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POINT OF VIEW

# Out-of-Home Advertising at Scale: Accurately Measuring Out-of-Home Advertising

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## Executive Summary: Out-of-Home Advertising Outperforms, but Remains Underappreciated

Marketers are struggling to reinvigorate growth; out-of-home (OOH) advertising remains underappreciated and underutilized.

- There has been a steady but uneven recovery since the Great Recession of 2009. Market growth is occurring, but there is a pervasive lack of breadth and consistency.
- While the average income of shoppers has stagnated during the recovery, there are pockets of outsized growth where per-capita income has grown as much as 15 percent.
- Marketers are seeking out new media to reach shoppers in an increasingly fragmented media environment, but often overlook nontraditional media, such as cinema and billboard, considering it less effective than other media.

Advertisers and agencies can achieve sales uplift of 5 to 10 percent by adopting hyperlocal strategies and considering nontraditional ways to reach shoppers.

- Hyperlocal strategies, such as out-of-home advertising, that focus on high-growth markets can yield outsized results.
- OOH advertising, such as cinema advertising, is highly efficient, especially with attention-fragmented shoppers, including millennials.
- Results from this study indicate out-of-home tactics can drive higher results than other traditional media. Cinema advertising in particular can drive 2X to 3X more ROI than TV or print.

Lack of effective investment and inaccurate measurement is feeding marketers' misunderstanding of the value and impact of the various OOH advertising tools.

- Marketers who leverage national campaign strategies spend similarly on growing and declining markets, driving down return on advertising spend (ROAS) and other metrics.
- Inaccurate measurement tools have instilled and reinforced the idea that hyperlocal advertising is an ineffective medium.
- Today, most advertisers and agencies continue to utilize national or market/DMA-level marketing mix models (MMM).
- These models oversimplify audience diffusion, obscure the effects of audience reach variations and understate the synergy between out-of-home advertising and other media platforms.

Framework to win: Advanced modeling greatly enhances planning, execution and measurement of out-of-home advertising, allowing for ongoing optimization and significantly elevating impact.

- Applying a geocentric approach to measure out-of-home advertising impact yields significantly more insightful and accurate results.
- By identifying out-of-home impact zones with a focus on trade areas that are in a 5/10/15-mile radius of the location and applying customized, advanced analytics, marketers can isolate the impact of out-of-home campaigns.
- The results of this approach show substantial improvement in predictive accuracy and demonstrate the value of a hyperlocal strategy.

## Nontraditional Media Outperforms, but Remains Underappreciated

Detailed in IRI's recent [Taking Stock of CPG Past and Future: Gear Up Now for a Year of Growth](#), the CPG industry is still struggling to find consistent growth. At a macro level, dollar sales have been boosted by inflationary pricing trends and declining merchandising activity, but volume has been weak.

The U.S. economic recovery has continued at a slow and steady pace. However, the uplift has not been uniform across the U.S. In some markets, per-capita income growth remains stagnant, while in others, there has been growth of up to 15 percent (see Exhibit 1). CPG marketers who can zero in on these

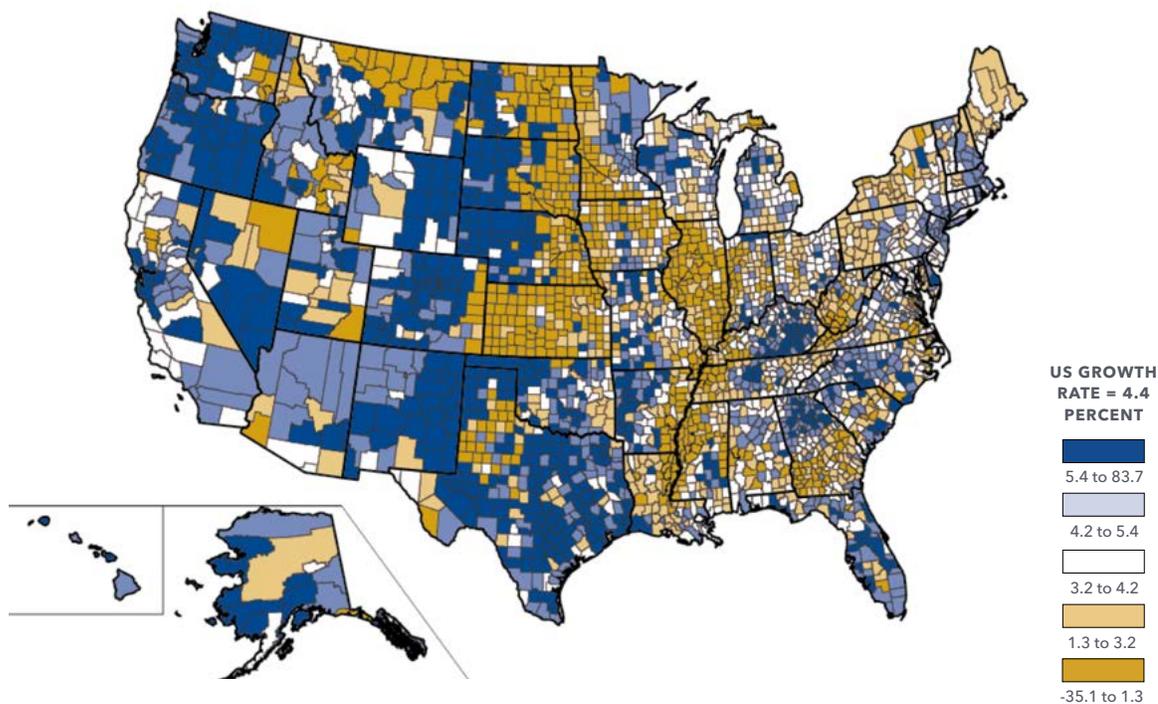
growth pockets will benefit from outsized growth opportunities.

In pockets of more rapid growth, higher demand for consumer goods is the norm, and brands overindexing in these markets are well positioned to benefit. However, marketers who are pursuing a national campaign strategy are earning less than stellar results, since their campaigns are inefficient, reaching declining markets and consumers with less ability to purchase consumer goods as well as faster-growing markets where consumers are more willing to spend, both in general and on higher-priced CPG solutions.

### EXHIBIT 1

## CPG Marketers Who Can Zero in on Higher-Growth Areas Will Enjoy Outsized Growth Opportunities

### Personal Income: Percent Change for Counties, 2013-2014



US Bureau of Economic Analysis,

Source: [http://www.bea.gov/newsreleases/regional/lapi/lapi\\_newsrelease.htm](http://www.bea.gov/newsreleases/regional/lapi/lapi_newsrelease.htm)

## EXHIBIT 2

## Out-of-Home Advertising Opens New Opportunities by Reaching High-Potential Market and Shopper Segments

### Examples of Out-of-Home Media & Number of Out-of-Home Displays, 2016

<b>BILLBOARDS</b>	Bulletins <b>158,868</b>		Digital Billboards <b>6,400</b>	Posters <b>165,606</b> faces	Junior Posters <b>33,336</b> faces	Walls/ Spectaculars <b>4,029</b>	
<b>STREET FURNITURE</b>	Bus Shelters <b>49,082</b>		Urban Furniture, Bus Benches, Newsracks, Newsstands, Phone Kiosks		Digital Urban Furniture <b>699</b>		
<b>TRANSIT</b>	Airports <b>68,560</b>	Busses <b>205,426</b>	Subway & Rail <b>184,078</b> faces	Mobile Billboards <b>1,200</b>	Trucksides <b>2,732</b> vehicles	Taxis/Wrapped Vehicles <b>46,194</b>	Digital Transit <b>3,760</b>
<b>ALTERNATIVE</b>	Arenas & Stadiums <b>1,352</b>	Cinema <b>34,350</b>	Digital Place-Based/ Video <b>1.25M</b> screens	Interior Place-Based, i.e., Convenience Stores, Health Clubs, Restaurants/Bars		Shopping Malls <b>30,532</b>	Digital Shopping Malls <b>120</b>
			Exterior Place-Based, i.e., Airborne, Marine, Resorts/Leisure				

Source: Advertising Association of America

Hyperlocal advertising, such as cinema, billboard and premium content advertising, can overcome this ad spending waste and boost return on advertising investment by directing messaging to growing markets that are populated by high-potential CPG shoppers. Still, marketers continue to discount the opportunities presented by out-of-home (OOH) advertising, due in part to traditional thinking that fails to see the powerful benefits of these hyperlocal media and inaccurate measurement techniques that feed incorrect information to marketing teams. Both of these assumptions are way off the mark.

Nontraditional media has always been somewhat underappreciated by marketers. The whole space is

quite fragmented, with very little means to effectively track performance (see Exhibit 2). There are 100+ nontraditional media channels listed in Strategic Uses of Alternative Media, and highly effective media such as cinema are buried within the specialty media list alongside the likes of milk carton advertising and doggie bag advertising.<sup>1</sup>

Marketers have devoted as little as 3 to 4 percent of total media spending to OOH, and only a small fraction of that spending is allocated to cinema advertising (see Exhibit 3). Clearly, advertisers are not recognizing and/or rewarding the potential reach this media offers.

<sup>1</sup> Strategic Uses of Alternative Media: Just the Essentials, pages 6-8, Robyn Blakeman, published 2011.

## EXHIBIT 3

## Out-of-Home Remains a Small Percentage of Advertising Spending

## U.S. Total Media Ad Spending Share by Media, 2014-2019, % of total

	2014	2015	2016	2017	2018	2019
TV	39.0%	37.9%	37.3%	36.3%	35.6%	34.6%
DIGITAL	28.3%	31.6%	34.4%	37.0%	39.2%	41.4%
Mobile	10.9%	16.6%	21.6%	24.9%	26.9%	28.9%
PRINT	17.3%	15.8%	14.5%	13.6%	12.8%	12.1%
Newspapers*	9.1%	8.0%	7.1%	6.5%	6.0%	5.7%
Magazines*	8.3%	7.8%	7.4%	7.1%	6.7%	6.5%
RADIO**	8.6%	8.2%	7.8%	7.4%	7.1%	6.8%
OUTDOOR	4.0%	3.9%	3.8%	3.7%	3.6%	3.4%
DIRECTORIES*	2.8%	2.5%	2.2%	2.0%	1.8%	1.7%

Note: \*print only; \*\*excludes off-air radio & digital

Source: eMarketer, September 2015

### Advertisers and Agencies Can Achieve Sales Uplift of 11 to 15 Percent by Adopting Hyperlocal Strategies, Such as Out-of-Home Advertising

There are several strategies to engage with shoppers on a hyperlocal basis, including OOH, digital and spot TV. However, OOH has multiple aspects in its favor that can result in more effective activation of microtarget growth pockets. For instance, when consumers are not at home, they are more attentive. Couple this higher engagement with the fact that consumers are spending an increasing share of their active hours out of the home, and better salience than traditional media is the result. OOH provides more definitive reach than digital media, which shoppers tend to not view up to one-third of the time.

Using cinema advertising once again as an example: A recent *Advertising Age* article states that cinema falls into the premium video category, which also includes Hulu, Netflix and YouTube. Premium video offers a number of qualitative benefits resulting in a much higher impact than other mass media platforms.<sup>2</sup>

Among these are:

- With 1.3 billion tickets sold in 2014, which represents almost 10X the attendance of pro sports events, cinema provides a large and highly captive audience that is totally focused on the message, resulting in very high recall rates. In audience terms, cinema generates 11 to 15 percent weekly unduplicated reach in the United States.

<sup>2</sup>“Omnicom Makes \$50 Million Commitment to National CineMedia,”

<http://adage.com/article/agency-news/omnicom-places-50-million-bet-ooh-cinema-latest-deal/297380/>

- Cinema provides highly attractive audience characteristics. It generates more effective reach with millennials and younger targets who are notoriously attention fragmented in other media platforms. Audiences have higher-than-average income and an average age of 32, at peak discretionary buying power, compared to the prime time TV audience, which has an average age of 57. While discretionary income for empty nesters does go up, a significant portion of that goes to health care costs.
- The relaxed venue represented by a theater results in greater receptivity to advertising than with in-home channels, where media is more likely to be viewed as disruptive.

However, the benefits of cinema advertising don't stop there. Impact is also essential, and cinema advertising is proven to have a sizable impact on shopper behavior. The Cinema Advertising Council recently conducted a comprehensive meta-analysis of published studies across multiple sectors and categories and found the average revenue return on investment (RROI) for campaigns that include cinema totaled \$4.08, versus campaigns that did not include cinema, where the RROI totaled \$2.50.<sup>3</sup>

### **Fed by Inaccurate Measurement Models, CPGs Undervalue and Underestimate the Power of Out-of-Home Advertising**

All too often, out-of-home media are excluded from marketers' media effectiveness measurement program. And when OOH is included, ineffective measurement is underestimating impact, because models are inherently flawed and, as a result, inaccurate.

Industry-standard marketing mix models are run at the national and/or market/DMA level. This directly

contributes to the underestimation of impact and the perception of lower return on investment due to a threefold bias.

First, this aggregation tends to oversimplify audience diffusion of niche media (including OOH) and treat it similar to more uniformly distributed platforms like television and digital. The aggregation assumes that all consumers within 100+ miles are similarly exposed to OOH, meaning that many consumers who were never exposed to the OOH ad are included in measurement. In reality, an analysis conducted by IRI and National CineMedia, a cinema advertising company, indicates that OOH impact can extend from a 5-mile radius from the OOH locus (such as a movie theater) to beyond 15 miles, but typically less than 30 miles.

Second, when measuring media such as cinema, the aggregation confounds the effects of audience size variations of cinema theater locations and shopper base variation of store trade areas. The lift generated by cinema advertising is directly proportional to both theater average audience and store trade area. The disparity is accentuated by the fact that cinema theaters draw from a wider geographical area than retail trade areas.

Another drawback when measuring OOH is that, because aggregate models assume a uniform distribution of out-of-home locations (cinema locations, billboard locations or placement of outdoor furniture), they tend to underestimate synergy between the out-of-home campaign and other media platforms. This is because synergy is also directly proportional to the strength of the stand-alone impact of cinema, assuming a uniform lift across cinema locations washes out the ability to read synergy.

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<sup>3</sup> "Modeling Techniques for In-Theater Advertising," Cinema Advertising Council, [http://media.wix.com/ugd/644f80\\_d0045fd02d4f448db9ae9cd7f43ba17c.pdf](http://media.wix.com/ugd/644f80_d0045fd02d4f448db9ae9cd7f43ba17c.pdf)

## EXHIBIT 4

## Accurate Models Demonstrate OOH Efficacy

Mean Absolute  
Percent Error

(MAPE)

14.6%

MARKET-LEVEL MODEL

5.3%

GEOCENTRIC MODEL

In IRI's geocentric model, only 1 in 20 OOH investments will lead to ineffective outcomes, versus nearly 1 in 7 for prevalent market-level models.

Note: Results averaged across 30 brands – MAPE is computed from predicted versus actual sales during OOH activity.

Source: IRI analysis

### Framework to Win: Advanced Modeling Transforms Out-of-Home Into a Highly Effective Medium

IRI leverages a geocentric approach to OOH impact measurement. This entails identifying OOH impact zones by trade area via testing stores that are in a 5/10/15-mile radius of the OOH location. The optimal radius can vary by OOH location; for instance, urban population centers draw from a larger area than suburban or rural locations. A weighting algorithm is used to allocate OOH impressions by store, based on the modeled proportion of sales within the trade area of an OOH location. By integrating its proprietary InfoScan™ Point-of-Sales (POS) data to append weekly sales, in-store promotions, coupon promotions, pricing and other data for the product to be analyzed and third-party data for other marketing levers, the IRI model accurately isolates the impact of OOH.

To understand how this localized impact model performs versus the industry-standard market/DMA-level model, IRI ran a side-by-side comparison

of both approaches using a cinema advertising campaign. The comparison included a cross-section of brands representing multiple categories, including beverages, home care, snacks and personal care. The comparisons yielded several compelling findings:

- Theater-level impressions leveraged in store-level models provide more accurate results than market/DMA-level models or cinema impressions.
- Cinema advertising effectiveness is greatest on stores closest to the theater location and diminishes as distance from the theater location increases.
- Spend for spend, cinema advertising is, on average, twice as effective as TV advertising.
- Cinema advertising has breakthrough and saturation threshold spend levels.

The model also vastly improved the accuracy of predicted campaign results (see Exhibit 4).

## Case Study - Hyperlocal Strategy Juices Ad Efficiency

A premium juice manufacturer enjoyed national distribution of its brand and had sizeable distribution and brand development differences across markets. OOH spending across the 15 major brand metros was not driven by analytical assessment (see Exhibit 5).

The client approached IRI to provide modeling and analytic know-how to better measure the impact of

their ad spending and increase efficiencies by adjusting spend to high-opportunity markets. IRI leveraged its geocentric approach with each OOH advertisement mapped to grocery, drug, mass and Walmart stores based on trade area mapping and then aligned with IRI Shopper Marketing Cloud to integrate other marketing touchpoints, including in-store promotions and the client's own competitive media.

### EXHIBIT 5

A Juice Brand Marketing Team Optimizes Ad Efficiency to Capitalize on Markets With Strong Sales Potential

#### Out-of-Home Impressions Across Markets



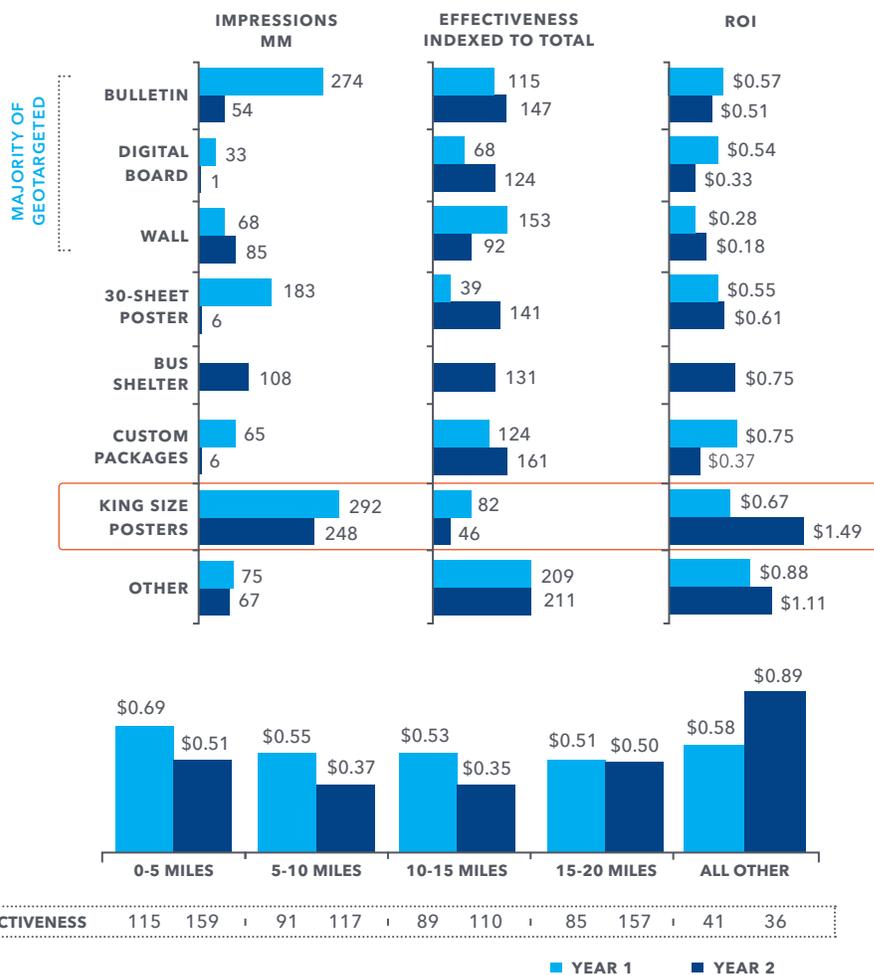
The juice brand had national distribution, but brand sales were concentrated in 15 metro areas.

EXHIBIT 6

## New Insights Into Top 15 Markets Demonstrate Market Variations in Out-of-Home Effectiveness

MARKET	OOH ROI	GRASS-ROOTS SAMPLING VOLUME/SAMPLE
Atlanta, GA	■	■
Baltimore, MD	■	■
Boston, MA	■	■
Chicago, IL	■	■
Dallas/Ft. Worth, TX	■	■
Denver, CO	■	■
Los Angeles, CA	■	■
Miami/Ft. Lauderdale, FL	■	■
New York, NY	■	■
Philadelphia, PA	■	■
Portland, OR	■	■
San Diego, CA	■	■
San Francisco, CA	■	■
Seattle-Tacoma, WA	■	■
Washington, DC	■	■

■ OVER INDEXES TO AVERAGE (>120)  
■ AVERAGE (80-120)  
■ UNDER INDEXES TO AVERAGE (<80)



Measurement results indicate differences in OOH effectiveness.

Source: IRI Analysis; Index = Market ROI or Effectiveness / National Average \* 100;  
 Source: OMD, Year 1: 52 weeks ending 11/16/2014, Year 2: 52 weeks ending 11/15/2015

Results indicated substantial differences in OOH effectiveness and ROI across executed markets, revealing opportunities to prioritize spend within high-potential growth markets (see Exhibit 6). For instance, one of the findings indicated OOH executed

away from highways was more effective and efficient than advertising on them. Simulations on two markets indicated immediate shifting of 30 percent of funding away from underperforming locations and formats improved ROI by 15 percent.

# Case Study - New Approaches to Sports Sponsorships Lift ROI Ahead of the Pack

Sports sponsorships are a sizeable outlay for many advertisers, with little rigor in impact measurement. These sponsorships can have a variable impact depending upon the nature of the venue and market profile (see Exhibit 7). Dense urban areas tend to have

a larger audience draw and therefore can have a larger radius of impact, while less dense urban or suburban areas have a smaller radius. Similar to other OOH platforms, sports sponsorship also needs a measurement approach to better capture its localized effect.

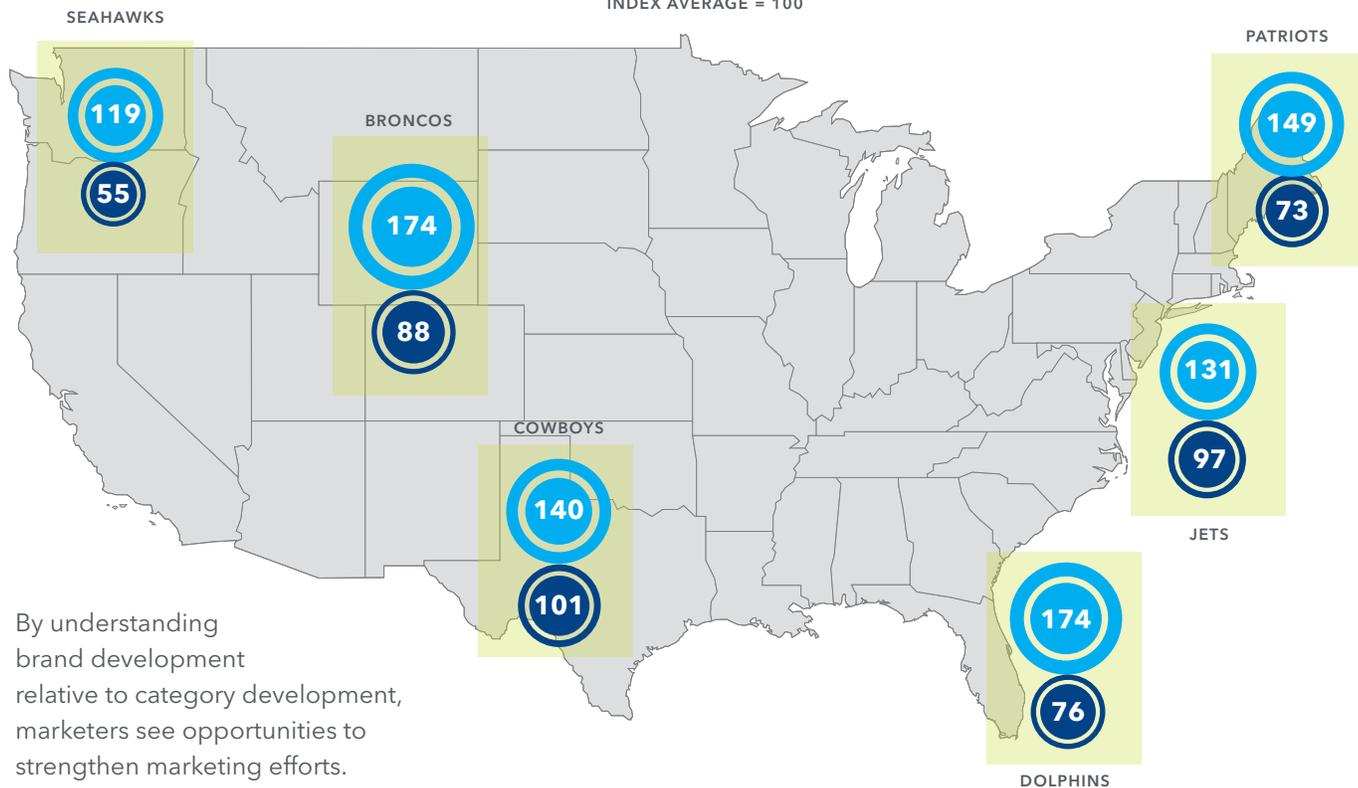
## EXHIBIT 7

### Granular Measurement Yields New Insights

#### Market Development Index



INDEX AVERAGE = 100



By understanding brand development relative to category development, marketers see opportunities to strengthen marketing efforts.

Utilized targeted stores to weight impressions and spend for billboards with a known latitude and longitude.

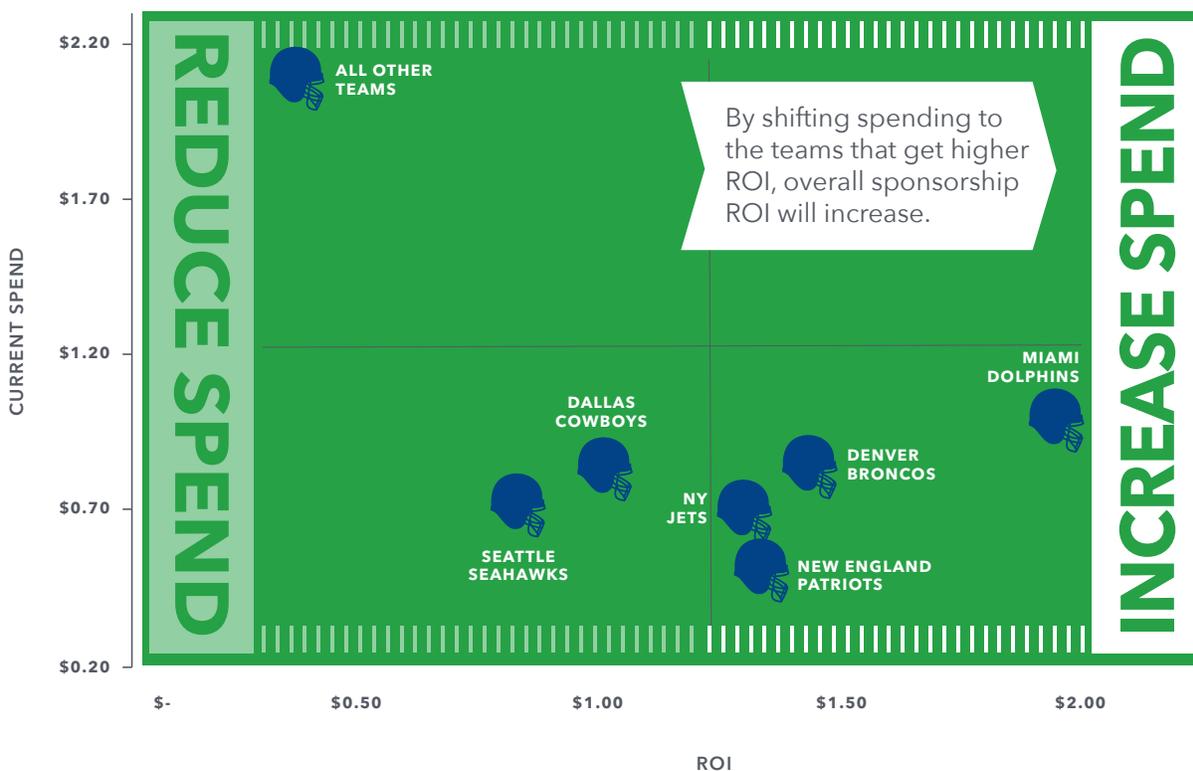
Source: IRI analysis; Year 1: 52 weeks ending 11/16/2014; Year 2: 52 weeks ending 11/15/2015.

Marketers can then use the modeled results to optimize sports sponsorship spending in a highly granular manner (see Exhibit 8):

**EXHIBIT 8**

In the Past, Sports Sponsorships Frequently Proved Inefficient, But Updated Models Bring New Rigor to the Planning and Measurement Processes

NFL Sponsorship Spending Effectiveness Matrix (\$MM)



Source: IRI Analysis

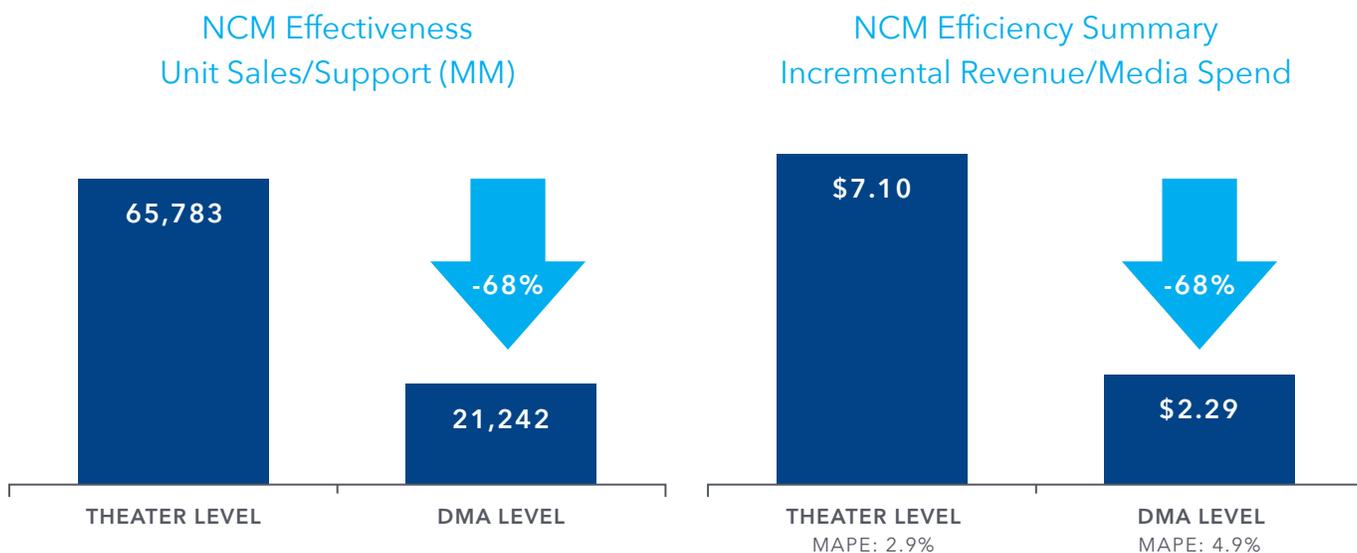
## Case Study - Cinema Advertising Clears the Air on OOH Campaign ROI

A nationally distributed air care brand ran two advertising campaigns in national cinemas. This effort ran parallel to those same campaigns plus two additional campaigns airing on TV (see Exhibit 9).

Theater-level impressions leveraged in store-level models provided more accurate results than DMA-level models or cinema impressions, with higher effectiveness and efficiency than suggested by the DMA model. This confirmed the hypothesis that market-level models underestimated OOH lift.

**EXHIBIT 9**

### Cinema Advertising Offers Dramatically Higher Effectiveness and Efficiency Than Past Models Reveal



New approaches provide superior results to DMA-level models.  
 At current levels of support, cinema is still underspent for the brand, with substantial upside potential.

Source: IRI Analysis; MAPE = Mean Absolute Percent Error

Even with just a 2.2 percent spend, cinema advertising yielded an 8.4 percent increment sales uplift contribution, which marks a nearly threefold ROAI (see Exhibit 10). By comparison, TV and print advertising each have a negative return on advertising spending.

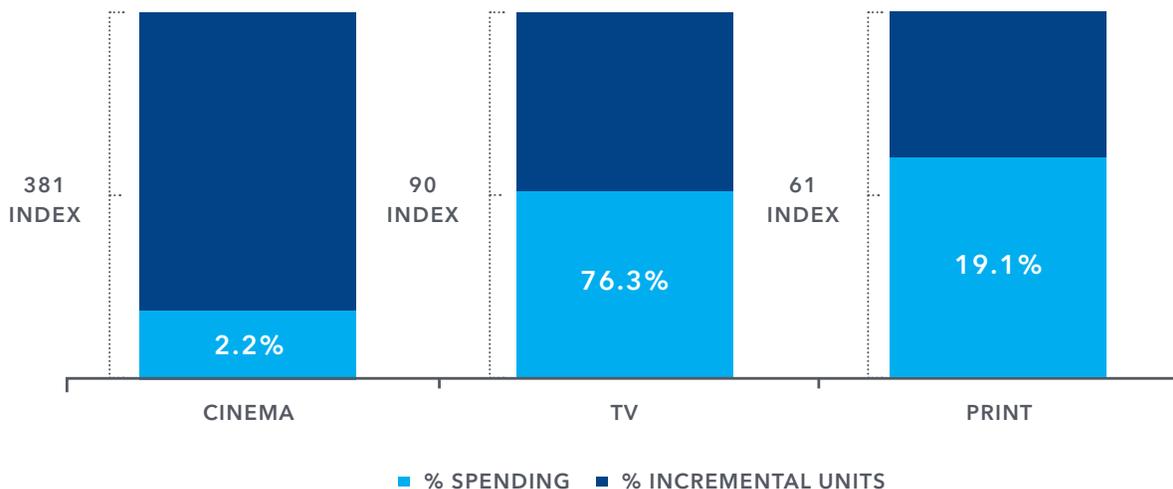
Similar results across other evaluated brands indicate that cinema continues to be underappreciated as a

platform. This is largely due to aggregate market-level measurement of cinema in standard industry mix models. Especially given the attention fragmentation of traditional mass media channels as consumers become increasingly multiscreen, cinema represents a unique opportunity to drive highly engaged communications for the brand.

**EXHIBIT 10**

Cinema Advertising Share of Total Media Spend Is Much Below Fair Share Relative to Sales Contribution, Despite the Fact That New Models Demonstrate That Cinema Outperforms

Year 2 Incremental Contribution vs. Spend



Cinema advertising share of total media spend is much below fair share relative to sales contribution.

Source: IRI Analysis

**Conclusion**

Out-of-home advertising that includes media such as cinema and venue sponsorship can substantially enhance a brand’s engagement with hyperlocal opportunities that have significantly higher impact than traditional mass media platforms. In a world

characterized by increasing fragmentation, out-of-home offers a creative approach to reaching shoppers. New measurement models both quantify the effectiveness of these media and offer a platform to developing and executing the optimal out-of-home strategy.

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## ABOUT STRATEGIC ANALYTICS

IRI Strategic Analytics helps manufacturers and retailers achieve high-impact business outcomes by determining which growth levers brands and categories should focus on to optimize results. With a unique combination of predictive analytical techniques, proprietary rapid modeling platforms, leading-edge automated solutions, vast and granular data assets, and experienced analytics consulting talent, IRI Strategic Analytics uncovers hidden opportunities and insights that deliver growth to businesses.



### About IRI

IRI is a leading provider of big data, predictive analytics and forward-looking insights that help CPG, OTC health care organizations, retailers and media companies to grow their businesses. With the largest repository of purchase, media, social, causal and loyalty data, all integrated on an on-demand cloud-based technology platform, IRI helps to guide its more than 5,000 clients around the world in their quests

to remain relentlessly relevant, capture market share, connect with consumers and deliver market-leading growth. A confluence of major external events—a revolution in consumer buying, big data coming into its own, advanced analytics and automated consumer activation—is leading to a seismic shift in drivers of success in all industries. Ensure your business can leverage data at [www.iriworldwide.com](http://www.iriworldwide.com).

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