

**Referee report by Stefano DellaVigna, UC Berkeley**  
**Newspaper/Television Cross-Ownership and Local News and  
Public Affairs Programming on Television: An Empirical  
Analysis by Michael Yan**

This paper analyses empirically the impact of newspaper/television cross-ownership on the programming of local television stations. In particular, the paper is focused on whether stations that are cross-owned provide more local news and more public affairs programming.

The evaluation is done comparing the programming of cross-owned and non-cross-owned stations on 14 days in 2003. A first comparison of the programming of the two types of stations suggests that cross-owned stations indeed provide more local news and more public affairs programming. Since this difference may be due to other factors such as differences across stations in geographical location, size of the audience, etc, the authors estimate regressions that control for some of these differences.

The regression results imply that, even controlling for other factors, cross-owned stations are significantly more likely to offer local news programming. However, conditional on offering local news programming, the amount of public programming offered is not significantly different from cross-owned and non-cross-owned stations. Further, there is no statistically significant relationship between cross-ownership and public affairs programming.

The authors summarize the results as saying that there is no evidence that cross-owned stations provide more local news and public affairs programming.

The study is based on a fairly simple methodology that compares the programming of the two types of stations, controlling for confounding factors. The methodology is, per se, appropriate, with some caveats detailed below.

The summary conclusion that the authors draw from the study, however, is not warranted given the findings. The first finding in the paper is that, even after controlling for a number of other factors, such as big-4 affiliate, whether the owner is local, whether there is a national reach, etc., the presence of cross-ownership significantly *increases* the probability that a station will broadcast local news. In fact, the variable “cross-ownership” is statistically the most significant predictor among the 16 variables in the regression. This finding does not fit with the conclusion of the authors.

The second finding is that, \*conditional on offering local news\*, the quantity of local news offered by the station is instead not significantly affected by the presence of cross-ownership. It is true that, in this case, as the authors say, there is no significant

relationship for a positive effect of cross-ownership on the quantity of news provided. However, the sign of the coefficient on cross-ownership is still positive and quite sizeable: the size of the coefficient for example is about half the size of the coefficient on the “VHF Status” variable, which is significant. I would summarize this evidence as saying that there is weak (not statistically significant) evidence that, even conditional on availability of local news, there may be some effect of cross-ownership on the quantity of local news broadcast.

Taking the two pieces of evidence together, I would summarize them as follows. There is evidence that cross-ownership is associated with a large and statistically significant increase in the availability of some degree of local news programming; the evidence is instead more mixed on whether the quantity of programming, conditional on any programming at all, is related to cross-ownership. Below, however, I discuss a reason, endogeneity, that leads me to think that this positive correlation is not likely to reflect a causal relation.

As for the second set of findings, on local public affairs programming, these findings are more tentative because the number of minutes devoted to this programming across stations is much lower. Hence, it takes a larger number of observations to test conclusively whether a variable, such as cross-ownership, has a significant effect or not on this programming. This being said, the overall evidence does not suggest a strong relationship between cross-ownership and local public affairs programming. This is indeed as the authors say. Cross-ownership somewhat reduces the probability of any public affairs programming (though not significantly so) and somewhat increases the quantity of such programming (though again not significantly so). In my view, one would need more data to conclude on this second relationship, given the small space devoted to this programming on the stations.

One additional key issue comes into play in this evaluation. Due to endogeneity, the methodology used by the authors is not certain to provide a correct measure of the impact of cross-ownership. Cross-ownership is not randomly assigned across stations. Ownership decisions are made by profit-maximizing companies. The stations that are bought over by a company that also owns newspapers are likely to be so when the television stations are natural outlets for the content of the newspapers. The televisions that are cross-owned, therefore, may provide more local news programming, but these stations would have provided more programming even were they not taken over.

To keep things simple, consider Area A where there is very little demand for local news, and the television stations do not provide much local news. In Area B, instead, there is more demand for local news and the televisions indeed provide such news. Now assume that we allow cross-ownership. The newspaper owners are more likely to buy stations in area B rather than in area A, since doing so provides more of an outlet for the news already gathered by the newspaper, allowing for cost-saving. However, the station that is now cross-owned would have provided more news even

\*absent\* the cross-ownership! Hence, it is not the cross-ownership that is causing the local news programming, but rather the opposite.

This kind of endogeneity problems implies that one should be very careful with conclusions from cross-sectional studies such as the one here examined. In general, the endogeneity would bias upward the estimates of the impact of cross-ownership on the provision of local news, since the stations that already were providing local news are more likely to be a target for cross-ownership. Hence, the limited evidence in this paper that cross-owned stations provide more local news may be due to endogeneity, rather than being a causal relationship. Obviously, this completely changes the interpretation of the findings.

**Summary:** I have criticized the conclusion of this paper that there is no evidence of an effect of cross-ownership on provision of local news programming. Following the simple methodology in this paper, one finds instead some evidence.

However, I *agree* with the authors that there is no strong or convincing evidence that cross-ownership increases the availability of local news programming, since the simple methodology used in this paper is likely to give biased estimates.

The evidence of a positive correlation between cross-ownership and provision of local news is likely to be due to endogeneity of cross-ownership. I certainly would not take the result of this study to be that we can be sure that cross-ownership increases local news programming. In my view, the jury is still out there. The existing evidence does not prove to any reasonable degree the existence of benefits to cross-ownership (nor does it prove the contrary).

To provide evidence that is more indicative of such relationship, it would be useful to observe the amount of programming \*before\* and \*after\* a station become cross-owned. Doing such an over-time study would allow, at least to a first approximation, to control for the endogeneity of cross-ownership as detailed above.

On a more detailed note, the authors should report the number of observations, the mean for the dependent variable, and the procedure used to derive standard errors in the notes to the Tables (are the s.e.s robust? Are they clustered by station as they should?)

Also, the authors should say how the 14 days in which the programming was measured were chosen. Were the 14 days randomly chosen? This would seem important for the purposes of the evaluation.