The FCC's 10 Commissioned Economic Research Studies on Media Ownership: Policy Implications

-name redacted-
Specialist in Telecommunications Policy

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Summary

The Federal Communications Commission (FCC or Commission) has released for public comment 10 economic research studies on media ownership that it had commissioned to provide data and analysis to support the policy debate on what ownership limitations are in the public interest. These studies also provide data and analysis useful to the on-going policy debates on how best to foster minority ownership of broadcast stations and on tiered vs. à la carte pricing of multichannel video program distribution (MVPD) services, such as cable and satellite television. The FCC also has released peer reviews of these studies that are required by the Office of Management and Budget. In addition, Consumers Union, Consumer Federation of America, and Free Press (Consumer Commenters) jointly submitted to the FCC very detailed comments on the 10 FCC-commissioned studies that included statistical results from re-running the models in those studies, applying the same empirical data to models revised to correct for alleged specification errors. Despite the lack of consensus on many issues, it appears that the following general statements can be made about the status of the data collection and analysis available to policy makers:

- Large, systematic, detailed, and accurate data sets on media ownership characteristics, viewer/listener preferences, and programming are now available for analysts and policy makers.
- Several gaps remain in data collection, however. Most significantly the databases on minority and female ownership of broadcast and telecommunications properties are incomplete and inaccurate, and statistical analysis based on those data would not be reliable.
- Although the 10 FCC-commissioned studies present a large number of statistical findings, many of these relationships are not statistically significant across alternative model specifications. This has led the researchers and peer reviewers to offer disclaimers that the findings are not robust and where they find statistical relationships they demonstrate correlation, not causality.
- The peer reviewers and the Consumer Commenters identified a number of possible technical problems in the econometric analyses performed in the 10 studies. The potentially most noteworthy criticism appears to be that all but one of the studies addressed the impact of media ownership characteristics on the programming provided by individual cross-owned stations, not on the total programming available to consumers in the local market, which arguably is the key public policy concern. It has not yet been determined whether the criticisms are valid and/or whether the study results are reliable.
- The Consumer Commenters claim that when they modified the FCC-commissioned studies to take into account these criticisms, they obtained robust results demonstrating that loosening the media ownership limits harmed the public interest, though their results were not always consistent across model specifications. Their modified studies have not yet been subject to full review by others.

Contents

Tables

Contacts

Introduction and Background

The Federal Communications Commission (FCC or Commission) has released for public comment 10 economic research studies on media ownership that it had commissioned to provide data and analysis to support the policy debate on what ownership limitations are in the public interest. These studies also provide data and analysis useful to the on-going policy debates on how best to foster minority ownership of broadcast stations and on tiered vs. à la carte pricing of multichannel video program distribution (MVPD) services, such as cable and satellite television.

The FCC's media ownership rules are intended to foster the three long-standing U.S. media policy goals of diversity of voices, localism, and competition. The current rules place certain limits on the number of media outlets that a single entity can own nationally and the number and type of media outlets that a single entity can own locally.[1]

In Section 202 of the 1996 Telecommunications Act, Congress instructed the FCC to eliminate several of its media ownership rules and to modify others, in some cases setting explicit numerical limits itself, in other cases instructing the FCC to conduct a rulemaking proceeding to determine whether to retain, modify, or eliminate existing limitations.[2] Congress also instructed the FCC to perform periodic reviews of its media ownership rules to determine if they are "necessary in the public interest as the result of competition," and to modify or repeal any regulation it determines to be no longer in the public interest. The loosening of the media ownership restrictions has led to significant consolidation of ownership in the media sector.

As part of its periodic review and in response to rulings by the U.S. Court of Appeals for the District of Columbia Circuit, the FCC adopted an order on June 2, 2003 that modified five of its media ownership rules and retained two others.[3] The new rules, most of which would have further loosened ownership restrictions, proved to be controversial, were challenged in court, and have never gone into effect. On June 24, 2004, the United States Court of Appeals for the Third Circuit (Third Circuit), in *Prometheus Radio Project vs. Federal Communications Commission*, upheld the FCC's findings that it would be in the public interest to further loosen many of the media ownership restrictions, but found:

> The Commission's derivation of new Cross-Media Limits, and its modification of the numerical limits on both television and radio station ownership in local markets, all have the same essential flaw: an unjustified assumption that media outlets of the same type make an equal contribution to diversity and competition in local markets. We thus remand for the

[1] For a detailed description and discussion of the FCC's media ownership rules, see CRS Report RL31925, *FCC Media Ownership Rules: Current Status and Issues for Congress*, by (name redacted).

[2] P.L. 104-104, § 202.

[3] Report and Order and Notice of Proposed Rulemaking, *2002 Biennial Regulatory Review—Review of the Commission's Broadcast Ownership Rules and Other Rules Adopted Pursuant to Section 202 of the Telecommunications Act of 1996*, MB Docket 02-277*; Cross-Ownership of Broadcast Stations and Newspapers*, MM Docket 01-235; *Rules and Policies Concerning Multiple Ownership of Radio Broadcast Stations in Local Markets*, MM Docket 01-317; *Definition of Radio Markets*, MM Docket 00-244; *Definition of Radio Markets for Areas Not Located in an Arbitron Survey Area*, MB Docket 03-130, adopted June 2, 2003 and released July 2, 2003 ("Report and Order" or "June 2, 2003 Order"). The Report and Order was adopted in a three to two vote. All five commissioners released statements on June 2, 2003, the day that the Commission voted to adopt the item, and also released statements that accompanied the July 2, 2003 release of the Report and Order. The Report and Order was published in the *Federal Register* on September 5, 2003, at 68 FR 46285.

> Commission to justify or modify its approach to setting numerical limits.... The stay currently in effect will continue pending our review of the Commission's action on remand, over which this panel retains jurisdiction.[4]

The Third Circuit also found:

> In repealing the FSSR [Failed Station Solicitation Rule] without any discussion of the effect of its decision on minority station ownership (and without ever acknowledging the decline in minority ownership notwithstanding the FSSR), the Commission "entirely failed to consider an important aspect of the problem," and this amounts to arbitrary and capricious rulemaking.... For correction of this omission, we remand.[5]

The FCC adopted on June 21, 2006, and released on July 24, 2006, a Further Notice of Proposed Rulemaking that sought "comment on how to address the issues raised by the opinion of the U.S. Court of Appeals for the Third Circuit in *Prometheus v. FCC* and on whether the media ownership rules are necessary in the public interest as the result of competition."[6] The Further Notice also initiated a comprehensive quadrennial review of all of its media ownership rules, as required by statute.[7]

The Further Notice did not present specific new rules for public comment. Rather, it discussed each rule that was remanded (the local television ownership limit, the local radio ownership limit, the newspaper-broadcast cross-ownership ban, and the radio-television cross-ownership limit) plus two additional rules (the dual network ban and the UHF discount on the national television ownership limit), and then invited comment on how to address the issues remanded by the court. It also asked commenters to address "whether our goals would be better addressed by employing an alternative regulatory scheme or set of rules."[8] In addition, the Further Notice sought comment on, but did not discuss, the proposals to foster minority ownership that had been submitted by the Minority Media and Telecommunications Council (MMTC) in the 2002 biennial review proceeding that the Third Circuit had taken the Commission to task for failing to address in its June 2, 2003 Order.[9] Two of the commissioners dissented in part from the order adopting the Further Notice,[10] criticizing the lack of discussion of proposals to foster minority ownership,[11] and the absence of specific proposed rules.[12]

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[4] *Prometheus Radio Project v. Federal Communications Commission*, 373 F.3d 372, 435 (3rd Circuit 2004), *(Prometheus*). This decision also is available at http://www.ca3.uscourts.gov/opinarch/033388p.pdf, viewed on November 6, 2007. For a legal perspective on the *Prometheus* decision, see CRS Report RL32460, *Legal Challenge to the FCC's Media Ownership Rules: An Overview of Prometheus Radio v. FCC*, by (name redacted).

[5] Ibid., at 421.

[6] *In the Matter of 2006 Quadrennial Review—Review of the Commission's Broadcast Ownership Rules and Other Rules Adopted Pursuant to Section 202 of the Telecommunications Act of 1996; 2002 Biennial Regulatory Review—Review of the Commission's Broadcast Ownership Rules and Other Rules Adopted Pursuant to Section 202 of the Telecommunications Act of 1996; Cross-Ownership of Broadcast Stations and Newspapers; Rules and Policies Concerning Multiple Ownership of Radio Broadcast Stations in Local Markets; Definition of Radio Markets*, MB Dockets No. 06-121 and 02-277 and MM Dockets No. 01-235, 01-317, and 00-244, Further Notice of Proposed Rulemaking (Further Notice), adopted June 21, 2006, and released July 24, 2006, at para. 1 (footnote omitted).

[7] Section 629 of the FY2004 Consolidated Appropriations Act, P.L. 108-199, modifies Section 202 of the 1996 Telecommunications Act, instructing the FCC to perform a quadrennial review of all of its media ownership rules, except the National Television Ownership rule.

[8] Further Notice at para. 4.

[9] Ibid., at para. 5.

[10] "Statement of Commissioner Michael J. Copps, Concurring in Part, Dissenting in Part," June 21, 2006, available at (continued...)

On November 22, 2006, the FCC announced that it had commissioned (or had begun conducting internally) 10 economic studies as part of its review of the media ownership rules.[13] The two commissioners who had dissented in part from the order adopting the Further Notice each issued statements raising questions about the transparency of the process by which the contractors were selected and the peer review process that would be used.[14] On July 31, 2007, the FCC released the 10 studies, making them available on its website, and giving the public 60 days to submit comments (and then 15 additional days to submit reply comments).[15] These studies consist of

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http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-266033A3.pdf, viewed on November 6, 2007, and "Statement of Commissioner Jonathan S. Adelstein, Concurring in Part, Dissenting in Part," June 21, 2006, available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-266033A4.pdf, viewed on November 5, 2007.

[11] In footnote 59 of the *Prometheus* decision, the Third Circuit had instructed the FCC to address in its rulemaking process proposals for advancing minority and disadvantaged businesses and for promoting diversity in broadcasting that the Minority Media and Telecommunications Council (MMTC) had submitted in the proceeding in 2003. (*Prometheus*, 373 F.3d at 421.)

[12] Language in S. 2332, a bill approved by the Senate Commerce, Science, and Transportation Committee by unanimous consent on December 4, 2007, would direct the FCC to address these criticisms. The bill would modify Section 202 of the 1996 Telecommunications Act by adding three provisions that would (1) require the FCC to publish in the Federal Register any proposal to modify, revise, or amend any of its regulations related to broadcast ownership at least 90 days before voting to add the proposal, providing at least 60 days for public comment and 30 days for reply comments; (2) require the FCC to initiate, conduct, and complete a separate rulemaking proceeding to promote the broadcast of local programming and content by broadcasters, including radio and television broadcast stations, and newspapers, before voting on any change in the broadcast and newspaper ownership rules, and require the FCC to conduct a study to determine the overall impact of television station duopolies and newspaper-broadcast cross-ownership on the quantity and quality of local news, public affairs, local news media jobs, and local cultural programming at the market level; and (3) establish an independent Panel on Women and Minority Ownership of Broadcast Media to make recommendations to the FCC for specific Commission rules to increase the representation of women and minorities in the ownership of broadcast media, and require the FCC to conduct a full and accurate census of the race and gender of individuals holding a controlling interest in broadcast station licenses, provide the results of the census to the Panel, study the impact of media market concentration on the representation of women and minorities in the ownership of broadcast media, and act on the Panel's recommendations before voting on any changes in its broadcast and newspaper ownership rules.

[13] "FCC Names Economic Studies to be Conducted as Part of Media Ownership Rules Review," FCC Public Notice, November 22, 2006, available at http://hraunfoss.fcc.gov/ edocs_public/attachmatch/DOC-268606A1.pdf, viewed on November 6, 2007. The ten studies are: (1) "How People Get News and Information," by Nielsen Research; (2) "Ownership Structure and Robustness of Media," by C. Anthony Bush, Kiran Duwadi, Scott Roberts, and Andrew Wise, of the FCC; (3) "Effects of Ownership Structure and Robustness on the Quantity and Quality of TV Programming," by Gregory Crawford of the University of Arizona; (4) "News Operations," by Kenneth Lynch, Daniel Shiman, and Craig Stroup of the FCC; (5) "Station Ownership and Programming in Radio," by Tasneem Chipty of CRAI; (6) "News Coverage of Cross-Owned Newspapers and Television Stations," by Jeffrey Milyo of the University of Missouri; (7) "Minority Ownership," by Arie Bersteanu and Paul Ellickson of Duke University; (8) "Minority Ownership," by Allen Hammond of Santa Clara University and Barbara O'Connor of the California State University at Sacramento; (9) "Vertical Integration," by Austan Goolsbee of the University of Chicago; and (10) "Radio Industry Review: Trends in Ownership, Format, and Finance," by George Williams of the FCC.

[14] "Commissioner Michael J. Copps Comments on the FCC's Media Ownership Studies," FCC News, November 22, 2006, available at http://hraunfoss.fcc.gov/edocs_public/ attachmatch/DOC-268611A1.pdf, viewed on November 6, 2007, and "Commissioner Jonathan S. Adelstein Says Public Notice on Media Ownership Economic Studies is 'Scant' and 'Undermines Public Confidence'," FCC News, November 22, 2006, available at http://hraunfoss.fcc.gov/ edocs_public/attachmatch/DOC-268616A1.pdf, viewed on November 6, 2007.

[15] "FCC Seeks Comment on Research Studies on Media Ownership," MB Docket No. 06-121, FCC Public Notice, DA-07-3470, released July 31, 2007, available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-07-3470A1.pdf, viewed on November 6, 2007. The studies are available at http://www.fcc.gov/ownership/studies.html (viewed on November 6, 2007). Subsequently, the FCC released a public notice extending the comment period to October 22, 2007, and the reply comment period to November 1, 2007. See, "Media Bureau Extends Filing Deadlines for Comments on Media Ownership Studies," MB Docket No. 06-121, FCC Public Notice, DA-07-4097, released (continued...)

hundreds of pages of text and very large data sets. Concurrent with the public comment period, the studies underwent a peer review process that is required by the Office of Management and Budget (OMB) of all "influential scientific information" on which a federal agency relies in a rulemaking proceeding.[16] The two dissenting commissioners issued a joint statement criticizing the shortness of the public comment period and raising questions about the peer review process.[17] On September 5, 2007, the FCC released the peer reviews of these studies.[18]

On August 1, 2007, the FCC adopted a Second Further Notice of Proposed Rule Making[19] that briefly described, and sought comment on, the proposals of the MMTC submitted in the 2002 biennial review proceedings, several additional informal MMTC suggestions, and the proposals by the Advisory Committee on Diversity for Communications in the Digital Age to foster minority and female ownership.

On October 22, 2007, Consumers Union, Consumer Federation of America, and Free Press (Consumer Commenters) submitted to the FCC very detailed comments on the 10 FCC-commissioned media ownership studies.[20] The Consumer Commenters identify a number of

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September 28, 2007, available at http://fjallfoss.fcc.gov/edocs_public/attachmatch/DA-07-4097A1.pdf, viewed on November 6, 2007.

[16] The OMB requirement appears in the OMB Peer Review Bulletin, 70 Fed. Reg. 2664. In these peer reviews, the reviewer is instructed to evaluate and comment on the theoretical and empirical merit of the information, by considering, among other things: (1) whether the methodology and assumptions employed are reasonable and technically correct; (2) whether the methodology and assumptions are consistent with accepted economic theory and econometric practices; (3) whether the data used are reasonable and of sufficient quality for purposes of the analysis; and (4) whether the conclusions, if any, follow from the analysis. The reviewer is instructed not to provide advice on policy or to evaluate the policy implications of the study. The peer review is not anonymous; the reviewer will be identified and the review will be placed in the public record. Also, the federal agency must assess whether potential peer reviewers have any potential conflicts of interest. The OMB requirement does not provide guidance on how the peer reviewers should be selected.

[17] "Joint Statement by FCC Commissioners Michael J. Copps and Jonathan S. Adelstein on Release of Media Ownership Studies," FCC News, released July 31, 2007, available at http://fjallfoss.fcc.gov/edocs_public/attachmatch/DOC-275674A1.pdf, viewed on November 6, 2007.

[18] The peer reviews are available at http://www.fcc.gov/mb/peer_review/peerreview.html, viewed on November 6, 2007. In addition, the FCC identified approximately 20 other submissions filed by commenting parties in the Media Ownership proceeding as containing scientific information on which it might rely in its rulemaking proceeding, and implemented a peer review process for these. Those peer reviews are available to the public at http://www.fcc.gov/mb/peer_review/reviews.html, viewed on November 26, 2007. I was asked by Jonathan Levy, Deputy Chief Economist of the FCC, to perform a peer review of one of those submissions, "Big Media, Little Kids: Media Consolidation & Children's Programming," a report by Children Now dated May 21, 2003, that was submitted to the FCC in 2006. My peer review is available at http://www.fcc.gov/mb/peer_review/ docs/prtpgoldfarb.pdf, viewed on November 26, 2007.

[19] *In the Matter of 2006 Quadrennial Regulatory Review—Review of the Commission's Broadcast Ownership Rules and Other Rules Adopted Pursuant to Section 202 of the Telecommunications Act of 1996; 2002 Biennial Regulatory Review—Review of the Commission's Broadcast Ownership Rules and Other Rules Adopted Pursuant to Section 202 of the Telecommunications Act of 1996; Cross-Ownership of Broadcast Stations and Newspapers; Rules and Policies Concerning Multiple Ownership of Radio Broadcast Stations and Local Markets; Definition of Radio Markets; Ways to Further Section 257 Mandate and to Build on Earlier Studies*, MB Docket Nos. 06-121, 02-277, and 04-228 and MM Docket Nos. 01-235, 01-317, and 00-244, Second Further Notice of Proposed Rule Making, adopted and released August 1, 2007 (Second Further Notice).

[20] *In the Matter of 2006 Quadrennial Regulatory Review—Review of the Commission's Broadcast Ownership Rules and Other Rules Adopted Pursuant to Section 202 of the Telecommunications Act of 1996; 2002 Biennial Regulatory Review; Cross-Ownership of Broadcast Stations and Newspapers; Rules and Policies Concerning Multiple Ownership of Radio Broadcast Stations in Local Markets; Definition of Radio Markets; Ways to Further Section 257 Mandate and to Build on Earlier Studies*, MB Docket Nos. 06-121, 02-277, and 04-228 and MM Docket Nos. 01-235, 01-317, and (continued...)

alleged specification errors—some raised by the peer reviewers, some by the Consumer Commenters themselves—in the major statistical studies commissioned by the FCC, and then present statistical results from re-running the models in those studies, applying the same empirical data to models revised to correct for the alleged specification errors. These revised models yield very different statistical results that, according to the Consumer Commenters, demonstrate that loosening the media ownership rules would not be in the public interest.[21]

The Studies and the Peer Reviews

In aggregate, the ten economic studies relating to media ownership commissioned by the FCC[22] perform two functions—data collection and data analysis.

Systematic data collection is needed because the Third Circuit decision requires "the Commission to justify or modify its approach to setting numerical limits"[23] but there has been a dearth of systematic data available on which to base a justification of any specific proposed rule. The 10 FCC-commissioned studies, their peer reviews, and the critiques and revised models submitted by the Consumer Commenters, in aggregate provide a significant body of data and analysis on ownership characteristics and programming needed to perform the analysis required by the Third Circuit. Unfortunately, the databases on minority ownership and programming remain far less complete and clean, despite a heroic effort by an FCC staffer to construct a time series database for 2001-2005 from existing sources.

The data analyses performed in the ten studies tend not to reach strong policy conclusions. Typically, the analyses attempt to determine whether there is a statistical relationship between particular aspects of media ownership in a market (such as newspaper-broadcast cross-ownership) and particular market outcomes (such as the quantity of local news or local public affairs programming), holding other variables that might affect the market outcomes constant. Often, a statistically significant relationship between two variables is found with one particular model specification, but if a small change is made in the way the model is specified the relationship is

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00-244, Further Comments of Consumers Union, Consumer Federation of America, and Free Press, October 22, 2007.

[21] The Consumer Commenters' submission also includes a weblink http://www.fcc.gov/ ownership/materials/newly-released/newspaperbroadcast061506.pdf to a 27-page internal FCC memorandum by then-FCC chief economist Leslie M. Marx, dated June 15, 2006 and entitled "Summary of Ideas on Newspaper-Broadcast Cross-Ownership," which they obtained through a Freedom of Information Act request and which they allege demonstrates that the FCC's process for commissioning media ownership studies was biased. The opening sentence of the memorandum states: "This document is an attempt to share some thoughts and ideas I have about how the FCC can approach relaxing newspaper-broadcast cross-ownership restrictions." At p. 14, the memorandum states: "In this section I discuss some studies that might provide valuable inputs to support a relaxation of newspaper-broadcast cross-ownership limits." (footnote omitted). Although Ms. Marx was no longer the chief economist when the FCC announced that it had commissioned the 10 media ownership studies (an August 21, 2006 FCC News Release announced that Michelle P. Connolly had been named FCC chief economist), several of the studies suggested in Ms. Marx's memorandum were among those later commissioned by the FCC. The memorandum lists a number of media ownership-related hypotheses that are of interest to policy makers and thus might merit analysis, but it also lists for each a finding that would support loosening the cross-ownership limits, thus suggesting a preferred outcome. The memorandum also provides a list of possible authors for the studies.

[22] The FCC identified and referred to these studies as Study 1, Study 2, etc. For ease of presentation, in this report the studies will be referred to by their study number rather than by their title.

[23] See footnote 4 above.

no longer found to be statistically significant. This led many of the researchers and peer reviewers to emphasize that the statistical findings were not robust.[24] Where relationships are identified, the researchers tend to emphasize that these demonstrate correlation, not causality. A few of the studies seek to test for such statistical relationships without holding other variables constant, thus overstating the magnitude of any relationships they find.

Three of the studies had findings suggesting that non-ownership variables, such as the demographics or commute time in a market, were better predictors of the amount or type of programming aired than were ownership characteristics. This led some researchers to suggest that media ownership characteristics may not be significant determinants of programming.

None of the studies presents statistical analysis of the relationship between ownership characteristics and minority programming. Although Study 2 collected data on many types of programming, including minority programming, and those data were used in Study 3 to analyze the relationships between various ownership characteristics and different types of programming, no results are shown for minority programming—though results are shown for Spanish language programming. The two studies directly addressing minority ownership—Study 7 and Study 8—do not address minority programming at all.

Perhaps what is most noteworthy about these 10 studies is that they highlight the large number of variables that may be relevant to a full analysis of media ownership issues. The following is a partial list of variables that the researchers identified as relevant to their analyses:

- station ownership and affiliation characteristics, such as whether the station is owned by or affiliated with a major broadcast network, owned by a large station group that does not also own a network, affiliated with a non-major broadcast network, co-owned with one or more broadcast stations in its local market, cross-owned with a newspaper in its local market, cross-owned with a cable system in its local market, owned by a provider of a cable program network, locally owned, owned by a minority, or owned by a female.
- local market characteristics, such as the number of broadcast stations (television or radio) in the market, the size of the market in terms of population or advertising revenues generated, market concentration, the number of co-owned stations in the market, the number of cross-owned media entities in the market, demographic factors (such as age, race, ethnicity, English as a second language, income, and education levels), or the average commute time (for radio).
- quantitative measures of programming, at both the station and the market level, such as the amount of prime-time and non-prime-time local news programming (including and excluding sports and weather), local public affairs programming, national news programming, national public affairs programming, minority

[24] Often, it is not possible *a priori* to predict the likely relationship between a specific ownership variable and programming market outcome. For example, on one hand one might expect the owner of multiple stations in a market to have diverse programming on those stations to attract as many total viewers/listeners as possible. On the other hand, one might expect the owner of those stations to offer the same type of programming on all the stations in order to take advantage of cost savings from economies of scale or scope. Given such potentially conflicting market incentives, it is not surprising that, in most cases, tests for a relationship between an ownership variable and a programming market outcome were not statistically significant. Still, a number of statistically significant relationships were identified, though different studies sometimes had different findings or, within a single study, a slight difference in how a model was specified yielded a different result, suggesting that the results were not very robust.

programming, female programming, children's programming, violent programming, adult programming, general interest programming, or Spanish language programming.

- measures of program quality, such as program ratings and the amount of advertising shown on the programming (which one researcher identified as a negative measure of quality).
- broadcast network programming sources, such as whether the programming was produced by an affiliate of the broadcast network, by an affiliate of a competing broadcast network, or by an independent studio.
- cable network programming sources, such as whether the programming was produced by an affiliate of the cable or satellite operator, by an affiliate of a major media company that does not have cable or satellite systems, or by an independent program producer.
- the cable tiers on which program networks are placed.
- regulatory variables, such as whether a particular network is covered by must-carry and retransmission consent requirements.

The studies showed that not all of these variables can be unambiguously defined and that, at times, data are not available to directly measure these variables, so proxy measures must be used.

The following is a brief snapshot of each study and its peer review.[25]

Study 1: "How People Get News and Information," by Nielsen Media Research, Inc.

This study consists of a telephone survey that provides estimates of Internet and media usage patterns, opinions, and attitudes among adults in the United States. A sample of 141,324 phone numbers was selected, with survey data collection conducted from May 7-27, May 29-31, and June 1-3, 2007. There were 3,101 completed interviews, or 2.2% of the total sample; each of those completed interviews elicited responses to 43 questions. The questions included:

- In an average week, how much time do you spend, in total, watching or listening to broadcast television channels?
- In an average week, how much time do you spend, in total, watching or listening to broadcast television channels to get information on news, current affairs, and local happenings?
- Which of the following types of information do you get from broadcast television channels—emergencies, classified ads or economic opportunities, local cultural events, local news or local current affairs, national or international news, opinion or commentary on news and current affairs, sports, weather and traffic?

[25] This report presents, in summary fashion, the findings of a large number of data-intensive studies. In order to keep it from being encumbered by hundreds of footnotes, specific page citations are not provided for each finding.

The same or similar questions were asked with respect to cable or satellite television channels, the Internet, daily local newspapers, weekly local newspapers, daily national newspapers, and broadcast radio. In addition, respondents were asked which one source they considered the most important, and which source they considered the second most important, for breaking news, for more in-depth information on specific news and current affairs topics, for local news and current affairs, and for national news and current affairs. Respondents also were asked for information on their highest level of schooling completed, household income, urban/suburban/rural location, race, age, and gender.

In addition, respondents were asked, "If you would be reimbursed, are there any channels you would be interested in dropping from your [cable] service? If yes, which channels would you be interested in dropping from your service if you could receive a reduction in the cost of your service?" and "Are there any channels that you would like to receive, but do not currently subscribe to because you would have to subscribe to a larger package of channels? If yes, which channels would you like to receive, but do not currently subscribe to because you would have to subscribe to a larger package of channels?" These questions do not relate to the media ownership proceeding, but could generate information that would be relevant to proposals by FCC Chairman Kevin Martin to allow cable television subscribers to selectively drop channels from tiered cable packages and have their bills reduced by the per-subscriber fees that the cable operator pays for those channels or to allow subscribers to purchase all cable channels on an à la carte basis.

Nielsen presents the data collected in the survey, but does not attempt to analyze the data or reach conclusions. Rather, it provides a very large data set that is available for researchers in and outside the Commission to use in their own analyses. Some of the findings are presented in **Table 1**.

Table 1. Most Important and Second Most Important Media Sources Used by Households for Various Types of News and Current Events Information

(% of households)

Media Source	Most important source of Breaking News	Second most important source of Breaking News	Most important source for more in-depth information	Second most important source for more in-depth information	Most important source of local news and current affairs	Second most important source of local news and current affairs	Most important source of national news and current affairs	Second most important source of national news and current affairs
Cable News Channels	35.1	18.9	30.1	19.5	11.2	12.6	38.5	19.5
Broadcast Television Stations	28.9	26.3	20.1	22.7	38.2	20.2	23.3	19.4
Internet/Websites	16.4	15.4	23.5	13.5	6.7	14.0	16.8	18.1
Radio stations	8.2	16.3	5.5	10.5	7.2	18.6	5.7	10.0
Local Newspapers	5.1	9.3	9.8	14.1	30.1	21.3	4.8	14.0
National Newspapers	1.5	3.9	4.7	8.0	1.7	3.0	5.9	9.3
Other	1.8	4.2	3.2	4.3	1.8	4.4	1.8	4.2
None	1.8	3.1	1.7	3.5	2.6	3.1	2.4	3.0
Don't Know	1.0	2.4	1.3	3.8	0.5	2.6	0.6	2.5
Refuse	0.3	O.3	0.1	0.2	0.0	0.2	0.1	0.1

Source: Nielsen Media Research, Inc., "Federal Communications Commission Telephone Study" (Study 1), at pp. 87-94.

The peer reviewer, John B. Horrigan, Associate Director for Research at the Pew Internet & American Life Project, concludes that the Nielsen study represents a credible effort, but raises "two significant issues worthy of note." First, the low response rate to the survey as well as certain survey design concerns may have generated a sample that is more reflective of the behaviors and attitudes of well-educated and higher-income Americans than of the public at large. "Because high levels of income and education are positively correlated with interest in news and current affairs, this may have substantive consequences on the survey's result."[26] Second, according to Horrigan, inclusion in the questionnaire of a question eliciting the specific Internet news sites watched, but not of analogous questions eliciting information on the specific broadcast, cable, or satellite news channels watched or the specific local or national newspapers read, may constrain the usefulness of the survey data to address questions that may be relevant for the media ownership proceeding. For example, he claims the survey design may limit the ability of analysts to explore whether the Internet is a substitute or complement to traditional media.

Study 2: "Ownership Structure and Robustness of Media," by Kiran Duwadi, Scott Roberts, and Andrew Wise, with an appendix entitled "Minority and Women Broadcast Ownership Data," by C. Anthony Bush

The main purpose of this study, which was performed by members of the FCC staff, was to assemble the most comprehensive possible data set concerning media ownership. These data were used by researchers to perform some of the other studies. The data cover the period 2002-2005, and update a 2002 Commission study that examined media ownership of various types (cable, satellite, newspaper, radio, and television) for 10 radio markets in 1960, 1980, and 2000, and expands upon that study by adding data on the availability and penetration of Internet access and by examining all designated market areas (DMAs), not just 10 markets. The focus of the study is data collection, not data analysis, although the effort generated many data tables that can provide the empirical basis for analysis.

The researchers' primary task was to combine multiple data sets and then consolidate these "metadatasets" to the DMA level. Data were collected on more than 1,700 television stations, 13,500 radio stations, 7,800 cable systems, and 1,400 newspapers across four years, for a total of more than 100,000 observations and more than 13 million data points. The authors provide the caveats that they were unable to know with certainty the accuracy of every observation and that the final results could only be as accurate as the underlying data sets that they combined. They believe the collected data give an accurate description of the various media for the four-year period.

The authors list five findings:

- Media ownership was fairly stable over the 2002-2005 period, in contrast to earlier periods, which were characterized by substantial consolidation across most forms of media, especially following enactment of the 1996 Telecommunications Act.

[26] Also, high levels of income and education are correlated with Internet access.

- Multichannel video (cable and satellite) penetration has continued to grow since the previous report; in 2005, cable and satellite operators combined served 83.5% of television households, up from 80.3% in 2002.
- For broadcast television, the data reveal a slight increase in the number of stations and a slight decrease in the number of owners. The number of locally owned stations remained fairly constant. The number of co-owned television and radio stations increased by more than 20%. Minority-owned television stations fell by three stations, from 20 in 2002 to 17 in 2005 (out of more than 1,700 television stations). Female-owned television stations fluctuated slightly but ended in 2005 with the same number, 26, as in 2002.
- For broadcast radio, the number of stations increased moderately. The number of owners decreased about 5%, and the number of locally owned stations fell 3.7%. Co-owned radio/television combinations increased 19%. Minority-owned radio stations increased less than 1%, while female-owned stations fell 6.9%.
- The number of daily newspapers decreased slightly, the number of newspaper owners decreased by about 8%, and locally owned newspapers decreased by about 5%. The number of same-city newspaper-broadcast combinations stayed the same.

The appendix uses aggregate data from the FCC Form 323 on broadcast ownership to construct a time series for 2001 through 2005. The data show that for that period:

- There was no substantial growth or decline in minority ownership of commercial radio stations (increasing from 376 to 390, then falling to 371, and finally increasing to 378 over those years).
- There was a decline in minority ownership of commercial television stations (from 20 to16 and then increasing to 17).

But the author of the appendix raises concerns about the reliability of the minority ownership data, which were constructed from "noisy" or incomplete data bases. In 2003, the biennial filing deadlines became staggered, tied to the anniversary date of each station's renewal application filing date, so the data no longer contain a single "snapshot" of minority and female ownership for all stations in the industry that could be used a benchmark for measuring industry ownership trends. In addition, stations whose licensees are sole proprietorships or partnerships comprised entirely of natural persons (rather than corporate or business entities) are exempt from the biennial filing requirement and need only submit such information voluntarily if they choose. Moreover, in the initial years of filing the new biennial forms, many stations failed to complete their forms correctly, resulting in their responses to a relevant question being omitted from an electronic ownership database. Review of station filings for 2001 suggests that the filings are not complete with respect to ownership information. Furthermore, review of the ownership report data from all periods and the literature suggests that these data contain significant errors. There is no verification of Form 323 data or quality control over the data.

The author concludes that Form 323 data are inadequate for the purpose at hand, but these data could be used to augment more reliable data. "At best, we have extensive samples or a virtual census of minority and female broadcast ownership data. We do not have an actual census, although perfect information on transactions and a perfect base year ... would result in a census. We do not have statistical random samples. In summary, the data contain noise due to errors in the databases that were used to construct the data."

Nonetheless, he compares the Form 323 data to data collected in the Census Bureau's Survey of Business Owners (SBO) for 2002. In doing so, he finds "that, for 2002, 95% confidence intervals contain our estimate of 184 Black owned commercial radio stations, our estimate of 36 Asian owned commercial radio stations, our estimate of 145 Hispanic owned commercial radio stations, our estimate of 6 Native American owned commercial radio stations, and our estimate of 5 Native Hawaiian owned commercial radio stations.... In light of the SBO data our estimate of the number of Minority owned TV stations is reasonable."

The peer reviewer, Robert Kieschnick, Associate Professor and Finance and Managerial Economics Area Coordinator at the University of Texas at Dallas, commends the authors "for the work that they expended in putting these data together as the source data are diverse and in some cases incomplete or subject to error." He finds the methodology and assumptions employed are reasonable and technically appropriate, the data used are reasonable, and the conclusions about the pattern of changes in media ownership appear to follow from the data.

Study 3: "Television Station Ownership Structure and the Quantity and Quality of TV Programming," by Gregory S. Crawford, Assistant Professor, Department of Economics, University of Arizona[27]

This study analyzes the relationship between the ownership structure of television stations and the quantity and quality of certain television programming in the United States between 2003 and 2006. It focuses on seven types of programming—local news and public affairs, minority, children's, family, indecent, violent, and religious—identifying alternative definitions used for each of these programming types. It also uses two definitions of programming quality: the number of households who choose to watch a program as a share of households that have access to that programming (a market rating definition) and the number and length (in minutes and seconds) of advertisements included on the program, using the assumption that households do not like advertising and that program quality therefore decreases as the amount of advertising increases. The study uses the ownership data developed in Study 2. The major findings of the study are:

- Broadcast television provides more news, religious, and violent programming than cable television.
- Cable television provides more public affairs, children's, and adult programming than broadcast television.
- Niche, or special interest, programming (minority, adult, religious) is less widely available than general interest programming (news, children's, family).
- Program production and/or availability is falling across time for network news (though not local news), public affairs, family, and religious programming, and rising across time for Latino, children's, adult, and more violent programming.

[27] On September 11, 2007, Gregory Crawford was named chief economist of the FCC. See "Gregory Crawford Named FCC Chief Economist," FCC News, released September 11, 2007, available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/ DOC-276574A1.pdf, viewed on November 6, 2007.

- News and violent programming are the most highly rated programming types, with Latino/Spanish-language, children's, and family programming substantially lower, and non-Latino minority and religious programming lower still.
- The relative quality (in terms of ratings) of news programming is declining, as is the relative quality of certain measures of children's programming, but more violent programming is gaining.
- Affiliates of the four major broadcast television networks provide more advertising minutes at higher prices than do other broadcast television stations and this advantage appears to be increasing over time. From the perspective of viewers, this represents a decline in program quality.
- The strongest finding with respect to ownership structure relates to local news: television stations owned by a parent that also owns a newspaper in the area offer more local news programming. By some methods, television stations owned by corporate parents with larger annual revenue also offer more local news, but by other methods they offer less.
- Local ownership is correlated with more public affairs and family programming.
- Although there are differences in the amount of violent programming across network affiliates, it does not appear to be correlated in an economically or statistically significant way with ownership structure.
- Effects of ownership structure on other programming types or on outcomes in the advertising market are either economically insignificant, statistically insignificant, or differ in their predicted effects according to the method of analysis.

The peer reviewer, Lisa M. George, Assistant Professor of Economics at Hunter College of the City University of New York, finds that, "Overall, the study considers an interesting question with appropriate data and methods and should ultimately prove useful for policy purposes." But she has three general comments. With respect to the robustness of the analytical results, "While the regressions in the analytic portion of the study are consistent with standard econometric methods, the paper does not include specifications that would demonstrate the robustness, or reveal the fragility, of regression results." With respect to the relationship between the empirical estimates and conclusions, "the empirical analysis does not include cable television, yet the paper discusses cable television at great length. Similarly, the paper includes text and tables concerning viewership and ratings, yet no ratings data are included in the regressions. The regressions also consider only prime-time hours, yet this caveat is rarely mentioned." With respect to the theoretical assumptions about advertising, the peer reviewer claims "the assumption that advertising is inversely related to quality cannot be justified in light of existing economic theory. An important idea in the economics literature on two-sided markets is that advertising in media markets functions like a price. In other words, viewers "pay" for broadcast television with advertising minutes. Just as a better steak costs more than a lesser cut and thus commands a higher price, a better television program typically costs more than a weaker program and would be expected to command *more* not less advertising time."

Study 4: "News Operations," a Study with Four Sections, by FCC Staff

This study, which is divided into four sections, each of which was performed by a member of the FCC staff, collects data on the size and scope of the news operations of radio and television stations and newspapers. It also analyzes the relationship between the nature of news operations and market characteristics, including ownership structure.

Section I: "The Impact of Ownership Structure on Television Stations' News and Public Affairs Programming," by Daniel Shiman

This section of the study examines the relationship between the ownership characteristics of broadcast television stations and the quantity of news and public affairs programming they broadcast, based on the scheduled news and public affairs programming of almost all full-power broadcast analog television stations in the U.S. for two weeks in each year, over the four-year period 2002-2005. It uses modeling techniques to control for unobserved market-specific, broadcast network-specific, and time-specific factors,[28] and also to check for robustness of statistical results.

This section finds that certain ownership characteristics have a statistically significant impact on the quantity of news programming provided by stations, but most ownership characteristics do not have a statistically significant impact on the provision of public affairs programming. Specifically:

- Television-newspaper cross-ownership is associated with 18 additional minutes (11%) per day in news programming.
- Television stations that are owned and operated by one of the four major broadcast networks are associated with 22 additional minutes (13%) per day of news programming.
- Television stations that have a co-owned television station in a market are associated with 24 additional minutes (15%) per day of news programming.
- For stations that are owned by large stations groups, but not by the four major networks, each additional co-owned station nationally tends to have a quarter minute less of news programming per day.
- Local ownership of a television station is associated with six minutes (4%) less news programming per day.
- Televison-radio cross-ownership does not have a statistically significant impact on the amount of news programming provided, but is associated with an additional 3 minutes (15%) of public affairs programming.

[28] For example, it might be that news programming is especially popular in Washington, DC, where government is the major industry, so that all DC stations tend to provide a lot of news programming. But Washington, DC has more stations that are owned and operated by one of the four major broadcast networks than do other markets. Thus, if the statistical analysis were not to account for the high level of demand for news in Washington, DC, the results might overstate the relationship between network owned and operated stations and the amount of news programming provided.

- Most of the ownership characteristics studied do not have a statistically significant impact on the provision of public affairs programming. However, higher parent revenues for a station are associated with the provision of less public affairs programming.

The author provides several caveats about the analysis. First, despite the use of more than 6,700 observations for more than 1,700 stations, the effective sample sizes are rather small for some of the variables of interest—for example, only 30 television stations are jointly owned with a newspaper (for 120 observations). Second, the analysis does not include cable channels and Internet news programming. The constant availability of news, weather, and sports programming on such cable channels as CNN, Fox News, MSNBC, the Weather Channel, and ESPNews, as well as Internet news programming, is likely to affect the audience interested in local broadcast stations' news shows, most likely reducing it. Third, the analysis does not distinguish between local and non-local news programming, even though the supply and demand factors involved may differ. Fourth, the analysis addresses the quantity of news programming, not its quality. Individual stations might choose to respond to demand for news programming by increasing the quality of programming provided, rather than the quantity.

The peer reviewer, Philip Leslie, associate professor of economics and strategic management, Stanford Graduate School of Business, identifies some "noteworthy strengths" of the data—there are a large number of observations, the panel structure allows for the use of various fixed effects to control for other factors that affect programming, and there is a high level of detail on programming and ownership. He also identifies "a few important limitations to the data," most of which are acknowledged in the study. He concludes that the data are valuable and should be taken seriously, but that while the limitations do not undermine the analysis, "they do lead me to question the broader relevance of the findings." One limitation that he identifies is the data include no information on the number of viewers for each station (or each television program), and consequently each station is weighed equally in the analysis. "Since we ultimately care about the impact on consumers, and some stations are more important to consumers than others, this presents a limitation on the data."

Section II: "Ownership Structure, Market Characteristics and the Quantity of News and Public Affairs Programming: An Empirical Analysis of Radio Airplay," by Kenneth Lynch

This section of the study examines the extent to which there is a relationship between the ownership characteristics of a radio station and the quantity of informational (news and public affairs) programming it broadcasts, using data from a sample of more than 1,000 radio stations and appropriate control variables. Airplay data were collected for six 20-minute segments for each station. The econometric technique used produces two sets of results that must be considered jointly: the change in the likelihood of airing news (or public affairs) programming, and the change in the amount of news (or public affairs) programming that is aired if the station airs news (or public affairs) programming at all. It is noteworthy that market characteristics, such as market size, length of commute time, the audience share that is male, the audience share that is minority, income levels, education levels, age distribution, etc. explain a greater amount of variation in the quantity of news and (especially) public affairs programming aired than station ownership variables. The findings related to station ownership include:

- As owners expand their radio operations by acquiring more radio stations (either in- or out-of-market), the stations they own are more likely to air at least some

news programming, but the quantity of news aired on each station may fall such that the overall quantity of news is not significantly affected. These relationships hold whether looking at all news programming or only local news programming.

- The geographic distance between the parent and the station does not significantly affect the quantity of news aired by stations in the group that might air news, but it has a negative and significant effect on the probability stations air any news at all. These relationships hold whether looking at all news or only local news.
- While it appears that stations that received a waiver of FCC rules covering radio-newspaper combinations are significantly more likely to air news and public affairs programming, only three of the 1,013 stations in the sample required such a waiver and thus "any inferences drawn from the parameter estimates for this covariate are essentially anecdotal."
- A radio station cross-owned with an in-market television station is less likely to air news programming than are other radio stations, but if it does air news the quantity aired will be relatively larger than that of stations that are not cross-owned. The overall marginal effect is that in-market television cross-ownership increases the expected quantity of news programming by about 110 seconds (31%). These relationships are not statistically significant when looking only at local news.
- As owners expand their radio operations by acquiring more radio stations (either in- or out-of-market), the stations they own are more likely to air at least some public affairs programming, and the quantity of public affairs programming aired on each station is likely to increase; although neither of these relationships are statistically significant on their own, the combined effects are significant. Since only 8% of the stations in the sample aired local public affairs programming during the six 20-minute segments for which airplay data were collected, the ability to draw meaningful inferences from those data is limited.
- There are too few instances of radio cross-ownership with newspapers in the sample to draw meaningful inferences.

The peer reviewer, Scott Savage, assistant professor of economics at the University of Colorado, deems the methodology and assumptions reasonable and generally consistent with accepted theory and econometric practices, but "would like to see a much stronger justification for the important ownership variables of interest in the model and a clearer description of their expected signs. This would also help make the results discussion clearer." He finds "the dataset would have to be augmented by other measures of market concentration if the study really wanted to make concrete conclusions about economies of scope and market power effects. For example, does it necessarily follow that a 'large owner' with many in-market stations has more market share and market power than a 'small owner' with a single in-market station? More importantly, 'number of in-market stations' and 'total number of stations' may be endogenous when they depend on the unobserved preferences of radio listeners. Ultimately, more discussion and/or evidence is required to make causal claims."

Section III: "Factors that Affect a Radio Station's Propensity to Adopt a News Format," by Craig Stroup

This section examines whether ownership structure affects a radio station's propensity toward adopting a news format, using Arbitron data on the format choices of about 8,000 radio stations between 2002 and 2005 and employing the fixed effects regression technique to take into account non-observable factors that influence radio stations' format choices. Instead of examining actual radio broadcasts (as does section II of this study), this section considers a station's format and assumes that news format radio stations broadcast more news than stations with other formats. This allows the researcher to collect data over time and to observe the format ramifications of stations that undergo ownership changes. The format definitions used do not distinguish between local news programming and other news programming. Some of the findings of this section are:

- Although 65% of all full-power radio stations broadcast in FM, rather than AM, only about 25% of news stations broadcast in FM. Holding other factors constant, AM stations are six times more likely to be news stations than FM stations. This is not surprising since AM service offers sound-quality that is inferior to that of FM and therefore is more likely to be used for non-music formats.
- A radio station that is cross-owned with a newspaper in the same market is four to five times more likely to be a news station than a radio station that is not cross-owned.
- A radio station that is cross-owned with a television station in the same market is about twice as likely to be a news station than a non-cross-owned station.
- Commercial stations are only about 25% as likely to adopt a news format as noncommercial stations.
- Stations with a local marketing agreement (LMA)—the sale by the licensee of discrete blocks of time to a "broker" who supplies the programming to fill that time and sells the commercial spot announcements in it—may be less likely to be news stations.[29] A review of this relationship for stations that newly enter an LMA, however, suggests that entering into an LMA may make a station more likely to be a news station, but news stations may be less likely to enter into LMAs.
- Having a sibling news radio station in the market appears to increase a station's propensity to adopt a news format by about 50%.
- Radio stations with owners in the same DMA appear to be no more likely to be news stations than others. But radio stations with owners in the same state appear to be significantly more likely to be news stations.

The peer reviewer, Scott Savage, assistant professor of economics at the University of Colorado, finds the methodology and assumptions reasonable and generally consistent with accepted theory and econometric practices and the data of sufficient quality for the econometric model employed. But he finds that the study would benefit from a more explicit description of the model, more economic discussion of the choice of independent variables and their *a priori* expectations, and a

[29] This relationship was statistically insignificant for one definition of news format used by the researcher and statistically significant for the other definition used by the researcher, but in both cases was negative.

discussion of the potential economic mechanisms that underlie the relationships uncovered in the data.

Section IV: "The Effect of Ownership and Market Structure on [Newspaper] News Operations," by Pedro Almoguera

This section studies the effect of ownership characteristics on the news operations of newspapers, based on a sample of 134 newspapers in the largest 60 designated market areas (DMAs) for 14 randomly chosen days (with the constraint that each day of the week is included twice) in 2005. The local market is defined as the Metropolitan Statistical Area (MSA), rather than DMA, because the latter is geographically narrower and therefore more closely coincides with the circulation area of newspapers. The absolute amount of space allocated for news in the "general news" section of the newspaper is used as a quantity measure of news operations. Some of the findings of this section are:

- There is no observable relationship between a newspaper's news operations and cross-ownership with a television station or radio station in the same market.
- Newspapers that are co-owned with other newspapers within the same Metropolitan Statistical Areas are associated with a 5% decrease in the absolute amount of news provided. But co-owned newspapers outside the market have no effect on news operations.
- The level of newspaper concentration in the market (as measured by the Herfindahl-Hirshman Index) has no effect on news operations.
- Belonging to a joint operating agreement with another newspaper in the market has no effect on a newspaper's news operations.

The peer reviewer, Philip Leslie, associate professor of economics and strategic management, Stanford Graduate School of Business, finds that although the data come from multiple sources they are "mainly well explained," though focused on larger markets and thus not representative of all newspapers in the United States. Professor Leslie finds it "unclear how exactly the identity of which newspapers compete in which markets is assigned." He indicates that although restricting the definition of news operations to the quantity of news in the general news section of a newspaper is "potentially troublesome ... since it can arbitrarily exclude valid news content in other parts of the newspaper," nonetheless "there is no obviously right approach." He proposes that there be "some robustness checks on this issue." He also states that since the data do not include a source of exogenous variation in ownership structure, "it is less clear whether the analysis uncovers a causal effect or a mere correlation." Finally, Professor Leslie indicates that the data provided show a positive relationship between co-ownership of newspapers in the same market and the percentage of total newspaper space (news plus advertising) taken up by news, which he believes is "at odds with" the negative relationship between newspaper co-ownership and the absolute amount of news. But he provides no explanation why, *a priori*, one should consider these results at odds.

Study 5: "Station Ownership and Programming in Radio," by Tasneem Chipty, CRA International, Inc.

This very large study evaluates the effects of ownership structure on numerous different measures of program content,[30] advertising prices, and listenership for (non-satellite) broadcast radio, using both descriptive and regression analyses. It relies on data from a number of different sources, including the database on radio station programming that the FCC commissioned Edison Media Research to construct in 2005 (Edison Database), station characteristic and demographic data from BNA Financial Network (BNA*fn*), ratings data from Arbitron, advertising cost data from SQAD, and additional demographic data from the U.S. Census Bureau. It performs analysis using market-level averages, station-level averages, and station-pair analysis. As a result, it has literally thousands of statistical results that researchers can cull through. Most of the regressions do not show statistically significant relationships between the ownership variables and programming variables being tested, which is not surprising given the breadth of variables covered.

Among the study findings are the following.

- If market size is not taken into account, markets with greater ownership concentration offer fewer formats and have more pile-up (multiple stations with the same format). But smaller markets have (by definition) fewer stations and have greater ownership concentration (because the FCC's media ownership rules permit owners to own a larger fraction of stations in smaller markets, relative to bigger markets). Controlling for the number of stations and the interaction effects between number of stations and concentration, concentration has no statistically significant effect on the number of available formats. However, the results suggest that stations are more spread out across existing formats in more concentrated markets—concentrated markets have significantly less pile-up, as measured by less format concentration. These results are robust. Also, markets with more stations have more formats and less pile-up.
- Cross-ownership of radio stations with local newspapers and/or local television stations does not appear to have a noticeable effect on the number of formats or on format pile-up.
- Markets with a large number of radio stations owned by large national radio companies appear to have more formats and less pile-up.
- Commonly owned stations in the same market are 5% more likely to have the same format than stations owned by different owners. However, this pattern is reversed when looking only at pairs of FM stations. Station ownership characteristics are less good predictors than market demographic factors of whether stations in a market will offer the same format.

[30] These measures include format counts, format concentration, percentage of station airplay devoted to music, percentage of station airplay devoted to news, percentage of station airplay devoted to sports, percentage of station airplay devoted to talk entertainment, percentage of station airplay devoted to advertising, advertisements by day part, percentage of station programming that is live, percentage of station programming that is network/syndicated and voice-tracked, number of syndicated programs, and number of on-air personalities. These various measures of programming are intended to provide information relevant to the wide variety of programming issues that have been raised by parties in the media ownership proceeding.

- Commonly owned stations in different markets are more likely than other stations to have the same format.
- In large markets, consolidation of ownership has no statistically significant effect on any of the format measures. In small markets, consolidation is associated with fewer formats.
- Operating in a market with other commonly owned stations does not have a statistically significant effect on how a station is programmed.
- Newspaper-radio cross-ownership is associated with longer blocks of uninterrupted talk in the morning drive time slot and longer blocks of uninterrupted news programming in the evening.
- Stations that have large national owners offer more syndicated programs and spend a greater percentage of airtime on network/syndicated programming.
- National ownership is associated with a statistically significant negative effect on length of an uninterrupted block of music in the evening.
- Commonly owned stations in different markets are programmed more similarly than separately owned stations in different markets.
- There appears to be minimal association between radio-newspaper or radio-television cross-ownership in a market and radio programming. Analysis of more than 10 programming content variables yields only rare examples of statistically significant relationships, and those are small in magnitude.
- Local radio consolidation is associated with 4% less music, 3% less local programming, 3% less live programming, and 18% less news programming in the evening (though this last effect is estimated from a sample of only FM stations).
- All else equal, radio stations in concentrated markets offer substantially longer segments of uninterrupted sports programming in the evening. The pattern of results suggests that this expanded offering is offset with shorter segments of news programming in the evening.
- Commonly-owned news stations in the same market overlap in 14%-22%of their programming and commonly-owned news stations in different markets overlap in 8%-14% of their programming, depending on the measure of overlap. Commonly-owned sports stations in the same market have no overlap in their programming, and commonly-owned sports stations in different markets have overlap in 5%-9% of their programming. The overlap in programming across commonly-owned news stations is statistically significant and there may be more overlap within markets than across markets. There is no statistically significant overlap in sports programming for commonly-owned stations, either within or across markets. This result likely reflects practices in the underlying sports broadcast rights market, where a live (often local) sporting event typically is broadcast by a single radio station within a radio market.
- Consolidation in local radio markets has no statistically significant effect on advertising prices.
- Advertising prices decrease as the number of stations in the market increases.

- National ownership of radio stations has a statistically significant negative effect on advertising prices.
- Radio cross-ownership with television in a market has a statistically significant positive effect on advertising prices in large markets across a number of specifications, but not in small markets.
- Consolidation in local radio markets has no statistically significant effect on average listening to radio.
- Listeners served by large radio groups, as measured by the number of commercial stations owned nationally by in-market owners, listen more.
- All else equal, concentration in large markets is associated with lower average station ratings, suggesting that listeners in large markets are not tuning in as much as listeners in small markets.
- Stations operating in markets with other commonly owned stations achieve higher ratings than independent stations.
- Cross-ownership of radio stations with local newspapers has a statistically significant positive effect on listenership. There are no other statistically significant effects of ownership structure on listenership.

The peer reviewer, Andrew Sweeting, assistant professor of economics at Duke University, finds the econometric analysis simple and the specifications explained in a transparent way that should make the results straight-forward to replicate. He offers one general caveat—these results reflect correlations in the data between ownership and programming and there is no direct evidence of causal effects. Professor Sweeting also offers several specific caveats:

- When a coefficient is identified as being statistically significant at the 5% level, that means that if there was really no statistical correlation between the outcome variable and the explanatory variable, one would nonetheless expect to see a "t-statistic" as large as the one reported less than 5% of the time. Thus when seeing thousands of coefficients one should expect some of them to be statistically significant even when there is no true correlation. Therefore, at a minimum, reviewers of the data results should attach importance to patterns that are robust across several specifications, as these are more likely to indicate true correlations.
- Although many of the regressions are repeated with and without controls for market demographics, since those demographics may provide a reason for differences in programming (for example, one would expect fewer urban and gospel stations in markets with smaller African-American populations), the results that do not take into account the demographics should be ignored.
- For the analysis based on station-pairs, when creating pairs the number of observations tends to increase dramatically, which tends to lead conventionally-calculated standard errors to fall and the coefficients to appear to be more significant than they may actually be. Thus one has to be careful when discussing statistical significance.
- In the Edison data base, different stations were monitored on different days and this could give misleading impressions of programming overlap. For example, some common owners switch syndicated shows across stations in the same

market, so that they might appear in the data base as being offered on both stations even though they were never available on both stations on the same day (which seems the more relevant criterion for overlap).

- The study presents many different measures of programming, but some may be more relevant for policy than others. For example, it may be important to know how ownership affects the number of commercials played or the amount of local news programming, but it is less clear that the balance of music and DJ banter or whether the banter comes in long or short blocks matters.

Study 6: "The Effects of Cross-Ownership on the Local Content and Political Slant of Local Television News," by Jeffrey Milyo, Hanna Family Scholar, University of Kansas School of Business, and Associate Professor, Department of Economics and Truman School of Public Affairs, University of Missouri

This study examines whether cross-ownership of a newspaper and television station influences the content or slant of local television news broadcasts, by comparing the late evening local news broadcasts of 29 cross-owned television stations located in 27 different markets with those of their major network-affiliated competitors in the same market, for three evenings in the week prior to the November 2006 election. In total, 312 late evening local newscasts were recorded for a total of 104 stations, and these recordings were coded and analyzed for local news content and political slant.

The study findings include:

- Local television stations broadcast approximately 26 minutes of total news coverage,[31] with about 80% of this time devoted to local stories. However, a fair amount of local news is devoted to sports and weather. Local news excluding sports and weather accounts for less than half of total broadcast news time. State and local political coverage averages just less than three minutes per newscast during the week under study.
- The newscasts of television stations that are cross-owned with newspapers are associated with one or two more minutes of total news coverage (4%-7%) than those of non-cross-owned stations. But radio cross-ownership and other ownership and network characteristics (such as network affiliation or parent company household coverage) are not significant determinants of total news coverage.
- The newscasts of television stations that are cross-owned with newspapers are associated with 80 to100 seconds (6%-8%) more local news coverage (including sports and weather) than those of non-cross-owned stations. After accounting for time-slot effects, none of the other ownership variables are significant, although the affiliates of old-line networks (NBC, CBS, and ABC) offer several minutes

[31] Although most stations broadcast a 30 minute news program, some broadcast a one-hour news program, so the sum of total news and non-news content exceeded 30 minutes.

more of local news than the affiliates of newer networks (Fox, CW, and MyNetwork). The pattern of results is very similar for local news coverage excluding sports and weather, except that the positive association between television-newspaper cross-ownership and the amount of local content is largely mitigated. These results suggest that television stations cross-owned with newspapers offer significantly more sports and weather coverage than their non-cross-owned counterparts, but no less of other local news.

- Television-newspaper cross-ownership is positively, but not significantly, associated with the amount of state and local political coverage in newscasts. But television-radio cross-ownership is significantly associated with an 80 to 100 second reduction—about a 50% reduction—in the amount of state and local political coverage in newscasts. Parent companies with greater household coverage also provide significantly more state and local political news, as do Fox network affiliates.
- The amount of time allotted to state and local political candidates speaking for themselves is about 10 seconds (40%) greater on the newscasts of television stations that are cross-owned with newspapers than on the newscasts of non-cross-owned stations. Similarly, cross-owned television stations offer about 20 seconds (30%) more coverage of state and local political candidates than non-cross-owned stations, while Fox affiliates show between 30 to 45 seconds more candidate coverage. Other ownership or network controls are not significantly associated with these measures of political coverage.
- The amount of time allotted to the coverage of partisan issues (the author identifies 12 issues that he categorizes as Democratic issues and 10 issues that he categorizes as Republican issues, based on examining party and candidate websites in the week before the general election) does not vary by cross-ownership status, nor does the amount of time allotted to covering the results of political opinion polls, however both CBS and NBC affiliates devote substantially less time to opinion polls compared to other networks.
- Based on four measures of partisan slant—differences in speaking time allowed to candidates of each party, differences in time spent covering the candidates of each party, differences in time spent covering issues identified as Republican or Democratic, and differences in time spent on opinion polls favoring one party or the other—it appears that both cross-owned and non-cross-owned stations allocate political coverage fairly evenly. On every measure though, the cross-owned stations exhibit a slight and insignificant Republican-leaning slant. However, Professor Milyo provides the caveat that there is no baseline for determining whether coverage is appropriately balanced or not and therefore no inferences about balance should be made based upon the absolute value of any of these measures.
- For three of the four measures of partisan slant, there appears to be a significant positive association between the Democratic voting preferences in the local electorate in 2004 (as measured by the vote percentage in the 2004 presidential election for John Kerry) and Democratic slant in the 2006 newscasts of the local stations. This result implies that partisan slant is determined at least in part by demand market forces—stations catering to the voting preference of viewers in their newscasts.

- The study cannot identify market-wide effects, for example, whether cross-owned stations have some impact on their market as a whole.

The peer reviewer, Matthew Gentzkow, assistant professor of economics at the University of Chicago Graduate School of Business, finds the author's multiple regression analysis methodology reasonable, but initially was unable to replicate the results because of what was determined, after discussion with the author, to be two errors in the coding of the data set used to produce the original results. After correcting for these errors, the peer reviewer still could not replicate some of the results. He nonetheless concludes that "my impression from having worked with the data is that the corrections are unlikely to change either the direction or the statistical significance of the coefficients of primary interest."

Professor Gentzkow states "the data collected for this study represent a significant advance. The data give a rich, fine-grained picture of the news coverage of local television stations unlike anything that was available before. The sample selection criteria make sense, and maximize the power of the within-market comparisons the author makes. An obvious caveat is that the data cover only three days in November 2006. The differences found may or may not be similar to differences that would be found in other periods. The author acknowledges this issue clearly...."

Professor Gentzkow explains that coding the content of a news broadcast is challenging and inherently subjective, but states that the author focused primarily on measures such as minutes of news in particular categories that are well-defined, easy to interpret, and potentially replicable, though the procedure for identifying the partisan issues used to measure political slant was more subjective than some of the other measures.[32]

Professor Gentzkow raises one concern with the results as reported. All of the specifications of primary interest include both a main effect of the newspaper-cross-ownership variable and an interaction between this variable and the radio-cross-ownership variable. The conclusions as reported are based on the main effect coefficients without taking account of the interaction. This means that the reported differences apply only to the subset of stations that are not cross-owned with radio rather than to the sample as a whole.

Study 7: "Minority and Female Ownership in Media Enterprises," by Arie Beresteanu, Assistant Professor, Duke University Department of Economics, and Paul B. Ellickson, Assistant Professor, Duke University Department of Economics

This study examines the data collected in the 2002 Survey of Business Owners (SBO) to identify the extent of female and minority ownership in the radio, television, and newspaper industries in the United States, and to provide a direct comparison with the broader universe of U.S.

[32] It should be noted that the choice of a measure for political slant is the most controversial aspect of this study and that Professor Gentzkow has performed several studies of political slant in the media using the types of measures of political slant used by Professor Milyo. In the study, Professor Milyo states, "I follow Gentzkow and Shapiro in using speaking time of candidates as one metric for partisan slant. I also use several measures that are very similar in spirit to those employed by Gentzkow and Shapiro; in particular, time devoted to all candidate coverage, time devoted to issues favored by one party or the other, and time devoted to polls favoring one party or the other." Thus, some critics have claimed that Professor Gentzkow cannot provide an objective peer review.

businesses. It also makes a few recommendations regarding how the FCC should proceed in analyzing minority and female ownership of media enterprises. The authors emphasize that, due to the nature and quality of the available data, they are not able to reach strong conclusions, so their recommendations should be viewed more as points of discussion than prescriptive for policy.

The study finds:

- Based on the most complete data source available (the 2002 SBO), minorities and females are under-represented in the three industries relative to their proportion of the U.S. population, though these patterns hold across the broad run of industries, as well.
- Approximately 51.1% of the U.S. population is female, but women own only 14.01% of radio stations, 13.68% of television stations, 20.25% of newspapers, and 17.74% of all non-farm businesses.
- Approximately 13.40% of the U.S. population is Hispanic, but Hispanics own only 3.71% of radio stations, 6.04% of television stations, 1.58% of newspapers, and 3.85% of all non-farm businesses.
- Approximately 12.68% of the U.S. population is Black, but Blacks own only 4.35% of radio stations, 4.89% of television stations, 2.44% of newspapers, and 1.82% of all non-farm businesses.
- Approximately 1.22% of the U.S. population is American Indian, but American Indians own only 0.17% of radio stations, no television stations, 1.00% of newspapers, and 0.47% of all non-farm businesses.
- Approximately 4.41% of the U.S. population is Asian, but Asians own only 2.27% of radio stations and 3.24% of newspapers. Asians own 6.03% of television stations and 6.21% of all non-farm businesses.
- The figures listed above are for non-publicly-traded enterprises. If publicly-traded companies were included, the ownership shares of women, Hispanics, Blacks, American Indians, and Asians would be slightly lower.
- Since the observed ownership asymmetries are economy-wide, they are undoubtedly linked to broad systematic factors not specific to these particular industries. While a full accounting of the causes of these systematic trends is beyond the scope of this analysis, it appears that access to capital is a primary cause of under-representation for minorities. This is suggested by a review of the market shares of the top 4, top 8, top 20, and top 50 firms in a full set of industries for which data are available. The concentration ratios in the information category, and specifically in radio and television broadcasting, are very high, which is indicative of high barriers to entry, most likely in the form of capital requirements. A review of the Survey of Consumer Finances, conducted every three years by the U.S. Federal Reserve, shows that the ratio of median net worth between whites and nonwhites was about 6.6, and the average ratio of mean net worth between whites and nonwhites was 3.5. Thus, minorities on average have significantly less personal capital at their command to meet the capital requirements of a media enterprise. Deeper analysis with more data would be needed to address the position of females.

- The data currently being collected by the FCC is extremely crude and subject to a large enough degree of measurement error to render it essentially useless for any serious analysis.

The author makes the following recommendations:

- The FCC should take steps to improve its data collection process. Strong effort should be made to ensure a full, consistent, and accurate reporting of ownership status and its composition, as a long run endeavor.
- Information on minority and female ownership should be carefully tracked and integrated into the main firm database in a coherent fashion. Currently, the FCC simply flags as minority- or female-owned any firm with greater than 50% female or minority ownership. This information is maintained as a separate and incomplete spreadsheet that is not linked to the broad census of firms.
- Firms should be classified not only by race and gender, but also by whether the company is publicly traded or privately owned. Efforts also should be made to track the demographics of minority as well as majority stakeholders.
- More broadly, the FCC should further examine the rationale behind this exercise. The Commission should ask whether there are quantifiable benefits to increasing minority and female ownership and how ownership policies affect change; to what extent media content is driven by demand (that is, consumer preferences for certain types of programming or for slanted news coverage) rather than supply (that is, owner preferences); whether owner preference can only be imposed through a controlling interest rather than a minority interest; whether publicly-traded firms feel pressure to be broadly representative in their programming; how non-traditional media, such as the Internet, change the debate.

The peer reviewer, B.D. McCullough, Professor of Decision Sciences at Drexel University, states that "The FCC should have contracted with the authors to do a full-blown study of the problem rather than simply conduct a small and perfunctory analysis." He states this issue requires sophisticated analysis that might show the extent to which the ownership disparity is explained by such relevant variables as education and industry experience. In the absence of such analysis, all the disparity is incorrectly attributed to the single factor of race or gender. Moreover, the minority categories are too aggregated—for example, Hispanics "lumps together Puerto Ricans, Mexicans, and Cubans, despite overwhelming evidence that these groups are remarkably dissimilar in terms of mean education, income, health, etc."

Professor McCullough questions the authors' claim that lack of access to capital is a primary cause of under-representation for minorities, since the analysis "does not include education, work experience, or any of a host of other variables." The actual assertion of "a link between race and access to capital would require a great deal of [additional] work."

With respect to the authors' recommendation that the FCC track and integrate information on minority and female into the main firm database, Professor McCullough states the authors "should have offered their considered opinion on how to define the variables they want collected."

Study 8: "The Impact of the FCC's TV Duopoly Rule Relaxation on Minority and Women Owned Broadcast Stations 1999-2006," by Allen S. Hammond, IV, Professor, Santa Clara University School of Law, with Barbara O'Connor, Professor of Communications, California State University at Sacramento, and Tracy Westin, Professor, University of Colorado

The purpose of this study is to ascertain the impact of the relaxation of the television duopoly rule on minority and female ownership of television broadcast stations. In 1996, that rule was amended to allow the ownership of two television stations in certain markets, provided only one of the two was a VHF station, the overlapping signals of the co-owned stations originated from separate (though contiguous) markets, and the acquired station was economically "failing" or "failed" or not yet built. Because the FCC did not begin collecting data on the race and gender of broadcast station owners until 1998, the period studied was 1999 to 2006.

The study does not provide econometric analysis. Rather, it (1) identifies the transactions resulting in television duopolies that could not have occurred before the rule change and (2) determines the number of commercial broadcast television stations that were purchased or sold by minority or women owners in markets in which a television duopoly was introduced that could not have existed before the rule change.

The study finds:

- From 1999 to 2006, the relaxation of the duopoly rule did not appear to have a positive impact on minority and female ownership of television stations; instead, the major beneficiaries were the largest 25 television broadcast station owners.
- The relaxation of the duopoly rule codified the existing contractual relationship (local management agreements or LMAs) between group station owners and the stations they managed. LMAs allowed television broadcasters (that were not allowed to be jointly owned) to combine their operations to reduce their costs by sharing staff and/or programming, to expand their market reach by combining signal coverage, to increase their advertising revenue shares by controlling access to a larger percentage of a desirable market segment and/or providing more opportunities to air programming.
- Some group station owners leveraged their control of LMAs into control of access to attractive syndicated programming as well as access to programming affiliated with emerging networks.
- The broadcast group owners that benefitted from the relaxation of the duopoly rule were primarily the largest broadcast group owners (those in the top 25 based on revenue, national market reach, and/or number of stations owned). As of 2005, they accounted for 83 of the 109 (76%) duopolies identified.
- Many of the group owners that managed "sister" (LMA) stations acquired those stations outright once the duopoly rule was relaxed.

- Only one minority-owned duopoly was created. It has since been dissolved. Since there were no preexisting minority-owned duopolies, there were no surviving minority-owned duopolies.
- Across all markets in which minority-owned television stations operated between 1999 and 2006, the number of minority-owned television stations dropped by 27%.
- Within markets entered and/or occupied by television duopolies, the number of minority-owned stations dropped by more than 39%. By contrast, in non-duopoly markets the number of minority-owned stations dropped by 10%.
- The duopolies created in markets in which female-owned television stations operated were non-female owned. Since there were no pre-existing female-owned duopolies, there were no female-owned television duopolies.
- 36% of the female-owned stations operating in duopoly markets were sold. All of the stations were sold to non-female, non-minority owners.
- Female-owned stations were more likely to be found in non-duopoly markets.

In addition, the study presents, but does not analyze, a number of hypotheses about the relationship between the revised duopoly rule and minority/female ownership that have some logical appeal but remain untested and unproven. For example, it presents an argument made in 1992 by a minority broadcaster who was concerned that increasing ownership caps or loosening duopoly rules would reduce opportunities for minority ownership.[33] That broadcaster claimed that relaxation of ownership rules in 1985 caused an increased demand for stations that were attractive as second television properties in a market, and the resulting sharp increase in station prices placed minority-owned stations in "double jeopardy"—they couldn't afford to trade up to the better facilities and the stations against which they were competing were rapidly becoming parts of large broadcast groups capable of bringing significant economies of scale to the market.

This argument, on its face, appears reasonable, but on its own does not demonstrate how significant the relationship is between the dual ownership rule and minority ownership. During the time period cited by the minority broadcaster, the FCC's old minority tax certificate program[34] was in place and appeared to be successfully fostering the sale of broadcast properties to minority owners.[35] The dual ownership rule was loosened in 1996, just one year after Congress eliminated the tax certificate program. The authors found that minority ownership has fallen significantly since 1999 (the first year that data on minority- and women-ownership were available). But they do not perform analysis that helps determine how much of that decline is attributable to the

[33] See Study 8 at p. 29 and also the source cited in that study, Harry A. Jessell, "Sikes Ready to Move on TV Ownership: Chairman Wants to Expand Number of Stations a Licensee May Own Both Locally and Nationally, *Broadcasting*, April 20, 1992, at p. 10.

[34] The FCC's minority tax certificate program used the market-based incentive of deferral of payment of capital gains taxes to encourage the owners of broadcast and cable properties to sell their properties to minorities. Tax certificates also were issued to investors who provided start-up capital to minority-controlled companies.

[35] See Statement of William E. Kennard, General Counsel, Federal Communications Commission, Before the United States House of Representatives Committee on Ways and Means, Subcommittee on Oversight, on FCC Administration of Internal Revenue Code Section 1071, January 27, 1995, at p. 10, indicating that between 1978 and 1994 the FCC granted approximately 390 tax certificates, of which approximately 330 involved sales to minority-owned entities—260 for radio station sales, 40 for television station sales, and 30 for cable television transactions.

loosened dual ownership rule, how much to the elimination of the tax certificate program, and how much to other factors.

The peer reviewer, B.D. McCullough, Professor of Decision Sciences at Drexel University, states "This report is fatally flawed by a fundamental logical error that pervades every aspect of the analysis." Referring to a finding in the study that minority-owned stations were four times more likely to be sold in duopoly markets than in non-duopoly market, Professor McCullough states

> In the context of their report, their obvious implication is that the existence of duopoly is the reason that minority stations were observed to be sold more frequently in duopoly markets rather than in the non-duopoly markets. This could only be logically inferred if the duopoly and non-duopoly markets were identical in all other respects, which the authors did not show because they could not show this.
>
> Since the markets are not identical, some effort must be made to control for the differences between the duopoly and non-duopoly markets.... There exists a wide variety of statistical and econometric techniques to control for these differences, yet the authors employ not a single one.... The authors had access to the BIA database and could easily have made some effort to control for confounding variables. That the authors did not bother to control for confounding variables completely vitiates their analysis of minority-owned stations. The same is true for the "women-owned" portion of their report.
>
> The authors do document that the number of minority- and/or women-owned broadcast stations changed during this time. Their error is to attribute this change solely to the relaxation of the duopoly rule, without consideration of any simultaneously occurring economic or demographic phenomena.
>
> It may well be true that the Duopoly Rule relaxation was the cause of the decline in the number of minority-owned and/or women-owned broadcast stations, but the authors have not provided any evidence thereof.

There was another economic study addressing the television duopoly rule submitted in the proceeding. In its reply comments, the National Association of Broadcasters (NAB) included a December 2006 study entitled "The Declining Financial Position of Television Stations in Medium and Small Markets,"[36] which provides financial data to support its contention that "a relaxation of this rule to permit co-ownership of television stations in smaller markets would provide needed financial relief to television broadcasters, and allow television stations to compete more effectively with cable operators and other multichannel video programming distributors." The study examines the profitability of television stations in markets 51-175 for the data years 1997, 2001, 2003, and 2005. It finds:

> profit margins are already at risk today, especially for the lower rated affiliated stations. It is clear that overall these stations show declining profitability in the years examined.

[36] *In the Matter of 2006 Quadrennial Regulatory Review—Review of the Commission's Broadcast Ownership Rules and Other Rules Adopted Pursuant to Section 202 of the Telecommunications Act of 1996; 2002 Biennial Regulatory Review—Review of the Commission's Broadcast Ownership Rules and Other Rules Adopted Pursuant to Section 202 of the Telecommunications Act of 1996; Cross-Ownership of Broadcast Stations and Newspapers; Rules and Policies Concerning Multiple Ownership of Radio Broadcast Stations and Local Markets; Definition of Radio Markets*, MB Docket Nos. 06-121 and 02-277 and MM Docket Nos. 01-235, 01-317, and 00-244, Reply Comments of the National Association of Broadcasters, Attachment entitled "The Declining Financial Position of Television Stations in Medium and Small Markets," January 16, 2007.

> Furthermore, those stations located in the smallest of markets are also now at a stage where the average low rated station experienced actual losses. Declining network compensation coupled with increasing news expenses adds to the tenuous financial situation of these small market stations.

It concludes that: "As this study demonstrates, a relaxation of the television duopoly rule to permit common ownership of two stations in smaller markets would provide needed relief for these struggling stations, thereby increasing the strength of local television."

The NAB study is based on a selective choice of data. It uses only the financial data for odd-numbered years, omitting the data for even-numbered years when political advertising generally adds to the revenues of television stations without imposing comparable costs. Television station profitability tends to be higher in even-numbered years. Given that station revenues and profitability follow a relatively predictable cyclical pattern, it is appropriate to analyze data that incorporates the entire cycle, not just the predictably lower performance period in the cycle, to determine the real financial health of the industry. The NAB study therefore appears to be biased.[37]

Study 9: "Vertical Integration and the Market for Broadcast and Cable Television Programming," by Austan Goolsbee, Robert P. Gwinn Professor of Economics, University of Chicago Graduate School of Business, American Bar Foundation, and National Bureau of Economic Research

This study examines the prevalence of vertical integration in television programming, presenting findings relating to whether integrated producers systematically discriminate against independent content in favor of their own content. It separately addresses prime-time broadcast programming and cable network carriage. Its focus is on the impact of vertical integration on independent programmers—whether broadcast networks discriminate against programming they do not have an ownership stake in and whether cable and satellite operators discriminate against cable networks they do not have an ownership stake in. It attempts to measure this by performing regression analysis on the ratings of, and advertising revenues generated by, in-house and independent programming carried by vertically integrated broadcast networks. If the ratings for and/or advertising revenues generated by their in-house programming is consistently lower than those of the independently produced programming that they carry, that would suggest that they favor their own programming, even when it is less sought out by viewers. Similar analysis is performed for cable networks, focusing on the number of subscribers and viewers of and on subscriber fees and advertising revenues generated by the vertically integrated and independent cable networks carried by MVPDs. This study does not address another issue related to vertically

[37] The NAB study is one of submissions that the FCC had peer reviewed. The peer reviewer, Robert Kieschnick, Associate Professor and the Finance and Managerial Economics Area Coordinator, University of Texas at Dallas, identifies "a number of concerns with the data reported and statements made about the reported data," and states "I do not see that the report provides sufficient information to reach its conclusion...." The peer review is available at http://www.fcc.gov/mb/peer_review/docs/prtpkieschnick.pdf, viewed on November 28, 2007.

integrated cable or satellite providers—whether they use their position strategically by refusing to make their in-house "must have" programming available to competing distributors.[38]

The principal findings of the study are:

- Using four different measures of vertical integration, in each case the data document that a large fraction—typically the majority—of the programming on any broadcast network during prime-time was made "in-house."
- The distribution of independently produced programs—those with no affiliation with a network company at all—is fairly evenly spread across the networks, while the programs produced by production companies that have an ownership tie with a network are "overwhelmingly more likely" to be broadcast on their affiliated network.
- From the perspective of how many people watch a particular program, on the margin, there is little evidence that independently produced prime-time broadcast programming differs from in-house programming in the same time slot. Just as many people watch one as watch the other.
- But from the perspective of a program's total advertising revenue, vertically integrated prime-time broadcast programs perform worse than independent ones. Independent shows in the same time slot and the same season must have 16% greater advertising revenues to get on the air. Even controlling for the demographic characteristics of the audience, the advertising revenues on the margin are significantly lower for the vertically integrated shows than for independent programming, consistent with them being held to a lower standard than the independents.
- The non-in-house programming aired by a broadcast network can be produced by an entirely independent program producer or by a program producer that has an ownership affiliation with another broadcast network. When this distinction is taken into account, on the margin the vertically integrated programs have 25% less advertising revenues and the fully independent programs have 23% less than programs made by production companies with ownership ties to rival broadcast networks. This result suggests that a cost-based efficiency explanation for vertical integration—that networks apply a lower standard to their own programs because they can make them more cheaply—probably will not suffice. Those efficiencies would not exist when the programming is truly independently produced, and thus one would expect the networks to require independent programming to generate more advertising revenues than in-house programming to gain network carriage. That the networks appear to demand approximately the same amount of advertising revenue generation suggests that efficiencies from in-house production is small.

[38] "Must have" programming refers to programming for which a significant number of MVPD subscribers have such a strong intensity of demand that they would not subscribe to an MVPD service that does not carry that programming. Although demand varies somewhat from geographic market to geographic market, examples of programming that often is categorized as must have are major sports programming and the programming of local broadcast stations affiliated with major networks.

- It is possible that the differential in advertising revenues generated by truly independent programming and programming produced by companies with ownership affiliations with rival networks may reflect that rival networks have more bargaining power over syndication revenue (revenues generated by the programming when it is no longer aired on prime-time network television). If a broadcast network can't get part of the syndication profits from the program's producer, it may require that show to generate higher advertising revenue to put it on the air.
- With respect to cable program networks, there are network-level data on the performance of channels nationally and system-level information about what networks a system carries, but there are not system-level data on network performance, so the evidence is more suggestive than the evidence available on the broadcast networks.
- The concentration, on a national basis, of the largest MVPDs has grown over time with the considerable consolidation of cable and the rapid growth of DBS.
- On a market-by-market basis, however, the opposite has occurred. Each market has gone from a virtual monopoly for the local cable franchise to a market where the cable franchise shares the market with the two major DBS providers (and now there is beginning to be entry in some markets from the two major telephone companies, AT&T and Verizon).
- Of the top 15 cable networks, as measured by the size of their prime-time audience, the share of vertically integrated networks—defined as networks that have an ownership affiliation with an MVPD (but excluding networks that have an ownership affiliation with a major media company that does not own an MVPD, such as Disney or Viacom)—has been falling over time, from eight in 1997 to four in 2005. The share of cable networks owned at least in part by an MVPD fell from 40% in 1996 to 20% in 2005. But many of the cable networks without any MVPD ownership are owned by giant media companies. "It is difficult to find a single major cable network owned by someone other than a major media conglomerate."
- There is a very small negative effect of vertical integration on the number of subscribers a cable channel has. When a channel goes from being independent to being owned by an MVPD, it loses subscribers. But there is a small positive effect of vertical integration on the subscriber growth rate. When a channel goes from being independent to being owned by an MVPD, its subscriber growth rate increases by a small amount. Looking at the subset of networks where there are data on the number of viewers as well as the number of subscribers, holding the number of subscribers constant, the number of viewers actually watching the channel falls when it becomes vertically integrated.
- Looking at the impact of becoming vertically integrated on the amount of license revenue the cable network gets from the distribution systems and the amount of advertising revenue it generates (that is, the two sources of revenues for the programming) and the amount spent on programming (that is, the cost of providing the programming), there is very little evidence that vertical integration of a channel has any noticeably beneficial impact on revenues or costs. The same network performs exactly as well before and after it is vertically integrated.

- Since some of the economics literature suggests that the efficiencies of vertical integration flow only to start-up networks, not to well established ones, analysis also was performed for the subset of networks that were started since 1997. Results for these younger networks showed no major differences from the results for all networks. There is no evidence that when new networks become vertically integrated it increases subscribers or changes their subscriber growth rates.
- Excluding the major vertically integrated cable network that are carried on virtually all major cable systems, and focusing instead on 11 wholly or partially vertically integrated basic cable networks that have carriage rates between 5% and 90%, nine of those cable networks showed evidence that cable systems are significantly more likely to carry the cable network if they have an ownership interest in the network. But for nine of the 11 networks, the higher the DBS share in the local market, the more attenuated that relationship becomes. For those nine, the interaction of vertical integration with the DBS share has a significant negative coefficient. This evidence suggests, perhaps, an explanation for vertical integration rooted in competitive pressures rather than efficiencies. The DBS share that makes the vertical integration effect equal to zero averages around 20%-25%. Thus for at least a subset of the networks there is evidence consistent with the view that DBS competition reins in the ability of cable systems to use a vertically integrated position to promote their own channels.
- At the network level, there is little evidence that vertically integrated cable networks attract more subscribers, grow faster, raise more advertising revenues or licensing fees, or have lower programming costs.

The peer reviewer, David Waterman, Professor, Indiana University Department of Telecommunications, generally finds the regression analysis used in the broadcast portion of the study to be a valid methodology. But he states, "the results of this regression must be regarded as suggestive rather than conclusive, at least in the absence of a more detailed vetting of the results' robustness to alternative model specifications. As the report acknowledges, program profits [rather than revenues] are the desired measure and meaningful cost measures are not available." He indicates that "there are large differences in prime-time program costs by program format (e.g., sitcom, variety, drama) as well as by network, that may not be captured by the model, and could thus bias or invalidate the results."

With respect to the cable portion of the study, Professor Waterman notes that "the overwhelming majority of 'independent' cable networks successfully launched in the period of the study are owned by affiliates of large media conglomerates who do not have cable system interests ... which implies that the financial resources or bargaining leverage in common to the large corporations which also own numerous other established networks, rather than vertical integration itself, may be the most significant advantage that successful cable network suppliers now have." He states that the study uses regression techniques that show vertical integration to have little or no positive effect on cable network performance. But "[i]n my opinion, this regression analysis, while interesting and suggestive, employs a methodology that makes interpretation of the results questionable." The primary measure of vertical integration in the study—the ratio of the total national subscriber base of the MVPD that owns the network to the network's national total of subscribers—has some desirable characteristics, but it is difficult to interpret because it combines in one functional form three separate aspects of vertical integration's potential effects: the fact of integration itself, the influence of MVPD size, and the variations of influence that integration may

have over a network's life cycle. It therefore is difficult to understand the effects of integration *per s*e.

Professor Waterman finds the models and estimation methods used in the analysis of the 11 basic cable networks with between 5% and 90% national market penetration are valid and the author's conclusions are reasonable. But he states that the study does not address the effects of vertical integration on the carriage of independently owned networks and does not consider whether the various integrated networks (or their non-integrated rivals) are carried on basic tiers or on generally less accessible digital tiers.

Study 10: "Review of the Radio Industry, 2007," by George Williams, Senior Economist, Media Bureau, Federal Communications Commission

This is the FCC's fifth review of the radio industry. It is primarily a data collection exercise, presenting data on changes in the industry since passage of the 1996 Telecommunications Act, including trends in ownership consolidation at the national and local levels, ownership diversity, format diversity, satellite radio, radio industry financial performance, radio listenership, and radio advertising rates. It presents some hypotheses, such as the impact of radio ownership consolidation on radio advertising rates, but does not reach conclusions. Among its findings and hypotheses are:

- From March 1996 to March 2007, the number of commercial radio stations in the United States increased by 6.8%, to 10,956. During the same time period, the number of owners declined 39%, from 5,133 to 3,121.
- The decline in the number of owners reflects a continuation of the consolidation of the commercial radio industry that has occurred since passage of the 1996 Act; however most of the consolidation occurred in the years immediately following passage in 1996. From 1996 to 2000, on average 18.5% of radio stations changed hands each year; from 2001 to 2006, the annual average fell to 7.8%.
- From 1996 to 2002, the number of radio station owners with 20 or more stations doubled from 25 to 50; in the last five years that figure has increased to 60, a change of only 20%.
- The two largest radio group owners in 1996 owned fewer than 65 radio stations each. In March 2002, the two largest radio group owners owned 1,156 and 251 radio stations, while the third, fourth, and fifth largest held 206, 184, and 100 respectively, representing a substantial shift in consolidation. As of March 2007, the two largest radio group owners consisted of 1,134 and 302 radio stations, while the third, fourth, and fifth largest held 226, 159, and 110, respectively. And the largest group owner, Clear Channel Communications, in November 2006 announced plans to restructure itself and sell 448 stations. Thus, consolidation has increased only slightly since 2002 and appears to be about to decrease.
- Approximately 60% of all commercial radio stations are licensed to communities in the 299 radio markets delineated by Arbitron; more than three-fourths of the U.S. population resides in these markets. In the 50 largest markets, on average, the top firm holds 34% of market revenue, the second firm holds 24%, and firms three and four split an additional 26%. For the 100 smallest markets, on average,

the first firm holds 54%, the second firm holds 30%, and the next two firms split 13%. Overall, in 189 of the 299 Arbitron radio markets (over 60% of the markets), one entity controls 40% or more of the market's total radio advertising revenue, and in 111 of these markets the top two entities control at least 80% of market revenue.

- Although there has been an historical trend toward greater concentration in local radio markets, this trend has substantially tapered off over time, with no substantial change in four-firm concentration ratios between March 2002 and March 2007.
- The decline in the number of radio owners nationally reflects a general trend across Arbitron markets, and not simply consolidations in a few large or small markets. In March 2007, the average number of owners across all Arbitron markets was 9.4, with a range of 6.5 in the smallest markets (ranks 101-299) to a high of 23.9 in the 10 largest markets. In March 2006, the average number of owners in an Arbitron market was 13.5.
- The average number of radio formats available in an Arbitron market has been about 10 over the March 1996-March 2007 period, with no trend in either direction. The smallest markets have offered an average of nine formats; the 10 largest markets have offered an average of 16 formats. The number of formats declines as the market gets smaller. However, while the average number of formats nationwide has held steady, the number of formats has declined slightly in some of the larger markets while increasing in most of the smaller markets. The Report states that the chosen measure of format, based on format categories in the BIA Radio Database, may not be the best proxy for capturing the diversity of programming.
- The growth in subscriptions to the two satellite radio services—Sirius and XM—has been dramatic, increasing more than 100-fold since 2002, to more than 14.5 million subscribers.
- The earnings before interest and taxes margin (EBIT margin), defined as the ratio of a firm's earnings (before subtracting out interest and taxes) to the firm's total sales, represent the gross profit margin of a company. Before 2001, the quarterly gross profit margins of the publicly traded radio broadcast companies were greater than the gross profit margins of the S&P 500 companies for 15 out of 21 quarters. The median EBIT margin for the study sample of radio companies fell below the median S&P 500 companies during 2001, but the radio companies have consistently outperformed the S&P 500 median since the first quarter of 2002. Throughout the period, the gross margins of the radio companies show a strong seasonality, with gross margins generally highest during the second and third quarters of the year.
- The net profit margin, defined as the ratio of a firm's net income to its sales, reflects the operating performance of the firm after netting out interest and taxes from the EBIT margin. While radio companies are realizing greater gross profits than the typical S&P company, they are netting less than the benchmark S&P company. New profit margins for radio companies remained substantially below those for the typical S&P company during 2001 and the first quarter of 2002. After the first quarter of 2002, the trend for net profit margins for radio companies appears to have risen, while the trend for the median S&P 500

company appears to have risen slightly. The overall pattern of radio companies realizing larger gross profits but netting less than the typical S&P firm suggests that radio companies either are paying more in taxes than other firms are, or are paying more in interest than other firms (that is, using more debt to finance operations).

- Debt as a percentage of total capital represents a measure of a firm's debt load and is the typical measure of a firm's relative use of debt capital vs. equity capital. The publicly traded radio companies have generally used more debt than the typical S&P 500 company to finance operations and growth. Therefore, the radio companies' lower net profit margins result, at least in part, from the greater interest expense of these companies. Another effect of the greater debt loads (leverage) is the increase in the volatility of radio-sector earnings compared to the less-leveraged S&P 500 companies. This increase in volatility is seen by comparing the variability of the radio-sector median EBIT Margin and net profit margin values with those of the S&P 500 firms.
- Publicly traded radio companies' debt as a percentage of capital declined over time until the third quarter of 2004, approaching the debt load of a typical S&P 500 company. However, since then, the ratio of debt to total capital for publicly traded radio companies has increased significantly and remains well above the S&P benchmark.
- Fixed charge coverage after taxes is a measure of a firm's ability to pay its interest expense out of its net income. This is measured as the ratio of quarterly net income (before extraordinary items) divided by interest expense, from which 1 is subtracted. The ratio measures how many times the interest expense is "covered" by the company's net income, which provides a sense of the company's ability to manage its debt load. While not generating the same level of net income to interest expense as other companies, the publicly traded radio companies appear to be generating enough cash flow to meet their interest obligations. Fixed charge coverage for radio stations remains positive for all quarters except the first and third quarters of 2001 and the first quarter of 2002. Fixed charge coverage rose substantially after the first quarter of 2002 for the radio sample and after the first quarter of 2003 for the S&P 500.
- The market to book ratio is defined as the ratio of a firm's market value of equity, which is the accounting value that remains of a firm's assets after the firm pays off its creditors. The market to book ratio is a useful measure of the market's assessment of that firm's future prospects. Until the year 2000, the market placed higher valuations on radio properties and operations than those of other companies, such as those reflected in the S&P 500 median market to book values. The market to book ratios of the radio companies exceeded those of the S&P 500 companies in all 17 quarters before 2000. However, in the first quarter of 2000, the median market to book ratio for the study sample of radio companies dropped below that of the median S&P company, and has remained below the S&P level ever since. This seems to suggest that the market value of radio companies relative to book value had declined relative to the S&P 500.
- Quarterly stock market returns of the publicly traded radio and S&P 500 companies are calculated by including their cash dividends in the return calculation. This return measure reflects both stock price appreciation and the

return of cash in the form of dividends to shareholders. While the typical radio company's returns have varied more than those of the typical S&P company, radio company stocks overall outperformed the broader market, as reflected in the S&P 500 median stock returns, in most quarters, until the year 2000. The greater volatility of the radio companies' stock market returns is related to the greater leverage of (greater use of debt by) these companies. But stock returns for radio companies declined sharply throughout 2000 and 2001. Beginning in 2002, radio companies' stock market returns bounced back relative to the S&P 500, even exceeding it in some quarters. Since 2004, the radio companies seem to have underperformed the S&P 500.

- The decline in stock returns in 2000 and 2001 likely was the result of the slowing economy during that time. Revenues in radio depend exclusively on advertising, and a firm's willingness to advertise is highly sensitive to how much consumers are buying. The percent change in retail sales and food services (adjusted for inflation) fell sharply beginning in the second quarter of 2000. Retail sales growth rates, while somewhat volatile, have rebounded from the 2001 trough, but have not reached the peak growth rates of 1999.
- A possible source for radio's stock decline may be the slowing of the radio industry's consolidation. As opportunities for increased profit through radio acquisitions have dwindled, investors' have placed a lower value on the radio industry, depressing the value of the radio industry's stock.
- The trend in the average number of listeners to radio per quarter hour has continued to fall since 2002. From autumn 1998 to autumn 2006, Arbitron reports that the average number of listeners per quarter hour has fallen from approximately 19.7 million to 18.4 million, a drop of 6.6%.
- While listenership declined slightly between autumn 1998 and autumn 2000, listener ratings held steady between the summer of 2000 and the early portion of 2005. During 2005, however, radio listenership appears to have taken another substantial dip. Between autumn 1998 and autumn 2006 the average annual decline in the average number of listeners per quarter hour is 0.82%.
- Average radio advertising prices have increased since September 1996. From 1996 to 2002, radio advertising prices increased steadily in excess of the consumer price index (CPI). Radio advertising prices dipped between 2002 and 2004 before continuing to increase. The dip in prices was probably a lagged response to the sharp decline in growth in retail sales. Overall, it appears that the cost of radio advertising has nearly doubled since the 1996 Act was passed. By contrast, the CPI increased 29% during the same period. In other words, the CPI increased approximately 3% per year during this time period, while the annual growth rate in radio advertising prices was approximately 10%.
- Radio consolidation may have an effect on radio advertising prices if advertisers have fewer radio owners to bargain with over prices. Consolidation in the radio industry may allow radio companies to exercise market power in local markets or possibly nationally.

The peer reviewer, George Ford, Chief Economist of the Phoenix Center for Advanced Legal and Economic Public Policy Studies, found the discussion of the descriptive statistics relies on established techniques and theoretical concepts. He found the study's interpretation of the trends

in the financial indicators to be consistent with standard professional practice. "While others may have different interpretations of the trends, those used in this study are sensible and consistent with professional standards." He stated the data sources used are generally viewed as reliable and their use for this study is reasonable.

Dr. Ford has one substantive criticism: "In my opinion, the statistics do not support the argument that consolidation has slowed (though they are consistent with the argument). Consolidation need not be the consequence of stations sales; concentration arises only when such sales reflect a purchase by entities that already own radio stations."

The Filing by the Consumer Commenters

The Consumers Union, Consumer Federation of America, and Free Press jointly submitted a 321-page document that, among other things, presents detailed criticisms of the 10 FCC-commissioned studies and provides the results of their own econometric models. These models were constructed by revising some of the econometric models in the FCC-sponsored studies to "correct for" perceived mis-specifications that either had been identified by the peer reviewers or by the Consumer Commenters themselves and were run using the data from the FCC studies.

The Consumer Commenters state that "One of the positive externalities of the 10 studies is the creation of a usable data set for the public to use to conduct policy analysis of its own." But once they perform their own analysis, the Consumer Commenters claim that:

> Once definitions are corrected and policy relevant variables included in properly specified statistical models, there is no support in the FCC data to relax media ownership limits. In fact, the FCC's data show the opposite result. Newspaper-broadcast cross-ownership results in a net loss in the amount of local news that is produced across local markets by broadcast stations. The Commission has studied the impact of these mergers only at the station level, rather than at the market level. At the market level, cross-ownership results in the loss of an independent voice as well as a decline in market-wide news production. This finding obliterates the conclusions of the recent studies on cross-ownership as well as the basis for the Commission's argument for relaxing the rule in the *Prometheus* case.

The Consumer Commenters' studies were submitted during the comment period in the proceeding. The public was given 15 days to submit reply comments responding to the comments. Media General, Inc., submitted reply comments that included an appendix by Dr. Harold Furchtgott-Roth, entitled "Econometric Review," that raised methodological issues with, and challenged the conclusions of, the Consumer Commenters' studies but did not provide regression analysis of its own.[39]

[39] *In the Matter of 2006 Quadrennial Regulatory Review—Review of the Commission's Broadcast Ownership Rules and Other Rules Adopted Pursuant to Section 202 of the Telecommunications Act of 1996; 2002 Biennial Regulatory Review—Review of the Commission's Broadcast Ownership Rules and Other Rules Adopted Pursuant to Section 202 of the Telecommunications Act of 1996; Cross-Ownership of Broadcast Stations and Newspapers; Rules and Policies Concerning Multiple Ownership of Radio Broadcast Stations and Local Markets; Definition of Radio Markets*, MB Docket Nos. 06-121 and 02-277 and MM Docket Nos. 01-235, 01-317, and 00-244, Reply Comments on FCC Research Studies on Media Ownership, Media General, Inc., November 1, 2007, Appendix A.

The Consumer Commenters' Criticisms of the FCC Studies

The Consumer Commenters present a number of criticisms of the FCC studies. Some of these involve relatively narrow technical matters of model specification that are unrelated to whether the models address the right policy issues but may have significant implications for the statistical analysis.[40] These criticisms should be addressed by expert econometricians capable of vetting their seriousness.[41] Other criticisms raise fundamental questions about whether the models in the FCC-commissioned studies address the right policy issues or are constructed in a fashion that allows the statistical results to be unambiguously interpreted. Here are a few of the Consumer Commenters' policy-related criticisms.

Analysis should be performed at the market level, not at the level of individual stations

The Consumer Commenters' most fundamental criticism is that, with the exception of Study 5 on radio ownership, the FCC-sponsored studies address the effect of cross-ownership on the local news output of the cross-owned stations, rather than the effect on the local news output in the entire market:

> From the standpoint of the individual citizen, it is the total amount of available news and the diversity of independent voices offering that news in the entire market that matters. While in some cases there may be an increase in news output at the individual cross-owned station (although much of this is sports and weather), examining the question at the market level reveals a *decline* in the total output of local news for the market as a whole.

It is possible for cross-ownership to lead to increased local news programming by the cross-owned station, but decreased local news programming for the overall market. For example, cross-ownership might reduce the news production costs or increase the advertising revenues of the cross-owned station, thus fostering more spending by that cross-owned station on local news programming, but at the same time reduce the advertising revenues and news audience for competing stations, thus discouraging them from providing local news programming. The latter effect could be greater than the former, resulting in less total local news programming.

Analysis of cross-ownership should distinguish between cross-owned television stations that had been grandfathered in 1975 and those created subsequently by waiver of the rules

The Consumer Commenters claim that there are two very different types of stations that make up the category of television stations cross-owned with newspapers—those that were grandfathered

[40] For example, Consumer Commenters claim that in Studies 3 and 4 the standard errors should be clustered by station or by market to account for non-independence; that in Studies 3, 4, and 6 market-time fixed effects should be included to relax the assumption that time period effects are equal across all markets; and that in Studies 3, 4, and 6 the models should be run with parent fixed-effects.

[41] The technical econometric criticisms of the FCC-commissioned studies will not be addressed in this report. Similarly, an analysis of the technical criticisms of the econometric analysis of the Consumer Commenters' filing falls to expert econometricians to perform.

at the time the cross-ownership rule was first adopted in 1975 and those that have been created subsequently through the waiver process.

> TV-newspaper combinations with waivers involve the recent entry of a TV station into a cross-ownership situation. The owners bought the news operation, they did not create it. To claim that the behavior of the acquired stations reflects the effects of cross-ownership is simply incorrect—in the form of an error of confusing correlation with causation. Cross-ownership did not create the behavior. Since the grandfathered situations have been in place for a long period of time, it is much more reasonable to argue that the behavior of the TV stations in those combinations reflects the long-term effect of cross-ownership.
>
> The waived cross-ownership situations have been created recently, primarily by the merger of highly rated TV stations in large, competitive markets with dominant newspapers. The acquired stations produced more news before they merged and, lacking time series data, the analysis claim, "benefits" of cross-ownership that just reflect the acquisition of a station that already did more news.... The stations that entered into cross-ownership combinations in recent years, subject to waiver, were in less concentrated, larger markets with higher market shares.
>
> The newly minted TV-newspaper combinations are also likely to behave differently for another reason.... [B]ecause they are subject to a waiver, they are likely to be on their best behavior. If the waivers are made permanent by a change in the policy, their behavior may change, perhaps in the direction of the grandfathered stations.

One key study inappropriately addresses all news programming and all public affairs programming rather than local news programming and local public affairs programming

The Consumer Commenters argue that since localism is one of the three primary goals of U.S. media policy, the FCC studies should focus on the impact of media ownership characteristics on local news and public affairs programming. But one key study, Study 4, Section I, "The Impact of Ownership Structure on Television Stations' News and Public Affairs Programming," does not address local news programming or local public affairs programming, but rather looks at the impact of media ownership characteristics on all news programming and all public affairs programming.

Some of the FCC-commissioned models fail to account for key station and market characteristics

The Consumer Commenters, based in part on comments made by the peer reviewers, claim that some of the FCC-commissioned models fail to account and control for key station and market characteristics that may affect programming. These include:

- the existence of a television duopoly in the market/whether a particular station was part of a duopoly.
- the existence of Local Marketing Agreements in the market/whether a particular station was part of an LMA.
- market concentration, as measured by the Herfindahl-Hirschman Index (HHI) used by the antitrust authorities. The three long-standing goals of United States

media policy are localism, diversity of voices, and competition. Market concentration is a measure of competition.

- whether the television station is owned and operated by, or affiliated with, one of the four major television networks (ABC, CBS, Fox, and NBC). These tend to be larger stations, with higher revenues, and might be able to provide more local news programming.
- the age of the television station and/or whether it is a VHF or UHF station. (These two variables are highly correlated because television was first offered over the VHF spectrum and only later offered over UHF spectrum.) VHF signals are stronger and their reception tends to be better, so, other things equal, VHF stations tend to have larger reach and greater revenues, which might increase their ability to provide local news programming. They also are more likely to be owned and operated by, or affiliated with, one of the four major television networks, again influencing revenues and perhaps programming.

The FCC has failed to adequately account for the true level of female and minority ownership or to analyze the impact of relaxing ownership limits on minority ownership

The Consumer Commenters fault the FCC for failing to create an accurate census of the gender and race of broadcast licensees based on its own data and for allegedly commissioning two last-minute studies (Studies 7 and 8) in the absence of usable data on minority ownership. They state that the Commission's flawed data on minority and female ownership infected all of the major statistical studies of the broadcast media (Studies 3, 4.1, and 6) and claim that closer examination of corrected data shows that relaxation of media ownership limits reduces minority ownership.

The Consumer Commenters claim (at p. 14) that the authors of the two external studies of minority issues commissioned by the FCC "abandoned the FCC's data base and were forced to resort to other data bases. Our own efforts to construct an accurate census of minority ownership suggest that the FCC has missed between two-thirds and three-quarters of the stations that are minority/female owned."

According to the Consumer Commenters, the "main issue [with the two studies of minority issues] is the absence of usable data." The authors of Study 7 relied on a Bureau of Census count of firms to estimate minority ownership. But the Consumer Commenters claim that the authors should have counted stations, not firms, since on average minority-owned firms have fewer stations than majority-owned firms, so data on minority-owned broadcast firms as a share of all broadcast firms will overstate the actual representation of minorities in broadcast ownership.

The Consumer Commenters state that the authors of Study 8, which analyzes the impact of the FCC's duopoly rules on minority ownership, sought to build an accurate data base, but did not achieve that goal. Nonetheless, the Consumer Commenters state "the study is supportive of our independent findings. It finds that sales of minority stations were twenty times higher in duopoly markets than in non-duopoly markets. This corroborates the conclusion in our analysis that relaxation of ownership limits has already reduced minority ownership."

But the Consumer Commenters do not explain why they appear to have more confidence in the findings of Study 8, with which they themselves find fault, than in the findings of the other FCC-

commissioned studies, other than that the Study 8 findings are in agreement with their own findings. That confidence appears to be misplaced for several reasons:

- The Consumer Commenters themselves admit the authors of Study 8 were not able to build an accurate minority ownership database. The Consumer Commenters claim that the FCC database missed between two-thirds and three-quarters of the stations that are minority/female owned. Did the database constructed by the authors of Study 8 capture many of those missing, and thus uncounted, minority and female owners? If not, depending on whether the undercount was more pronounced in the earlier or later years of the 1999-2006 period, the findings of Study 8 might understate or overstate the actual reduction in minority and female ownership.
- A further statement by the Consumer Commenters suggests that the database used in Study 8 failed to identify many of the minority and female owned stations that the Consumer Commenters identified. They state that Study 8 "estimates a large decline in the total number of minority owned stations, Free Press [one of the Consumer Commenters] did not identify such a large absolute decline, although it did see a relative decline." If Study 8 overstates the decline in minority-owned stations (especially in the later years of the study period), the Consumer Commenters may have misplaced its confidence in the Study 8 finding that sales of minority stations were twenty times higher in duopoly markets than in non-duopoly markets.
- As explained in the earlier discussion of Study 8, that study improperly attributes all the changes in minority ownership between 1999 and 2006 to the change in the duopoly rule, without controlling for any of the other factors at play during that time, such as the elimination of the minority tax certificate program. Thus, it likely overstates the impact of the change in the duopoly rule on minority ownership.

The study on media ownership characteristics and media bias employs "contentless content analysis" that is flawed, and has other methodological problems

In analyzing the relationship between media ownership and media bias, the author of Study 6 ascribes slant to a media outlet by defining certain words or issues as Democratic or Republican and then counting the number of times the word is used or the issue is covered by stations. What is actually said or shown about the issue is not analyzed. The Consumer Commenters call this "contentless content analysis" and claim that academics and professional journalists have identified four major concerns with the methodology:

- It fails to understand what it means for a reporter to cite a source and to distinguish between ideological opinion in news coverage and reporting.
- The selection of external referents to ascribe ideology to media outlets is inevitably biased.
- Selectivity in coverage of citations leads to bias and questions of unrepresentativeness of the data.
- The creation of single indices to represent complex concepts is flawed.

The Consumer Commenters argue that counting references to phrases or issues does not reveal how those phrases were used or issues portrayed. For example, the study categorizes the Iraq war as a Democratic issue. But during the week covered by the study, President Bush visited 10 states to hold press conferences with local candidates or give major speeches, speaking frequently about the war. Under the methodology used, news coverage of those presidential speeches was likely categorized as having a Democratic slant.

The Consumer Commenters also claim that, by choosing to analyze a single, special week—the week before the 2006 election—rather than the routine practice of building a database from randomly selected days to construct a two-week sample, the author risked using a non-representative sample that might be radically different from normal.

Also, the methodology used in Study 6 is an extension of the methodology used in the research of the peer reviewer of Study 6, and the Consumer Commenters argue that the peer reviewer therefore cannot provide an objective review.

The study on vertical integration ignores several fundamental characteristics of the industry and uses biased data

The Consumer Commenters claim that Study 9 totally ignores several fundamental characteristics of the contemporary video industry, including:

- the relegation of the small number of independent programmers in prime-time to unscripted reality shows;
- the dominance of vertically integrated programming in pilots and syndication;
- the role of suites of cable program networks from dominant content providers that force carriage of those networks;
- program placement in cable tiers that discriminates against independent producers;
- the importance of broadcasters' must-carry/retransmission rights; and
- the resulting vertical integration into cable by the dominant broadcasters through the leveraging of these quasi-property rights.

The Consumer Commenters also claim that the broadcast data set used in Study 9 is biased against a finding of barriers to carriage for independents in two fundamental ways. First, they claim that independents are particularly disadvantaged in the category of new shows and pilots, but the Study 9 data set does not include short-lived shows, thus missing the fact that vertically integrated shows are given many more opportunities to fail. The average ratings of vertically integrated shows are thus likely lower than they are depicted in the data set. The Consumer Commenters allege that this undercuts any analysis that claims that vertically integrated programming and independent programming have equal ratings.

Second, Study 9 counts shows, not hours or time slots. Thus prime-time programming made up of two one-hour affiliated shows and two half-hour unaffiliated shows would be portrayed as equally divided between affiliated and non-affiliated, even though the affiliated programming was on-air twice as long. (The Consumer Commenters do not demonstrate, however, whether the unaffiliated programming tends to be shorter in length than the affiliated programming.)

The Consumer Commenters also focus on a data limitation conceded by the author of Study 9 and addressed by the peer reviewer: that use of revenues data, rather than profits data, due to the lack of data on costs, could lead to bias. The Consumer Commenters argue that the author chose to exclude news programming from his analysis, because it tends to be less costly to produce than scripted programming and therefore would skew the results, but did not exclude reality programming, which also is less costly to produce than scripted programming. But "when we know that independent programmers in prime-time are delivering low-cost reality shows, rather than high-cost scripted entertainment, revenues are a bad measure of short term profits."

The Consumer Commenters also have several criticisms of the cable programming carriage portion of Study 9—its failure to examine movies, which are an increasingly important component of cable programming; its failure to consider the tier on which programming is carried; and its failure to consider the role of broadcast networks, with must-carry/retransmission rights. They also question why the study excludes those cable networks that reach more than 90% or less than 5% of households.

Summary of Data Collection and Analysis

The 10 FCC-commissioned studies, the peer reviews, and the comments and analysis submitted by the Consumer Commenters, in aggregate, provide a huge quantity of data, as well as points of analytical agreement and disagreement, that are helpful in the public policy debate on media ownership. Despite the lack of consensus on many issues, it appears that the following general statements can be made about the status of the data collection and analysis available to policy makers.

- Large, systematic, detailed, and accurate data sets on media ownership characteristics, viewer/listener preferences, and programming are now available for analysts and policy makers.
- But several gaps remain in data collection. Most significantly the databases on minority and female ownership of broadcast and telecommunications properties are incomplete and/or inaccurate, and statistical analysis based on those data would not be reliable.
- In addition, since most programming has been made available to consumers either as "free" over-the-air programming or as part of a large bundled tier of programming, there is very little information on the intensity of demand—how much people value and would be willing to pay—for individual programs or channels. Also, although MVPDs increasingly offer their programming through multiple bundled tiers, the FCC does not appear to have collected data on the specific tiers on which programming is offered.
- Although the 10 FCC-commissioned studies present a large number of statistical findings, many of these relationships are not statistically significant across alternative model specifications. This has led the researchers and peer reviewers to offer disclaimers that the findings are not robust and where they find statistical relationships they demonstrate correlation, not causality.
- Some of the researchers found that demand variables (such as the preferences of viewers, or the length of commute time for radio listeners) have a stronger influence over programming decisions than supply variables (such as ownership

characteristics). But the implications of this finding has been open to competing interpretations. Some researchers have suggested this implies that ownership limits have little impact on the goals of localism and diversity. But other researchers have suggested this shows that ownership limits ensure more diversity of voices without sacrificing local news and public affairs programming.

- Although several of the commissioned studies included lengthy discussions of cable ownership and programming as well as broadcast ownership and programming, only the study on vertical integration performed statistical analysis of the relationship between cable ownership and programming.
- The peer reviewers and the Consumer Commenters identified a number of possible technical problems in the econometric analyses performed in the 10 studies. The potentially most noteworthy criticism appears to be that all but one of the studies addressed the impact of media ownership characteristics on the programming provided by individual cross-owned stations, not on the total programming available to consumers in the local market, which arguably is the key public policy concern. No process is in place to determine whether the criticisms are valid and/or whether the study results are reliable.
- The Consumer Commenters claim that, when they modified the FCC-commissioned studies to take into account these criticisms, they obtained robust results demonstrating that loosening the media ownership limits harmed the public interest, though their results were not always consistent across model specifications. Their modified studies have not yet been subject to full review by others, though they were criticized in an econometric review by Harold Furchtgott-Roth that was appended to the reply comments of Media General.[42]

Public Policy Implications

The 1996 Telecommunications Act instructs the FCC to periodically review its media ownership rules to determine whether they are still in the public interest, and to modify or eliminate the rules if appropriate. At the same time, the *Prometheus* decision requires the Commission to justify "with reasoned analysis" any explicit numerical limits in its rules.[43] The 10 FCC-commissioned studies are intended to provide data and analysis that support such reasoned analysis.

Those studies and the additional data collection and analysis performed by the Consumer Commenters collectively provide policy makers and interested parties with far more detailed and accurate media ownership, viewer/listener preference, and programming databases than were previously available. However, the FCC staff, commissioned researchers, peer reviewers, and commenting parties have identified continued gaps both in data collection and in data analysis, especially with respect to minority ownership. On one hand, those gaps may render the current record insufficient for the FCC to perform reasoned analysis of some of the media ownership rules. On the other hand, the data collection and analysis performed to date provide very useful insights that may help guide and direct the public policy discussion.

[42] See footnote 39 above.

[43] *Prometheus*, 373 F.3d at 435.

There is one additional complication. The FCC is instructed to make a public interest determination, with diversity of voices one of the public interest goals, but there is no single understanding of what is meant by diversity of voices. Diversity might refer to, among other things, the number of different viewpoints on a particular subject, or the number of different issues that are addressed by media in a market, or the variety of programming offered in a market, or the number of different gatekeepers who determine what programming is provided, or some combination of these and other possible concepts of diversity. As will be discussed below, this could be of particular concern if FCC rules, particularly as they involve minority ownership, are reviewed by the courts.

The FCC Has Failed to Collect Data Needed to Address the Impact of the Media Ownership Rules on Minority and Female Media Ownership

Although three of the 10 FCC-commissioned studies attempted to collect data on minority and female ownership issues, and the Consumer Commenters attempted to supplement that data collection with their own effort, all the researchers (and the peer reviewers) agree that the FCC's databases on minority and female ownership are inaccurate and incomplete and their use for policy analysis would be fraught with risk. This may have significant policy implications.

In its *Prometheus* decision, the Third Circuit instructed the FCC to consider the impact of changes in its media ownership rules on minority ownership.[44] Without accurate data on minority (and female) ownership, it is impossible to perform such analysis. For example, one of the interesting hypotheses raised in Study 8 that merits serious analysis is that loosening the television duopoly rule reduced opportunities for minority ownership because it increased demand for stations that were attractive as second television properties in a market, and the resulting sharp increase in station prices placed minority-owned stations in "double jeopardy" because they could not afford to trade up to better facilities and the duopoly stations against which they were competing became parts of large broadcast groups capable of bringing significant economies of scale to the market. A related hypothesis is that further loosening of the duopoly rule would further reduce opportunities for minority ownership. Although Study 8 did not properly test this hypothesis because it failed to take into account concurrent changes that might have affected minority ownership (such as elimination of the minority tax certificate program), even if it had been constructed properly its results would have been suspect because they, by necessity, would have been based on the only available data on minority ownership, which is recognized by all to be inaccurate and incomplete. The same problem arises with respect to the impact of each and every media ownership rule on minority and female ownership. It is possible that the Third Circuit would not approve any FCC media ownership rule until the Commission has developed a minority ownership database of sufficient accuracy to allow for reliable testing of the impact of the rules on minority ownership.

[44] Although that instruction applied specifically to the FCC's elimination of the Failed Station Solicitation Rule, the language (provided at pp. 1-2 above) would appear to be applicable to all the FCC's media ownership rules.

The FCC May Not Have Data on Program Diversity That the Courts May Require

Congress and the FCC have long held that diversity of ownership fosters diversity of voices and have supported programs to foster minority ownership. However, any governmental measures to facilitate minority broadcast entry that are based on racial classification must satisfy the heightened constitutional standards that apply to governmental preferences for minorities under the Equal Protection Clause. The Supreme Court's ruling in *Adarand Constructors, Inc. v. Peña*[45] requires that governmental measures based on racial classifications be analyzed using a "strict scrutiny" standard under which they would be deemed constitutional only if they are "narrowly tailored measures" that "further a compelling governmental interest."

It is easier to meet these standards if race is but one of several criteria for program eligibility and not a definitive criterion.[46] Proponents of measures to facilitate minority broadcast entry have been concerned, however, that broadening eligibility for such programs to include all small businesses might fail to foster diversity because focusing solely on economic disadvantage fails to take into account the social disadvantage suffered by certain groups.[47] For example, the children of established business people might qualify under the small business criterion. Proponents therefore have proposed constructing a definition of socially and economically disadvantaged businesses (SDBs) that would grant eligibility to individuals with social disadvantages stemming either from individualized factors or from membership in a class (such as a racial group) for which discrimination has inhibited entry and financing. In its August 1, 2007 Second Further Notice,[48] the FCC sought comment on how to define SDBs in a fashion that would satisfy constitutional standards.

While it is not possible to predict what SDB definition would satisfy the courts, it is possible to review past court decisions and dissents to identify the type of information the courts might demand in support of any definition. For example, if a Supreme Court ruling were to follow the line of argument in a dissent, joined by two current Supreme Court Justices (Scalia and Kennedy), to the 1990 decision, *Metro Broadcasting, Inc. v. Federal Communications Commission et al.*,[49] then any definition of SDBs that provides eligibility based on membership in a racial group, and not just on individual status, might require empirical evidence to demonstrate the nexus between membership in that group and the objective of the program.[50] The dissent states:

> The FCC assumes a particularly strong correlation of race and behavior. The FCC justifies its conclusion that insufficiently diverse viewpoints are broadcast by reference to the percentage of minority-owned stations. This assumption is correct only to the extent that minority-owned stations provide the desired additional views, and that stations owned by individuals not favored by the preferences cannot, or at least do not, broadcast

[45] 515 U.S. 200 (1995).

[46] For a detailed discussion of the legal issues surrounding governmental measures based on racial classifications, see CRS Report RL34269, *Minority Ownership of Broadcast Properties: A Legal Analysis*, by (name redacted).

[47] See, for example, the discussion of the proposed "Transfer Restriction of Grandfathered Clusters to SDBs," in the Second Further Notice at p. 12.

[48] Second Further Notice at ¶ 13.

[49] 497 U.S. 547.

[50] This is not to suggest that evidence of such a nexus was the sole constitutional concern raised in the dissent.

> underrepresented programming. Additionally, the FCC's focus on ownership to improve programming assumes that preferences linked to race are so strong that they will dictate the owner's behavior in operating the station, overcoming the owner's personal inclinations and regard for the market. (at pp. 618-619)
>
> [O]ne particular flaw underscores the Government's ill fit of means to ends. The FCC's policies assume, and rely upon, the existence of a tightly bound "nexus" between the owners' race and the resulting programming.... Three difficulties suggest that the nexus between owners' race and programming is considerably less than substantial. First, the market shapes programming to a tremendous extent. Members of minority groups who own licenses might be thought, like other owners, to seek broadcast programs that will attract and retain audiences, rather than programs that reflect the owner's tastes and preferences.... Second, station owners have only limited control over the content of programming.... Third, the FCC had absolutely no factual basis for the nexus when it adopted the policies and has since established none to support its existence. (at pp. 626-627)

If this view were to gain the support of the majority of the Supreme Court, it would appear that if the FCC implements programs that provide preferences to SDBs, and some entities qualify as SDBs as part of a socially disadvantaged racial group rather than a socially disadvantaged individual, the burden would be on the Commission to demonstrate the nexus between favoring that group and the compelling government interest in fostering diversity of voices. As discussed earlier, there is no single understanding of diversity of voices. One possible meaning could be the diversity of issues addressed in local news and public affairs programming. A second meaning could be diversity in programming in the sense of an identifiable target audience. Whatever meaning of diversity is used, the FCC would have the burden to show that the broadcast ownership by members of the socially disadvantaged minority group affects programming in a fashion that fosters diversity.

But the FCC apparently has not collected the data needed to make such a showing. It does not have an accurate database on minority ownership. Nor, if diverse programming is a compelling government interest, has it established that diverse programming is not currently being sufficiently provided but could be expected to be provided in greater quantity by minority owners. The Courts might expect the FCC, for example, to have performed a survey to identify the types of issues that are of particular interest to socially and economically disadvantaged groups—perhaps issues of homelessness, housing, discrimination, lack of public transportation—and then to have collected data on the local news and public affairs programming of all broadcast stations to determine whether stations owned by the racial minorities included in the SDB definition adopted by the FCC offer significantly more programming that addresses those issues than non-minority-owned stations. No such data collection and analysis have been put forward.

The Data Collection and Analysis Performed to Date Suggest That There May Be Public Interest Benefits to Employing Case-by-Case Reviews Rather than Bright-Line Ownership Limitations

The FCC's media ownership rules are applied when an entity proposes to make an acquisition that would increase its media holdings nationally or locally. In its June 2, 2003 order, the FCC reviewed the advantages and disadvantages of implementing bright line rules that incorporate specific limits on the number of media outlets a company can own in a local market (without regard to the market-specific share of the post-merger company) vs. implementing flexible, yet quantifiable rules that would allow for case-by-case reviews that take into account market-

specific and company-specific market shares and characteristics. The Commission chose the bright-line approach, in large part because it identified regulatory certainty as an important goal in addition to the three traditional goals of diversity, localism, and competition.[51] It stated:

> Any benefit to precision of a case-by-case review is outweighed, in our view, by the harm caused by a lack of regulatory certainty to the affected firms and to the capital markets that fund the growth and innovation in the media industry. Companies seeking to enter or exit the media market or seeking to grow larger or smaller will all benefit from clear rules in making business plans and investment decisions. Clear structural rules permit planning of financial transactions, ease application processing, and minimize regulatory costs.[52]

After the Third Circuit remanded the FCC rules, then-chairman Powell reportedly stated in an interview that:

> It may not be possible to line-draw. Part of me says maybe the best answer is to evaluate on a case-by-case basis. The commission may end up getting more pushed in that direction.[53]

Given that the Third Circuit explicitly gave the FCC the opportunity "to justify or modify its approach to setting numerical limits," it did not signal a preference for a case-by-case approach vs. a bright-line rule.

Currently, the FCC continues to use bright-line rules that set numerical limits. (Some of those limits are set by statute, not by FCC rulemaking.) But in its 2006 Further Notice, the Commission did ask, "whether our goals would be better addressed by employing an alternative regulatory scheme or set of rules."[54] Several aspects of the data collection and analysis performed to date suggest that it might be difficult to construct bright-line numerical limits or that such numerical limits might not always be effective in fostering diversity, localism, and competition.

- Although literally thousands of regression analyses have been performed by multiple researchers in an effort to identify relationships between various media ownership characteristics and the amount or type of various programming aired, the researchers report very few strong findings. Often, a statistically significant relationship is found with one particular model specification, but not found if the model specification is changed. This led many of the researchers and peer reviewers to emphasize that the statistical findings were not robust. Where relationships are identified, the researchers tend to emphasize that these demonstrate correlation, not causality.
- Where relationships were found between an ownership characteristic and a programming objective, the studies were not structured to identify particular

[51] *In the Matter of 2002 Biennial Regulatory Review—Review of the Commission's Broadcast Ownership Rules and Other Rules Adopted Pursuant to Section 202 of the Telecommunications Act of 1996; Cross-Ownership of Broadcast Stations and Newspaper*; *Rules and Policies Concerning Multiple Ownership of Radio Broadcast Stations in Local Markets*; *Definition of Radio Markets Definition of Radio Markets for Areas Not Located in an Arbitron Survey Area*, MB Docket Nos. 02-277 and 03-130 and MM Docket Nos. 01-235, 01-317, and 00-244, Report and Order and Notice of Proposed Rule Making, adopted June 2, 2003 and released July 2, 2003, at paras. 80-85.

[52] Ibid., at para. 83, footnote omitted.

[53] Frank Ahrens, "Powell Calls Rejection of Media Rules a Disappointment," *Washington Post*, June 29, 2004, at pp. E1 and E5.

[54] See footnote 8 above.

threshold ownership levels that could be used as the basis for setting numerical limits because moving beyond those levels might threaten policy goals. In her internal memorandum,[55] former FCC chief economist Leslie Marx laid out a possible methodology for determining "the critical number of outlets" required to be reasonably sure that the goals of competition, diversity, and localism are met, as part of a basis for justifying relaxation of newspaper-broadcast cross-ownership restriction. But that analysis was at the drawing board stage, not complete, and it is not clear whether such models would generate statistical results sufficiently robust to justify particular numerical levels.

- Study 9 found robust empirical evidence that a large fraction—typically the majority—of the programming on any broadcast network during prime-time was made in-house. But the findings explicitly ruled out a cost-based efficiency explanation for that vertical integration of broadcast networks into program production. Nor did the study find an efficiency explanation for the vertical integration of cable systems into cable network production. The peer reviewer commented that "the overwhelming majority of 'independent' cable networks successfully launched in the period of the study are owned by affiliates of large media conglomerates who do not have cable system interests ... which implies that the financial resources or bargaining leverage in common to the large corporations which also own numerous other established networks, rather than vertical integration itself, may be the most significant advantage that successful cable network suppliers now have." It appears that the vertical integration that has decreased the diversity of program production sources is not driven by efficiency considerations. If that is the case, then a bright-line rule that treats a broadcast station that is owned and operated by a major broadcast network exactly the same as an independently owned station would fail to take into account the impact of vertical integration on diversity and might not be as effective as case-by-case analysis in determining the impact of acquisitions with vertical elements on one measure of diversity.
- The Consumer Commenters claim that the large media companies that own broadcast networks have been able to use their must-carry and retransmission consent rights to obtain broad MVPD carriage of their expanded suites of broadcast and cable networks, thus reducing the diversity of cable network program sources. The must-carry and retransmission consent rules were implemented in the early 1990s to protect broadcasters from cable companies that were monopsony purchasers of broadcast programming. Now that cable companies face competition from DBS providers and telephone companies, and broadcasters have the retransmission rights to "must-have" sports and local programming that cable companies need to carry or risk the loss of subscribers to those competing MVPDs that do carry the programming, the broadcasters enjoy a much stronger negotiating position (though the large cable companies that have created large regional clusters appear to have countervailing leverage).[56]

[55] See footnote 21 above.

[56] For example, a CRS report on programmer-distributor conflicts found that often a broadcaster involved in a carriage dispute owned or controlled more than one broadcast station in a small or medium sized local market. It appears that where a broadcaster owns or controls two stations that are affiliated with major networks, that potentially gives the broadcaster control (through its retransmission consent rights) over two sets of must-have programming and places a distributor, especially a relatively small cable operator, in a very weak negotiating position since it would be extremely (continued...)

> Currently, it is uncertain what must-carry and retransmission consent rights the broadcasters will have as they begin to transmit multiple digital signals over their licensed spectrum (that is, whether cable systems will be required to carry all of the local broadcast stations' signals or only the primary signal, which is the current requirement). The resolution of this regulatory issue would likely affect how much leverage the various parties would have over programming decisions in local markets. With such uncertainty about future must-carry and retransmission consent rules, there may be advantages to analyzing the public interest implications of proposed acquisitions on a case-by-case basis that can take into account changes in must-carry and retransmission consent rules rather than implementing bright-line numerical limits set under today's regulatory environment.

All of these factors suggest that the FCC might want to use the extensive data it has collected to analyze more fully the advantages and disadvantages of the case-by-case and bright-line limit approaches to reviewing acquisitions that increase an entity's media holdings.

The Data Collected to Date Suggest That Additional Information on Intensity of Demand May Be Needed to Analyze the Implications of Various À La Carte Proposals

There have been a number of proposals to require program networks to be made available—at both the wholesale level and the retail level—on an à la carte basis as well as bundled (as part of a wholesale package or a retail tier). One variation on those proposals would allow retail subscribers to opt out of receiving certain channels on a tier, and get a price reduction for the channels not received.[57]

Proponents of à la carte pricing argue that the industry-wide practice of offering only large bundles of advertiser-supported cable networks forces consumers to purchase networks they are not interested in receiving in order to obtain the networks they want. They further argue that household price sensitivity is greater for individual programs than for a large tier of programs, so tiering makes it easier for MVPDs to raise their prices. In addition, they claim tiered pricing does not take into account the intensity of demand for individual channels in the tier, so it is possible that channels that are highly valued by niche audiences will not be carried while general interest channels that attract a larger audience but are not as highly valued will be carried.

(...continued)

risky to lose carriage of both signals. Or when a broadcaster owns or controls one station that is affiliated with a major broadcast network and a second station that is affiliated with a weaker broadcast network, it may be able to tie carriage of the major broadcast network to a demand that the cable operator also carry—and perhaps pay for carriage of—the signals of the weaker broadcast network, which otherwise the cable company would refuse to pay for or only carry for free as part of a must-carry arrangement. See CRS Report RL34078, *Retransmission Consent and Other Federal Rules Affecting Programmer-Distributor Negotiations: Issues for Congress*, by (name redacted).

[57] One further variation would favor non-commercial channels by only providing a price reduction for opting out of commercial channels.

Proponents of tiering counter that tiering is the most cost-efficient way to offer programming and thus lowers retail prices, that it increases consumer benefits by allowing channel surfing, that it reduces the risks associated with introducing new cable networks, and that it helps support niche networks that could not generate sufficient revenues on their own. They claim that new, independent cable networks, in particular, would have an extremely difficult time making themselves known, and attracting an audience and advertisers, in an à la carte environment.

The 10 FCC-commissioned studies collected some data that are relevant to the debate about these à la carte proposals:

- The Nielsen Survey (Study 1) asked questions about which channels MVPD subscribers would be interested in dropping from their service if they could receive a reduction in cost and which channels they would like to receive but do not currently subscribe to because they would have to subscribe to a larger package of channels. When asked to identify the channels they would be interested in dropping, in no case was a particular channel identified by as many as 5% of the respondents. This might suggest that most respondents could not immediately identify the specific channels they do not wish to receive and pay for or that most respondents are generally content to receive and pay for a large bundle of channels even if they actually watch only a small portion of the channels. When asked to identify which channels they would like to receive but do not currently subscribe to because to do so would require them to subscribe to a larger package, the only channels identified by more than 2% of the respondents were premium channels—HBO (8.9%), Showtime (3.6%), and Cinemax (3.0%)—not advertising-supported channels. Since most households subscribe to the enhanced basic tier, rather than a larger tier, this might suggest that most MVPDs already include most general interest channels on their enhanced basic tiers. The survey questions elicited information on consumer preferences, but did not generate any information on how sizeable a cost reduction consumers would demand to drop channels or how much additional they would be willing to spend to get additional channels. Nor did they generate data to help determine the intensity of demand for individual channels or for tiers of channels.
- Study 3 found, among other things, that niche, or special interest, programming (minority, adult, religious) is less widely available than general interest programming (news, children's, family) and that news and violent programming are the most highly rated programming types, with Latino/Spanish-language, children's, and family programming substantially lower, and non-Latino minority and religious programming lower still.

It is not surprising that non-Latino minority and religious programming, which have low audience ratings, are not widely available. The public policy issue is how best to serve audiences for such niche programming, to further the goal of diversity. As explained earlier, tiered pricing does not take into account the intensity of demand for individual channels in the tier, so it is possible that channels that are highly valued by niche audiences will not be carried while general interest channels that attract a larger audience but are not as highly valued will be carried. MVPDs typically offer mostly general interest and other large audience programming on their expanded basic tiers and make less popular programming available either as part of larger tiers that are

available at higher prices or on an à la carte basis (that could consist of a single channel or several closely related channels).[58] But data are not available on subscribers' intensity of demand for individual channels, so it is not possible to determine whether the tendency toward serving general audiences on basic tiers, and niche audiences on other tiers, increases or decreases overall consumer welfare. It is possible, however, to investigate how the market appears to be operating today.

The market shows that a small number of viewers can support programming if they are willing to pay enough for such programming. For example, although the audiences for non-Spanish foreign language programming, such as Korean language programming, are relatively small, as a result of the willingness of a threshold level of households to pay between $25 and $30 a month for a package of several Korean language channels, both DirecTV and DISH TV offer Korean language packages, as do some cable systems (though these offerings may not be available universally throughout the U.S.). The intensity of demand for non-Spanish foreign language programming appears to be relatively high in households that include members that speak little or no English or that have a strong desire to maintain cultural connections even as their children become more assimilated.

It is not clear whether the intensity of demand for other niche programming, such as non-foreign language minority programming and religious programming, is sufficiently great to support such an à la carte solution. The FCC does not have data available on the intensity of demand for such niche programming. But the absence of à la carte options (in the form of individual channels or very small, specialized bundles) for such programming suggests that the MVPDs do not expect the intensity of demand to be sufficient to support such programming (especially when taking into account the opportunity cost of using scarce channel capacity to serve these niche audiences). Those niches programs are most likely available on larger, higher priced tiers.

Subscribers to niche programming, such as Korean language programming, that is available as part of an à la carte option also must purchase the basic cable tier, because of the statutory requirement that all cable subscribers receive the local broadcast stations as well as any public, educational, and governmental channels required by the franchising authority.[59] But they do not have to purchase any other cable networks.

That is not the case for households that seek niche programming that is not available on an à la carte basis. Some critics of the current system complain that it is unfair to require audiences for niche programming that is not available as part of an à la carte option to purchase tiers that are larger and more expensive than the expanded basic tier in order to receive that niche programming. But absent data on the intensity of demand for the various niche and non-niche channels it is not possible to determine whether those niche channels could survive in an à la carte environment or to demonstrate consumer welfare loss from the current system. And even if

[58] The tiering terminology that is used by the industry and by the FCC often differs from common usage. The basic tier consists of the local broadcast channels; the public, educational, and governmental (PEG) channels required by the local franchising authority; and perhaps a small number of cable networks. Typically, the basic tier consists of approximately 20 channels and is priced in the vicinity of $15-$20 per month. Fewer than 10% of cable subscribers choose the basic tier. The most popular tier is the expanded basic tier, which typically includes everything in the basic tier plus 30 additional cable networks, most of which are general interest networks. The expanded basic cable tier typically is priced at about $50 per month. Other (premium) tiers, available at higher prices, provide additional cable networks, digital programming and/or high definition programming.

[59] These requirements apply to cable service, not to satellite service.

the current system does impose a consumer welfare loss on niche audiences, it is not clear how a regulation could be implemented to identify and require carriage of such niche channels.

Author Contact Information

(name redacted)
Specialist in Telecommunications Policy
[redacted]@crs.loc.gov, 7-....