Review of Section III of Study 4 of the FCC Media Ownership Studies: "Factors that Affect a Radio Station's Propensity to Adopt a News Format."

The purpose of the study is to estimate the effect of ownership structure on a radio station's likelihood of choosing a news format. The authors uses an econometric (choice) model and annual data from Arbitron markets from 2002 to 2005 to answer the following questions: do radio stations that are cross owned with newspapers or television stations choose a news format more often than other stations; and if so, how large is the effect? The methodology and assumptions are reasonable and generally consistent with accepted theory and econometric practices. The data are of sufficient quality for the econometric model employed by the author. However, the paper would benefit from a more explicit description of the model, more economic discussion of the choice of independent variables and their *a prior* expectations, and the examination (or, at least, discussion of the consequences) of potential endogeneity problems. Moreover, while the authors are careful in concluding that "the analysis suggests, but does not prove, that ownership characteristics influence a station's propensity to choose a news format," one is still left wondering what are the potential economic mechanisms that underlie the relationships uncovered in the data?

Below are several questions and suggestions, in order as I read through the paper, that could improve the exposition of the study's arguments and the theoretical and empirical merit of the information provided.

1. Numbered headings and sub headings throughout would permit easier reading.

2. Page. 2, para. 2, sent. 1: a footnote providing a general explanation of the classification of "radio formats", i.e., news, sport and talk, soft rock, etc., would be useful for readers who are not familiar with the radio station literature.

3. Page. 2, para. 3, sent. 2: it is not clear what "nearby" means. Please explain.

4. Page. 3, para. 2, sent. 1: a footnote providing a general explanation of "Arbitron markets" would be useful during the introductory stage of the study.

5. Page 5 - 7: please include an explicit description of the model. More specifically:
   - formally write out the econometric specification of the choice model (rather than simply describe it);
   - explain why all other format choices are lumped into a single category and not modeled in a multi-choice setting;
   - more carefully explain and justify the choice of the logit vs. probit specification, the use of fixed effects vs. random effects (in the context of choice models) to account for differences in radio station behavior, exclusion of fixed time effects, etc.

6. a. Page 7 – 13: the market definition and measurement of variables are carefully described. However, in many cases, there is very little explanation of the economic relationship the independent variable(s) are measuring and *a priori* expectations. While many of the variables are controls that do not require much discussion, they could at least be classified under production cost, transaction cost, quality, demand, technology, institutional &regulatory controls, etc.

b. For the results and conclusions to be more convincing, the study needs to do a much better job of using economic theory and received empirical evidence to describe *a priori* expectations for the key variables of interest, i.e., ownership structure. In short, the study needs to carefully explain how, and why, particular types of ownership structure are expected to impact radio station's choice of format.

c. Although the underlying choice model is based on the maximization of expected profits, the econometric model and list of independent variables (Table 2) are nearly all supply-side variables. Some explicit acknowledgement of demand-side determinants of format choice would be useful for completeness.

7. Page 8, para. 2: the information on radio station format appears to be self reported by the stations. How reliable are these data? Is it possible to verify these responses?

8. Page 9, para. 2: it is not clear why demographics are important to the model. Do they control for preference heterogeneity in the demand for certain formats? Why choose Blacks, Hispanics and Personal Income over other potentially important demographics?

9. Page 13, footnote 18: replace Wikipedia reference with an academic econometric reference, perhaps Greene (1997). The study may also want to report or discuss specification tests for heterogeneity, here.

10. In relation to points (6a) and (6b) above, more economic explanation of the empirical relationships in the results section is required. For example, why are stations with a local marketing agreement less likely to be news station (page 16, para. 1, sent 1.); and why is the crowdedness of the format negatively related to choice of news format (page 17, para. 4)?

11. On page 15 and page 16 the study does a reasonably nice job of explaining the potential endogeneity problems related to "commercial stations" and "local marketing agreement", and argues that the estimated coefficients on these variables reflect causal relationships. However, without an explicit structural model, or more formal description of the economics underling the empirical model, it is difficult to understand why, for example, commercial stations are more likely to adopt a news format? The study should do more than just state empirical relationships observed in the data?

12. Page 14 & 15 (effects of cross ownership with newspaper and or television): is it possible that unobserved changes in preferences through time are correlated with the cross ownership variables and the station's choice of format? If so, the study may want to think about controlling for the effect of the number of (actual and potential) radio and TV stations in the market, and the penetration of new media such as Internet streaming and satellite radio. For robustness, the consequences of the potential endogeneity of the cross-ownership variables needs to be considered, and/or single-equation IV or systems of equation estimation methods.