Time Spent on the Site from Site Visitation and Average Duration per Site Visit, and then applying a ratio reflecting the average number of ad streams served per minute of site duration to estimate total impressions delivery. Impressions are then distributed across all of the ad occurrences collected for each site and aggregated at the ad/site/run week level.

Prior to December 2022, ad impressions were calculated using a combination of ad frequency and audience metrics (page visits for Online Display and Mobile Web Display, ad views for Online Video and Mobile Web Video). On a weekly basis, we summarized all of the ad activity observed on each

domain relative to the available placement opportunities for that domain to calculate an Ad Frequency metric at the ad/site/run week level. Audience metrics were provided by Comscore on a monthly basis (SimilarWeb for July–November 2022) and prorated to the weekly level for all domains and key subpages in our tracking universe.

## Estimating Spend

Ad expenditures are calculated by applying a cost-per-thousand (CPM) estimate against ad impression values:

$$\text{Expenditure} = (\text{CPM}) * (\text{Impressions} / 1000)$$

Site specific CPMs are aggregated from multiple resources, including published rate cards, publisher survey submissions, third-party analysis, and ad tech intermediaries and aggregators, where available. Rates are analyzed to determine the relative value of inventory served on a specific site, and the CPMs generally reflect a more premium, direct buy for a site’s inventory. In instances where a site-specific CPM is not available, we use the site category average. For Online Video and Mobile Web Video, CPMs are not adjusted for length of the ad unit.

Final ad expenditures are calculated at the monthly level using engagement metrics (visitation & time spent), experience Metrics (ad-to-content factors), and CPMs. They are distributed across all observed advertising occurrences for the given month, and aggregated at the ad/site/run week level. Until final ad expenditures are published, preliminary estimates are calculated at the daily level and distributed across all observed advertising occurrences for the given day, using the same variables that inform final estimates. While variations in experience metrics and CPMs are less pronounced and less frequent, previous monthly thresholds are used as proxies for engagement metrics.

Prior to December 2022, we leveraged Comscore site level audience data (SimilarWeb for July–November 2022) and SQAD WebCosts site genre data in conjunction with the output of our own ad collection to assign each site a Media Value Weight for the given run week, and then distributed each site’s Media Value Weight across the advertising observed on each site. We separately combined Comscore site level audience data (SimilarWeb for July–November 2022) and Guideline WebCosts site genre data with published industry reports and other proprietary inputs to estimate aggregate spend for the entire trackable digital universe for the given run week. We then allocated the aggregate spend to each individual site based on the given Media Value Weight and to each individual ad based on the site-level distribution of each site’s Media Value Weight.

## Mobile App

### Gathering Ads and Occurrences

Mobile App collection is powered by a panel of 375 thousand mobile panelists driven by live human interest behavior and augmented by our standard and persona-based crawler collection to provide the most diverse and representative view of the advertisers present in the marketplace.

MediaRadar’s Mobile App measurement covers banner ads served within applications on mobile

devices (iPhone & Android) in the U.S. YouTube Video Mobile App measurements include video ads up to four minutes in length, occurring in pre-, mid-, and post-roll positions.

Every day our panel and crawlers visit the apps in our tracking universe and logs each image occurrence it runs across. Occurrences of previously recognized ad images are automatically posted to our Mobile App database. All unrecognized images are passed to our image classification team for manual review. New ads are passed to our industry specialized brand classification team for creative attribution and consistent categorization across all media.

Prior to December 2022, our Mobile App collection was restricted to crawler collection only.

## Estimating Impressions

Ad impressions are calculated using a combination of engagement and experience metrics for each mobile app. Engagement metrics are provided by SimilarWeb for daily active users, average pages per visit, and average duration per visit. Experience metrics measure ad exposure for each app and are derived using a count of the number of ad slots and ad streams observed, obtained from industry benchmarks (Google ad rules for banner and video placement), observational data obtained from crawler collection, and primary research replicating the mobile app ad-to-content experience.

For Mobile App, on an app-by-app basis, impressions are calculated by deriving Page Views, either from Daily Active Users and Average Pages per Visit in the case of Display or Daily Active Users and Average Time Spent in the case of Video, and then applying a ratio reflecting the ad-to-content experience to estimate total impressions delivery. Impressions are then distributed across all of the ad occurrences collected for each app, and aggregated at the ad/app/run week level.

## Estimating Spend

Ad expenditures are calculated by applying a cost-per-thousand (CPM) estimate against ad impression values:

$$\text{Expenditure} = (\text{CPM}) * (\text{Impressions} / 1000)$$

App specific CPMs are aggregated from multiple resources, including published rate cards, publisher survey submissions, third-party analysis, and ad tech intermediaries and aggregators, where available. Rates are analyzed to determine the relative value of inventory served on a specific app, and the CPMs generally reflect a more premium, direct buy for an app's inventory. In instances where an app-specific CPM is not available, we use the app category average.

Final ad expenditures are calculated at the monthly level using engagement metrics (visitation & time spent), experience Metrics (ad-to-content factors), and CPMs. They are distributed across all observed advertising occurrences for the given month and aggregated at the ad/app/run week level. Until final ad expenditures are published, preliminary estimates are calculated at the daily level and distributed across all observed advertising occurrences for the given day, using the same variables that inform final estimates. While variations in experience metrics and CPMs are less pronounced

and less frequent, previous monthly thresholds are used as proxies for engagement metrics.

Prior to December 2022, we leveraged Comscore app level audience data in conjunction with the output of our own ad collection to assign each mobile app a Media Value Weight for the given run week, and then distributed each app's Media Value Weight across the advertising observed on each app. We separately combined Comscore app level audience data with published industry reports and other proprietary inputs to estimate aggregate spend for the entire trackable app universe for the given run week. We then allocated the aggregate spend to each individual app based on the given Media Value Weight and to each individual ad based on the app-level distribution of each app's Media Value Weight.

*MediaRadar is the premier provider of  
marketing intelligence for the future of the  
advertising world.*

Our innovative solutions enable brands, agencies, and media owners to achieve peak performance with always-on marketing intelligence that spans the media, creative, and business strategies of 5 million brands across 30+ media and marketing channels.

By bringing the advertising past, present and future into crystal-clear focus, our clients rapidly understand and act on the competitive media moves and emerging advertising trends impacting their business.

MediaRadar, now including the data and capabilities of Vivvix, powers the mission critical marketing and sales decisions that drive competitive advantage.

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