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Duopoly Ownership and Local Informational Programming on Broadcast Television: Before–After Comparisons

Michael Zhaoxu Yan and Yong Jin Park

This study examines the relationship between duopoly ownership structure and the supply of local news and public affairs programming in the local television market. The results show that both duopoly stations and non-duopoly stations significantly increased their local news programming from 1997 to 2003. The increases were attributable to the top four stations in each market. In addition, stations did not increase their efforts in local public affairs programming after becoming duopolies. The study also found that there was no significant difference in the amount of local news or local public affairs programming aired by duopoly and non-duopoly stations.

For decades, the government prohibited companies from owning more than one television station in a single market. In 1999, the Federal Communications Commission (FCC) relaxed this limit and allowed duopoly ownership, i.e., a company owning two stations in a local television market (FCC, 1999). In June 2003, as part of its comprehensive review of the broadcast ownership rules, the FCC further relaxed the local television multiple ownership rule. For example, in markets with 18 or more television stations, a company can own three stations provided that only one of these stations is among the top four ratings (FCC, 2003).

In relaxing the multiple ownership restrictions, the government believed that the public interest benefits resulting from common ownership of local television stations outweighed the threats. Particularly, the FCC assumed that the new rules allowed the commonly owned stations to operate more efficiently by taking advantage of their combined resources, which would lead to the increase of local and public affairs programming in the local market. The federal circuit court in *Prometheus Radio Project v. FCC* (2004) essentially endorsed this view although it remanded the specific numerical limits to the Commission for further consideration. However,

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much of the evidence regarding the benefits of television joint ownership is anecdotal and provided by broadcasters drawing upon their own experience (FCC, 1999). As far as the authors know, scholarly research examining the effects of common local television ownership on the quantity and quality of local and public affairs programming is rare.

This study examined the relationship between duopoly, and the supply of local news and public affairs programming in the local television market. Using station program data of 1997 and 2003, the study investigated whether stations (particularly the non-top-four-ranked ones) increased their local news and public affairs programming once becoming part of a common ownership. It also investigated whether stations in common ownership aired more such informational programming than comparable stations in the same market or stations from different markets that have no multiple ownership, and whether markets with common ownership stations, as a whole, provided more local news and public affairs programming than those that contain no such ownership structure. The results of the study provide much needed evidence regarding the purported benefits (or the lack thereof) of the current television duopoly rules.

The next section begins with background information about the duopoly rules, followed by a review of previous research that examined the relationship between media ownership structure and television content, followed by research hypotheses and methodology, and, lastly, results and conclusions.

Duopoly Structure and Television Programming

Local television multiple ownership rules limit the number of television stations a company can own. The “duopoly rule,” adopted in 1964, prohibited an entity from having cognizable interests in two television stations whose Grade B signal contours overlap (FCC, 1964). The rationale underlying such a rule was that the policy goals of diversity and competition were best ensured with a multiplicity of separately owned media outlets.

Congress passed the Telecommunication Act of 1996 that, among other things, made a number of changes to the media ownership rules. For example, the Act eliminated the restriction on the number of radio stations a single entity can own nationally, and increased the number of radio stations one company can control in a local market. Although the Act did not make changes to the television duopoly rule, Congress directed the FCC to conduct a rulemaking proceeding concerning the retention, modification, or elimination of the duopoly rule. The congressional mandate required the FCC to rewrite the duopoly rule in 1999, the first time in 35 years of its history (FCC, 1999). Under the FCC’s revision, common ownership of two television stations in the same designated market area (DMA) is permissible if their Grade B signal contours do not overlap, or if eight independently owned, full power and operational TV stations (commercial and noncommercial) will remain post-merger and one of the merged stations is not among the top four ranked

stations in the market (FCC, 1999). Exceptions were also allowed to this “four top-ranked/eight voices test,” for example, if one of the merged stations is a “failed station” or a “failing station.”

In June 2003, the FCC further liberalized the television duopoly rule as part of yet another review of media ownership rules. The new rule eliminated the “eight voices test,” and based the ownership limits entirely on the size of a media market. For example, a company may own two stations in markets with five or more television stations, and 3 stations in those with 18 or more stations (again, only one of these merging stations can be among the top four in ratings) (FCC, 2003).

The FCC 2003 decisions were first enjoined by a federal circuit court in September 2003, and were later remanded back to the Commission by the same court for further justifications of the numerical limits (*Prometheus Radio Project v. FCC*, 2004). However, many television stations now operate under a common ownership structure as a result of the FCC’s 1999 duopoly rule. According to one estimate, there are at least 75 television combinations (McConnell, 2002). An examination of station ownership patterns in this study revealed 77 combinations in 2003, involving 155 television stations in 59 markets.

The FCC calculated the costs and benefits when it decided to relax the duopoly rule. On the one hand, allowing further consolidation of stations in the local market may reduce competition and ownership diversity. On the other hand, common ownership of stations could yield economies of scale that can result in stronger stations and better services to the viewing public. In balance, however, the FCC deemed that the reduction in competition and diversity is minimized by the presence of a plethora of media choices available to the public and serving as competitive forces against the broadcasters. In addition, the economic efficiencies gained from common ownership were so great that a change of the duopoly rule was needed. As the FCC put it,

In markets with many separate licensees and a variety of other media outlets, we believe the benefits of joint ownership in certain instances outweigh the cost to diversity from permitting such combinations. There is evidence concerning the efficiencies inherent in joint ownership and operation of television stations in the same market...These efficiencies can lead to cost savings, which in turn can lead to programming and other service benefits that serve the public interest. (FCC, 1999, para. 38)

The FCC applied the same line of cost-benefit analysis in its 2003 decisions. Again, prior local television ownership rules could not be justified on diversity or competition grounds because the FCC found that Americans rely on a variety of media outlets for news and information, and local television broadcasters face significant competition from other media industries such as cable and satellite television services. The FCC emphasized the economic efficiencies and public service benefits to be gained from common ownership of stations. In particular, the FCC agreed that television combinations would yield efficiencies that “would expand local news offerings and other programming relevant to the needs and interests of viewers in local markets” (FCC, 2003, para. 138).

The logic of horizontal mergers leading to economies of scale and creating efficiencies has validity. Mergers reduce duplication and save costs. For example, the creation of a single set of managers can save management costs (Carlton & Perloff, 2005). A merged firm can also reduce the total cost that separate firms would have to incur if developing similar products independently (Hoskins, McFadyen & Finn, 2004; Owen, 2003). In addition, merger can lead to complementary activities that benefit merged firms. For example, media firms in a merger can cross-promote each other's products (Croteau & Hoynes, 2001).

Chain ownership in the newspaper industry significantly increased economies of scale due to the creation of national news circulation (Dertouzos & Trautman, 1990). In broadcast television, stations in a horizontal merger can benefit from potential synergies of sharing staff, reducing production costs, cross-promoting content and combining advertising efforts (Pierce, 2005). More specifically, jointly owned stations can integrate core personnel in creating content, share newsroom and production facilities, and exchange and cross promote content produced by different stations. To be able to use the same content in more than one outlet means not only increased economies of scale, but also less reliance on syndicated programming, resulting in programming cost reduction (Mermigas, 2003). Sales staff under the same ownership offers advertisers package deals over two or more stations (McConnell & Ault, 2001).

However, whether or not joint ownership, with its posited cost efficiency benefits, leads to more local informational programming is a different issue. First, in recent years, as more stations became duopolies, the amount of public affairs programming on television declined. Several studies tried to measure and analyze public affairs programming on local television in the past. These studies revealed that local television stations generally failed to provide an adequate outlet for this type of show (Napoli, 2001a; Yan & Napoli, 2006), and the number of public affairs programs aired on local television has declined since the deregulation of the broadcast industry in the early 1980s (Bishop & Hakanen, 2002). Furthermore, Yan and Napoli (2006) found a negative relationship between station financial resources and the provision of public affairs programming. In addition, more competitive markets were associated with smaller amount of public affairs programming (Yan & Napoli, 2006).

On the surface, the lack of local public affairs programming on television reflects the common knowledge that this programming is largely unprofitable to programmers due to low levels of advertiser and audience support. At a deeper level, the inadequacy of this type of programming is characteristic of a market failure involving the presence of externalities (Hamilton, 1996). In any case, because the opportunity cost for providing financially less lucrative informational programming may be even greater as companies become combined, joint ownership may actually compel commonly owned stations to eschew such programming.

Empirical studies conducted since the FCC relaxed its common ownership rules in 1999 have shown mixed results of the effects of duopoly on local television programming. An econometric analysis prepared for Sinclair Broadcasting by Crandall found that entering into a common ownership led to a small increase in the probability that

a station will cover news at all, but there was no statistically significant difference in terms of the amount of news provided (cited in Cooper, 2003, p. 137). The study, however, was based on only one geographical area. Also focusing on one geographical area, Smith (2004) compared the news coverage by two stations before and after they became jointly owned. The results of the case study revealed that duopoly led to higher quality coverage in some content areas (e.g., coverage of local government, politics and growth), but lower in others (e.g., coverage of non-dominant groups). In addition, while the number of, and time devoted to local news stories increased, geographic areas that were represented in the coverage were concentrated in few bigger markets.

Unlike the previous studies that were limited to a single geographical area and very few stations, Yan and Napoli's studies of the relationship between ownership and market characteristics and station provision of local informational programming were based on random samples of a large number of stations (Napoli & Yan, 2007; Yan & Napoli, 2006). Among other things, they found that duopoly had a significantly negative relationship with the provision of local news programming, but no relationship for local public affairs programming. Employing cross sectional data, however, their studies could not compare the amount of informational programming broadcast by the stations before and after they became duopolies.

In a recent analysis of actual local television news footage, Yanich (2007) also found a negative relationship between duopoly ownership and the proportion of local content on local television news broadcasts. More specifically, stations that were neither owned-and-operated by a network nor part of a duopoly broadcast more local content on their newscasts than stations that were either (1) owned-and-operated and part of a duopoly; (2) owned-and-operated only; or (3) part of a duopoly only. Yanich also found that the sampled broadcasts contained a higher proportion of local content in 2002 than in 1998. However, it is not clear from the study how duopoly ownership was related to the local content broadcast increases over the years. Despite having programming data for both 1998 and 2002, the researcher did not analyze directly how becoming part of a duopoly had affected a station's local news broadcasting. Another drawback of the study was that the database was limited to a small number of stations (15) in a small number of markets (5). The selection of the markets was also not random.

The effects of duopoly on local television news programming content thus remain unclear in these studies. It is apparent that few scholarly researchers have systematically studied the effects of local television common ownership on both local news and local public affairs programming.

Hypotheses

The current study tried to improve upon the previous studies by employing a random sample. It also focused on the effects of multiple ownership rules on informational programming by examining whether television stations increased their programming in this area after becoming duopolies. Finally, it included both key

components of informational programming—local news and public affairs programming and analyzed them separately.¹ Following are the main research question asked and hypotheses tested.

RQ₁: Does common ownership increase the amount of local news and public affairs programming, particularly by the non-top four-ranked stations under a common ownership?

H_{1a}: A television station would broadcast more local news programming after becoming a duopoly station.

H_{1b}: A television station would broadcast more local public affair programming after becoming a duopoly station.

The study also asks the following two related research questions.

RQ₂: Do stations under common ownership air more local news and public affairs programming than comparable stations in the same market or from different markets that have no multiple ownership?

RQ₃: Do markets with common ownership stations, as a whole, provide more local news and public affairs programming than markets containing no such ownership concentration pattern?

It was hypothesized that a duopoly station would broadcast more local news (or local public affairs) programming than a non-duopoly station located in the same market or in a different market. In addition, a television market with duopoly stations would broadcast more local news (or local public affairs) programming than other markets containing no duopoly stations.

Method

Many stations became duopoly stations after the FCC's 1999 revised duopoly rule. This natural experiment helped test the main hypothesis by comparing these stations' local informational programming before and after they became duopolies. More specifically, the study analyzed a 2-week constructed sample of television programming in 1997 and 2003, respectively, for a sample of 116 commercial, full power U.S. stations. Forty of the stations were duopoly stations in 2003, while the remaining 76 were non-duopoly stations. The following sections describe how the broadcast stations and television programs used in the analyses were sampled.

Sampling Stations

The station sample was created by first randomly selecting a group of duopoly stations, and then matching them with a group of comparable non-duopoly stations.

These non-duopoly stations serve as a control group. The design of the study is thus similar to that of a pretest-posttest control group quasi experiment (Wimmer & Dominick, 2000).

First, based on the ownership information reported in *Investing in Television Market Report* (Nov. 2003) published by BIA, a list of 155 full-power, English-speaking commercial television stations that shared ownership with at least one other station in the same market was compiled. These stations, in 77 combinations, were located in 59 markets. From these markets, 20 duopoly markets were randomly selected for a total of 40 stations.

Next, 76 non-duopoly stations were added to the original station sample, using a matching method.² About 40 of the non-duopoly stations were selected from the above 20 duopoly markets. The other 36 were from 18 markets that had no duopoly stations in 2003. These non-duopoly markets were selected to match the group of duopoly markets, based on their respective market size.³ Two non-duopoly stations were selected in each market to match with the network affiliation status of the duopoly stations, depending on whether a duopoly station is affiliated with a top four network or not. For example, if one of the duopoly stations was a top-four affiliate and the other not—which is the case for the vast majority of the television combinations under common ownership—they were matched with one top-four affiliate and one non-top-four affiliate non-duopoly station.

In summary, the sample included 116 stations, among which 40 are duopoly stations from the 20 duopoly markets (the “DD” stations), 40 non-duopoly stations from those duopoly markets (the “DN” stations), and 36 non-duopoly stations from the 18 matching non-duopoly markets (the “NN” stations) (see Table 1). Table 1A shows the specific television markets (in terms of their DMA ranks) included in the study, as well as the television household totals for each market in 1997 and 2003. Overall, the non-duopoly markets are a little smaller in size than the duopoly markets in the sample.⁴

Table 1
Number of Television Markets and Stations in the Sample

	Duopoly Markets (DUO)	Non-duopoly Markets (NON_DUO)	Total
Total # of markets:	20	18	38
Total # of stations:	80	36	116
# of Duopoly stations:	40 (DD)	0	40
# of Non-duopoly stations:	40 (DN)	36 (NN)	76

Notes: DD = Duopoly station in duopoly markets.
 DN = Non-duopoly stations in duopoly markets.
 NN = Non-duopoly stations in non-duopoly markets.

Table 1A
Television Markets in the Sample

DMA Rank	Duopoly Markets TVHHs		DMA Rank	Matching Markets TVHHs	
	1997	2003		1997	2003
1	6813	7376			
4	2668	2874			
10	1847	1923	9	1722	2035
16	1476	1543	13	1436	1644
19	1131	1278	18	1230	1399
24	994	1073	21	1110	1202
30	812	904	26	945	1029
33	809	871	32	806	872
37	668	736	36	707	786
40	657	698	39	607	709
42	628	665	47	592	637
45	598	647	48	559	636
49	560	634	53	551	590
52	520	598	54	471	578
59	504	512	58	468	512
63	480	495	61	447	499
70	330	421	69	410	426
80	378	382	81	371	380
92	279	310	93	282	310
111	225	250	110	237	252
Averages:					
44	1118.9	1209.5	42	719.5	805.3
Averages (excluding market #1 and #4):					
48	716.4	774.4	48	719.5	805.3

Television Program Sampling

For each of the television stations, a constructed 2-week sample of programming schedules published respectively for 1997 and 2003 from Turner Media Service (TMS) was obtained.⁵ The TMS data set contained detailed schedule information for all programs broadcast by each of the stations, including each broadcast’s date, time, title, and duration. The data set also contained a number of useful descriptive

fields for identifying public affairs or news programming. The Category field, for example, included a wide range of program type categories, including Community, Public Affairs, and News. There were also three Description fields that included descriptions of the individual programs, as well as descriptions of the individual episodes. Finally, the data set also included a Program Origination field, which identified each program as Local, Syndicated, or Network (along with identifying the originating network).

Relying on these data fields, each television program was then classified in the sample as local public affairs or local news. The study used the FCC's definition of public affairs programs as "programs dealing with local, state, regional, national or international issues or problems, documentaries, mini-documentaries, panels, roundtables and vignettes, and extended coverage (whether live or recorded) of public events or proceedings, such as local council meetings, congressional hearings and the like." (Federal Communications Commission, 1984, p. 172).⁶ Regularly scheduled newscasts and weekly news magazine shows that used a newscast format were counted as local news.

Many programs in the TMS data set, especially those from 1997, did not have Category and Program Description information. In these cases, television station web sites were consulted and/or the stations were called directly in order to ascertain the nature of the program. Due to changes in station management or programming personnel, some of the 1997 programs could not be verified. This, plus the fact that some of the stations in the sample went on air after 1997, resulted in 106 stations with local news programming information, and 105 stations with local public affairs programming information for 1997.

Control Variables and Data

Finally, a number of market-level and station-level variables were used as control variables in the statistical tests. The market-specific variables include the number of television households and number of television stations in a market in 1997 and 2003. The station-specific variables include whether a station was a UHF or VHF station, whether a station was affiliated with one of the big four networks, and whether a station was owned by one of the big four networks in both years. Data for these variables were collected from *Investing in Television Market Report* (November 1998 and 2003).

Results

Local News Programming

Table 2 summarizes the mean local news programming (in hours) broadcast in different types of markets (DUO and NON_DUO) and by the different types of

stations (DD, DN and NN) in 1997 and 2003. The table also reports the mean differences between the two types of markets, the three types of stations in each year, and across the 2 years. In testing the mean differences within a particular year, the general linear model univariate analysis was employed. For testing the mean differences across years, the linear mixed models were used. Furthermore, tests of mean differences between types of markets were conducted controlling for the above-mentioned market-level variables, while tests of mean differences between types of stations controlled for both market-level and station-level variables.

Table 2
Amount of Local News Programming on Television Stations (Hours), 1997 & 2003
(By Market and Station Types)

	1997		2003		Mean Differences ^a 2003-1997:
	<i>N</i>	<i>Mean</i>	<i>N</i>	<i>Mean</i>	
Total sample:	106	26.3	116	29.4	3.1***
Market Comparisons:					
Duo markets (DUO)	75	26.3	80	29.2	2.9***
Non-Duo markets (NON_DUO)	31	26.2	36	29.8	3.6***
Station Comparisons:					
Duo stations in Duo markets (DD)	38	18.5	40	22.6	4.2**
Non-duo stations in Duo markets (DN)	37	34.4	40	35.8	1.4
Non-duo stations in non-duo markets (NN)	31	26.2	36	29.8	3.6**
Mean Differences: ^b					
DUO-NON_DUO:		0.1		-0.6	
DD-DN:		-15.9		-13.2	
DD-NN:		-7.7		-7.2	
DN-NN:		8.2		6.0	

Notes: Significance level: ***1% **5%.

^aThe mean differences across years were tested using linear mixed model.

^bThe mean differences within a year were tested using general linear model.

As shown, stations in the entire sample broadcast an average of 26.3 hours of local news programming in 1997, and 29.4 hours in 2003 during the constructed 2-week sample period. This represented a statistically significant increase of 3.1 hours.

Market Comparisons. One of the research questions asks whether or not duopoly markets, as a whole, provide more local news programming than non-duopoly markets in 2003. During the 2-week sample period in 2003, the stations in duopoly markets aired an average of 29.2 hours of local news programming, while those in non-duopoly markets aired 29.8 hours. The difference was not statistically significant.⁷ Stations in duopoly markets thus did not broadcast more local news programming than those in non-duopoly markets. Note, however, stations in both types of markets had significantly increased their local news programming from 1997 to 2003. There was no interaction effect between market type and the time trend. In other words, stations in duopoly markets did not increase their local news programming more than those in non-duopoly markets.

Station Comparisons. First, the duopoly stations in duopoly markets (DD) aired fewer hours of local news programming in 2003 than their non-duopoly counterparts in the same market (DN), 22.6 vs. 35.8 hours. They also contributed less time to local news than non-duopoly stations from markets that had no common television ownership (NN), 22.6 vs. 29.8 hours. Both differences, however, were not statistically significant.⁸

The main research question was whether or not stations increase their local informational programming after joining a common ownership. As shown in Table 2, the duopoly stations (DD) did increase their local news programming from 18.5 hours in 1997, to 22.6 hours in 2003. The increase was statistically significant at the 5% significance level, supporting H_{1a} . However, the other two types of stations, DN and NN also increased their local news programming in 2003 compared to 1997. The increase was statistically significant at the 5% level for NN stations, insignificant for DN stations. When tested for the interaction effect between station type and the time trend, no such effect was found. Therefore, the duopoly stations did not enjoy a greater increase than other types of stations in the sample.

One strong argument for the relaxation of the television multiple ownership rules is that joint ownership can disproportionately benefit the weaker station in a combination, improving its programming and overall strength. To test this assertion, each of the three types of stations was further broken down into two groups: the major and minor stations. Major stations were those affiliated with one of the top four broadcast networks (ABC, CBS, Fox and NBC) in 2003; those without such network affiliation were defined as minor.⁹ The results are summarized in Table 2A. As shown, the significant increases in local news programming experienced by the three types of stations were all attributable to the major stations. For example, major DD stations increased their local news programming 8 hours, and major NN stations did by 10.3 hours. On the contrary, the minor stations did not show any significant

Table 2A
Amount of Local News Programming on Television Stations (Hours),
1997 & 2003 (Major vs. Minor Stations)

	1997		2003		Mean Differences: 2003–1997:
	<i>N</i>	<i>Mean</i>	<i>N</i>	<i>Mean</i>	
Station Types:					
Duo stations in Duo markets (DD)					
Major	22	27.9	22	35.9	8.0***
Minor	16	5.5	18	6.4	0.9
Non-duo stations in Duo markets (DN)					
Major	25	47.0	26	50.8	3.8**
Minor	12	8.1	14	8.0	–0.1
Non-duo stations in non-duo markets (NN)					
Major	23	33.0	23	43.3	10.3***
Minor	8	6.4	13	5.8	–0.6
Total					
Major	70	36.4	71	43.8	7.4***
Minor	36	6.6	45	6.7	0.2

Notes: Significance level: ***1% **5%.

Major: Stations affiliated with one of the big four broadcast networks (ABC, CBS, Fox, NBC).

Minor: Stations not affiliated with one of the big four broadcast networks.

increases in their local news programming at all. There is, thus, no evidence that joint ownership induced minor stations to produce more local news programming.

Local Public Affairs Programming

The results for local public affairs programming are summarized in Tables 3 and 3A. Overall, the stations in the sample decreased their local public affairs programming from 29.16 minutes in 1997 to 17.6 in 2003. This decrease was not statistically significant.

Market Comparisons. At the market level, stations in duopoly markets broadcast slightly more local public affairs programming than their counterparts in non-duopoly markets in both 1997 and 2003, but the differences were not statistically significant. In addition, there were no significant changes in local public affairs

Table 3
Amount of Local Public Affairs Programming on Television Stations (Minutes),
1997 & 2003 (By Market and Station Types)

	1997		2003		Mean Differences ^a 2003–1997:
	<i>N</i>	<i>Mean</i>	<i>N</i>	<i>Mean</i>	
Total sample:	105	29.16	116	17.6	–11.56
Market Comparisons					
Duo markets (DUO)	75	31.63	80	19.64	–11.99
Non-Duo markets (NON_DUO)	30	23	36	13.08	–9.92
Station Comparisons					
Duo stations in Duo markets (DD)	38	22.16	40	12.23	–9.93
Non-duo stations in Duo markets (DN)	37	41.35	40	27.05	–14.3
Non-duo stations in non-duo markets (NN)	30	23	36	13.08	–9.92
Mean Differences: ^b					
DUO-NON_DUO:		8.63		6.56	
DD-DN:		–19.19		–14.82	
DD-NN:		–0.84		–0.85	
DN-NN:		18.35		13.97	

Note: Significance level: *** 1% ** 5%.

^aThe mean differences across years were tested using linear mixed model.

^bThe mean differences within a year were tested using general linear model.

programming for the two types of markets over the years. If anything, the changes from 1997 to 2003 were negative.

Station Comparisons. At the station level, duopoly stations broadcast the least amount of local public affairs programming in both years. In addition, stations of all types experienced decreases in this area of programming over the years. Note, however, none of these changes was statistically significant at 5% level (see Table 3). Looking at the provision of local public affairs programming by the major and minor stations, neither the major stations nor the minor stations significantly increased their local public affairs programming once since becoming duopolies (see Table 3A). Again, the changes were on the declining side. These results do not support H_{1b}.

Table 3A
Amount of Local Public Affairs Programming on Television Stations (Minutes),
1997 & 2003 (Major vs. Minor Stations)

	1997		2003		Mean Differences: 2003–1997
	<i>N</i>	<i>Mean</i>	<i>N</i>	<i>Mean</i>	
Station Types:					
Duo stations in Duo markets (DD)					
Major	22	21.91	22	9.95	–11.96
Minor	16	22.5	18	15	–7.5
Non-duo stations in Duo markets (DN)					
Major	25	36	26	38.15	2.15
Minor	12	52.5	14	6.43	–46.07
Non-duo stations in non-duo markets (NN)					
Major	22	24.55	23	10.04	–14.51
Minor	8	18.75	13	18.46	–0.29
Total					
Major	69	27.86	71	20.31	–7.55
Minor	36	31.67	45	13.33	–18.34

Significance level: ***1% **5%.

Conclusion

This study examined whether or not stations increased their local news and public affairs programming once becoming a duopoly station. The results showed that duopoly stations broadcast significantly more local news programming in 2003 than 1997, but so did non-duopoly stations located in non-duopoly markets. There were no interaction effects between station type and time trend, meaning that the duopoly stations were not increasing at a higher rate than the other types of stations. In addition, all of the increases in local news programming were due to the efforts of the major stations—stations that were affiliated with one of the big four broadcast networks. In other words, joint ownership did not induce the minor stations to provide more local news, contrary to the assumption behind the relaxation of the duopoly rules.¹⁰

Finally, a declining, although not statistically significant, trend in the provision of local public affairs programming across all of the three types of stations was found. The different results for local news and local public affairs programming suggest that over time, stations had devoted more resources to the former area of programming rather than the latter. They also lend support to other researchers' suggestion that

local news and local public affairs be treated separately in media policy research (Napoli, 2004).

How television stations under common ownership compared with stations with no such ownership in these two areas of programming was also examined. In summary, in 2003, 5 years after the FCC allowed duopoly ownership, it was found that duopoly stations broadcast no more local news or public affairs programming than non-duopoly stations from either duopoly markets or comparable markets without joint ownership stations. In fact, the duopoly stations provided the least amount of programming in these programming areas. The results held even when the major stations and the minor stations within each station type were compared separately. At the market level, stations in duopoly markets did not perform better in the provision of these informational programs than stations in non-duopoly markets in 2003.

In the U.S. media system, providing locally produced informational programming is an essential component of a station's obligations to serve the public interest. It is thus no coincidence that the FCC, in proposing and promoting the relaxed television duopoly rule, has spent much of its argument on the rule's potential programming benefits—more news, public affairs, and other non-entertainment programming. However, this study's findings provide no such evidence for such benefits. The duopoly stations did not provide more local news or local public affairs programming than their non-duopoly counterparts. Nor did these stations, once becoming jointly owned, devote more time to these areas of informational programming than others. The current television multiple ownership policy therefore does not seem to provide a sufficient ground for encouraging more informational programming. In conclusion, the findings of the study call into question the underlying rationale of the FCC's current policies toward more relaxed multiple ownership rules, particularly the assumption that economies of scale contribute to greater production of local informational programming.

The current study has drawbacks that are common to field experiments. First, the non-duopoly stations were not randomly selected, and the equivalency of the two station groups is questionable, even though the sample matching method was used to make the samples comparable to each other.¹¹ In addition, to rule out alternative explanations, several intervening variables were controlled in the statistical analyses. However, other control variables (for example, per capita income and ethnic makeup in a television market) may be significant but were omitted. Future research should try to include these control variables. Overall, the current study contributes to the policy debate on television duopoly rules by providing valid evidence regarding the lack of purported benefits from these rules.

Notes

¹¹Prior research has repeatedly shown that local news and local public affairs are two different types of programming with different economic characteristics. For example, market

competitive conditions (in terms of market size and station numbers in a market) have been found to affect the provision of local news (Napoli & Yan, 2007; Powers, 2001), but not local public affairs programming (Napoli, 2001b, 2004).

²The sample matching method involves first randomly selecting a target sample, and then matching each member in the target sample with one or more members of similar characteristics (see Hansen, 2004).

³Matching markets for Markets #1 and #4 were not found because all of the top nine media markets were duopoly markets (see Table 1A). Analyses excluding these two markets were conducted and the results were similar to the report in the next section.

⁴After excluding Markets #1 and #4, the two sets of markets are comparable in their average ranks and number of television households (see Table 1A).

⁵The sample dates for both years are: Jan. 11 (Sat.), Jan. 22 (Wed.), Feb. 17 (Mon.), Feb. 27 (Thu.), Mar. 23 (Sun.), Mar. 28 (Fri.), Apr. 22 (Tue.), Aug. 11 (Mon.), Sep. 30 (Tue.), Oct. 18 (Sat.), Nov. 5 (Wed.), Nov. 6 (Thu.), Nov. 9 (Sun.) and Nov. 28 (Fri.). The dates were randomly selected. Coincidentally, the weekdays for these dates in both years are identical. The construction of a composite program sample from days of the week throughout the year was to control for possible effects from idiosyncrasies associated with particular months or weeks within the year (e.g., sweeps period, election periods, or particularly active news weeks) (see Bishop & Hakanen, 2002; Riffe, Lacy, & Fico, 1998). The years 1997 and 2003 were chosen to avoid election years such as 1998 and 2004.

⁶Examples of local public affairs programs include *Issues & Answers* on KCHF, *Meet Your Neighbor* on KLHY, and *Show me St. Louis* on KSDK.

⁷The same conclusion can also be drawn from the 1997 data.

⁸The results were similar in 1997. This indicates that the stations were comparable in their efforts in the area of local news programming in 1997.

⁹Systematic data were not available to rank the stations by their viewing ratings. Instead, station network affiliation status was used to represent their relative positions in the market. The vast majority of the top-four-ranked stations are also affiliated with one of the top four networks. Also, even though some stations in the sample had changed network affiliation during 1997–2003, none had become a major station from a minor one, or vice versa.

¹⁰Similar findings of increases in local news production were also reported in other recent studies (Napoli & Yan, 2007; Yanich, 2007). Major network affiliate stations accounted for most of the increases due to their financial strength. As Napoli & Yan (2007) pointed out, local news programming is a costly operation despite its lucrative revenue generating potential. Thus a station's financial strength matters a great deal in its decision whether or not to enter the local news business and how much of it to produce (pp. 53–54).

¹¹It should be noted that there were no significant differences in the amount of local news and local public affairs programming that the three types of stations in the sample aired.

References

- BIA Research. (2003). *Investing in television market report*. Chantilly, VA: Author.
- BIA Research. (1998). *Investing in television ownership file*. Chantilly, VA: Author.
- Bishop, R., & Hakanen, E. A. (2002). In the public interest? The state of local television programming fifteen years after deregulation, *Journal of Communication Inquiry*, 26(3), 261–276.
- Carlton, D., & Perloff, J. (2005). *Modern industrial organization*. New York, NY: Pearson Education.
- Cooper, M. (2003). *Media ownership and democracy in the digital information age*. Palo Alto, CA: Center for Internet & Society, Stanford Law School.
- Croteau, D., & Hoynes, W. (2001). *The business of media: Corporate media and the public interest*. Thousand Oaks, CA: Pine Forge.
- Dertouzos, J. N., & Trautman, W. B. (1990). Economic effects of media concentration: Estimates from a model of the newspaper firm, *The Journal of Industrial Economics*, 39(1), 12.

- Federal Communications Commission (1964). Ownership report and order. 45 F.C.C. 1476.
- Federal Communications Commission (1984). Revision of programming and commercialization policies, ascertainment requirements, and program log requirements for commercial television stations. 1984 FCC LEXIS 2105.
- Federal Communications Commission (1999). Report and order. Retrieved March 29, 2004, from http://ftp.fcc.gov/Bureaus/Mass_Media/Orders/1999/fcc99209.pdf.
- Federal Communications Commission (2003). Local ownership rules. Retrieved March 29, 2004, from <http://www.mediaaccess.org/programs/diversity/MOAttachment.pdf>.
- Hamilton, J. T. (1996). Private interests in "public interest" programming: An economic assessment of broadcaster incentives, *Duke Law Journal*, 45(6), 1177–1193.
- Hansen, B. (2004). Full matching in an observational study of coaching for SAT. *Journal of the American Statistical Association*, 99(467), 609–618.
- Hoskins, C., McFadyen, S., & Finn, A. (2004). *Media economics: Applying economics to new and traditional media*. New York, NY: Sage Publication.
- McConnell, B. (2002, Jan. 21). Duopolies: The pair necessities. *Broadcasting & Cable*, 132, 59–62.
- McConnell, B., & Ault, S. (2001, July 30). Fox TV's strategy: Two by two. *Broadcasting & Cable*, Retrieved March 12, 2007, from <http://www.broadcastingcable.com/article/CA149500.html?display=Top+of+the+Week>.
- Mermigas, D. (2003, Mar.18). *Mermigas on media*. Retrieved March 12, 2007, from LexisNexis Database.
- Napoli, P. M. (2001a). Social responsibility and commercial broadcast television: An assessment of public affairs programming. *International Journal on Media Management*, 3(4), 226–233.
- Napoli, P. M. (2001b). Market conditions and public affairs programming: Implications for digital television policy. *Press/Politics*, 6(2), 15–29.
- Napoli, P. M. (2004). Television station ownership characteristics and news and public affairs programming: An expanded analysis of FCC data, *The Journal of Policy, Regulation, and Strategy for Telecommunications, Information, and Media*, 6(2), 112–121.
- Napoli, P. M., & Yan, M. Z. (2007). Media ownership regulations and local news programming on broadcast television: An empirical analysis, *Journal of Broadcasting and Electronic Media*, 51(1), 1–19.
- Owen, B. M. (2003). Regulatory reform: The Telecommunication Act of 1996 and the FCC media ownership rules, *Michigan State DCL Law Review*, 2003(3), 671–700.
- Pierce, (2005, Aug. 11). KTVX owners agree to buy KUWB, *Deseret Morning News*. Retrieved March 12, 2007, from LexisNexis Database.
- Powers, A. (2001). Toward monopolistic competition in U.S. local television news, *Journal of Media Economics*, 14(2), 77–86.
- Prometheus Radio Project v. Federal Communications Commission (2004). 373 F. 3d 372.
- Riffe, D., Lacy, S., & Fico, F. (1998). *Analyzing media messages: Using quantitative content analysis in research*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Smith, L. (2004). *Consolidation and news content: How media ownership policy impacts local television news*. Unpublished doctoral dissertation, University of Texas at Austin, Austin, TX.
- Wimmer, R. D., & Dominick, J. R. (2000). *Mass media research: An introduction* (6th ed.). Belmont, CA: Wadsworth.
- Yan, M. Z., & Napoli, P. M. (2006). Market competition, station ownership and local public affairs programming on local broadcast television, *Journal of Communication*, 56(4), 795–812.
- Yanich, D. (2007, September). *Ownership matters? Content, localism and ownership on local television news*. Paper presented at 35th Research Conference on Communication, Information and Internet Policy, George Mason University School of Law, Arlington, VA.