

# Television-Radio Cross Ownership, Concentration and Voices in the Top 50 DMAs

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## *Introduction and Summary*

The Commission is considering what restrictions, if any, should be imposed on firms that seek to own a broadcast TV station and one or more radio stations in the same market. The Commission is concerned with the effects a change in TV-radio cross-ownership rules could have on competition in the sale of advertising and viewpoint diversity.

This paper analyzes the potential competitive consequences in the top 50 DMAs of a total repeal of the cross-ownership rules. It concludes that, under foreseeable circumstances, such a repeal is highly unlikely to raise serious competitive concerns in these DMAs. The paper then analyzes the consequences of a repeal of the rule if coupled with the requirement that at least 20 independent radio and TV voices remain in the market. The analysis shows that there would be even less cause for competitive concern if such a more restrictive rule were in effect.

Due to some conservative assumptions, the calculations presented in this paper probably overstate the likely competitive consequences of a repeal or relaxation of the present cross-ownership rules. First, it was assumed that all statutorily permissible combinations of radio and television stations in a particular market would in fact be accomplished; this is not likely in the real world. Second, it was assumed that the relevant market consists only of TV and radio stations; it is clear that other media selling local advertising compete with these outlets.

This paper concludes that serious competitive issues are unlikely to arise if the Commission allows any broadcast TV station to be jointly owned with as many radio stations as are allowed under the Telecommunications Act of 1996. If there are rare exceptions, they could easily be dealt with by the ordinary application of the antitrust laws. Thus, there is no apparent policy benefit to the continued Commission oversight of such transactions, and some obvious regulatory costs that could be safely eliminated without risking adverse effects on competition.

## *Procedure*

This study deals with concentration and voices in the top 50 DMAs. Within each DMA, the analysis focuses on the area encompassed in the Nielsen Metro Area.<sup>1</sup> This area, comprising two to 20 counties, is utilized because the Commission counts as radio “voices” the radio stations located within this area.<sup>2</sup> The market area in which the Commission currently restricts TV-radio cross-ownership is defined with reference to broadcast signal contours and the locations of the stations’ city of license.<sup>3</sup> Since this definition results in many different local “markets,” depending on which TV and radio stations are being considered for joint ownership, the Nielsen Metro Area is adopted as an approximation to the market. This yields a consistent set of stations in which to calculate concentration and changes in concentration. It is also necessary to choose a geographic area to serve as the relevant geographic market in calculating concentration. For simplicity and uniformity, the Nielsen Metro Area is used to approximate the relevant geographic market as well. Thus, for purposes of this analysis, only radio stations located within the Nielsen Metro Area are counted as a broadcast “voice” or included in any HHI calculation. TV stations located anywhere in the DMA are counted as voices to conform with the Commission’s counting procedures and are included in the HHI calculation because advertisers typically use TV stations to reach the entire DMA.

Under the Telecommunications Act of 1996, the number of radio stations that a single firm may own in a “market” is capped at eight or fewer, depending on the number of commercial radio stations in the market. In determining the ownership cap, the Commission uses the principal community contours of radio stations to be jointly owned as the market area. To avoid undertaking this complicated procedure with respect to each potential combination, the number

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<sup>1</sup> In instances in which a DMA included more than one Metro Area, the largest was chosen for analysis.

<sup>2</sup> 47 CFR §73.3555, n. 7. TV stations located in the DMA are also counted as voices. It is certainly true that media other than broadcast TV and radio, such as newspapers and cable TV, contribute to viewpoint diversity.

<sup>3</sup> §73.3555 of the Commission’s Rules.

of commercial radio stations a party may own is also approximated based on the number of commercial radio stations in the Nielsen Metro Area.<sup>4</sup>

According to the DOJ/FTC *Merger Guidelines*, a key factor in determining the degree of competition in a market, or the likelihood of anticompetitive conduct, is the concentration of ownership in the market. A market in which products or services are supplied only by a monopolist is expected to have higher prices and poorer quality of service than one in which there are many competing suppliers. A common summary measure for the degree of ownership concentration is the Herfindahl-Hirschman Index (HHI). This index takes on a value of 10,000 in a monopolized market, and a number near zero in a market composed of many small competitors. The lowest concentration level at which, as a practical matter, the Department of Justice and Federal Trade Commission indicate an interest in proposed acquisitions is 1800.

In calculating an HHI, the relative size of firms in the market is frequently measured using firms' current revenues. While this approach is useful in many contexts, it does have certain limitations. First, assigning a low weight to firms that have relatively low revenues may understate the importance of such firms in disciplining potential anticompetitive behavior. A small firm that can expand its output rapidly may have an importance in deterring other firms from raising price that is far more than proportional to its current size. This is certainly true in radio, where significant changes in ratings over short periods are not uncommon, and where higher ratings typically lead to higher revenues. Second, if there is significant volatility in firms' revenues, basing the HHI on current revenues will tend to overstate concentration. For instance, a market may appear concentrated if some firms have unusually high revenues and other firms unusually low revenues in a given year. Over a broader period less subject to random fluctuations, firms would correctly be viewed as more nearly equivalent in size, and calculated concentration would be lower.

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<sup>4</sup> This assumption proved reasonable when tested against the radio station counts submitted to the Commission in connection with Westinghouse's application to the Commission to acquire the radio stations formerly owned by Infinity Broadcasting.

For both these reasons, the HHI is frequently calculated using a measure of firm capacity rather than current revenues. The Commission itself has recognized this. In its Order eliminating AT&T's "dominant carrier" status, for example, the Commission recognized that the capacity shares of the various long-distance carriers was a better measure of their competitive significance than their current revenue shares.<sup>5</sup>

Given demonstrable volatility in broadcast revenues, where programming changes have a significant impact on both demand and price, capacity is arguably a better concentration measure. Capacity for a broadcast station, however, is not as clearly defined as it may be for, say, a manufacturing plant. The product that a broadcast station delivers to advertisers is audiences. The audience that a station reaches is affected in the short run by its programming and its promotional expenditures. Firms that devote more resources to presenting high-quality programming (or to advertising and promotion) are able to attract a larger audience than those that devote fewer resources. In the longer run, any station is free to alter its programming and improve its quality and thereby expand its audience. This flexibility is nevertheless subject to limits on the number of potential audience members that can receive the station's broadcast signal with suitable quality. The size of the potential audience can be considered a measure of the station's capacity. Factors such as broadcast mode (FM vs. AM for radio and VHF vs. UHF for TV), antenna height, antenna location, and transmission power affect a station's capacity to deliver messages to an audience.

A proxy procedure is used to estimate concentration levels based on the stations' capacities. As described more fully below, some stations in each market are assumed to have capacity while other smaller stations are assumed to have no capacity. Excluding smaller firms tends to overstate the concentration of capacity in the market. It is further assumed that, among the stations having capacity, all radio stations in the market have equal capacity and all TV stations in the market have equal capacity. Since there are probably differences in stations' potential audience reach (attributable to power, modulation, and so on), this assumption

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<sup>5</sup> *In the Matter of Motion of AT&T to be Reclassified as a Non-Dominant Carrier*, 11 FCC Rcd 3271, October 23, 1995.

of uniform capacity tends to understate the concentration of capacity in the market. To combine TV stations and radio stations in a single concentration measure, the capacity of a TV station to reach an audience and derive advertising dollars is assumed to be a multiple of the capacity of a radio station in that market.

Within each market, TV and radio stations are classified into two groups: those for which BIA provided an estimate of revenue and those for which BIA does not provide an estimate.<sup>6</sup> Each radio station with revenue is assumed to have the same capacity as each other radio station with revenue in that market. Similarly, each TV station with revenue is assumed to have the same capacity as each other TV station with revenue in that market. Both radio stations and TV stations without estimated revenues are assumed to have no capacity and hence no effect on the HHI. Non-commercial radio and TV broadcasters are likewise assumed to have no capacity. Finally, in calculating an HHI, it is not appropriate to assume that radio stations and TV stations have the same capacity, given that the average TV station has revenues many times greater than the average radio station. Therefore, TV stations in each DMA were given a greater capacity weight, equal to the ratio in that DMA of average TV revenues per station to average radio revenues per station.<sup>7</sup>

The number of voices in each market was determined by adding the number of commercial and non-commercial TV stations located in the DMA to the number of commercial and non-commercial radio stations located in the Nielsen Metro Area. Except for non-commercial radio stations, these totals are compiled from BIA. Non-commercial radio stations are counted by identifying from *Broadcasting and Cable Yearbook 1996* the non-commercial radio stations located in communities within the counties of the Nielsen Metro Area.<sup>8</sup>

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<sup>6</sup> BIA MasterAccess Television Analyzer, September 1996 (BIA Publications) was used for TV station information. BIA MasterAccess Radio Analyzer, November 1996 (BIA Publications) was used for radio station information.

<sup>7</sup> TV and radio averages were calculated among stations with revenue estimates. Note also that low-power TV stations and satellite stations were assumed to have no capacity, were not included in the "voice" count, and were not included among the candidates for hypothetical mergers in the analysis described below.

<sup>8</sup> Communities were identified as lying inside or outside the Nielsen Metro Area by referring to *Rand McNally 1997 Commercial Atlas and Marketing Guide*.

Under the assumptions described above, the current number of voices and the HHI were calculated in each of the top 50 DMAs.<sup>9</sup> The current ownership structure reflects existing cross-ownership among TV and radio stations and existing group ownership of radio stations. Hypothetical mergers were then considered as an indication of how concentration could increase as a result of relaxing the cross-ownership rules. In the first round of mergers, each TV station assumed to have capacity was merged with a radio station or station group having capacity, beginning with the radio station or station group with the largest collective capacity. These mergers were followed in sequence by hypothetical mergers of each commercial TV station without capacity with the radio station or station group having the largest capacity among those not yet merged to a TV station. When all commercial TV stations had been merged with a radio station or station group, a second round of hypothetical mergers joined the remaining commercial radio stations or groups with the hypothetical TV-radio groups to bring as many groups as possible up to the maximum allowable number of radio stations.<sup>10</sup> These second-round mergers were chosen to maximize the concentration of capacity in the TV-radio firms with the largest capacity.<sup>11</sup>

As each of these hypothetical mergers was completed, the effect on concentration and the number of voices was noted. The sequence of mergers was continued until all allowable mergers had been completed. Table 1 reports the HHI and count of voices in each of the top 50 DMAs at the end of the sequence of hypothetical mergers.

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<sup>9</sup> Some TV and radio stations participate in local marketing agreements (LMAs) with other stations. For purposes of this analysis, stations in an LMA were treated as separate entities in counting voices and calculating HHIs. When hypothetical mergers were considered, no attention was paid to whether or not the merger involved current LMA partners.

<sup>10</sup> For simplicity, no distinction was made between AM and FM radio stations in reaching the maximum allowable number of stations, even though the Telecommunications Act of 1996 makes such a distinction.

<sup>11</sup> Non-commercial TV stations and non-commercial radio stations were not included in any merger.

## *Findings*

As Table 1 shows, a complete repeal of the cross-ownership rule to permit maximal joint ownership of TV stations and radio stations in the top 50 DMAs is unlikely to bring HHIs to levels that cause significant competitive concerns. The HHI that would result in most cases is likely to be under 1,800, the lowest concentration level at which, as a practical matter, the antitrust agencies indicate any interest. In only six DMAs did the HHI exceed 2,000, and in no case did it reach 2,350.

For several reasons, concentration at the levels suggested in Table 1 poses no significant competitive problems. First, the merger procedures followed in this analysis create a “worst case” scenario in the sense that all commercial TV stations are assumed to merge with radio stations and the stations and groups with the largest capacity are the first to be merged. While these patterns are possible, there is no reason to believe they are likely. To the extent that these possible combinations do not occur, HHIs would remain at lower levels. Second, these HHIs have been calculated assuming that the relevant product market consists only of TV and radio stations. In actuality, other media, including cable TV, newspaper, direct mail, outdoor, yellow pages, should be included in the market, thereby reducing the competitive significance of individual broadcast stations.<sup>12</sup> Third, the relative capacity weights assigned to TV and radio stations were based on stations’ entire revenues. If TV stations derive revenues from reaching the entire DMA but the relevant market assumed in this analysis is the smaller Nielsen Metro Area, this weighting procedure probably overstates the competitive significance of the TV stations. Reducing the weight given to TV stations would typically reduce the HHI. Finally, the heterogeneous nature of advertising and the difficulty of learning rivals’ true transaction prices would present serious obstacles to coordinated anticompetitive action. Hence, even if

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<sup>12</sup> Evidence is presented in greater depth in Economists Incorporated, “An Economic Analysis of the Broadcast Television, National Ownership, Local Ownership and Radio Cross-Ownership Rules,” May 17, 1995, submitted to the Commission in MM Docket No. 91-221, Appendix D. Many advertisers use a variety of media to reach their audience, and substitute among media in response to changes in relative prices. TV and radio stations expend a significant portion of their sales efforts convincing advertisers to increase their use of these media at the expense of other alternative media, and other media attempt to take business away from TV and radio.

HHIs rose to the levels indicated in Table 1, anticompetitive behavior would be unlikely in these markets.

Additional analysis was conducted to consider a modified repeal of the cross-ownership rules that would permit all TV-radio mergers except those that would reduce the number of broadcast voices in a market below some minimum level such as 20 voices. Such a restriction might constrain the number of permissible mergers in some markets and so limit the increase in concentration that would otherwise occur with a total repeal of the cross-ownership rule.

In four instances—San Diego, Providence, Wilkes-Barre and Buffalo—the concentration levels reported in Table 1 are only reached by mergers that reduce the number of independent voices below 20.<sup>13</sup> Of these four markets, San Diego has an HHI below 1800. The other three DMAs are the markets with the highest concentration levels in Table 1. If mergers that would reduce the number of voices below 20 were not permitted, the concentration levels would likely be somewhat lower. As shown in Table 2, HHIs in these three markets would range from 2,124 to 2,242 if a 20-voices rule were imposed, compared to 2,315 to 2,338 for these markets in the absence of this restriction. Since a 20-voices rule would tend to reduce concentration levels that would result from a repeal of the cross-ownership restrictions, such a rule would only strengthen the conclusion that no significant competitive consequences are likely to result in the top 50 DMAs from a repeal of the cross-ownership rule.

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<sup>13</sup> Even though other DMAs have fewer than 20 voices remaining following the hypothetical merger process, the mergers that “occur” in these DMAs after the number of voices falls to 20 involve small radio stations that are assigned no capacity share and hence have no effect on the HHI.



*Conclusion*

A total repeal of the Commission's cross-ownership rule, allowing the owner of a TV station to jointly own as many radio stations as are allowed under the local ownership rules of the Telecommunications Act of 1996, is unlikely to raise competitive concerns in the top 50 DMAs. A rule requiring that the number of independent voices not be reduced below 20 may keep concentration at levels still lower than would otherwise result in a small number of markets. Should there be exceptions to these general conclusions, they can be investigated and dealt with by the federal antitrust agencies.

**Table 2: HHIs and Voices in Top 50 DMAs Following Hypothetical Mergers  
Subject to a Minimum 20-Voices Rule**

DMA Market	Rank	HHI	Voices
New York	1	1,097	66
Los Angeles	2	867	40
Chicago	3	1,335	53
Philadelphia	4	1,531	41
San Francisco	5	1,029	36
Boston	6	1,305	43
Washington	7	1,435	26
Dallas	8	1,043	31
Detroit	9	1,608	27
Atlanta	10	1,303	25
Houston	11	937	28
Seattle	12	1,374	34
Cleveland	13	1,281	25
Minneapolis	14	1,626	29
Tampa	15	1,314	23
Miami	16	1,162	23
Phoenix	17	1,275	22
Denver	18	1,224	21
Pittsburgh	19	1,958	21
St. Louis	20	1,908	20
Sacramento	21	1,416	28
Orlando	22	1,531	28
Baltimore	23	1,995	20
Portland	24	1,543	20
Indianapolis	25	1,357	23
Hartford	26	1,896	22
San Diego	27	1,566	20
Charlotte	28	1,629	20
Cincinnati	29	2,118	20
Raleigh	30	1,516	20
Milwaukee	31	1,418	20
Kansas City	32	1,602	20
Nashville	33	1,682	21
Columbus, OH	34	1,947	20
Greenville	35	2,189	20
Salt Lake City	36	1,590	22
San Antonio	37	1,404	20
Grand Rapids	38	1,817	24
Buffalo	39	2,124	20
Norfolk	40	1,823	20
New Orleans	41	1,615	20
Memphis	42	1,888	20
Oklahoma City	43	1,819	20
Harrisburg	44	1,856	25
West Palm Beach	45	1,943	20
Providence	46	2,242	20
Greensboro	47	2,174	20
Albuquerque	48	1,765	20
Wilkes Barre	49	2,242	20
Louisville	50	1,984	20