

Date: 15 January 1996
To: NES Board
From: Larry M. Bartels
Re: Talk radio items on 1995 Pilot Study

The 1995 Pilot Study included a detailed battery of items designed to measure exposure and attention to talk radio (M14 through M17). I have not attempted to analyze the attention items, but here are some preliminary results on the exposure items.

Marginals. The mean value for the general talk radio exposure variable is .13 on a zero to one scale. (By comparison, the mean values for television news exposure are about .25 for morning news and tabloid programs, .35 for news magazine shows, and .55 for local news and network news.) Most of the exposure seems to be to Rush Limbaugh: the mean value for Limbaugh alone is .09, with the five other specific shows ranging from .005 to .026, and the first unspecified "other" show at .06. The corresponding standard deviations are .24 for general exposure, .20 for Limbaugh, .18 for the first unspecified "other" show, and .04 to .10 for the other items.

Dimensional Structure. Exposure to talk radio is uncorrelated with exposure to television news: the correlations with five different forms of television news range from .02 for network news to .05 for local news. As for the correlations among the talk radio items themselves, general talk radio exposure is correlated with Limbaugh exposure at .74; the corresponding correlations between general exposure and other specific shows range from .15 to .48. The first unspecified "other" response correlates with general talk radio exposure at .69 and with Limbaugh exposure at .44. An exploratory factor analysis produces a strong first dimension (with an eigenvalue of 2.9) with factor loadings of .90 for general exposure, .75 for Limbaugh, .74 for the first "other" response, .56 for the second "other" response, and .44 to .12 for the other specific show items.

Correlates. Essentially the same variables predict exposure to talk radio in general and to Limbaugh in particular, except that Limbaugh's audience is somewhat more conservative. Republicans, people interested in politics (in 1994), blacks, males, and people living in suburban or urban areas are all more frequent listeners. So are people who drive a lot: driving 500 miles per week increased exposure to Limbaugh by .04 and general exposure to talk radio by .07 (in each case, an effect roughly equal to moving from the midpoint to the top of the scale on political interest or Republican party identification). This is an effect we had hoped for, since it provides some potentially useful leverage for instrumental variables estimation of the impact of media exposure.

Effects. I performed a rough test of the impact of talk radio exposure by regressing a variety of Pilot Study thermometer ratings on the corresponding thermometer ratings from 1994, party identification and ideology (also lagged), and either general talk radio exposure or Limbaugh exposure. (Regressions with the same format produced perceptible estimated effects on Clinton's job approval rating, with *t*-statistics of 1.7 for Limbaugh and 1.5 for general talk radio exposure.) The estimated Limbaugh effects on thermometer ratings were 1.6 for Bill Clinton, 9.3 for Hillary Clinton, 7.3 for Bob Dole, 6.5 for Colin Powell, and 5.4 for Ross Perot, with standard errors ranging from 3.6 to 4.6. The estimated general talk radio effects were 7.4 for Clinton, 5.0 for Hillary, 3.6 for Dole, 4.8 for Powell, and 6.5 for Perot, with standard errors ranging from 3.0 to 3.4. These estimates correspond fairly well with my (admittedly vague) sense of the political content of the relevant stimuli. In a further attempt to allow for the potential endogeneity of media exposure I tried using an instrument for Limbaugh exposure in the Clinton thermometer regression; the estimated effect was essentially identical (though the *t*-statistic went from 3 to 1 due to the weakness of the purging regression). Much more sophisticated analyses remain to be done, but there do seem to be some real and quite significant effects here, and a fair chance of finding them with even-year sample sizes.

Recommendations. As we expected, talk radio has a distinctive audience and a good deal of potential political influence. Also as we expected, the fragmentation of the talk radio market once we get beyond Rush Limbaugh makes it very difficult to measure the impact of other specific shows. While a list of the top five or ten shows seems extravagant given their small audiences, we should certainly retain the general talk radio exposure item, the Limbaugh item, and perhaps one or two openended "other" items.

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