July 19, 2016

Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street SW
Washington DC 20554

Re: Notice of *Ex Parte* Communication, MB Docket Nos. 14-50, 09-182

Dear Ms. Dortch:

In 1999, the Commission adopted a local television ownership rule that prohibits the common ownership of two TV stations in the same Designated Market Area (DMA) unless (1) at least one of the stations is not among the four highest-ranked stations in the market; and (2) at least eight independently owned and operated full-power broadcast TV stations would remain in the DMA following the combination (the Eight Voices Rule or Rule).[1] Because the majority of local markets have eight or fewer independently owned TV stations, the Rule prevents the combination of two stations in most DMAs. Although the Eight Voices Rule ignores current marketplace realities and lacks an evidentiary basis, the Commission continues 17 years later to maintain this Rule unchanged.[2]

The Commission also has consistently failed to undertake even a basic economic analysis to determine whether its line-drawing exercise is valid. Because the majority of DMAs lack eight independently owned TV stations, the Commission has a data set ready made for analyzing whether those markets suffer from a harmful lack of competition. But despite the availability of clear ways to test empirically its selection of eight voices as the appropriate delineation for its local TV rule, the Commission has failed to identify and analyze any economically or competitively relevant distinctions between markets with fewer than eight stations, and those

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[1] 47 C.F.R. § 73.3555(b).

[2] *See, e.g.*, Written *Ex Parte* Communication of NAB, MB Docket Nos. 14-50, 09-182, at 4-6 (June 21, 2016); Written *Ex Parte* Communication of NAB, MB Docket Nos. 14-50, 09-182 (June 6, 2016) (June 6 *Ex Parte*); Comments of NAB, MB Docket Nos. 14-50, *et al.*, at 31-59 (Aug. 6, 2014) (2014 Comments) (demonstrating that the current local TV ownership rule is contrary to Section 202(h) of the 1996 Telecommunications Act and is arbitrary and capricious, and urging the FCC to remove the eight-voices test and reform the top-four prohibition).

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with eight or more broadcast TV voices. This failure alone renders both the FCC's line drawing and its continued retention of the current local TV rule arbitrary and capricious.[3]

In the attached report, Dr. Kevin W. Caves and Dr. Hal J. Singer of Economists Incorporated provide an economic analysis of the Eight Voices Rule.[4] As summarized below, Drs. Caves and Singer conclude that the Rule "imposes an economically arbitrary threshold, fails to advance the Commission's stated objective of promoting competition, and proscribes transactions that would likely be deemed procompetitive under conventional competition analysis."[5] Contrary to the assumptions underlying the Rule, their econometric analysis shows that, holding other factors constant, local advertising rates are no higher in markets with fewer than eight independently owned TV stations than in markets with eight or more independent stations. In fact, their Study finds that a *reduction* in the number of independently owned TV stations in a local market is statistically associated with a *decrease* in local advertising prices. Particularly in light of the EI Study demonstrating that the assumptions underlying the Eight Voices Rule are invalid, the Commission must eliminate it.[6]

The FCC Has Failed to Offer Economic Theory or Empirical Evidence to Justify its Rule

Given that promoting competition is the FCC's only remaining justification for retaining its local television ownership restrictions,[7] it is particularly notable, as the EI Study initially observes, that the Commission has never provided a real economic justification for its rule restricting local TV ownership.[8] The Commission instead has merely posited an "unproven relationship" between the number of independently owned stations in a local market and the extent of competition.[9] As the Study describes, the FCC has asserted, with no empirical basis, that stations not owned by or affiliated with a major network play a "vital competitive role" in local TV markets, and has stated that "we believe" it "prudent to require the presence of at

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[3] Court have refused to defer to the FCC's line drawing in cases where the Commission lacked factual support for its conclusions, and "use[d] the 'deference' standard of review as if it were an ink blotter waiting for th[e] Court's rubber stamp to validate" its action. *Cincinnati Bell Tel. Co. v. FCC*, 69 F.3d 752, 764 (6th Cir. 1995) (finding that certain wireless industry ownership restrictions were arbitrary). *See also ALLTEL Corp. v. FCC*, 838 F.2d 551, 561 (D.C. Cir. 1988) (noting that "deference is not a blank check").

[4] Kevin W. Caves and Hal J. Singer, Economists Incorporated, "An Economic Analysis of the FCC's Eight Voices Rule" (July 19, 2016) (EI Study or Study).

[5] *Id*. at ¶ 3.

[6] *See, e.g., U.S. Tel. Ass'n v. FCC*, 188 F.3d 521, 524-26 (D.C. Cir. 1999) (reversing FCC where its decision relied on a questionable assumption and failed to give a rational explanation of its choice); *MCI Telecomm. Corp. v. FCC*, 842 F.2d 1296, 1305 (D.C. Cir. 1988) (finding FCC action arbitrary and capricious where its findings appeared premised on an unsupported assumption and FCC lacked sufficient data and evidence); *ALLTEL Corp.,* 838 F.2d at 561 (finding FCC decision arbitrary and capricious, as it "relie[d] on too many questionable assumptions").

[7] See *2006 Quadrennial Regulatory Review*, Report and Order and Order on Reconsideration, 23 FCC Rcd 2010, ¶¶ 97, 100 (2008) (2006 Quadrennial Order); *2014 Quadrennial Regulatory Review*, Further Notice of Proposed Rulemaking and Report and Order, 29 FCC Rcd 4371, ¶ 55 & n.140 (2014) (2014 Quadrennial FNPRM).

[8] EI Study at ¶ 10.

[9] *Id*.

least four . . . competitors not affiliated with a major network in order to ensure vibrant competition" in local markets.[10]

These blind assumptions are particularly unjustifiable, given that the Commission has an obvious data set for analyzing competition in markets with fewer than eight TV stations. As noted above, more than half of the DMAs in the U.S. do not have eight independently owned TV stations. Even the most basic review of the local TV ownership rule must examine the competitive differences, if any, between those markets and those with at least eight independent TV stations. The FCC's unsupported statements of "belief" simply cannot substitute for economic analysis or empirical evidence showing that the eight-voice threshold draws an "economically meaningful delineation" between competitive and uncompetitive local TV markets or between competitive and anticompetitive station combinations.[11]

The Rule Is Inconsistent with Basic Principles of Economics and Competition Analysis

Because the Commission has offered, according to the EI Study, only a "subjective narrative" to justify the Eight Voices Rule,[12] it is unsurprising that the Rule is "inconsistent with basic economic principles."[13] The Study describes in detail the various ways in which the Rule is contrary to fundamental principles of economics and competition analysis.

■ *The Rule assumes the relevant product market, rather than proving it*. The EI Study points out that product market definition is "fundamental to competition analysis," and that economically meaningful market structure metrics cannot be constructed without first undertaking a rigorous market definition exercise.[14] The Eight Voices Rule, however, simply assumes that local broadcast television is a relevant product market and, based on this unsupported assumption, the Rule ignores all competitors to local TV stations, including radio, newspapers, MVPDs and Internet-based competitors.[15] Notably, in its most recent video competition report to Congress, the Commission seemingly recognized that local TV stations do not constitute a separate product market for advertising, stating that "[l]ocal advertisers may choose to advertise using local broadcast television or radio stations, newspapers, regional cable networks, geographically targeted websites, or other local media."[16]

■ *The Eight Voices Rule imposes a rigid screen untethered to economic principles, and ignores the efficiencies of station combinations*. The EI Study explains that, once the relevant

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[10] *Id*. at ¶ 11, quoting 2006 Quadrennial Order at ¶ 99. In its notice for the 2014 quadrennial review, the FCC simply reiterated the same justification for the Eight Voices Rule, citing its 2006 Quadrennial Review Order – rather than any factual evidence or economic theory – as support. *See* 2014 Quadrennial FNPRM at ¶ 54.

[11] EI Study at ¶ 11.

[12] *Id*.

[13] *Id.* at ¶ 12.

[14] *Id.* at ¶ 14.

[15] *Id*. at ¶¶ 16-17.

[16] *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, Seventeenth Annual Report, MB Docket No. 15-158, at ¶ 121 (May 6, 2016) (17th Video Competition Report) (discussing the broadcast television industry and local advertising revenue).

market has been properly defined, economists and antitrust practitioners often employ measures of market share and indices of concentration, such as the Herfindahl-Hirschman Index (HHI), to analyze competition.[17] These measures of market concentration, however, are not considered in isolation, but typically are used to guide subsequent competitive analysis in conjunction with other evidence of competitive effects. They are not, as the EI Study stresses, "rigid screen[s]" that separate competitively benign mergers from anticompetitive ones, but provide one way to identify mergers unlikely to raise competitive concerns from those meriting further examination to determine "whether other competitive factors confirm, reinforce, or counteract the potentially harmful effects of increased concentration."[18]

The Eight Voices Rule, in contrast, is precisely the type of rigid screen eschewed by the antitrust authorities. The Rule proscribes any transaction resulting in seven or fewer independently owned TV stations in all local markets, regardless of the actual competitive conditions in any specific local market and regardless of the efficiencies – however strong – produced by a proposed combination.[19] In light of empirical evidence that common ownership of TV stations can lead to "substantial efficiencies," the EI Study finds it "particularly nonsensical" that the Eight Voices Rule completely ignores merger-related efficiencies.[20]

■ *The Eight Voices Rule ignores dramatic changes in the competitive environment*. The EI Study additionally points out that the Rule is even less relevant after accounting for competition to local TV stations from non-broadcast sources.[21] As the Study describes, and as NAB has previously demonstrated,[22] video programming markets have become increasingly fragmented, with increased entry by and competition from basic and premium cable and online video services offering more and more programming options and capturing larger and larger numbers of viewers. Today, basic cable alone has a viewing share about double that of

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[17] EI Study at ¶ 18. Markets are generally characterized as "Unconcentrated" (HHI below 1500); "Moderately Concentrated" (HHI between 1500 and 2500); or Highly Concentrated" (HHI above 2,500). *Id*. at ¶ 19.

[18] *Id.* at ¶ 20, quoting U.S. Dept. of Justice & Federal Trade Comm'n, Horizontal Merger Guidelines at § 5.3 (Aug. 19, 2010) (Merger Guidelines). For example, under these Merger Guidelines, mergers in Moderately Concentrated markets "potentially raise significant competitive concerns and often warrant scrutiny," but do not create a presumption of increased market power. A proposed merger does not trigger such a presumption unless the transaction would result in a Highly Concentrated market structure, and the merger would increase the HHI by at least 200 points. Even mergers resulting in Highly Concentrated markets are not proscribed by the Merger Guidelines, but merely generate a presumption that can be rebutted by persuasive evidence showing that the merger is unlikely to enhance market power. *Id*. at ¶ 19.

[19] EI Study at ¶¶ 21-22.

[20] *Id*. at ¶ 22 & note 36 (citing various studies). Several of these studies concluded that common ownership of TV stations allows broadcasters to take advantage of economies of scale and scope, which leads to increased provision of local news. *See, e.g*., Decl. of Mark Israel and Allan Shampine, Compass Lexecon, attached to NAB Comments, MB Docket No. 10-71, at Appendix B (June 26, 2014); J.A. Eisenach and K.W. Caves, "The Effects of Regulation on Economies of Scale and Scope in TV Broadcasting" (June 2011), Attachment A to Reply Decl. of J.A. Eisenach and K.W. Caves, attached to NAB Reply Comments, MB Docket No. 10-71 (June 27, 2011); Bruce M. Owen, *et al*., "Effect of Common Ownership or Operation on Television News Carriage, Quantity and Quality," attached to Comments of Fox Entertainment Group, Inc., *et al*., MB Docket No. 02-277 (Jan. 2, 2003).

[21] EI Study at ¶ 26.

[22] *See, e.g*., June 6 *Ex Parte* at 5-7; NAB Comments, MB Docket No. 15-216, at 8-15 (Dec. 1, 2015).

TV broadcasting, and cable and online video services produce 64 percent of all scripted series (up from only 21 percent in 2002).[23] The EI Study documents that competition for local advertising dollars has intensified as well, with some analysts estimating that digital now constitutes 40 percent of local advertising spending.[24] The FCC's most recent video competition report cited data showing that local Internet advertising revenue has exceeded local broadcast TV station advertising revenue since 2012.[25]

The Study accordingly concludes that even partially accounting for non-broadcast competition to TV stations would imply that local programming markets are unconcentrated and that competitive entry and expansion have been pervasive.[26] Yet because the FCC treats all non-broadcast competitors as irrelevant, the Eight Voices Rule prohibits common ownership of two TV stations in most DMAs and strictly limits combinations even in large markets.[27]

Econometric Analysis Confirms that the Eight Voices Rule Is Based on Invalid Assumptions

The EI Study performs an empirical test of the key assumption underlying the Eight Voices Rule, which presumes that local markets with fewer independently owned TV stations (specifically, fewer than eight) are less competitive than markets with greater numbers of independent TV stations (specifically, eight or more). After controlling for other factors that could affect local advertising rates, including a local market's income, population and demographics, the data fail to support the FCC's assumption and, in fact, indicate just the opposite: The Study finds that a *reduction* in the number of independently owned TV stations in a local market is "correlated with *lower* advertising prices."[28]

More specifically, the EI Study's econometric analysis shows that markets with fewer than eight independently owned TV stations do not have higher local advertising rates than markets with eight or more stations. This empirical finding undermines the Eight Voices Rule, which assumes that markets with eight or more independently owned TV stations should, all else equal, enjoy lower advertising prices as a consequence of intensified competition. Instead, the Study finds that local advertising prices in markets with eight or more independent stations are "statistically indistinguishable from prices in markets with fewer voices."[29] The data also indicate that local markets with *fewer* than nine independently owned TV stations are "statistically associated with *lower* local advertising rates than are

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[23] EI Study at ¶¶ 30-31 & Figures 1 & 2.

[24] *Id.* at ¶ 27 & n.41. *See also* June 6 *Ex Parte* at 7-9; 2014 Comments at 31-50 (documenting competition to broadcast TV stations in the current advertising marketplace).

[25] EI Study at ¶ 27, citing 17th Video Competition Report at ¶ 121, Table III.B.5 (also showing that, in 2014, local cable TV advertising revenue totaled about 45 percent of local broadcast TV advertising revenue).

[26] EI Study at ¶ 32; *see id*. at ¶ 30 (explaining that successful entry by competitors indicates a competitive market, making it more difficult for incumbent firms to exercise market power).

[27] *Id*. at ¶ 32.

[28] *Id.* at ¶ 33; *see id*. at ¶¶ 34-36 for a description of the Study's data set and summary statistics.

[29] *Id*. at ¶ 40.

DMAs with nine or more voices."[30] In further examining the effect of an increase or decrease in the number of independent TV voices in a local market on the prevailing advertising rates, the Study, contrary to the assumptions of the Eight Voices Rule, finds that a *decrease* in the number of independent TV voices serving a local market is statistically associated with *lower*, rather than higher, local advertising prices.[31]

Given that these econometric analyses produce results opposite to those predicted by the assumptions underlying the Eight Voices Rule, the EI Study concludes that those assumptions are invalid. Drs. Caves and Singer observe, however, that their findings are consistent with prior work finding that common ownership of TV stations in local markets can lead to substantial efficiencies owing to economies of scope and scale.[32]

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Because the EI Study concludes that the Eight Voices Rule engages in an "arbitrary and unfounded line-drawing exercise," fails to promote competition and prevents consideration of even pro-competitive station combinations,[33] NAB again urges the FCC to eliminate it. As the record in the ownership proceedings shows, the retention of this Rule in today's marketplace is both inconsistent with Section 202(h) and arbitrary and capricious.

Respectfully submitted,

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General Counsel and Executive Vice President
Legal & Regulatory Affairs

Jerianne Timmerman
Senior Vice President and Deputy General Counsel
Legal & Regulatory Affairs

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[30] *Id*. (emphasis added).

[31] *Id*. at ¶¶ 41-42. The results indicate that local advertising rates are expected to rise (fall) by about two percent for each increase (decrease) in the number of independent TV voices. For example, a market affected by transactions that reduced the number of independent voices from ten to five would be predicted to have advertising rates approximately 10 percent lower (equal to the product of five fewer stations and two percent) following the transactions. *Id*. at ¶ 42. Finally, the EI Study examines whether the effect of decreases in the number of independent TV voices on advertising rates varies depending on whether there are fewer than eight voices in the market, and, again, the results are contrary to what the Rule would predict. *See id*. at ¶¶ 43-44.

[32] *Id*. at ¶ 45.

[33] *Id*.

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
2014 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	)	MB Docket No. 14-50
	)	
2010 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	)	MB Docket No. 09-182
	)	
Promoting Diversification of Ownership in the Broadcasting Services	)	MB Docket No. 07-294
	)	
Rules and Policies Concerning Attribution of Joint Sales Agreements in Local Television Markets	)	MB Docket No. 04-256
	)	

An Economic Analysis of the FCC's Eight Voices Rule
Kevin W. Caves and Hal J. Singer
July 19, 2016

INTRODUCTION

1. The Federal Communications Commission's local television ownership rules currently prohibit a merger between two television stations in the same Designated Market Area (DMA) unless (1) at least one of the stations is not among the four highest-ranked stations in the market, and (2) at least eight independently owned and operating commercial and non-commercial full-power broadcast television stations would remain in the DMA following the transaction (the "Eight Voices Rule").[1] Because the majority of local markets have fewer than eight independently owned stations, the Eight Voices Rule prohibits common ownership of two stations in most DMAs.[2]

2. We have been asked by the National Association of Broadcasters (NAB) to provide an economic analysis of the Eight Voices Rule. Our analysis indicates that the Eight Voices Rule is inconsistent with basic principles of economics and antitrust—despite the fact that promoting competition is the Commission's sole remaining justification for retaining its local television ownership restrictions.[3] A meaningful competition analysis would not eschew a rigorous definition of the relevant product market, impose a non-rebuttable presumption of anticompetitive effects using a rigid screen based on simplistic competitor counts, refuse to consider merger-driven efficiencies, or ignore broadcast television's longstanding losses of viewership and advertising dollars to non-broadcast competitors, such as multichannel video

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1. *See, e.g., 2014 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,* MB Docket 14-50, *Further Notice of Proposed Rulemaking and Report and Order* (April 15, 2014), [hereafter "2014 Quadrennial Review FNPRM"], ¶17; ¶¶51-55.
2. *See*, Table 2, *infra*.
3. As explained in Part I, the FCC has already determined that its local television ownership rules are no longer necessary to promote other policy objectives.

programming distributors (MVPDs) and online competitors. Yet the Eight Voices Rule does all of these things.

3. Because the Eight Voices Rule is divorced from economic principles, it would not be expected to promote competition effectively. To test this hypothesis, we conduct an econometric analysis that exploits the fact that more than half of all DMAs have fewer than eight independently owned stations. After controlling for other factors that could affect local advertising rates, such as a local market's income, population, and demographics, we find that markets with fewer than eight stations do not have higher local advertising rates than markets with eight or more stations. In fact, a reduction in the number of independently owned stations serving a local market is statistically associated with a *decrease* in local advertising prices. These findings are inconsistent with the assumptions underlying the Eight Voices Rule, which presumes that markets with fewer than eight independent stations are less competitive than markets with eight or more stations. Our findings are consistent with prior work that has found procompetitive efficiencies (such as reduced operating costs) arising from common ownership of local broadcast stations. We conclude that the Eight Voices Rule imposes an economically arbitrary threshold, fails to advance the Commission's stated objective of promoting competition, and proscribes transactions that would likely be deemed procompetitive under conventional competition analysis.

QUALIFICATIONS

4. Kevin W. Caves a Senior Economist at Economists Incorporated. Dr. Caves worked for the Federal Reserve Bank of New York before receiving his doctorate from the University of California at Los Angeles in 2005, specializing in applied econometrics and industrial organization. Prior to joining Economists Incorporated, he held positions at Deloitte & Touche, Criterion Economics, Empiris LLC, and Navigant Economics. He has prepared expert

analyses and testimony in a variety of industries, including cable, broadcasting, telecommunications networks, freight rail, healthcare, mobile wireless, and pharmaceuticals. Dr. Caves is a regular contributor to peer-reviewed academic journals. His work has appeared in various popular and academic outlets, including *Antitrust, The Antitrust Source, The Atlantic, The Capitol Forum, Communications & Strategies, Competition Policy International, Econometrica, The Economist, The Economists' Voice, Forbes, Information Economics & Policy, Journal of Competition Law & Economics, Labor Law Journal, Regulation, Research in Law & Economics, Review of Network Economics,* and *Telecommunications Policy*. A copy of his curriculum vita is attached at Appendix A.

5. Hal J. Singer is a principal at Economists Incorporated, a senior fellow at George Washington's Institute for Public Policy, and an adjunct professor at Georgetown's McDonough School of Business. Dr. Singer is co-author of the e-book *The Need for Speed: A New Framework for Telecommunications Policy for the 21st Century* (Brookings Press 2013), and the book *Broadband in Europe: How Brussels Can Wire the Information Society* (Kluwer/Springer Press 2005). He has published several book chapters and his articles have appeared in dozens of legal and economic journals.

6. Dr. Singer has testified before Congress on the interplay between antitrust and sector-specific regulation. His scholarship and testimony have been widely cited by courts and regulatory agencies. In several antitrust cases concerning class certification, the district court's order favorably cited Dr. Singer's testimony. In agency reports and orders, his writings have been cited by the Federal Communications Commission, the Federal Trade Commission, and the Department of Justice.

7. Although his consulting experience spans several industries, Dr. Singer has particular expertise in the media industry. He recently advised the Canadian Competition Bureau on a large vertical merger in the cable television industry. He has served as consultant or testifying expert for several media companies, including Apple, AT&T, Bell Canada, Google, Mid-Atlantic Sports Network, NFL Network, Tennis Channel, and Verizon. Dr. Singer is a frequent speaker and editorial writer. His essays have appeared in several leading newspapers and magazines. He earned M.A. and Ph.D. degrees in economics from the Johns Hopkins University and a B.S. *magna cum laude* in economics from Tulane University. A copy of his curriculum vita is attached at Appendix B.

I. BACKGROUND

8. The Commission's broadcast ownership rules have multiple policy objectives, including competition, diversity, and localism.[4] The FCC has not found that local television ownership restrictions are in the public interest since its *2006 Quadrennial Review*,[5] when the Commission justified the Eight Voices Rule as a uniform "line-drawing exercise" applicable to all DMAs.[6] At that time, the Commission recognized that many other types of media, including radio, newspapers, cable, and the Internet, contribute to viewpoint diversity within local markets, and found that its local television ownership rules were therefore not needed to foster diversity.[7]

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4. *See, e.g., 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*, MB Docket No. 06-121, *Report and Order and Order on Reconsideration* (2008), [hereafter "2006 Quadrennial Review Order"], ¶9 ("The media ownership rules are designed to foster the Commission's longstanding policies of competition, diversity, and localism.")

5. *Prometheus Radio Project v. FCC*, Nos. 15-3863, 15-3864, 15-3865, & 15-3866 (3d Cir. 2016) [hereafter, "Prometheus III"], at 53 ("the FCC has not determined since the 2006 Quadrennial Review that it is even in the public interest to limit the number of stations that can be under common control in the same market.")

6. 2006 Quadrennial Review Order ¶91; *see also* 2014 Quadrennial Review FNPRM ¶44, n. 107; *see also Prometheus Radio Project v. FCC*, 652 F.3d 431 (3d Cir. 2011) [hereafter "Prometheus II"], at 37 – 38.

7. 2006 Quadrennial Review Order ¶100. *See also* 2014 Quadrennial Review FNPRM ¶55, n. 140 ("The Commission determined that the primary goal of the local television ownership rule was to promote competition

The Commission also has found that the Eight Voices Rule was not necessary to promote localism, finding instead that common ownership of television stations could improve local programming.[8] That conclusion was supported by economic analysis indicating that common ownership of television stations in local markets can efficiently eliminate redundant expenses and increase opportunities for cross-promotion and related programming, thereby improving local news and public interest programming.[9]

9. The *2006 Quadrennial Review* concluded that ownership restrictions remained necessary to promote competition among local broadcast television stations.[10] In reaching this conclusion, the Commission declined to consider the competitive impact of other video programming outlets such as cable networks, asserting (based on a 2002 proceeding) that non-broadcast competitors were not sufficiently responsive to local market conditions.[11] In any case,

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among local television stations, and not to foster viewpoint diversity because there were other outlets for diversity of viewpoint in local markets...")

8. *Prometheus Radio Project v. FCC*, 373 F. 3d 372 (3d Cir. 2004) [hereafter "Prometheus I"] at 84, citing *Report and Order and Notice of Proposed Rulemaking*, 18 F.C.C.R. 13620 (2003), ¶147.

9. *See, e.g.,* Bruce M. Owen et al., "Effect of Common Ownership or Operation on Television News Carriage, Quantity and Quality," Comments of Fox Entertainment Group, Inc. et al., MB Docket 02-277 (Jan. 2, 2003) [hereafter "Owen et. al. 2003."] *See also* Jeffrey A. Eisenach and Kevin W. Caves, "The Effects of Regulation on Economies of Scale and Scope in TV Broadcasting" (June 2011), at 1-2, Attachment A to Reply Declaration of Jeffrey A. Eisenach and Kevin W. Caves (June 27, 2011) in NAB Reply Comments in MB Docket No. 10-71, at Appendix A (June 27, 2011) [hereafter "Eisenach & Caves 2011"] (concluding that television broadcasting generally, and local news production specifically, are "subject to strong economies of both scale and scope," and that regulations limiting the realization of scale and scope economies will result in higher costs, lower revenues, reduced returns on invested capital, lower output, less local news and, potentially, fewer firms); Declaration of Mark Israel and Allan Shampine, Compass Lexecon, attached to NAB Comments, MB Docket No. 10-71, at Appendix B ¶¶ 49-51 (June 26, 2014) [hereafter "Israel & Shampine 2014"] (finding that economies of scale and scope exist in television broadcasting and lead to increased investment in news programming); Kevin Caves and Hal Singer, "Competition in Local Broadcast Television Advertising Markets" (August 4, 2014) [hereafter Caves & Singer 2014], Attachment A to Comments of NAB, MB Docket No. 14-50 (Aug. 6, 2014) (finding that "duopoly" markets with commonly owned stations do not have higher local advertising prices, and finding that joint-sales agreements ("JSAs") and shared-services agreements ("SSAs") are also not associated with higher prices; also reporting some evidence that markets with JSAs and SSAs have prices about 16 percent lower than other markets).

10. 2006 Quadrennial Review Order ¶¶100-101.

11. *Id.* ¶101; *see also* ¶97 ("As the Commission concluded in the *2002 Biennial Review Order*, we cannot rely on competition from cable programmers to respond to local needs and interests because most cable programming is provided by cable networks, and those networks respond primarily to national and regional forces.")

we understand that the FCC's sole remaining rationale for the Eight Voices Rule is "premised on competition alone."[12]

10. Despite its reliance on economic criteria to justify the Eight Voices Rule, the Commission has never provided an economic basis for its restrictions on local television ownership. The FCC has relied instead on a posited but unproven relationship between the number of independently owned stations serving a local market and the extent of competition. Specifically, the Commission has claimed that ownership restrictions are necessary to provide incentives to "invest in better programming and to provide programming that is preferred by viewers"[13] and to "preserve competition for advertising by local businesses that want to advertise their products on television."[14]

11. The Commission has posited that broadcasters' incentives to compete would be "diminished by mergers between stations that reduce competition to anticompetitive levels."[15] Yet the Commission has provided no economic analysis or evidence to indicate that the line-drawing exercise imposed by the Eight Voices Rule provides an economically meaningful delineation between anticompetitive and procompetitive mergers among local broadcasters that is somehow generalizable to all local markets. Instead, the basis for the Commission's line-drawing exercise has been limited to the subjective narrative below:

> Recognizing the vital competitive role played in local television markets by stations that are not owned by or affiliated with the major networks' stations, we believe that it is important that there be a sufficient number of such stations that are truly independent of the major network stations in each market and that will therefore vigorously compete with each of the major network stations for viewers. Such vibrant competition will improve the programming aired by both independent stations and major network stations. In addition, we believe that the Eight Voices Rule is supported by the general structure of the local television marketplace….[T]he Commission itself has found that there is generally a

12. Prometheus II at 37.
13. 2006 Quadrennial Review Order ¶97.
14. *Id.*
15. *Id.*

> significant gap between the top four stations in a market and the remaining stations. In light of this concentration among the top four stations in most markets, we believe that it is prudent to require the presence of at least four (rather than two) competitors not affiliated with a major network in order to ensure vibrant competition in the local television marketplace. We believe that such competition will ultimately benefit the public by spurring more innovative programming and more programming responsive to local needs and interests.[16]

12. The FCC provides no empirical basis for the belief that local stations not owned by or affiliated with a major network play a "vital competitive role,"[17] nor does the Commission define what is meant by this characterization. The only empirical content in the passage is limited to the (nearly tautological) observation that local television station market shares tend to be unevenly distributed across local broadcasters, with the top four stations capturing significantly more than others.[18] Given the lack of economic theory or empirical evidence to justify the Eight Voices Rule, it is unsurprising that the Rule is inconsistent with basic economic principles, as explained in the next section.

II. THE EIGHT VOICES RULE IS INCONSISTENT WITH BASIC PRINCIPLES OF ECONOMICS AND ANTITRUST

13. The Eight Voices Rule is not grounded in any definition of the relevant product market, making it impossible for the Commission to construct meaningful measures of market structure. The Rule nonetheless uses a crude market-structure metric to impose a non-rebuttable presumption of anticompetitive harm for any merger resulting in fewer than eight independently owned television stations serving a local market. The Rule does not consider procompetitive merger-driven efficiencies, nor does it consider broadcasters' steady and consistent loss of viewership and advertising dollars to non-broadcast competitors in recent decades. For all of these

16. 2006 Quadrennial Review Order ¶99; *see also* Prometheus II at 38-39.
17. 2006 Quadrennial Review Order ¶99.
18. In its 2014 Quadrennial Review, the Commission simply reiterated the same justification for the Eight Voices Rule. *See* 2014 Quadrennial Review FNPRM ¶54.

reasons, the Rule cannot be reconciled with basic principles of economics and competition analysis.

A. The Eight Voices Rule Assumes The Relevant Product Market, Rather Than Proving It

14. When analyzing market structure, antitrust practitioners and economists rely (in part) on market shares and indices of market concentration. Economically meaningful market structure metrics cannot be constructed without first undertaking a rigorous market definition exercise, which identifies participants in the relevant product market. Product market definition is therefore fundamental to competition analysis.[19] As the *Horizontal Merger Guidelines* explain, the antitrust agencies define the relevant market by performing a "hypothetical monopolist test," or "SSNIP test," which requires that the product market contain enough substitute products so that it could be subject to a significant post-merger exercise of market power:

> The hypothetical monopolist test requires that a product market contain enough substitute products so that it could be subject to post-merger exercise of market power significantly exceeding that existing absent the merger. Specifically, the test requires that a hypothetical profit-maximizing firm, not subject to price regulation, that was the only present and future seller of those products ("hypothetical monopolist") likely would impose at least a small but significant and non-transitory increase in price ("SSNIP") on at least one product in the market, including at least one product sold by one of the merging firms.[20]

15. The exercise of market power need not take the form of a price increase; it can also manifest itself as a degradation in non-price characteristics, such as a diminution in product quality or innovation.[21] If the candidate market does not contain sufficient substitute products

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19. Product market definition may not be necessary when then there is direct evidence of anticompetitive effects. However, that is not the case here; to our knowledge the Commission has not produced such evidence for any local market, let alone for all local markets. *See* United States Department of Justice & Federal Trade Commission, Horizontal Merger Guidelines (August 19, 2010) [hereafter "Merger Guidelines"], §4 ("Evidence of competitive effects can inform market definition, just as market definition can be informative regarding competitive effects.")

20. *Id.* §4.1.1.

21. *Id.* §1 ("When the Agencies investigate whether a merger may lead to a substantial lessening of non-price competition, they employ an approach analogous to that used to evaluate price competition.") *See also* §4.

over which a hypothetical monopolist may profitably exercise market power, then the candidate market is expanded by adding additional substitute products. In this way, the hypothetical monopolist test ensures that markets are not defined too narrowly. If they are, then estimates of market shares and concentration—and inferences regarding market power—will be erroneously inflated.

16. The Eight Voices Rule ignores the product market definition exercise altogether. Instead of analyzing local broadcast television as a *potential* candidate market, the Rule assumes that local broadcast television is the relevant product market, such that competition from non-broadcast competitors cannot be counted on to prevent the profitable exercise of anticompetitive market power. In the *2006 Quadrennial Review*, the Commission relied on its "assessment that the Commission's local television ownership rule promotes competition for viewers and advertisers within local television markets."[22] This assessment is not based on any effort to analyze the relevant product market, but instead is limited to the assumption that "[l]ocal broadcast television stations have incentives to respond to conditions in local markets, and those incentives may be diminished by mergers between stations that reduce competition to anticompetitive levels."[23] No evidence or analysis is presented to support the assumption that only local television broadcasters face incentives to respond to local conditions—as opposed to local websites, local radio stations, local newspapers, cable channels with local advertising, and so on. In fact, the Commission's assumption directly contradicts its own assessment of the broadcast industry in its most recent video competition report, where it found that "[l]ocal advertisers may

22. 2006 Quadrennial Review Order ¶97.
23. *Id*.

choose to advertise using local broadcast television or radio stations, newspapers, regional cable networks, geographically targeted websites, or other local media."[24]

17. Based on its underlying assumption regarding the relevant product market, the Eight Voices Rule ignores all non-broadcast television competitors, including radio, newspapers, MVPDs, and Internet-based competitors.[25] This reasoning is circular: One cannot conclude that certain competitors (let alone all non-broadcast competitors) should be excluded from the market without first defining the relevant market. It is the market definition exercise itself that determines which competitors are relevant and which are not.

B. The Eight Voices Rule Imposes a Rigid Screen Untethered to Economic Principles, And Does Not Consider Merger-Driven Efficiencies

18. Once the relevant market has been properly defined, antitrust practitioners often employ measures of market share and indices of concentration, such as the Herfindahl-Hirschman Index ("HHI"), to analyze competition. Although measurements of market concentration are "often one useful indicator of likely competitive effects,"[26] they are not analyzed in isolation, and are typically considered in conjunction with other evidence of competitive effects.[27]

19. To this end, market concentration metrics are typically used as a device to guide subsequent analysis. For example, the antitrust agencies generally categorize markets as either (1) "Unconcentrated" (HHI below 1500); (2) "Moderately Concentrated" (HHI between 1500 and 2500); or (3) "Highly Concentrated" (HHI above 2,500).[28] If the relevant product market is Unconcentrated, mergers are "unlikely to have adverse competitive effects and ordinarily require

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24. *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming, Seventeenth Report*, MB Docket No. 15-158 (May 6, 2016) [hereafter "17th Video Competition Report"], ¶121.
25. 2006 Quadrennial Review Order ¶¶97, ¶101.
26. Merger Guidelines §5.3.
27. *Id.*
28. *Id.*

no further analysis."[29] On the other hand, mergers in Moderately Concentrated markets "potentially raise significant competitive concerns and often warrant scrutiny."[30] A transaction does not create a presumption of increased market power unless the transaction results in a Highly Concentrated market structure, and the merger would increase the HHI by at least 200 points.[31] Even mergers resulting in Highly Concentrated markets are not proscribed by the *Merger Guidelines*; such markets merely generate a presumption that can be "rebutted by persuasive evidence showing that the merger is unlikely to enhance market power."[32]

20. More generally, as the *Merger Guidelines* make clear, the inferences that can be drawn from market concentration metrics are only a starting point for evaluating the potential competitive effects of the transaction:

> The purpose of these thresholds is not to provide a rigid screen to separate competitively benign mergers from anticompetitive ones, although high levels of concentration do raise concerns. Rather, they provide one way to identify some mergers unlikely to raise competitive concerns and some others for which it is particularly important to examine whether other competitive factors confirm, reinforce, or counteract the potentially harmful effects of increased concentration. The higher the post-merger HHI and the increase in the HHI, the greater are the Agencies' potential competitive concerns and the greater is the likelihood that the Agencies will request additional information to conduct their analysis.[33]

21. In contrast to these well-established antitrust principles, the Eight Voices Rule comprises exactly the type of rigid screen eschewed by the *Merger Guidelines*, imposing a non-rebuttable presumption of anticompetitive effects for any transaction that results in seven or fewer independently owned television stations. The Rule makes no attempt to consider "whether other competitive factors confirm, reinforce, or counteract"[34] the potential for anticompetitive

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29. *Id.*
30. *Id.*
31. *Id.*
32. *Id.*
33. *Id.*
34. *Id.*

conduct—merger-related efficiencies are not considered—and instead imposes a uniform standard that precludes common ownership of two stations in most DMAs. In this sense, the Rule serves as a *per se* ban against broadcast mergers in the same local market under certain conditions.

22. Broadcasters in DMAs with eight or fewer stations cannot even attempt to make a case for common ownership, no matter how compelling the evidence for procompetitive effects may be. This directly contradicts well-established antitrust principles, according to which "a primary benefit of mergers to the economy is their potential to generate significant efficiencies and thus enhance the merged firm's ability and incentive to compete, which may result in lower prices, improved quality, enhanced service, or new products."[35] That the Eight Voices Rule ignores even the potential for merger-driven efficiencies is particularly nonsensical in light of evidence that common ownership of television stations in local markets can lead to substantial efficiencies.[36] (Although the Commission sometimes grants waivers to the Eight Voices Rule under a "failed/failing station" standard, the waivers are "meant to be exceptional relief," and the Commission has indicated reluctance to "significantly expand the circumstances in which a waiver of the local television ownership rule would be granted."[37])

23. Even if the FCC's view of the relevant market were correct, the Eight Voices Rule would not provide a reliable basis for identifying potentially anticompetitive acquisitions. To see this, note that the HHI for a market with seven equal-sized participants is 1,429—below the level considered Unconcentrated by the *Merger Guidelines*.[38] More generally, there exists a continuum

35. *Id.* §10.

36. Prometheus I at 84, citing *Report and Order and Notice of Proposed Rulemaking*, 18 F.C.C.R. 13620 (2003), ¶147. *See also* Owen et. al. 2003; Eisenach & Caves 2011; Israel & Shampine 2014; Caves & Singer 2014. In addition, recent academic research indicates the potential for merger-driven efficiencies on the demand side, with respect to both viewers and advertisers. *See* Bodil Hansen & Hans Keiding, *Equilibria in a Random Viewer Model of Television Broadcasting*, 27(1) JOURNAL OF MEDIA ECONOMICS 3-19 (2014).

37. 2014 Quadrennial Review FNPRM ¶58.

38. Equal to $[(1/7)^2 + (1/7)^2\ (1/7)^2 + (1/7)^2 + (1/7)^2 + (1/7)^2 + (1/7)^2]$x10,000. *See* Merger Guidelines §5.3.

of market structures under which a merger resulting in fewer than eight market participants would produce only a Moderately Concentrated market (HHI between 1,500 and 2,500). All such transactions are prohibited by the Eight Voices rule, despite the fact that these levels of concentration would not create even a presumption of market power (let alone a non-rebuttable presumption) under conventional antitrust standards.

24. To illustrate, Table 1 below displays hypothetical post-merger market shares and the resulting post-merger concentration levels under different scenarios. For example, in column (1), the top four broadcasters control 65 percent of the market after the transaction, yet the market remains Unconcentrated after the merger. In column (2), the top four broadcasters control 75 percent of the market post-merger; there the local market would be considered only Moderately Concentrated. In column (3), only six broadcasters remain after the merger, and the top four broadcasters account for 80 percent of the market, yet the market remains Moderately Concentrated. Finally, in column (4), the top four broadcasters account for 95 percent of the post-merger market, yet the HHI still remains within the Moderately Concentrated range.

TABLE 1: HYPOTHETICAL POST-MERGER SHARES AND CONCENTRATION LEVELS

	Post-Merger Market Shares			
Broadcaster 1	20.0%	25.0%	25.0%	35.0%
Broadcaster 2	15.0%	20.0%	25.0%	20.0%
Broadcaster 3	15.0%	15.0%	15.0%	20.0%
Broadcaster 4	15.0%	15.0%	15.0%	20.0%
Top Four Share	**65.0%**	**75.0%**	**80.0%**	**95.0%**
Broadcaster 5	11.7%	8.3%	10.0%	1.7%
Broadcaster 6	11.7%	8.3%	10.0%	1.7%
Broadcaster 7	11.7%	8.3%	0.0%	1.7%
Post-Merger HHI	**1,483**	**1,683**	**1,900**	**2,433**
Concentration Level	**Unconcentrated**	**Moderate**	**Moderate**	**Moderate**

25. In summary, even if one accepts the FCC's assumed definition of the relevant product market, the Eight Voices Rule does not constitute a reliable competitive screening device.

Instead, the Rule imposes a presumption of anticompetitive effects over transactions that would not justify such a presumption under standard antitrust practice. The Eight Voices Rule compounds this error by making its presumption impossible to overturn, regardless of evidence of procompetitive merger-driven efficiencies. As explained in the next section, the Eight Voices Rule is rendered even less reliable once one accounts for competition from non-broadcast sources, which have proliferated in recent decades.

C. The Eight Voices Rule Ignores Dramatic Changes To The Competitive Environment

26. The Eight Voices Rule is rendered even less relevant once one accounts for competition from non-broadcast sources, because doing so causes estimates of market concentration to fall substantially, and also demonstrates that entry and expansion have occurred repeatedly and successfully. In recent decades, video programming markets have become increasingly fragmented, and competition for viewers and local advertising dollars has intensified. For example, in addition to the hundreds of non-broadcast channels available through cable and DBS, new entrants such as Amazon, Hulu, and Netflix have introduced original content, while others such as Google's YouTube offer user-generated content, all distributed via OTT Internet-based services.[39]

27. There is also substantial evidence of robust and rapidly expanding competition from Internet-based and mobile advertising. According to BIA/Kelsey, online/digital advertising accounted for about 27 percent of local advertising expenditures in 2015; this figure is projected

39. Kevin Caves and Bruce Owen, "Bundling in Retransmission Consent Negotiations: A Reply to Riordan," (February 2016), Part II.A.

to increase to approximately 40 percent by 2020.[40] Other analysts have estimated even higher market shares for Internet-based advertising, and have concluded that digital advertising (including mobile advertising) is set to dominate local advertising markets, if it does not do so already.[41] In fact, the Commission's most recent video competition report cited data showing that local Internet advertising has exceeded local broadcast television station advertising since 2012.[42]

28. BIA/Kelsey data also show that cable advertising accounts for a substantial share of local advertising revenue (over one third as much as non-cable TV advertising).[43] MVPDs have created "interconnects" to compete more effectively in local advertising markets. Interconnects allow advertisers to expand their reach within a given local market by purchasing local advertising from multiple MVPDs through a single source and a single contract. This expansion in coverage is achieved by combining the platforms of various cable operators, satellite providers, and incumbent local exchange carriers.[44] The growth of interconnects has resulted in increased expenditures on political advertising for MVPDs, as well as commercial advertising.[45]

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40. "BIA/Kelsey's U.S. Local Advertising Forecast for 2016: Key Findings," (November 11, 2015) [hereafter "BIA 2016 Forecast"], slide 13; available at http://www2.biakelsey.com/webinars/BIAKelsey-U-S-Local-Advertising-Forecast-for-2016-Key-Findings.pdf

41. *See* Written Ex Parte Communication of NAB, MB Docket Nos. 14-50, 09-182 (June 6, 2016), at 7-9; *see also* Mason Lerner, "Report: Digital Now Represents 40% of Local Advertising Market" (January 23, 2015), available at http://streetfightmag.com/2015/01/23/report-digital-now-represents-40-of-local-advertising-market/ (discussing report from Borrell Associates).

42. 17th Video Competition Report ¶121, Table III.B.5 (setting forth local advertising revenue by sector for the years 2012, 2013 and 2014).

43. BIA 2016 Forecast, slide 12. Data cited by the FCC show that, in 2014, local cable television advertising revenue totaled approximately 45 percent of local broadcast television station advertising revenue. *See* 17th Video Competition Report at ¶121, Table III.B.5.

44. *See* http://nccmedia.com/about/owners-affiliates/; *see also* http://nccmedia.com/about.

45. *See, e.g.*, Kate Kaye, "Cable TV Sees 2.8M Political Spots Since January," *Advertising Age* (June 18, 2016); Kate Kaye, "Data Drives Political Advertisers to Buy More Cable TV Than Ever (but Not the Cable You Might Think)," *Advertising Age* (Feb. 23, 2016); *see also* NCC Media Impressions, "I+ Advertising Initiative, Linking Cable, Satellite and Telco Homes Grows to 50 of America's Top Markets" (March 11, 2015) (discussing how the linking of cable, satellite and telco companies' ad inventory "means vastly greater local market advertising reach" available to local, regional and national advertisers, and observing that, as "viewership continues to move from broadcast to cable programming, advertisers now have one-stop access" to place ads reaching local market households on a wide selection of cable networks).

29. A conservative estimate of horizontal concentration in television programming markets, using data compiled from the recently published *Handbook of Media Economics*,[46] indicates that the typical local television market is unconcentrated, with an HHI between 1,480 (before adjusting for partial ownership), and approximately 1,200 (after adjusting for partial ownership).[47] These estimates overstate concentration in local programming markets because (1) they ignore competition from independent OTT entrants, as well as other potential non-broadcast competitors (e.g., Internet advertisers); and (2) they ignore the fact that diversified media companies and local broadcast station affiliates are not commonly owned in the majority of local markets.[48] Even so, the data indicate that concentration levels are typically insufficient to support an inference of market power.[49]

30. Standard antitrust analysis gives substantial weight to evidence of entry and expansion.[50] Evidence of successful and effective entry and expansion by competitors indicates a competitive environment, making it more difficult for incumbent firms to exercise market power. There has been substantial entry and expansion of various non-broadcast competitors in recent decades. For example, competition from digital advertisers is a form of new entry made possible by new and evolving technologies, offering audience targeting and interactive features well beyond the capabilities of traditional media. More traditional entrants have also expanded substantially: In the early 1980s, broadcast television's viewing share was close to 90 percent;

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46. Gregory S. Crawford, "The Economics of Television and Online Video Markets," Chapter 7 *in* SIMON ANDERSON, JOEL WALDFOGEL, & DAVID STROMBERG, 1A HANDBOOK OF MEDIA ECONOMICS (Elsevier Press 2016) [hereafter "Handbook."]

47. Caves & Owen, *supra*, Table 1.

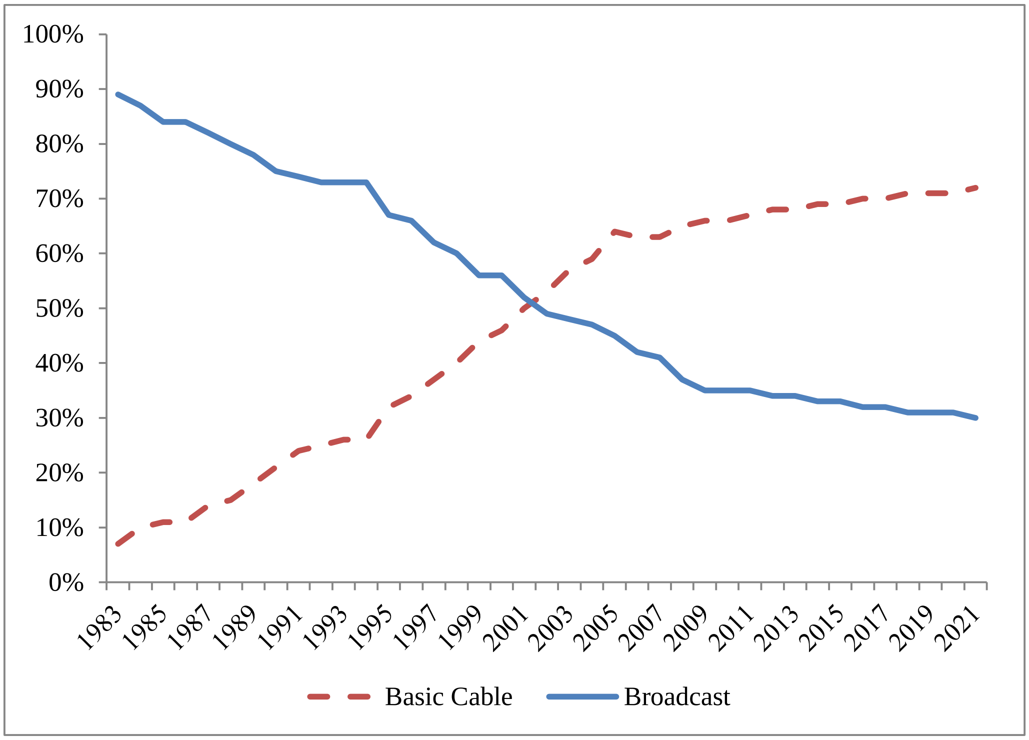
48. *Id.*, Part III.A. For example, if the NBC affiliate in a local market is not owned by Comcast, there is no common ownership of the USA Network and the local NBC station, implying lower concentration in the local programming market.

49. Merger Guidelines §5.3.

50. *Id.* §9.

since then, basic cable's viewing share has risen to roughly double that of broadcast, as seen in Figure 1.

FIGURE 1: BROADCAST VS. BASIC CABLE VIEWING SHARES



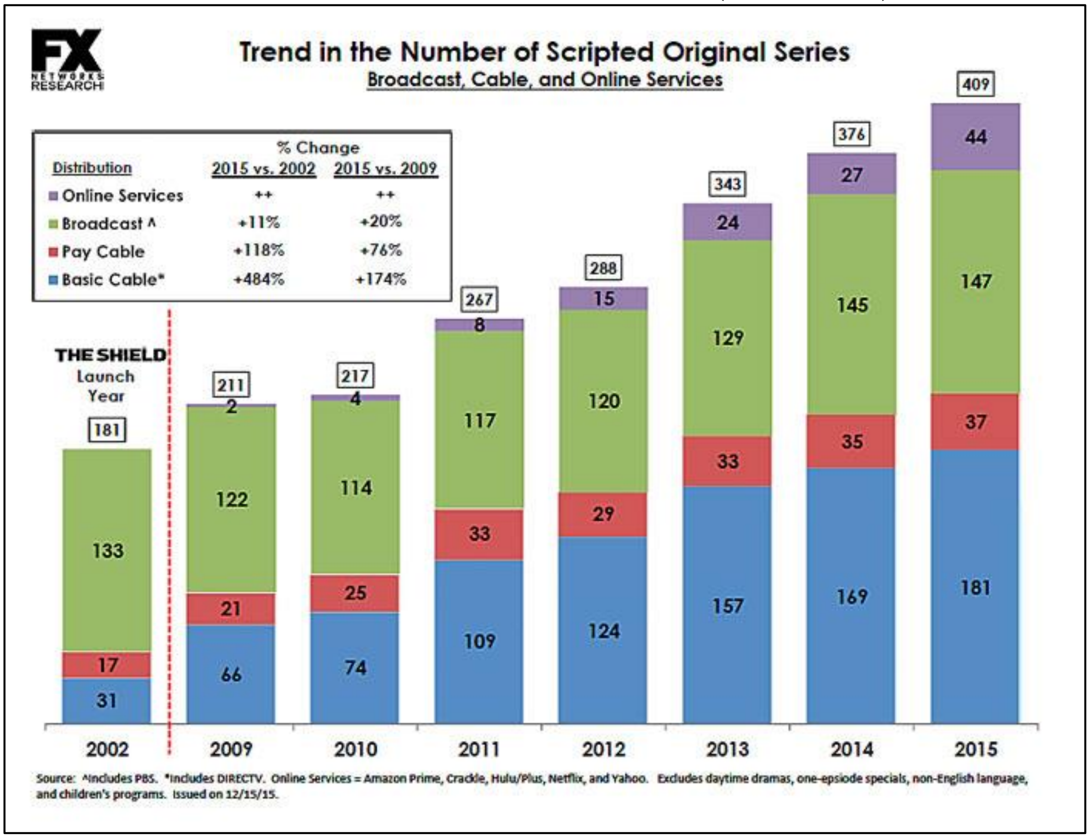
Source: Caves & Owen, Part III.A. Post-2012 data are projections.

31. The ongoing proliferation of viewing options provides additional evidence of entry and expansion in the programming market. According to a study by FX Networks, the number of original scripted series available to viewers "has grown across each distribution platform—broadcast, basic and pay cable, streaming—led by significant gains in basic cable and digital services."[51] As seen in Figure 2, FX Networks estimates that there were 409 scripted original series as of 2015—up from 211 in 2009, and just 181 in 2002. Cable networks, which now

51. Lisa de Moraes, "FX Study: Record 409 Scripted Series On TV In 2015," *Deadline* (December 16, 2015), available at http://deadline.com/2015/12/tv-study-record-number-scripted-series-fx-1201668200/; *see also* http://tvbythenumbers.zap2it.com/2015/12/16/peak-tv-in-one-chart-409-scripted-shows-aired-in-2015.

produce more scripted series than broadcasters, account for the lion's share of the increase. OTT-produced series have grown the most in percentage terms.[52] As a consequence, broadcasters' share of scripted series has fallen substantially; broadcasters generated nearly three-quarters of scripted programming in 2002, but under 36 percent in 2015.

FIGURE 2: GROWTH IN SCRIPTED SERIES (2002 – 2015)



Source: FX Networks Research, available at http://tvbythenumbers.zap2it.com/2015/12/16/peak-tv-in-one-chart-409-scripted-shows-aired-in-2015/.

32. Therefore, even partially accounting for non-broadcast competition would imply that the typical local programming market is unconcentrated under conventional antitrust standards, and would also imply that competitive entry and expansion have been pervasive. Yet because the Commission assumes that all non-broadcast competitors are somehow irrelevant, the

52. These totals do not consider a variety of other types of programming available to viewers, including reality TV programming, made-for-TV movies, specials, news, sports, daytime, and children's programming. *Id.*

Eight Voices Rule proscribes common ownership of two television stations in most DMAs, and places strict limits on allowable transactions even in large markets.

III. ECONOMETRIC ANALYSIS CONFIRMS THAT THE EIGHT VOICES RULE IS PREDICATED ON INVALID ASSUMPTIONS

33. In this section, we perform an empirical test of the key assumption underlying the Eight Voices Rule, which posits a negative relationship between the number of independently owned broadcast television stations serving a local market and the extent of competition in that market—that is, fewer independent stations in a market is predicted to generate *higher* advertising rates. After controlling for other factors, however, the data indicate just the opposite: A reduction in the number of independent stations serving a local market is correlated with *lower* advertising prices. While inconsistent with the Eight Voices Rule, these results are consistent with the existence of procompetitive, merger-driven efficiencies that the Rule ignores.

A. Data Set and Summary Statistics

34. The dependent variable in our analysis consists of quarterly broadcast advertising prices for 210 local markets, obtained from the market research firm SQAD for the ten-year period from 2006 to 2015. The SQAD pricing data measure average advertising prices based on actual transactions between advertising agencies and television stations in a given local market during a given time period. The relevant price metric for our analysis is the CPM (cost per-thousand), which reflects the cost of reaching one thousand viewers during prime time.[53]

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53. Another common pricing metric in the industry is the CPP (cost per ratings point). The CPP is defined as the cost of reaching one percent of the target population in a given market. This means that CPMs can be directly compared across markets and over time, while CPPs cannot. For this reason, CPM has been used by academic researchers to measure market performance. *See* Keith Brown & Peter Alexander, *Market Structure, Viewer Welfare, and Advertising Rates in Local Broadcast Television Markets*, 86 ECONOMICS LETTERS 331-37, 334 (2005) [hereafter "Brown & Alexander."] *See also* Kevin Downey, "Is TV Ready To Move From CPP To CPM?," *TVNewsCheck* (November 13, 2013), *available at* http://www.tvnewscheck.com/article/71924/is-tv-ready-to-move-from-cpp-to-cpm; *see also* Erwin Ephron, "The Numbers Game," *AdWeek* (April 27, 2009), *available at* http://www.adweek.com/news/advertising-branding/numbers-game-99057

35. The key independent variable of interest in our analysis is the number of independent television stations serving a given local market at a given point in time. To construct this variable, we compiled station-level data from the market research firm BIA/Kelsey. BIA provided detailed station-level ownership and transactional information, which captures changes in station ownership over time. These data were used to determine the number of unique, independent station owners (or "voices") within a given DMA at a given point in time. Consistent with the Eight Voices Rule, both commercial and non-commercial stations (e.g., PBS) were included in the voice count; the data set was also limited to full power broadcast television stations, consistent with the Rule. As in prior academic research, our analysis includes controls for income, population, and demographics, also compiled from BIA.[54]

54. Brown & Alexander at 334-335.

TABLE 2: REGRESSION DATA SUMMARY STATISTICS

Variable	Obs.	Mean	Median	Std. Dev.	Min	Max
Overall						
CPM ($)	8,396	60	42	89	13	1,819
Voice Count	8,396	6.7	6	3.6	1	23
TV Households (000s)	8,396	540	275	826	4	7,724
Total Pers. Inc. per capita ($)	8,396	29,233	28,820	8,499	10,226	64,439
% DMA Population Black	8,396	10.7	6.1	11.5	0.1	64.3
% DMA Population Hispanic	8,396	11.4	5.3	15.7	0.5	95.7
% Population 18-44	8,396	36	36	3	25	49
Markets with Fewer than Eight Voices						
CPM ($)	5,879	69	45	105	13	1,819
Voice Count	5,879	4.9	5	1.7	1	7
TV Households (000s)	5,879	242	179	217	4	1,844
Total Pers. Inc. per capita ($)	5,879	28,404	28,141	8,085	10,226	54,952
% DMA Population Black	5,879	9.8	5.1	11.9	0.1	64.3
% DMA Population Hispanic	5,879	10.0	4.5	15.4	0.5	95.7
% Population 18-44	5,879	36	36	3	25	49
Markets with Eight or More Voices						
CPM ($)	2,517	41	37	18	14	165
Voice Count	2,517	10.9	10	3.3	8	23
TV Households (000s)	2,517	1,235	794	1,215	135	7,724
Total Pers. Inc. per capita ($)	2,517	31,169	30,670	9,108	13,158	64,439
% DMA Population Black	2,517	12.8	10.3	10.2	0.7	49.1
% DMA Population Hispanic	2,517	14.7	8.0	16.1	0.7	79.5
% Population 18-44	2,517	36	36	2	30	42

Notes: CPM reflects market average prices for target population of adults 18-49, during prime daypart, as reported by SQAD. Share of population aged 18-44 computed using BIA data to match SQAD target population as closely as possible. Four quarters of SQAD data missing for New Orleans DMA due to interruptions caused by Hurricane Katrina. As a result, the regression data set has 8,396 observations (equal to 210 DMAs x 10 years x 4 quarters – 4 missing obs.)

36. Table 2 reports summary statistics for the data used in the regression analysis. Importantly, there is substantial variation in the Voice Count variable, both above and below the threshold implied by the Eight Voices Rule. That our data encompasses many observations below and above the eight-voice threshold allows us to test statistically for the competitive effects of variation within this critical range. Not surprisingly, smaller local markets tend to be served by fewer independent voices. As seen in Table 2, the average local market with fewer than eight voices has approximately 242,000 TV Households; the average for markets with eight or more voices is about 1.2 million TV Households. Differences such as these may explain why the average CPM in markets with fewer than eight voices significantly exceeds that in markets with

eight voices or more. Our regression analysis in the next section will control for market size, in addition to the other covariates in Table 2.

B. Econometric Analysis

37. Our econometric analysis employs panel regressions with fixed effects by market to analyze the relationship between the number of independent voices serving a DMA and the prevailing local advertising prices. By including DMA fixed effects, we implicitly control for all unobservable local market characteristics that are invariant over time. (Observable local market characteristics that vary over time are controlled for explicitly). Our dataset and methodology are more robust than cross-sectional approaches adopted in previous academic work, because they permit us to control for a broader range of market-specific idiosyncrasies, while capturing variation over an extended period of time.[55]

1. Markets With Fewer Than Eight Voices Do Not Have Higher Local Advertising Rates Than Markets With Eight Or More Voices

38. The key independent variable of interest in our first specification, shown in column (1) of Table 3, is an indicator variable equal to 1 in markets with eight or more voices and zero otherwise. To test more broadly for effects in the neighborhood of the FCC's threshold, columns (2) and (3) include similar indicator variables for seven or more voices, and nine or more voices. The dependent variable is measured as the natural log of CPM. The regression includes 210 DMA-level fixed effects. In addition, annual fixed effects are included to control for national shifts in the demand and/or supply of advertising over time. The additional control variables include the natural log of income and various demographic variables. The independent variables

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55. Brown & Alexander at 334 (noting that the authors observe advertising prices for a single quarter in 1998).

in the model collectively explain a high proportion (about 90 percent) of the variation in local advertising prices, as reflected in the R-squared statistic.

39. The results in Table 3 indicate that local income is positively and highly significantly related to local advertising rates, suggesting substantial demand-side effects. In addition, there is a negative and statistically significant relationship between the size of the market and the cost of local advertising, which may capture scale effects on the supply side. Both of these findings are consistent with prior empirical work.[56]

40. If the assumptions underlying the Eight Voices Rule were accurate, then markets above the eight-voice threshold should, all else equal, enjoy lower advertising prices as a consequence of intensified competition. In contrast to that prediction, the results in column (1) of Table 3 indicate that local advertising prices in markets with eight or more voices are statistically indistinguishable from prices in markets with fewer voices: Although the point estimate on *Eight or More Voices* is slightly negative, the coefficient estimate is nowhere near to being statistically distinguishable from zero. Similarly, the coefficient in column (2) on *Seven or More Voices* is slightly positive, but not statistically significant at conventional levels. Finally, the coefficient in column (3) on *Nine or More Voices* is positive and statistically significant at the five percent level, indicating that local markets with *fewer* than nine voices are statistically associated with lower local advertising rates than are DMAs with nine or more voices. We will explore this effect in more detail in the next section.

56. Brown & Alexander at 335, and at 337.

TABLE 3: PANEL REGRESSIONS WITH MARKET FIXED EFFECTS
DEPENDENT VARIABLE = *LN*(CPM)

Variables	**(1)**	**(2)**	**(3)**
Eight or More Voices	-0.0161		
	(-0.96)		
Seven or More Voices		0.0233	
		(1.46)	
Nine or More Voices			0.0528**
			(2.00)
ln(Income per Capita)	0.281***	0.282***	0.281***
	(6.49)	(6.51)	(6.48)
ln(TV Households)	-0.417***	-0.417***	-0.416***
	(-4.28)	(-4.28)	(-4.28)
ln(Pct. Hispanic)	-0.0769**	-0.0771**	-0.0799**
	(-2.06)	(-2.07)	(-2.13)
ln(Pct. Black)	0.0280**	0.0279**	0.0283**
	(2.33)	(2.32)	(2.36)
ln(Pct. 18-44)	-0.182	-0.185	-0.180
	(-1.38)	(-1.40)	(-1.36)
Constant	4.264***	4.249***	4.250***
	(5.94)	(5.92)	(5.93)
DMA Fixed Effects?	Y	Y	Y
Annual Fixed Effects?	Y	Y	Y
Observations	8,396	8,396	8,396
R-squared	0.899	0.899	0.899

Robust *t*-statistics in parentheses. *** p<0.01, ** p<0.05, * p<0.10. Market fixed effects for 210 DMAs and annual fixed effects suppressed.

2. A Decrease in the Number of Voices Serving the Local Market Is Statistically Associated With Lower Local Advertising Prices, Rather Than Higher Prices

41. The above results provide no evidence that competitive performance improves as the number of independent voices increases, but do provide some evidence of the opposite. To analyze this effect further, in our next specifications we define the key independent variable of interest as the number of independent voices serving a given DMA at a given point in time. This allows us to estimate the expected effect of an increase or decrease in the *Voice Count* on the prevailing local advertising rates. In addition, it allows us to construct a formal statistical test of

whether or not this effect differs significantly in markets above or below the eight-voice threshold. This is important because the assumptions underlying the Eight Voices Rule focus on the competitive effects of variation below the threshold; the Eight Voices Rule implicitly assumes that variation above this threshold does not pose the same competitive concerns.

TABLE 4: PANEL REGRESSIONS WITH MARKET FIXED EFFECTS
DEPENDENT VARIABLE = *LN*(CPM)

Variables	**(1)**	**(2)**
Voice Count	0.0203***	
	(2.94)	
Voice Count (< Eight)		0.0292***
		(3.66)
Voice Count (≥ Eight)		0.0241***
		(3.41)
ln(Income per Capita)	0.284***	0.288***
	(6.54)	(6.64)
ln(TV Households)	-0.421***	-0.421***
	(-4.32)	(-4.33)
ln(Pct. Hispanic)	-0.0782**	-0.0772**
	(-2.10)	(-2.07)
ln(Pct. Black)	0.0278**	0.0275**
	(2.31)	(2.29)
ln(Pct. 18-44)	-0.194	-0.195
	(-1.47)	(-1.48)
Constant	4.166***	4.082***
	(5.81)	(5.68)
DMA Fixed Effects?	Y	Y
Annual Fixed Effects?	Y	Y
Observations	8,396	8,396
R-squared	0.899	0.899

Robust *t*-statistics in parentheses. *** p<0.01, ** p<0.05, * p<0.10. Market fixed effects for 210 DMAs and annual fixed effects suppressed.

42. As seen in Table 4, the coefficient on *Voice Count* in column (1) is positive and statistically significant at the one percent level. In particular, local advertising rates are expected to rise (fall) by approximately two percent for each increase (decrease) in *Voice Count*. For

example, a market affected by transactions that reduced the number of independent voices from ten to five would be predicted to have advertising rates approximately 10 percent lower (equal to the product of five fewer stations and two percent) after the transactions.

43. In column (2), the effect of *Voice Count* is permitted to vary depending on whether the number of voices in the DMA is below or above the Eight Voices Rule threshold. Specifically, the variable *Voice Count (< Eight)* is equal to *Voice Count* interacted with an indicator variable equal to one if *Voice Count* is less than eight and zero otherwise. Similarly, the variable *Voice Count (≥ Eight)* is equal to *Voice Count* interacted with an indicator variable equal to one if *Voice Count* is greater than or equal to eight and zero otherwise.

44. According to the assumptions underlying the Eight Voices Rule, the coefficient on *Voice Count (< Eight)* should be negative and statistically significant. In other words, a reduction in the number of independent voices below the threshold identified by the Eight Voices Rule should lead to higher local advertising prices, all else equal. However, as seen in Table 4, the coefficient on the variable *Voice Count (< Eight)* is positive and highly statistically significant—precisely the opposite of what the Eight Voices Rule would predict. In particular, when the *Voice Count* is less than eight, local advertising rates are expected to fall by approximately 2.9 percent for each decrease in *Voice Count*. Finally, the coefficient on variable *Voice Count (≥ Eight)* is also positive and highly statistically significant. This result indicates that when the *Voice Count* is greater than eight, local advertising rates are predicted to fall by approximately 2.4 percent for each one-unit decrease in *Voice Count*.

CONCLUSION

45. The Eight Voices Rules is devoid of any basis in economics and competition analysis. Lacking any theoretical or empirical grounding, it imposes a non-rebuttable presumption of anticompetitive harm based on unfounded assumptions. Our econometric analysis puts these

assumptions to the test, and finds them to be invalid: Holding other factors constant, local advertising rates are no higher in markets with fewer than eight independently owned stations than in markets with eight or more independently owned stations. To the contrary, the data show that a decrease in the number of independent voices is associated with a decline in local advertising prices. These results are the opposite of what is implied by the assumptions underlying the Eight Voices Rule. However, our results are consistent with prior work concluding that common ownership of television stations in local markets can lead to substantial efficiencies owing to economies of scope and scale—efficiencies that have been found to result in production of greater amounts of local news programming. We conclude that, by engaging in an arbitrary and unfounded line-drawing exercise, the Eight Voices Rule fails to advance the Commission's stated objective of promoting competition, and instead prevents any consideration of transactions that would likely be deemed procompetitive under conventional antitrust standards.

APPENDIX A

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Senior Economist, Criterion Economics LLC, October 2006 to September 2008

Senior Consultant, Deloitte & Touche LLP, September 2005 to October 2006

Teaching Fellow, Department of Economics, UCLA, January 2002 to June 2004

Assistant Economist, Federal Reserve Bank of New York, August 1998 to June 2000

Publications and Research Papers

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Speaking Engagements

Competition and Monopsony In Labor Markets: Theory, Evidence, and Antitrust Implications, New York State Bar Association, Antitrust Law Section, New York, NY, (April 23, 2014).

Econometric Tests of Common Impact, Covington & Burling LLP, Washington, DC., (May 23, 2013).

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Regression Methods: Theory and Applications of Fixed-Effects Models, O'Melveny & Myers LLP, Washington, DC., (July 16, 2012).

Regression Methods: Theory and Applications, Antitrust Practice Group, Cohen Milstein Sellers & Toll PLLC, Washington, DC., (June 4, 2012).

Using Regression in Antitrust Cases, University of Pennsylvania Law School, Philadelphia, PA., (April 12, 2012).

Interview with *IT Business Edge* on Rural Utilities Service Broadband Subsidies (May 17, 2011).

Reviewer

Review of Network Economics

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Honors and Awards

Howard Fellowship for Excellency in Teaching, University of California at Los Angeles, Spring 2005.

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Employment History

NAVIGANT ECONOMICS, Washington, D.C.: Managing Director, 2010-2013.

EMPIRIS, L.L.C., Washington, D.C.: Managing Partner and President, 2008-2010.

CRITERION ECONOMICS, L.L.C., Washington, D.C.: President, 2004-2008. Senior Vice President, 1999-2004.

LECG, INC., Washington, D.C.: Senior Economist, 1998-99.

U.S. SECURITIES AND EXCHANGE COMMISSION, OFFICE OF ECONOMIC ANALYSIS, Washington, D.C.: Staff Economist, 1997-98.

THE JOHNS HOPKINS UNIVERSITY, ECONOMICS DEPARTMENT, Baltimore: Teaching Assistant, 1996-98.

Authored Books and Book Chapters

THE NEED FOR SPEED: A NEW FRAMEWORK FOR TELECOMMUNICATIONS POLICY FOR THE 21ST CENTURY, co-authored with Robert Litan (Brookings Press 2013).

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Schmalensee, J. Gregory Sidak, Hal J. Singer, Vernon L. Smith, William Taylor, and David J. Teece (Aug. 16, 2002).

Speaking Engagements

DOL Rule Analysis and FSR's SIMPLE PTE Explained, FINANCIAL SERVICES ROUNDTABLE, Washington, D.C., Aug. 6, 2015.

New Principles for a Progressive Broadband Policy, PROGRESSIVE POLICY INSTITUTE, Washington, D.C., Mar. 13, 2014.

The Open Internet: Where Do We Go From Here? PROGRESSIVE POLICY INSTITUTE, Washington, D.C., Jan. 29, 2014.

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The 41st Research Conference on Communication, Information and Internet Policy, TELECOMMUNICATIONS POLICY RESEARCH CONFERENCE, George Mason University School of Law, Arlington, VA, September 27, 2013.

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Second Life Settlements & Longevity Summit, INSURANCE-LINKED SECURITIES & LIFE SETTLEMENTS, New York, N.Y., Sept. 30, 2009.

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American Economics Association

American Bar Association Section of Antitrust Law

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Journal of Regulatory Economics

Managerial and Decision Economics

Telecommunications Policy