

Date: 15 January 1996

To: NES Board

From: Larry M. Bartels

Re: Entertainment television items on 1995 Pilot Study

The 1995 Pilot Study included a variety of new items intended to measure exposure to and reception of mainstream entertainment television. The rationale for these items is that they might provide an indirect measure of exposure to and reception of political advertising in a campaign context. Here I provide some preliminary analysis of two general exposure items (M1 and M2) for daytime and evening television, seven more specific items (M12a through M12h) measuring exposure to individual shows or genres, and eight entertainment quiz items (M13a through M13h) testing respondents' knowledge of specific programs (for example, "On what show would you see Dan Conner?"). In the absence of actual political advertising during the Pilot Study period, we at least hope to find that general exposure, specific exposure, or both are strongly related to objective knowledge about entertainment television.

Marginals. The proportion of correct responses to the eight entertainment quiz items ranges from .14 (Kramer's first name on "Seinfeld") to .38 ("On what show would you see Hugh Downs?"), and averages .26, suggesting that the television enthusiasts who wrote these questions overestimated the attentiveness of ordinary television viewers. As a result (but also, presumably, because some people really do not watch entertainment television), almost a quarter of the sample got none of the eight items right, and almost another quarter got only one right. The specific exposure items were similarly skewed, with mean values ranging from .14 (for "NYPD Blue") to .28 (for "Home Improvement") on a zero-to-one scale and an average total score of 1.45 out of seven. As for the general exposure items, respondents reported watching an average of 1.6 hours of daytime television and 2.3 hours of evening television, which seems roughly consistent with evidence from other sources; a third of the sample reported no daytime viewing and only 7 percent reported no evening viewing, which suggests less underreporting than might have been expected.

Correlates. The specific exposure scale correlates with daytime viewing hours at .26 and with evening viewing hours at .40, which makes sense since the specific exposure items focused predominantly on prime time programs. In regressions of exposure on demographic variables, both specific and general exposure are fairly strongly (and negatively) related to education; income and working status are also negatively related to daytime exposure but not to evening exposure; age, gender, and marital status are virtually unrelated to both daytime and evening exposure.

Exposure and Reception. Regressing overall test scores from the eight-item entertainment quiz on general exposure, age, education, and 1994 political information produces t-statistics of 3.9 for evening hours, 10.7 for age, and 6.5 for political information. (The latter two effects seem attributable in part to our oversampling of youngish, relatively high-brow

shows: the age effect is smallest for Hugh Downs and Dan Dierdorf, while the political information effect disappears entirely for "Roseanne" and "Grace Under Fire.") Adding the seven-item specific exposure scale significantly improves the adjusted R-squared (from .25 to .33), and the specific exposure scale (with a t-statistic of 7.6) clearly dominates the general exposure item (now with its coefficient reduced by two-thirds and a t-statistic of 1.3) in this head-to-head comparison. Regressing individual quiz items on the same sets of variables produces essentially similar results, with the average t-statistic for evening hours reduced from 1.9 to 0.6 when specific exposure is added to the regressions, while specific exposure gets an average t-statistic of 3.7 even with general exposure in the regressions. Regressing individual quiz items on the same variables, but with separate coefficients for each specific exposure item, produces additional evidence of specific validity: shows with proximate time slots or similar content have significant specific effects on knowledge (for example, .54 for "Friends" on "Seinfeld," .52 for "Home Improvement" on "Grace Under Fire," .41 for sports on "Monday Night Football," .34 for "Friends" on "ER," .24 for "Prime Time Live" on "20/20," all with standard errors ranging from .05 to .08).

Recommendations. The general entertainment exposure items would probably be considered a rousing success were it not for the fact that the specific exposure scale works even better. We need to do some fine-tuning in our selection of specific exposure items (to increase the variance, minimize demographic bias, and reflect a clearer sense of what sort of television exposure we intend to capture), but the general strategy certainly seems to work. Whether we should invest entirely in specific exposure items or in some combination of specific exposure items, general exposure items, and quiz items remains to be determined. More importantly, whether measuring general television exposure will really allow us to get at the effects of campaign advertising also remains to be determined. But the likely political importance of those effects and the favorable results we have so far do seem to me to warrant a significant investment.