

To: NES Board of Overseers
From: Ken Goldstein Arizona State University
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Re: 1998 Pilot Study Report: Television Exposure Instrumentation
Date: January 31, 2000

As the original 1998 Pilot Study stimulus memo noted, the “great barrier” in exploring the effects of political advertising in surveys has been the need for adequate measures of exposure. Exposure to a particular television ad is best thought of as a function of three factors: the frequency with which an advertisement is aired in a particular media market, the quantity of television viewing by a particular respondent, and that respondent’s tendency to pay attention to commercials (as opposed to, for example, leaving the room or “channel surfing”). In the absence of experimental control over the exposure of subjects to particular ads, scholars have needed information about both the viewing habits of citizens and the targeting decisions of ad buyers. Put simply, we need to know: who was watching, and what were they seeing?

Our objective in the 1998 Pilot was to come up with a short battery of items that we could merge with contextual data on ad buys to estimate the likelihood that a given respondent has seen a given ad (or more broadly, a given category of ads). Because it is not possible to ask questions about every TV show broadcast, and because ad-buy data were originally made available to us by time of day (“daypart” segment), the 1998 Pilot Study included a series of questions about respondent television viewing by daypart. Our original plan was to merge these data on TV-watching during particular parts of the broadcast day with information on the volume of specific political advertising during those very same daypart segments, an approach we have implemented in prior work (Freedman and Goldstein 1999).

Unfortunately, because the focus of the 1998 Pilot Study instrumentation was on gubernatorial races, while the ad-buy data that have been processed to date are confined to House and Senate contests, our ability to analyze a merged ad-buy dataset using the daypart questions is limited. Although ad-buy data on all 1998 campaign spots – including House, Senate, and gubernatorial races – will be made available to the scholarly community, the grant to purchase the 1998 CMAG data had a primary focus on congressional races. In this memo, we use the available 1998 ad-buy data to outline a new, more effective strategy for measuring exposure to campaign advertising. (See Appendix for a brief discussion of daypart and ad attention patterns.)

The major alternative to the daypart approach is to ask about specific show-based viewing. In the past, NES has concentrated on highly rated primetime entertainment shows. While research has shown that respondents are able to provide valid reports on their viewing habits for individual shows (Bartels 1996), there has been little empirical justification for the specific shows selected. As a result, questions (including those on the 1998 Pilot) have often included programming on which few ads were actually aired. Fortunately, newly available ad-buy data now make it possible for us to target specific shows more effectively, enabling us to ask questions about the TV shows that draw the lion’s share of campaign advertising. Furthermore,

such a targeted show-based strategy may be pursued with little or no further investment of valuable NES survey time.

Whereas in the past we had available ad-buy information only by daypart, for 1998 we have data by specific program. As Table 1 demonstrates, these data show that NES is not getting very much bang for its buck when it comes to asking show-based television viewing questions. For example, the 12,042 political spots that appeared on the Today Show represent an estimated 48,895 Gross Ratings Points (GRPs). This constitutes close to four percent of all campaign-advertising dollars. While this is clearly a significant number of ads, other shows included on the 1998 Pilot are much less useful for measuring exposure to political ads. For example, E.R. is responsible for 0.18 percent of estimated GRPs (and only 0.22 percent of all spots), and Just Shoot Me attracts an almost undetectable share of political advertising. Put simply, NES has failed to ask about the right mix of shows.

Table 1: 1998 Political Advertising on NES Pilot Shows

<i>Show</i>	<i>Estimated Points</i>	<i>% of Total Points Purchased</i>	<i>Total Spots</i>	<i>% of Total Spots Purchased</i>
Today Show	48,795	3.88	12,042	3.99
Rosie O'Donnell	9,184	0.73	3380	1.12
Gen. Hospital/Days of Our Lives	5,027	0.40	1705	0.57
Jeopardy!/Wheel of Fortune	120,500	9.57	11,843	3.92
ER	2,292	0.18	660	0.22
Just Shoot Me	366	0.03	49	0.02
Touched by an Angel	4,728	0.38	490	0.16
Friends	4,500	0.36	1,612	0.53
60 Minutes	7,914	0.63	593	0.20
Total	203,307	16.15	32,374	10.73

Source: 1998 CMAG Data; 1998 Pilot variables v98p363-66, v98p368-72

Drawing on the newly available ad-buy data, we recommend that NES ask a more efficient battery of show-based questions. In essence, NES should go hunting where the ads are. As Table 2 indicates, ten shows drew more than 70 percent of advertising dollars in 1998. Almost half (48 percent) of all political advertising in 1998 was aired on local news. Early-prime game shows Wheel of Fortune and Jeopardy! together attracted almost ten percent of all advertising dollars, as did morning network news shows. As Table 2 shows, there were only nine shows that drew more than one percent of political advertising, and in all the top ten shows represent almost 71 percent of GRPs and 58 percent of all individual ads aired. In contrast, the next ten most heavily advertised shows are responsible for only 7 percent of 1998 advertising dollars. Clearly, political advertising is heavily concentrated, and NES should target its media exposure questions accordingly.¹

¹ Our recommendations here are based on advertising dollars (estimated GRPs) rather than on the number of spots purchased, with an eye toward maximizing the utility of our “coverage.” Asking about a show that draws many ads but is viewed by few people makes little sense, given

Table 2: Recommended Shows for Targeting

<i>Show</i>	<i>% of Total Points</i>		<i>% of Total Spots</i>	
	<i>Estimated Points</i>	<i>Purchased</i>	<i>Total Spots</i>	<i>Purchased</i>
<u>Top Ten Shows</u>				
Local News	599,329	47.62	116,525	38.61
Wheel of Fortune	70,982	5.64	6,441	2.13
Jeopardy!	49,518	3.93	5,402	1.79
Today Show	48,795	3.88	12,042	3.99
Good Morning America	38,760	3.08	12,581	4.17
Oprah Winfrey	24,942	1.98	5,481	1.82
Live – Regis & Kathy Lee	17,744	1.41	5,431	1.80
This Morning	13,697	1.09	6,096	2.02
Entertainment Tonight	13,402	1.06	3,320	1.10
<u>Dateline</u>	<u>11,004</u>	<u>0.87</u>	<u>1,702</u>	<u>0.56</u>
Total:	888,172	70.56	175,021	58.00
<u>Second Ten Shows</u>				
Inside Edition	10,231	0.81	2,221	0.74
Tonight Show	9,888	0.79	3,855	1.28
Extra	9,641	0.77	2,777	0.92
Rosie O'Donnell	9,184	0.73	3,380	1.12
Price is Right	8,860	0.70	1,887	0.63
Seinfeld	8,571	0.68	2,116	0.70
Frasier	7,999	0.64	2,030	0.67
60 Minutes	7,914	0.63	593	0.20
Nightline	7,755	0.62	3,844	1.27
<u>Montel Williams</u>	<u>7,022</u>	<u>0.56</u>	<u>2,947</u>	<u>0.98</u>
Total:	87,065	6.92	25,650	8.50

Source: 1998 CMAG Data

To be sure that the campaign advertising accounted for by the top ten shows was not a biased sample of all political spots in 1998, we looked at the tone and party sponsorship of advertising by show. There were no significant differences in sponsorship or tone between the 70 percent of advertising in the top ten programs and the thirty percent accounted for by the remaining shows (and there were well over a thousand individual programs). In other words, it is not the case that Jeopardy! or Entertainment Tonight is drawing a particular type of ad or candidates from a particular party. The types of ads aired on these top nine shows are similar to the ads aired on all other shows. Therefore, not only can we measure potential exposure to the great majority of political ads by asking about relatively few programs, but doing so introduces no bias.

our objectives. Rather, we want shows that draw heavy advertising because they draw many viewers, and it is the GRP estimate that provides a better measure of this.

Recommendations

With all this in mind, what should future NES instrumentation look like? First, given the large proportion of ads aired on local news, getting local news viewership right is crucial. NES typically asks how many days a week respondents watch local news in relatively generic, one-size-fits-all terms: “How many days in the past week did you watch the local TV news, for example, Eyewitness News or Action News?” To get more accurate recall of local news watching and to get more precise information that can be merged with ad buys, respondents should be asked about their viewership of all local news broadcasts, with those broadcasts specifically identified. Since NES will have information on what market a respondent resides in, it will be possible to take advantage of a CAPI or CATI system to include information on the actual name and actual channel of each market’s four top local news broadcasts. A database mergeable by market is available that provides all the names of local news broadcasts in particular markets. This database also contains the names of local anchors and thus questions could be developed similar to those used in 1995 to check the validity of respondent recall. We are of course well aware of the argument made by Price and Zaller about the challenges in relying on self-reported recall (1993). Still, we believe that more precise questions about individual shows will lead to more precise answers and be less susceptible to social desirability bias.

Our recommendation, therefore, is that NES invest in a local news broadcast database, and that future studies pursue a targeted show-based strategy to estimate exposure to campaign advertising. In the near future, the roster of shows should be drawn from the top ten programs identified in Table 2.

References

- Bartels, Larry. 1996. "Entertainment television items on 1995 Pilot Study." Memo to the NES Board.
- Freedman, Paul, and Ken Goldstein, "Measuring Media Exposure and the Effect of Negative Campaign Ads," *American Journal of Political Science* 43 (October):1189-1208.
- Price, Vincent, and John Zaller. 1993. "Who Gets the News?" *Public Opinion Quarterly* 57 (Summer):133-64.

Appendix
Daypart and Attention Instrumentation

As Table A1 shows, reported viewing by daypart follows a similar pattern in the 1998 Pilot and in a statewide University of Virginia survey conducted in 1997. It is highest in early fringe and prime time, lower in the daytime and morning, and lowest in the late fringe daypart. There is some evidence that asking about viewing by daypart may reduce underreporting of television watching. Mean weekday viewing measured by aggregating the daypart responses is 5.17 hours (the median is 4.5). The 1998 Pilot also asked about television watching on a “typical” weekday morning and afternoon (v98p109) and a “typical weekday evening” (v98p110). Based on these two variables, mean television viewing was 4.22 hours – almost an hour less than the daypart measure (with a median of 4.0).

Table A1: Self-Reported Television Viewing by DayPart Segment

<i>DayPart</i>	<i>Time</i>	<i>Mean Hours 1998 Pilot</i>	<i>Mean Hours 1997 UVa</i>
Early Morning	6 - 10 am	.75 (1.01)	.61 (.93)
Daytime	10 am - 4 pm	.89 (1.39)	.64 (1.20)
Early Fringe - Prime Access	4 pm - 8 pm	1.60 (1.10)	1.40 (1.10)
Prime Time	8 pm - 11 pm	1.57 (.85)	1.54 (1.00)
Late Fringe	11 pm - 1 am	.38 (.66)	.27 (.57)
Weekend	6 am - 7 pm	2.30 (2.51)	na

Note: standard deviations appear in parentheses.

Source: 1998 Pilot, v98p357-v98p361 (n=592); Freedman and Goldstein 1999 (n=637).

The 1998 Pilot also included a question on how much attention respondents pay to commercials and a series of three questions to see if respondents were familiar with various company slogans. Unfortunately, these batteries were asked of split halves of the samples, and it is therefore impossible to determine if those respondents who told us they typically paid attention to commercials were more likely to know the slogan’s of the high profile advertisers. The pattern of responses to the attention question, however, is similar to what we found when the same question was asked of respondents in the 1997 Virginia survey: While the majority of respondents report “sometimes” paying attention to television commercials, significant proportions say they always, usually, or never pay attention (Table A2).

Table A2: Attention to Commercials

	<i>1998 Pilot</i>	<i>1997 UVa</i>
Always pay attention	5.7	6.1
Usually pay attention	17.2	11.9
Sometimes pay attention	65.7	63.6
Never pay attention	11.5	18.4
n:	582	624