

Measuring Print Advertising Responsiveness via MMM

MEDIA • TRUST®



A Presentation to
ARF Print Council
October 23, 2008

Need: sharper indication of how advertising works

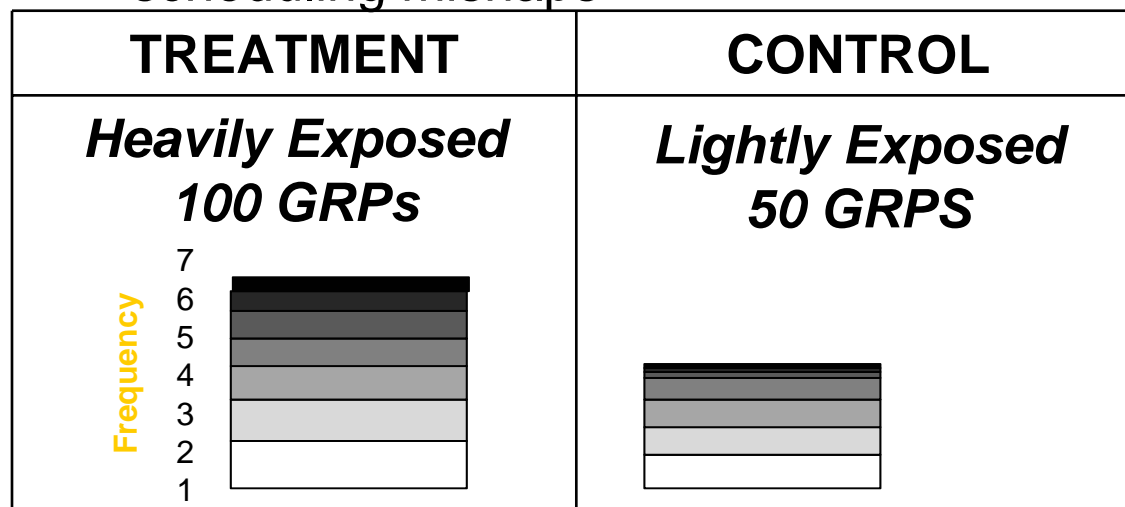
- Marketing mix models are typically driven by weekly store or market level data
 - This is how promotions are executed
 - Providing the sharpest possible contrast between promoted and un-promoted sales
 - Like a designed experiment --

TREATMENT	CONTROL
<i>Promoted store weeks</i>	<i>Un-promoted store weeks</i>

It's black & white

Need: sharper indication of how advertising works

- Weekly market or store data does not provide much contrast for sales with and without advertising exposures
 - Every market includes individuals with a range of exposure levels
 - Most weeks include individuals with a range of exposure levels
 - Even during planned hiatuses due to make-goods and scheduling mishaps



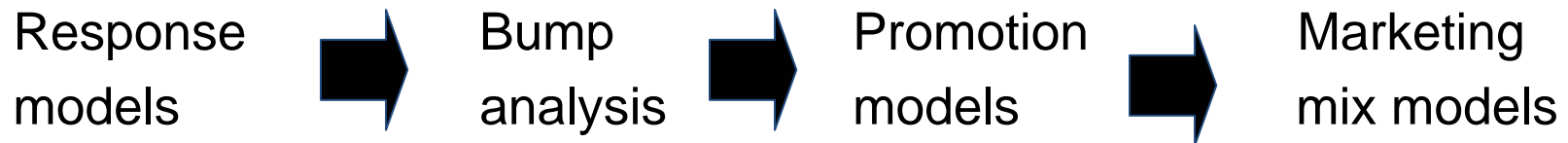
It's not black & white – but shades of gray

Need: sharper indication of how advertising works

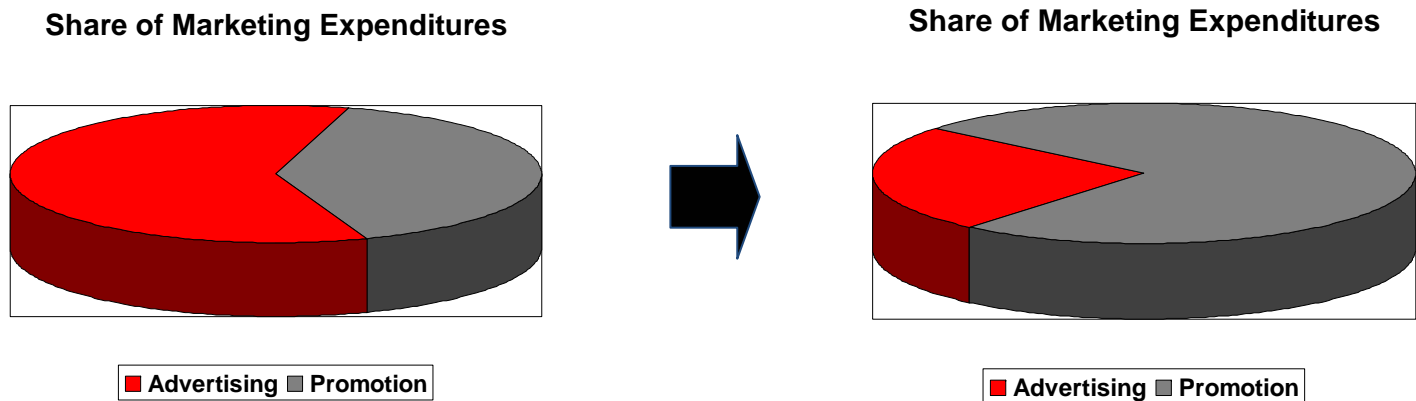
- As measurement progressed --



- And analytics progressed --

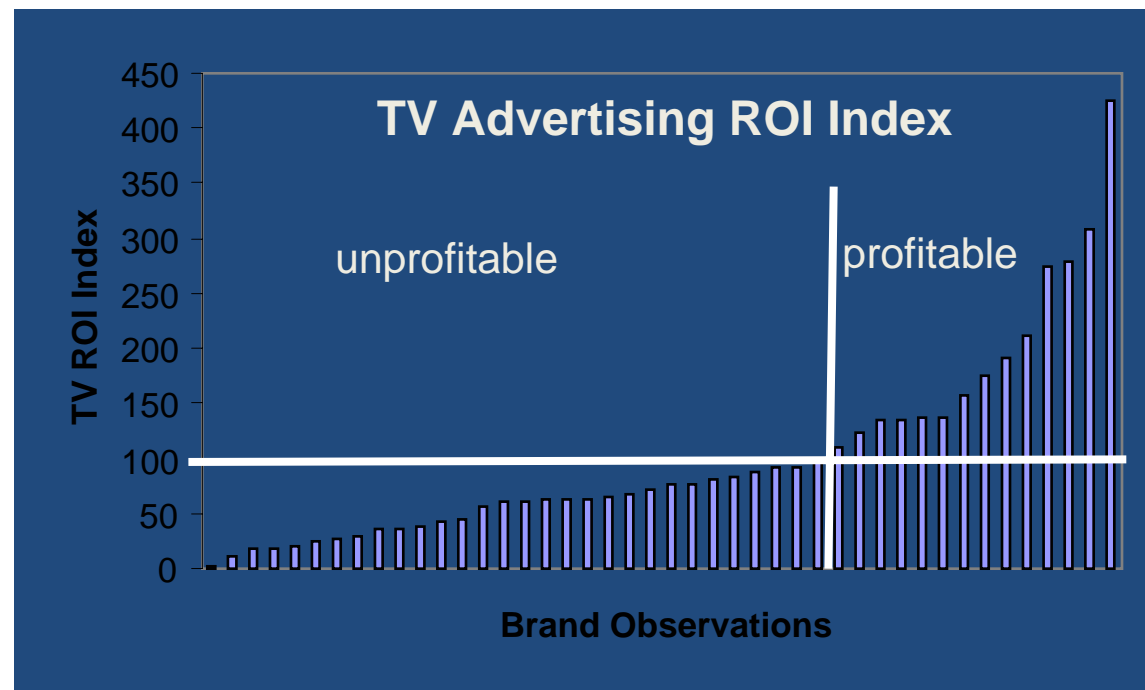


- Marketing budget allocations shifted --



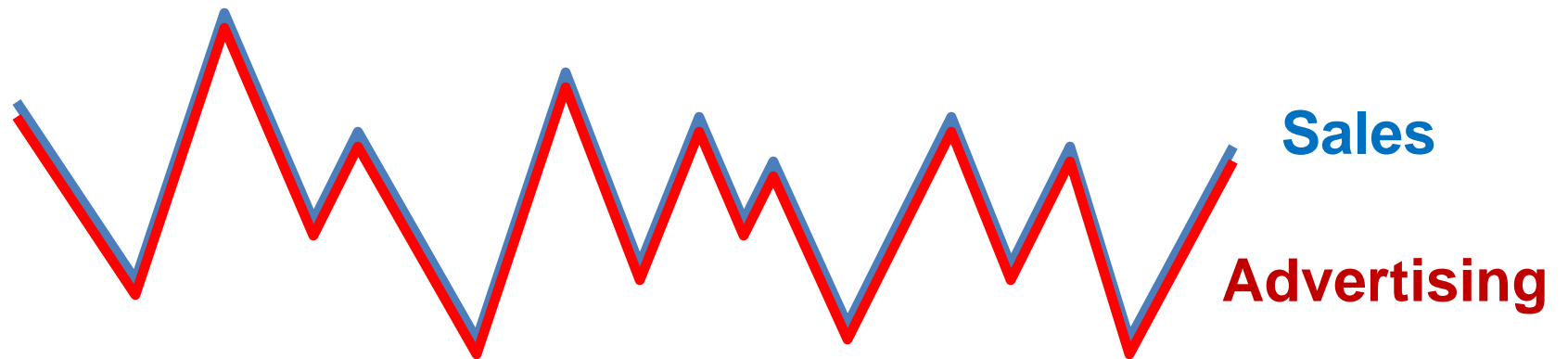
Greater financial returns from advertising expenditures

- Media ROI, as estimated by marketing mix models, has frequently been reported to be small or negative
 - No wonder advertising's share of marketing expenditures has fallen over the years



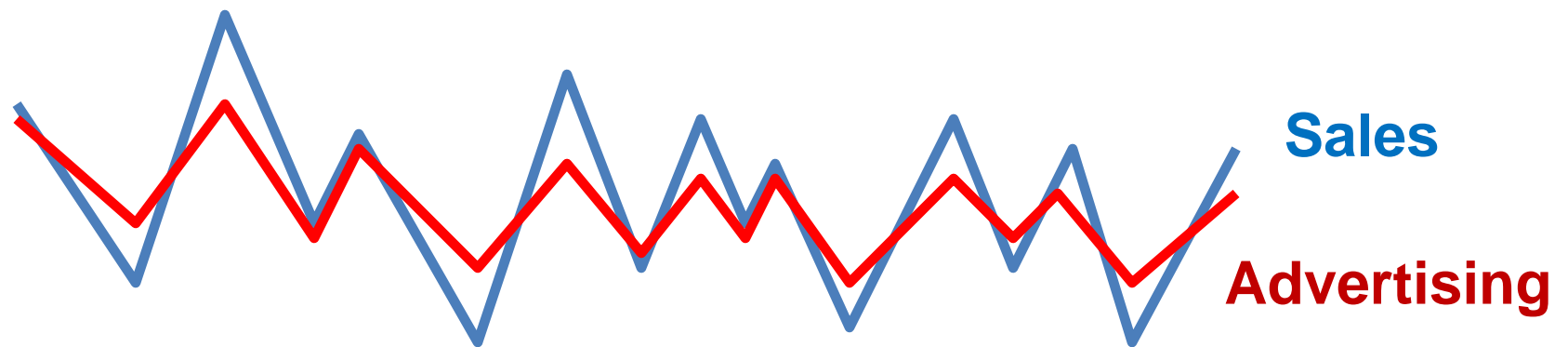
Source: Mike Duffy & Paul Beck, ACNielsen, "From Empirical Generalizations to Lessons Learned: Interpreting Market Response Evaluations Across Brands and Categories, MSI Metrics and Financial Performance Conference, 2006

MMM - Example



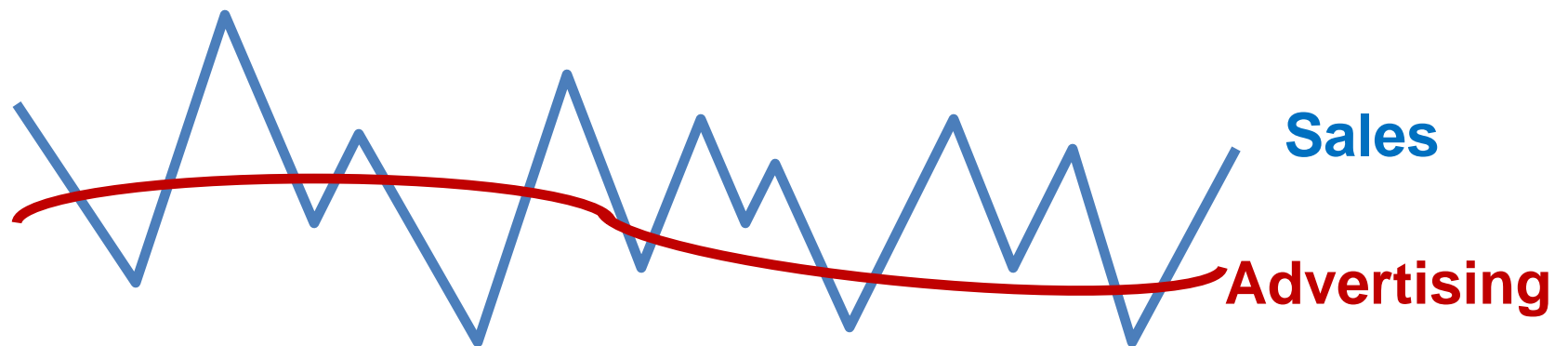
Perfect Match! – Will get all the credit for sales

MMM-Example



More likely – Major credit for sales

MMM-Example



Current data – no/little credit for sales
Modeled data smooth the variability, thus
provide less to attribute to advertising

Need: Audience data suitable for MMM

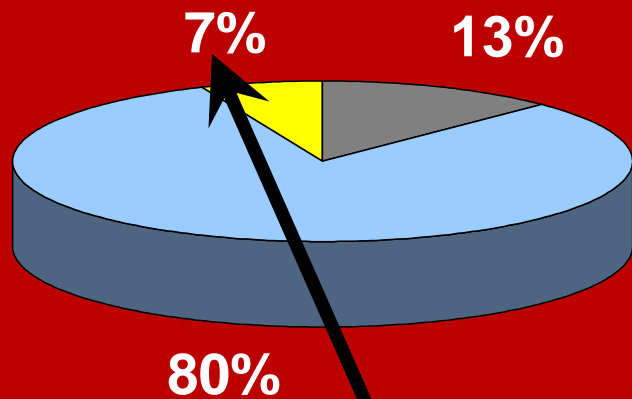
- Audience-data suitability for marketing mix models also varies noticeably:
 - Television has excellent weekly data, but weekly market level data is still estimated for all but the largest markets
 - Magazines are local-market challenged, issue specific challenged and weekly challenged
 - Although issue specific and weekly magazine measurement shows promise – modeling may undermine the value
 - Internet is local-market challenged
 - Radio, magazines, outdoor and newspapers are all weekly-data challenged and episode/issue specific challenged
 - And all media have issues with measures of ad exposure
- Advantaging some media over others
- Disadvantaging advertising in total, model accuracy and impartiality

Example - TV

- An example of the change in advertising's contribution with a change is audience measurement
- Based on Project Apollo data (full presentation given at ARF's AM3)
- Explored using a measure of exposure based on delivery
 - “working impressions” – impressions delivered to a HH within 28 days prior to a category purchase
- Examined the sales contribution attributed to advertising

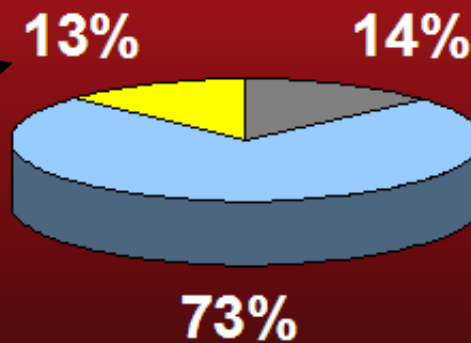
Markets vs. Working Exposure Groups: Volume contribution by marketing factor

Standard MMM:



■ BASE ■ PRICE/PROMOTION ■ ADVERTISING

Media Model by Working Exposure Groups



■ BASE ■ PRICE/PROMOTION ■ ADVERTISING

Advertisings contribution almost doubles from 7% to 13% by changing the measure of advertising delivery!

Single Source

- Single-source data links exposures to purchases for the same households
 - Providing a sharp contrast between exposed and unexposed purchases
 - Like a designed experiment --

TREATMENT	CONTROL
<i>Exposed purchases</i>	<i>Unexposed purchases</i>

Single source data offers the ability to build from the ground up – as opposed to starting with national data and spreading impressions arbitrarily across markets

Will a sharper indication of how advertising works lead to a clearer view advertising's contribution and redress the marketing allocation imbalance?

Occurrence Data

- Measures of advertising have two components:
 - Occurrences
 - Audiences
- The precision of available occurrence data varies markedly by medium
 - Advantaging some media over others
 - Disadvantaging model accuracy and impartiality
- Print has fairly good occurrence data

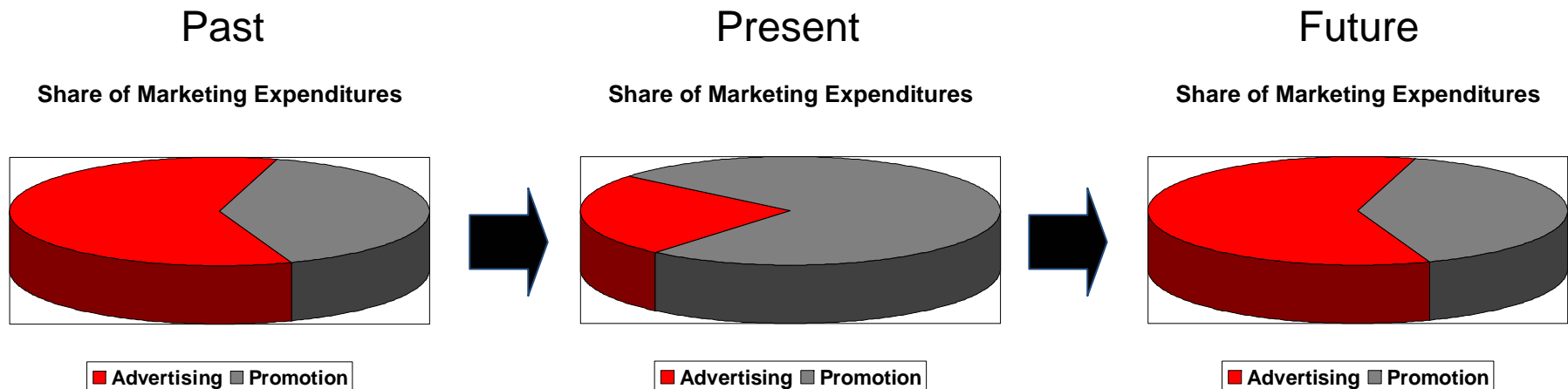
General Enhancements – All Media

- Timely reporting
- Single source data
 - Provide distinctions beyond geography and week
 - Better measures of advertising delivery
 - Data aggregated rather than spread
 - Faster data delivery
- Better occurrence data

Print Specific Enhancements

- Issue specific data – critical!
- Audience accumulation data – critical!
- Create treatment vs. control
 - Regional editions
 - Checkerboard issues/regional editions
- Less modeled data – variability is good!
- Timely reporting
- Electronic print measurement

Better advertising inputs could shift marketing spending back towards advertising



Better print inputs could shift advertising dollars to print!