



The Need for Media Inventory Holistic Pooling and Optimization

Next Century Media in the 1990s invented set top box data, addressable commercials, programmatic buying and selling, optimizing for buyer and seller at the same time, and campaign level frequency capping. Because at the time NCM had the monopoly on addressable commercials, if it had achieved its goal of getting all MVPDs to pool their addressable inventory, frequency capping could have controlled addressable TV frequency perfectly.

For example, if a CPG company wanted exactly three exposures per week per category buyer household, NCM could have delivered that, no more, no less, with a trivial number of exceptions. If they wanted one segment to get 4 or any other number that would have been easy too.

NCM (and later, Canoe) both failed to get all the MVPDs to work together in this way. Currently it is possible to get quite a few MVPDs to work together in Addressable TV. However, advertisers want to control for excess frequency not only in Addressable TV, but across linear, streaming, Addressable TV, and all other television-owned digital inventory including VOD.

Actually, advertisers want to also include all of digital in their ability to rein back in the excess frequency they know currently exists. Over a hundred million dollars has already been spent on behalf of this quest to curtail excess frequency since 2019. This is the hottest hot button of the ANA and of its counterparts in 60 countries, and the WFA which encompasses all of these advertiser national associations. More about the ultimate solution in a moment. First, let's look at the reason this problem exists.

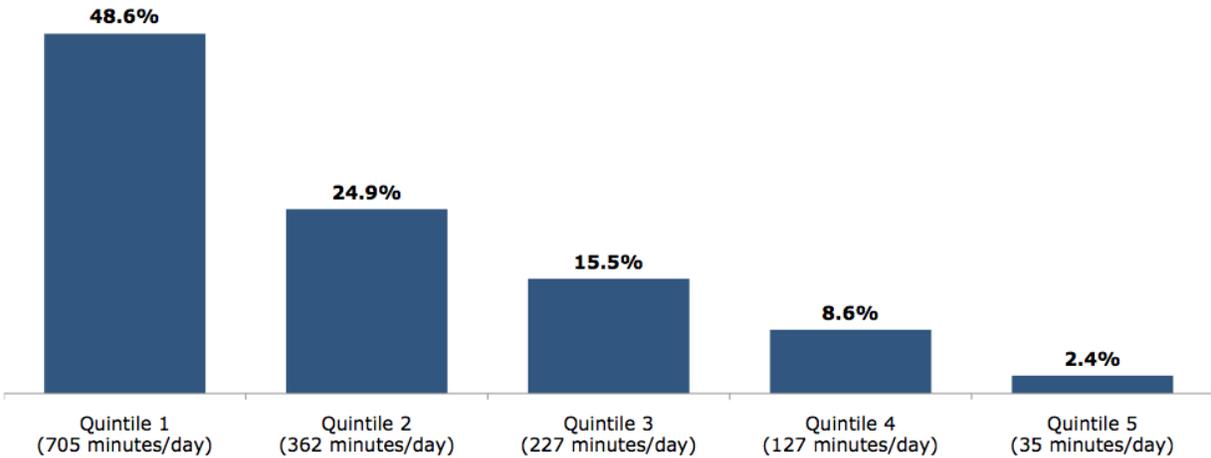
The Pareto Principle

The Pareto Principle (aka the 80/20 Rule) states that roughly 80% of effects come from 20% of causes. In television it is not quite that skewed, 40% of viewers account for about 73.5% of the viewing minutes. Here is a representative chart on the subject – these numbers have hardly changed at all over the past 60 years:

Share of Daily TV Consumption, by Quintile

percent of minutes tuned by viewer quintile

May 2014

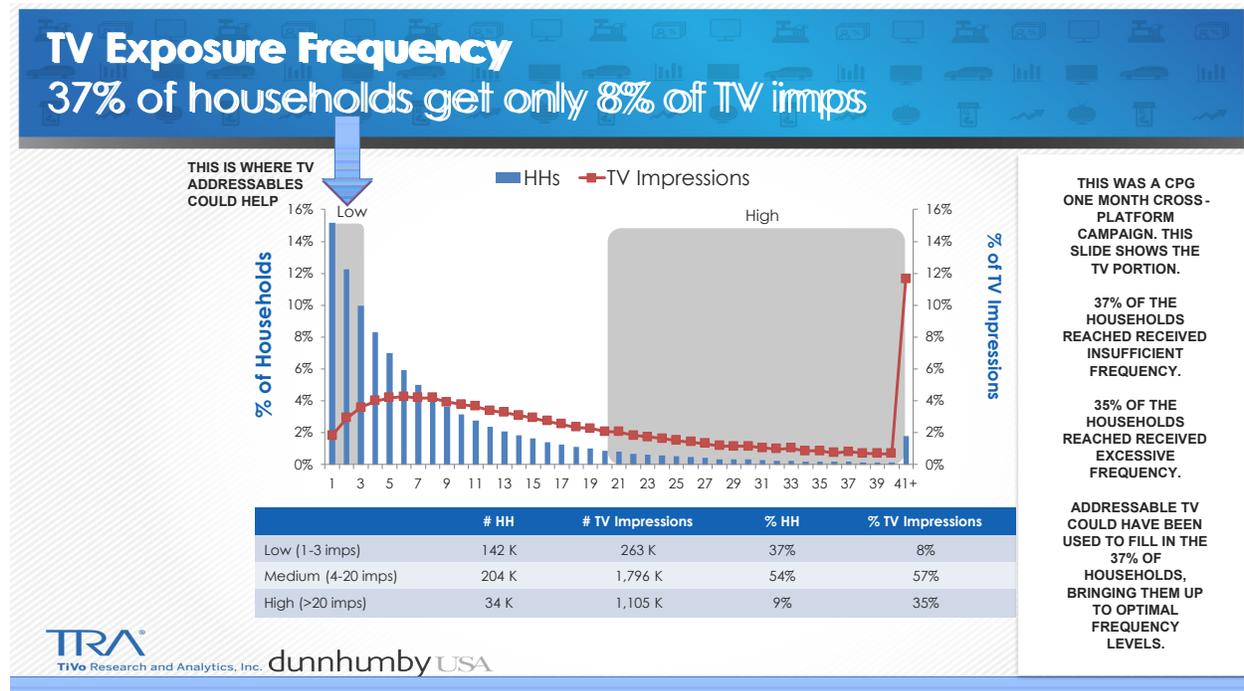


MC MARKETINGCHARTS.COM

Source: Nielsen

The above chart is the kind of pattern that changes very little over time. Ed Papazian has updated the data and finds that the top quintile now accounts for 53% of total viewing minutes, and Dave Morgan has updated it for CTV where the top quintile absorbs 61% of total viewing minutes.

The way this affects a typical TV advertising campaign can be seen in the following slide:



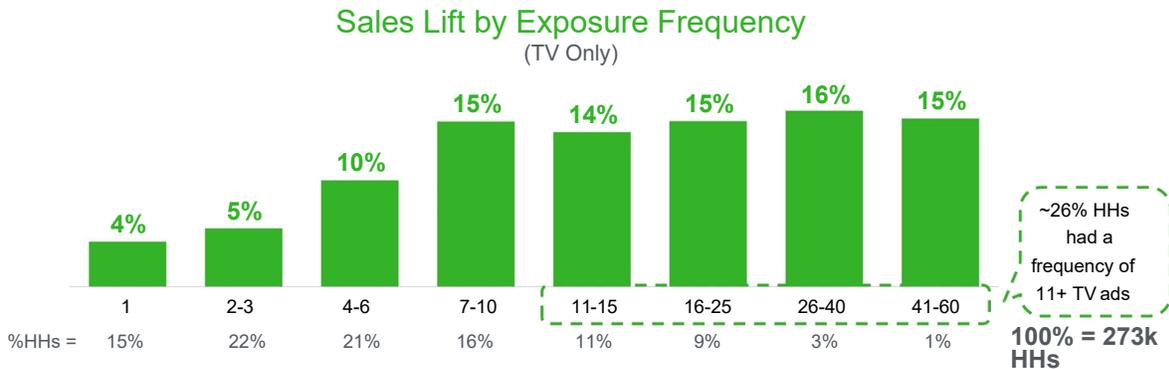
In this TV campaign, carried out in test markets for a CPG brand, 37% of households reached received insufficient frequency (1-3 impressions in a month) while 35% of the households were reached with excessive frequency (21-hundreds of impressions in a month).

TRA data showed that mature CPG brands optimize ROAS at 3 impressions per week. More impressions sometimes continue to increase buy rates but not enough to pay for the incremental media cost. That means that all impressions over 3 per week are losing money. This slide shows a typical sales lift analysis by frequency of exposure, and here even the sales lifts (let alone the ROAS) themselves top out after 10 frequency/month:



more frequency helps in driving sales lift

Sweet spot is 7-10 frequency; sales lift plateaus above 10 exposures



Source: TRA – one month analysis – CPG high awareness low involvement brand

Addressable commercials and frequency capping on their own cannot make a big difference to this picture, although they can certainly help. The need for reach means that linear must get a large allocation, and you can't frequency cap at the household level using linear. The need for reach also means you must use many networks. If some of these are, for example, streaming networks where you can use frequency caps that is great, but if you are buying 30 streaming networks and you cap each one at 6 ads per campaign, some homes will still wind up getting 180 ads.

This is where the idea for pooling is the only total solution to the problem which has been vexing the WFA/ANA for the past six years. Pooling is not the total solution in itself but really the missing piece. The total solution is the combining of pooling with programmatic that does not eat up the profits,

and optimization against sales and branding effects and seller profitability at the same time.

If NCM or Canoe had totally succeeded they would have been able to offer Addressable commercials covering 7 out of 10 US homes with complete control over frequency, so that virtually no home got less or more frequency than the brand decided it wanted for that home.

This is still achievable today, in fact it is achievable across the whole US TV population, and across linear, streaming, Addressable, and all television owned digital inventory. However because linear is in the mix (essential for reach today, diminishing as we move into the future) the absoluteness of frequency control will be reduced a bit. The optimization plan will first lay down linear impressions, optimizing for target reach weighted by sales effectiveness predictors, and by dispersing across many networks, forcing the flattest possible frequency distribution without reducing efficiency. When this starts to fail by some targets receiving too much frequency, the optimizer will shift to the addressable inventory of all types. The top layer of addressable impressions will first maximize reach and as that starts to seriously saturate, it will shift to fill in the frequency lows.

Someone has to organize the inventory owners to participate in such a pool. **Bill Harvey Consulting** and **TVbeat** have come together to be the organizers. We call our joint programmatic platform UltiMedia. It works across all forms of national, local, and international TV including all digital forms. UltiMedia helps in planning as well as in activation, in-flight reoptimization, and postevaluation and learning.

Bill Harvey was the inventor of addressable commercials (NCM), research grade set top box data (NCM – won an Emmy), use of big data audience and purchase data together (TRA). He has consulted for over 70 of the top 100 advertisers, most agencies and networks, big tech companies and research companies. TRA set the industry on a course to maximize ROI/ROAS and built the first optimizer to optimize against those outcomes instead of mere reach. His latest invention RMT is a validated proxy for sales and brand lift that can be used in optimization before the fact. All of this will be reflected in UltiMedia.

TVbeat is an international company with 76 employees whose 40 clients include Sky, FOXTEL, and Spectrum among others. They are combining each seller's inventory across broadcast, cable, streaming, VOD and digital for inventory control planning. They are maximizing yield and connect to the traffic systems and ad servers so as to know which inventory has already

been sold and which is still available. Programmatic dashboards are used by sellers and buyers to activate across all these types of TV and to reoptimize in-flight.

BHC will add layers of outcome optimization on top of TVbeat to create UltiMedia. UltiMedia will increase the profitability of the television industry while also solving the buy side's problems of excess frequency, insufficient frequency, cross-platform planning, and maximizing brand growth at minimum cost.

Others are working on pieces of the same puzzle and we look forward to working with all forward-looking companies and industry associations to provide the complete solution needed.

UltiMedia Leadership Team

The executives leading UltiMedia include:

Robert Farazin, founder CEO of TVbeat

Bill Harvey, founder Executive Chairman of Bill Harvey Consulting

Audrey Steele, President

Steve Walsh, Chief Revenue Officer

Scott Brown, Chief Technology Officer

Brian Wallach, Senior Advisor

Bruce Anderson, Senior Advisor

Josh Chasin, Senior Advisor

David Ernst, Senior Advisor