REPORT OF PROFESSOR SIMON J. WILKIE

COMPETITION AND THE ECONOMIC IMPACT OF THE PROPOSED COMCAST/NBCU TRANSACTION

August 19, 2010

I. INTRODUCTION

A. Qualifications

1. My name is Simon J. Wilkie. I am the Chairman of, and a Professor in, the Department of Economics at the University of Southern California, as well as the Executive Director at the Center for Communication Law and Policy at the University of Southern California Law School and a (Courtesy) Professor of Communication. Prior to joining the faculty at the University of Southern California, I was a Senior Research Associate in Economics at the California Institute of Technology. From 1990 to 1994, I held the position of Member of the Technical Staff at Bell Communications Research, (Bellcore), the research arm of the Bell Operating Companies. From 2007 through 2009, I sat on the program committee of the Telecommunications Policy Research Conference (TPRC). I currently

serve on the editorial board of the International Journal of Communication. I have also been an Affiliated Scholar of the Milken Institute, and a Visiting Assistant Professor of Columbia University.

2. From 2002 to 2003, I served as Chief Economist at the Federal Communications Commission ("FCC" or "Commission"). In that capacity, I oversaw the economic analysis performed by the Commission staff and advised the Chairman and Commissioners on issues involving economic analysis. Major items before the Commission during my tenure included the EchoStar/DirecTV transaction, the Comcast/AT&T Broadband transaction, the Triennial Review of Unbundling Obligations, and the Biennial Review of Media Ownership rules.

3. Over the past nineteen years, my academic research has focused on the areas of mechanism design, regulation, and game theory, with a particular emphasis on the telecommunications industry. I received a Bachelor of Commerce degree in Economics from the University of New South Wales, and M.A. and Ph.D. degrees in Economics from the University of Rochester.

B. Assignment

4. I have been asked by DISH Network L.L.C. ("DISH") to review, from an economic perspective, the additional effects of the proposed

Comcast/NBCU transaction.[1] More specifically, I have been asked to analyze possible anti-competitive consequences of such a transaction on the emerging online video distribution methods and Multichannel Video Programming Distributor ("MVPD") competitors such as DISH. Under the structure of the proposed transaction, Comcast will have clear business incentives that are not aligned with vigorous market based competition or consumer interests. In addition, Comcast has a history of punitively limiting the bandwidth of competitive content, which raises obvious anti-competitive concerns. The acquisition of NBCU by Comcast would not only increase Comcast's incentives to act anti-competitively, but would give it a natural set of content to promote, further increasing Comcast's ability to act anti-competitively.

C. Summary of Conclusions

- The nascent market for online video programming distributor services ("OVPD"), including the provision of broadcast and cable content, is rapidly growing and developing.
- Whether OVPD services are complementary to or substitutable for traditional MVPD services, the fact remains that they are both a part of the market for the distribution of video content.
- DISH has begun to aggressively promote Slingbox which is a pro-consumer innovation that allows greater access to consumer's video content. These innovations are responsive to increasing demand on the part of consumers for alternative

[1] This transaction would give Comcast a significant broadcasting services and programming portfolio in addition to its considerable service provision infrastructure and its already existing programming assets. Thus, Comcast will control not just the consumer access point, but also a considerable portion of the content that arrives through that access point.

access to their choice of video content and highlight the competitive importance in being able to provide such innovations to consumers.

- The merged Comcast/NBCU entity will have strong incentives not only to discriminate in favor of its own programming, but to impede competitors, such as DISH, from providing pro-competitive online video services.

- The incentives for the merged Comcast/NBCU entity to discriminate exist whether online video is a substitute or a complement.

- The nascent nature of this market makes it important for the Commission to take actions to prevent likely anti-competitive effects.

D. Outline of Report

5. Section II explores the current state of online video services and the relevant market for consideration. Section III discusses and analyzes the immediate and near-term incentives to discriminate against DISH and unaffiliated online distributors that would result from the Comcast/NBCU merger. Section IV explores the role of antitrust and regulation within these nascent competitive markets. Section V examines the application of the Commission Staff model to the Comcast/NBCU merger. Section VI explores the impact of the merger on pricing, as well Comcast's dubious claims of efficiencies.

II. ONLINE VIDEO SERVICES AND THE RELEVANT MARKET[2]

A. The Growth of Online Video

6. The landscape of MVPD services has changed significantly over the last decade. Advancements in technology and access to information continue to bring consumers more targeted and individually-specific media content. Consumer choice in terms of how and when traditional television programming is delivered has increased rapidly. In the home, digital video recorders ("DVRs") give consumers the ability to isolate and time-shift traditional MVPD content, but Internet speeds have increased sufficiently to make watching television online, ostensibly anytime and anywhere, a viable option for most consumers. Indeed, widening access to broadband Internet has led many consumers to question the need for traditional content intermediaries, such as MVPD service providers unless these providers, too, enrich their classic linear offerings.

7. The desire to acquire specific content coupled with high speed Internet access to media makes alternative formats increasingly attractive to consumers. This past year the FCC Media Bureau Chief William Lake stated in public that the separation of the TV and the

[2] At the highest level, I am distinguishing online video services from traditional MVPD services in the same way that consumers currently do. Namely, whether broadcast and/or cable content is delivered via a broadband Internet subscription. Consumers of online video services, therefore, would include every individual household with access to broadband Internet.

Internet is "coming to an end" and expressed the general view that the convergence of broadband and television is approaching.[3] This is seen in the more than 800,000 US households that have moved from traditional MVPD service to receiving their video programming online over the last two years, and another 800,000 that are estimated to do the same in 2010.[4] While online video distribution and programming are rapidly growing and developing, it is considered a nascent market in the sense that it is still small in comparison to traditional MVPDs and there is still quite a bit of uncertainty about the future structure of this market.

B. The Relevant Market

8. Consumers are not primarily concerned with the technology platform that delivers content to them; they are largely concerned with acquiring and viewing content. The proliferation of digital television, smart phones, wireless Internet devices, and laptop computers combined with increasing access to broadband Internet has hastened the proliferation of online content as a complementary, and slowly increasingly competitive, means to access video content. Currently MVPD service providers compete by offering viewing packages that differ according

[3] Eggerton, J. "FCC's Bill Lake: Time of Separate TV and Net is Ending", *Broadcasting & Cable*, (11/18/09).
[4] Schonfeld, E. "Estimate: 800,000 U.S. Households Abandoned Their TVs For the Web", Techcrunch.com, (4/13/10).

to programming and ubiquity of access modes. Therefore, regardless of whether online video is currently a substitute or a complement, it is clear that online video distributors and MVPD are in the same market, namely the distribution of video content.

9. Currently, there are numerous models for media distribution, including online broadcaster controlled content (*e.g.* full length television episodes offered by NBC.com, CBS.com, etc.), online content aggregators (*e.g.* full length episodes and movies offered by Hulu.com, TV.com, Netflix, etc.), and full service providers who both aggregate content and provide the distribution infrastructure (*e.g.* broadcast and cable offerings of traditional MVPD service providers, as well as newer products offered by AT&T U-verse, Verizon FiOS, etc.).[5] Taken independently, these models of media distribution will compete for both consumer and advertising revenues. Online content providers and aggregators have powerful economic incentives to cooperate with independent Internet Service Providers ("ISPs") to develop substitute online video services platforms to compete with traditional MVPD services.[6] For their part, full service providers, such as traditional MVPDs like DISH, will have a strong incentive to

[5] These categories by no means capture all forms of online video distribution. For example, Sezmi combines online video distribution with an over-the-air tuner.

[6] For example, Netflix offers online content delivered by ISPs that can directly compete with broadcast and/or cable content provided by MVPDs. This is true of any website or Internet application offering broadcast and /or cable content.

collaborate with online content providers or will attempt to directly provide video content to their subscribers online. As the move towards multi paths of access to video content continues, these incentives will only intensify. This is true regardless of how quickly the transition away from more traditional media delivery formats takes place or which new type of format establishes itself in the coming years.

10. DISH currently offers its Sling service specifically to address the growing consumer demand for multi-mode access to video content. Sling-loaded set-top boxes that allow DISH subscribers to watch their live television programming anywhere they have access to a computer with broadband Internet or almost any Smartphone, and more recently Apple's iPad.[7] These innovations are not only pro-consumer, but highlight the competitive importance of the Internet and alternative/complementary modes of access to video content for DISH and other MVPDs.

III. COMCAST'S POTENTIAL FOR ANTI-COMPETITIVE BEHAVIOR

A. Comcast's Immediate and Near-Term Incentives To Engage In Anti-Competitive Behavior

11. When firms integrate, their economic incentives can change dramatically. Firms will often merge when they believe a single decision making body will align their interests in a way that would be

[7] http://www.slingbox.com/

difficult to achieve through independent negotiations. Therefore, the merged entity will have different combined incentives than if each firm were operating independently. The resulting entity would develop pricing policies, distribution methods, and overall firm strategy in order to efficiently reposition itself in the market. However, it is not necessarily the case that the incentives of the merged entity will align with consumer welfare.

12. Integrated firms, such as the proposed Comcast/NBCU, will enhance their existing market power as result of their content and infrastructure control by restricting output (in terms of both content and quality), raising prices, or both. In the current case, Comcast will have an incentive to restrict output in such a way as to favor the revenue-maximizing distribution of its owned content. This favoritism can take the form of content exclusionary practices, as is addressed by Drs. Israel and Katz, or more subtle content discrimination through transmission degradation or even outright blocking.

13. A merged Comcast/NBCU entity will have strong incentives to discriminate in favor of its own programming regardless of the future or current structure of the online video content market. This is true regardless of whether online video is a complement or substitute for traditional MVPD services. If, as Drs. Israel and Katz would have us believe, online video programming and MVPD services are, and will

continue to be, complements, Comcast/NBCU may not want to foreclose access of online providers to content entirely, but they will still have incentives to behave anti-competitively.[8]

14. It is important to note that if online services are truly complementary to traditional MVPD services, then important implications must follow. Namely, the merged entity would control both the pipeline through which online video is delivered as well as acquire control over a key complement for any MVPD, NBCU and its online programming. This will create incentives for Comcast/NBCU to raise prices for those inputs to its MVPD competitors and to selectively degrade the transmissions of complementary services of rival MVPD competitors, such as DISH, or non-affiliated distributors on its infrastructure network.[9] The effects of signal degradation on Direct Broadcast Satellite ("DBS") and other competing MVPD platforms, such as the Slingbox, would cause a direct, adverse horizontal effect.

15. Such an enhancement of market power on the part of Comcast/ NBCU would increase its ability to materially impact its competitors,

[8] Several MVPDs, including Comcast, are currently working to position online video services and programming as a complementary service, such as TV Everywhere. This augments, but does not necessarily replace, traditional MVPD services. Clearly, Comcast has an incentive to promote online video programming as a complement that would not replace profit generating MVPD services. Based on this market structure, Israel and Katz argue that Comcast/NBCU would not find it profitable to engage in exclusionary conduct relative to programming content. Israel and Katz focus on only one type of exclusionary conduct, namely the refusal to license NBCU content to competitors in an attempt to thwart the development of online video programming.

[9] This could be achieved by discriminatory network management, such as selective capacity allocation.

and retard the development of online video distribution as a complementary service of their competitors or as a substitute service of emerging OVPDs. This could be accomplished not just through discriminatory price increases and/or signal degradation, but through delaying new technology or standards. For example, it could be achieved by not collaborating, or increasing the cost of collaborating, with other MVPDs or OVPDs on projects similar to Hulu (of which NBCU currently is a partial owner). Instances of collusion in an attempt to eliminate nascent competitors are hardly unheard of. For example, the company Intertainer was a pioneer in the online delivery of video content.[10] In a lawsuit against the studios, it alleged that Intertainer failed when studios denied it access to their content after they established a competing platform, Movielink.[11] At the time of Intertainer's inception, studios had a pecuniary interest in pay-for-view content distribution, thereby making an online video format unattractive. If the facts were as alleged, this is a clear example of vertical control of content leading to foreclosure and a horizontal competitive harm.

16. While strong consumer preferences towards online video access may eventually force the development of such services by Comcast/NBCU, it is likely that post-merger these pro-consumer innovations would be

[10] *See* http://www.intertainer.com/timeline.html
[11] *See* http://news.cnet.com/2100-1023-965194.html

significantly delayed. Firms with significant market power tend to be adverse to change and the introduction of new technology that cannibalizes their existing monopoly rents as "the pre-invention monopoly power acts as a strong disincentive to further innovation."[12] This conclusion also follows quite logically from the very structure of a monopoly or a market dominated by one or a few firms. A firm with market power extracts rents precisely because of a lack of substitutes within a market, allowing for supra-competitive pricing. As Arrow points out, this means that a monopolist who innovates is "replacing itself" in the market and so has to forgo its current steam of rents. In order to innovate, the monopolist must expect to recoup both the cost of innovation and the forgone rents from the old platform. This threshold implies that a firm with market power will be less innovative than one without market power. However, in an oligopoly market with a limited number of firms, when firms compete as "strategic substitutes" there is a well known issue that firms may rush to innovate to obtain "first mover advantage." A comprehensive survey of the literature is provided by Baker in 2007.[13]

[12] *See* Kenneth J. Arrow, "*Economic Welfare and the Allocation of Resources for Invention*," in THE RATE AND DIRECTION OF ECONOMIC ACTIVITIES: ECONOMIC AND SOCIAL FACTORS (Richard Nelson, ed. 1962).
[13] See Jonathan B. Baker "Beyond Schumpeter vs. Arrow: How Antitrust Fosters Innovation." Washington College of Law American University Washington, D.C., available at http://ssrn.com/abstract=962261

17. In his insightful paper Baker goes on to point out the key role played by antitrust enforcement in preserving an environment that fosters innovation. The role of a maverick competitor or a smaller competitor is key in preserving the incentive of a dominant firm with market power to innovate. Indeed this is the case in the industry here.

18. In the recent past, the Department of Justice had blocked the proposed acquisition of a key satellite DBS platform by Primestar, a consortium of the dominant cable companies. Then, the cable companies argued that they could use the extra capacity as a complementary service to existing cable service by offering consumers more channels than the capacity of their existing analogue cable systems. As the merger did not go through the dominant cable firms were now faced with competition from competitors with many new services that their legacy systems initially could not match. Thus, to meet the competition from DBS, the cable companies were forced to innovate and invest in the hybrid fiber coax digital networks that we have today.

19. This expensive innovation would not have happened but for the judicious application of antitrust and competition policy. In addition to the Primestar decision, the FCC's Program Access Rules played a key role in the development of the industry. As the dominant incumbents, the cable companies would have the incentive to get control of essential

programming, or so called "must see TV," and deny access to their competitors. This would foreclose competition and stop innovation. The Program Access Rules prevented some of this from happening.

20. It is instructive to compare the case of the MVPD market in Australia, with no program access rules, with the U.S. experience. To avoid the problem of cable monopoly that occurred in the U.S., Australia introduced a duopoly cable structure. As for program access, however, it was believed that allowing exclusive access to content would foster innovation and competition. The resulting equilibrium was that the two cable systems each came to control half the content! As a result prices in Australia (on a purchasing power basis) are higher than the U.S. and service is inferior. Although Australia has a similar economic profile to the U.S. – developed, suburban and English speaking, as of 2007 it had only a 22% subscription to MVPD service compared with approximately 87% in the United States. In this case eventually one firm (Optus) exited the industry and there is now a de-facto monopoly infrastructure provider.[14] The economic cost of this policy error is enormous. [15]

[14] Australian Competition and Consumer Commission, Analogue Subscription Television Broadcast Carriage Service: Final Decision, March 2007; FCC, Thirteenth Annual Assessment of the Status of Competition, ¶8 (1/16/09).
[15] Since the demise of the cable duopoly policy subscription rates have risen in the last few years to 33% today. (http://www.budde.com.au/Research/Australia-Pay-TV-Statistics-Subscribers-Overview-and-Analysis.html)

21. In the current case the product market itself is evolving as consumers can obtain access to their desired video content through alternative channels such as the Internet and cell phones. As before, this merger will place control of important content, the NBCU library and ongoing programming, in the hands of the largest cable company. This imbues Comcast with the ability to stop innovation by denying competitors access to this content through alternative and emerging access platforms, or by hampering such access. If consumers view these modes of access as complements to their MVPD service, as Katz and Israel argue, then Comcast will now have the incentive to deny the customers of its MVPD competitors access to their content of choice, as this will in turn make Comcast's MVPD product more appealing to consumers.

22. In the near term it is probable that OVPDs and MVPD distribution platforms will become competitors in a single horizontal market. In this case the merger is imbuing the largest MVPD with a direct ability to harm horizontal competitors by denying access to key content, or by increasing the cost of access to key content, and by using signal degradation to harm competitors.

B. Comcast Has Historically Engaged In Anti-Competitive Behavior

23. Comcast has a history of degrading rivals' online products. On August 1, 2008, the FCC formally ruled that Comcast had illegally

throttled BitTorrent traffic.[16] BitTorrent protocol was being utilized by several companies including Warner Bros., Viacom, PBS, and Paramount Pictures to distribute online media content. As the general counsel for Vuze, one of the initiators of the FCC inquiry, put it, "Comcast is a competitor to all of us who deliver high-quality video content."[17] Comcast also drew public scrutiny for purposely degrading signal quality in an attempt to find more economical ways to provide service.[18]

24. It has also been suggested that Comcast has selectively applied recompression to HDTV signals, thereby affecting viewing quality. The data on this issue as reported by the AVS Forum are reproduced below.[19]

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[16] McCullagh, D. "FCC Formally Rules Comcast's Throttling of BitTorrent Was Illegal", CNET News, (8/1/08).

[17] McCullagh, D. "BitTorrent Firms: Comcast Throttling Is Anticompetitive", CNET News, (2/14/08).

[18] Williams, C. "Cable TV Under Fire for Degrading HD Quality", MSNBC.com, (4/21/08).

[19] *See* http://www.avsforum.com/avs-vb/showthread.php?t=1008271

TABLE 1:
Average bitrates were obtained by comparing the size of each recording, in total bytes, and dividing by the total number of seconds reported by VideoRedo. Multiplied by 8 to convert Mbps to Mbps.

Average Bitrates on FiOS v. Comcast
Code:

	FiOS	Comcast	Difference
AETV HD	18.66 Mbps	14.48 Mbps	-28.9%
Discovery HD	14.16 Mbps	10.43 Mbps	-35.8%
Discovery HD Theater	17.45 Mbps	12.60 Mbps	-38.5%
Food Network HD	14.32 Mbps	13.73 Mbps	-4.3%
HGTV HD	14.76 Mbps	12.43 Mbps	-18.7%
MHD	17.73 Mbps	13.21 Mbps	-34.2%
National Geographic HD	13.40 Mbps	11.92 Mbps	-12.4%
Universal HD	12.72 Mbps	11.01 Mbps	-15.5%
HBO HD	8.87 Mbps	8.81 Mbps	-0.7%
Cinemax HD	11.40 Mbps	10.77 Mbps	-5.8%
Starz HD	11.93 Mbps	9.76 Mbps	-22.2%
CNN HD		11.42 Mbps	
History HD		10.40 Mbps	
SciFi HD		12.59 Mbps	
USA HD		12.48 Mbps	

25. The above table suggests that Comcast, indeed, has the ability to selectively degrade online video content and has done so in the past. While this may have been done for legitimate network management reasons, the post-merger Comcast will be operating with a new and powerful incentive to favor Comcast-controlled NBCU content over non-Comcast and non-NBCU content in the online distribution channels, as well as Comcast MVPD customers over DISH customers.

26. If Comcast were to degrade the quality of the video content transmitted from the DISH subscribers' Slingbox to their personal computers or mobile devices, this would have a material impact on the

viability of an increasingly important complementary service of a major horizontal competitor.

27. On a forward-looking basis it would be difficult to monitor such discriminatory behavior and determine if it was motivated by legitimate network traffic management concerns. Even if a household were to successfully detect discriminatory behavior, the costs of seeking recourse are too high for the household to bear individually.[20]

IV. THE ROLE OF REGULATION AND ANTITRUST IN NASCENT MARKETS

28. From a regulatory and antitrust perspective, the proposed transaction would cause a substantial change in the structure of the relevant market for the distribution of video content. Because of the nascent nature of online video distribution and programming as a complementary service and eventually a substitute, this change in market structure would fundamentally change the course of this market. As a result, the transaction may affect consumer behavior by not only inflicting harm to other MVPDs who are attempting to offer complementary online video services, but by stifling the emergence of online video and foreclosing online video as a future substitute service.

29. This is a formative era for the restructuring of video markets in light of watershed technological breakthroughs. Allowing incumbent firms

[20] For example, individual households could seek recourse in the form of litigation for punitive or injunctive relief.

with market power to create substantial barriers to entry by degrading rivals' products or raising rivals' costs likely would have long run detrimental effects which once the joint venture is in place would be difficult to undue through regulatory or anti-trust enforcement. Once the "eggs are scrambled" by the joint venture, regulatory and antitrust enforcement will only become more difficult.[21]

30. Comcast's obvious strategy is to (1) channel the growth and development of online video distribution toward complementary product positioning, which will help to protect its current profit margins by managing any direct competition in the marketplace, (2) restrict access to the content it controls and/or (3) discriminate against the content it does not control.

31. Israel and Katz conclude that the nascent nature of online video distribution and programming means that the Commission should proceed with great caution, if at all, regarding any structural or regulatory measures designed to mitigate anti-competitive effects.[22] I disagree. In fact, the nascent nature of the products and corresponding

[21] Further, from day one of the transaction, Comcast has majority ownership and makes the decisions for NBCU. It can be expected to use that control to maximize Comcast's private interests. As a sophisticated conglomerate, GE knows what it is getting into as a minority investor and will be compensated for the sale of control. No regulator should reasonably rely upon Comcast being restrained from acting in its self interest based on a perceived legalistic "duty" to GE, as suggested by Israel and Katz.

[22] Israel and Katz place great weight on the current joint venture structure of the proposed Comcast/NBCU transaction. In particular, they use that current ownership structure to argue that it limits Comcast's incentives to engage in exclusionary conduct.

markets makes it more—not less—important for the Commission to take actions to prevent likely anti-competitive effects.

32. Whether online video programming is a complement or substitute to MVPD services, the merger will cause permanent changes in the evolution of markets for online video distribution and programming. This is true especially given that the likely anti-competitive effects have been a standard practice of a party to the transaction in the past. Once the transaction has been approved, Comcast's incentive to continue with, or even increase, its anti-competitive behavior will certainly not decrease, and its ability to do so will increase significantly.

V. Application of the Commission Staff Model

33. These conclusions, and my fundamental disagreement with Israel and Katz, are based on economic rationality, but I note that they are not inconsistent with the Commission Staff model for several reasons. First, Israel and Katz readily acknowledge that critical parameters in the Commission Staff model are highly uncertain. The reliability of these parameters is the basis for the Israel and Katz conclusion that the proposed transaction will not harm consumer welfare. One of the chief parameters in question is their assumption that the extreme position of complete foreclosure is the best metric to judge the effects of proposed

transaction on consumer welfare.[23] Given this uncertainty, as well as the nascent nature of the relevant markets, the prudent regulatory and antitrust policy is for the FCC to take a cautious approach and explore remedies that would effectively eliminate those albeit uncertain outcomes that would be harmful to consumer welfare.

34. This is one of many reasons why it is difficult to rely too heavily or exclusively on the results presented by Israel and Katz based on the Commission Staff model.

VI. MERGER IMPACT ON PRICING AND EFFICIENCY

A. Impact on Pricing

35. Mixed bundling – selling a bundle of services at a price below the sum of the prices of the individual service components – "is an extremely effective means of indirectly price discriminating."[24] Mixed bundling is also indicative of market power (*e.g.,* as seen in the bundling practices of Microsoft Office) and is a common strategy in this industry where "triple play" packages for provision of video, voice and broadband Internet are prevalent.

36. The merger of NBCU and Comcast must have an impact on pricing. Consider the price of stand-alone broadband access from Comcast today. In setting the current price, Comcast balances lost revenues

[23] This is true even assuming, *arguendo*, the basic analysis used by Israel and Katz is correct.

[24] R. Preston McAfee *"Competitive Solutions: The Strategists Toolkit,"* Princeton, 2002, p. 277.

from higher stand-alone prices (which some consumers will choose not to buy at the higher price) with the added revenues from customers with higher-profit bundled services.[25] Therefore, at the margin, the post-merger Comcast entity will have the incentive to raise the price of stand-alone broadband service absent other competitive pressures.

37. In particular, consider the case of two products, "cable" and "broadband," both of which have a marginal cost of zero (this is just a normalization). Suppose that consumers have a reservation value for each broadband service, x and cable service, y, with a joint distribution $F(x,y)$ with density $f(x,y)$. The monopolist optimal mixed bundling prices ($p^*_x, p^*_y\ p^*_b$) satisfy the condition that for an increase in the price of broadband, p^*_x, by ε, it must be that $-Ap^*_x + B\varepsilon + C(p^*_b - p^*_x) = 0$, where A is the measure of the set of customers who drop broadband service, B is the measure of those who remain just with broadband, and C is the measure of the set who switch to the bundle. Now consider an MVPD broadband provider is vertically integrated with an advertising supported programming channel, and obtains an increase in advertising revenues from the programming entity of δ per video subscriber. The impact of increasing the price of broadband by ε, then, is:

[25] However, post merger, Comcast will now have a higher profit margin on customers who choose the bundle due to the increased number of subscriptions to NBCU channels.

$-Ap^*_x + B\varepsilon + C(p^*_b - p^*_x + \delta) = C\delta > 0$. Thus, it will be profitable for the vertically integrated firm to raise price above the optimal price of the un-integrated firm. The size of this effect depends on C and δ. Thus the larger the footprint of the MVPD MSO and the larger the holdings of the programming entity the greater this effect will be.

B. Post Merger Efficiency Claims

38. It should also be noted that Comcast claims that the merger leads to efficiencies through elimination of "double marginalization" in programming costs. From these efficiencies, it is claimed, Comcast will have an incentive to lower MVPD prices to its own customers. However, the substantial economic evidence contradicts this claim. There have been 23 econometric studies, as shown in Table 2 in the Appendix, of how MVPD size affects pricing, and although it is claimed larger MVPDs have lower programming costs, the record shows that size does lead to higher prices. Thus there is no evidence that any such benefit would be passed on to consumers.

VII. CONCLUSION

39. Based on the foregoing analysis, it is clear that the proposed Comcast/NBCU transaction will provide the post-merger Comcast with strong incentives and abilities to interfere with horizontal MVPD competitors, as well as emerging OVPD services, regardless of whether

online video content is a complement or substitute for traditional MVPD services.

I declare under penalty of perjury that the foregoing is true and correct. Executed on August 19, 2010.

Simon J. Wilkie

TABLE 2

EFFECT OF MSO SIZE ON CABLE PRICES

Study	Year of Source Data	Variable for Size of MSO	Statistical Significance Level	Effect of MSO Size on Cable Prices
FCC (1994)	1992 FCC Price Survey	Dummy variable indicating whether the cable system is owned by an MSO	0.05	Ownership of a cable system by an MSO leads to a 7.5% increase in basic cable prices.
	1992 FCC Price Survey	Number of cable systems owned by the MSO	0.05	Doubling the number of cable systems owned by an MSO leads to a 1% increase in basic cable prices.
Jayaratne (1996)	1992 FCC Price Survey	Dummy variable indicating whether the cable system is owned by an MSO	0.01	Ownership of a cable system by an MSO leads to a 13% increase in basic cable prices.
	1992 FCC Price Survey	Number of cable systems owned by the MSO	0.05	Doubling the number of cable systems owned by an MSO leads to a 1% increase in basic cable prices.
Emmons and Prager (1997)	1983 Television & Cable Factbook	Number of cable systems owned by the MSO	Not statistically significant	Doubling the number of cable systems owned by an MSO leads to a 0.8% increase in basic service cable prices.
	1989 Television & Cable Factbook	Number of cable systems owned by the MSO	0.1	Doubling the number of cable systems owned by an MSO leads to a 2% increase in basic service cable prices.
FCC (1999)	1998 FCC Price Survey	Dummy variable indicating whether the cable system is owned by an MSO	0.1	In 1997, ownership of a cable system by an MSO leads to a 4.1% increase in cable prices.

	1998 FCC Price Survey	Dummy variable indicating whether the cable system is owned by an MSO	0.2	In 1998, ownership of a cable system by an MSO leads to a 3.3% increase in cable prices.
GAO (2000)	1998 FCC Price Survey	Dummy variable indicating whether the cable system is owned by one of the 10 largestMSOs	0.01	Ownership by one of the 10 largest MSOs leads to a 8.8% increase in cable prices.
FCC (2000)	1999 FCC Price Survey	Dummy variable indicating whether the cable system is owned by an MSO	0.2	In 1998, ownership of a cable system by an MSO leads to a 3.5% increase in cable prices.
	1999 FCC Price Survey	Dummy variable indicating whether the cable system is owned by an MSO	0.2	In 1999, ownership of a cable system by an MSO leads to a 3.6% increase in cable prices.
	1999 FCC Price Survey	Dummy variable indicating whether the cable system is part of a cluster of cable systems	0.05	When the cable system is part of a cluster of cable systems owned by an MSO, cable prices are 2.6% higher.
Chipty (2001)	1991 Television & Cable Factbook	Number of homes passed nationally by the MSO	0.05	Doubling the number of homes passed nationally by an MSO leads to a 6.7% increase in premium cable prices.
FCC (2001)	2000 FCC Price Survey	Dummy variable indicating whether a cable system is owned by an MSO	0.01	Ownership by an MSO leads to a 15.0% increase in cable prices (without cluster dummy).
	2000 FCC Price Survey	Dummy variable indicating whether a cable system is owned by an MSO	0.01	Ownership by an MSO leads to a 13.7% increase in cable prices (with cluster dummy included).

	2000 FCC Price Survey	Dummy variable indicating whether a cable system is part of a cluster of cable systems	0.01	When the cable system is part of a cluster of cable systems owned by an MSO, cable prices are 2.4% higher.
FCC (2002)	2001 FCC Price Survey	Dummy variable indicating whether a cable system is owned by an MSO	0.01	Ownership by an MSO leads to a 22.8% increase in cable prices.
	2001 FCC Price Survey	Number of nationwide subscribers served by the MSO	0.01	Doubling the number of subscribers served by the MSO leads to a 1.8% increase in cable prices.
GAO (2002)	2001 FCC Price Survey	Dummy variable indicating whether a cable system is owned by one of the 10 largest MSOs	0.01	Ownership by one of the 10 largest MSOs leads to a 6.6% increase in cable prices.
Karakari, Brown, and Abramowitz (2003)	1998 FCC Price Survey	Dummy variable indicating whether the cable system is owned by one of the 10 largest MSOs	0.01	Ownership by one of the 10 largest MSOs leads to a 5.6% increase in cable prices.
GAO (2003)	2001 FCC Price Survey	Dummy variable indicating whether a cable system is owned by one of the 10 largest MSOs	0.01	Ownership by one of the 10 largest MSOs leads to a 5.3% increase in cable prices.
Savage and Wirth (2005)	1999 Television & Cable Factbook	MSO's share of all cable systems	Not statistically significant	A 10 percentage point increase in the number of nationwide cable systems owned by an MSO leads to a $1.32 increase in monthly basic service cable prices.
FCC (2006)	2005 FCC Price Survey	Number of nationwide subscribers served by the MSO	0.01	Doubling the number of subscribers served by the MSO leads to a 2.5% increase in cable prices.

GAO (2005)	2004 FCC Price Survey	Dummy variable indicating whether a cable system is owned by an MSO serving at least one million nationwide subscribers	Not statistically significant	Ownership by an MSO serving at least one million nationwide subscribers leads to a 1.3% increase in cable prices.
Clements and Brown (2006)	2001 FCC Price Survey	Dummy variable indicating whether a cable system is owned by one of the top 10 largest MSOs	0.01	Ownership by one of the 10 largest MSOs leads to a 6.9% increase in cable prices.
Chu (2008)	1992-2002 Television & Cable Factbook	Dummy variable indicating if the cable system is owned by one of the seventeen largest MSOs by subscriber count as of September 2004	0.01	Ownership of a cable system by an MSO leads to reduction in subscriber utility of $2.57 per month.

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ATTACHMENT B

Comcast/NBCU Advertisement Published in
COMMUNICATIONS DAILY, July 21, 2010

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ATTACHMENT C

Letter from Amy B. Cohen, Vice President and Associate General Counsel, Comcast SportsNet, to Dave Shull, Senior Vice President, Programming, DISH Network L.L.C., July 23, 2010

One Comcast Center, 28th Floor • Philadelphia, PA 19103-2838

July 23, 2010

BY ELECTRONIC
AND FIRST CLASS MAIL

Dave Shull
DISH NETWORK L.L.C.
9601 S. Meridian Boulevard
Englewood, CO 80112

Re: Comcast SportsNet Philadelphia

Dear Dave:

This will acknowledge receipt of Kevin Cross's letter dated June 21, 2010 regarding carriage of Comcast SportsNet Philadelphia ("CSN-P"), based on the issuance of *In the Matter of Review of Commission's Program Access Rules and Examination of Programming Tying Arrangements*, 25 FCC Rcd. 746 (2010) ("*Terrestrial Order*"). Notwithstanding the FCC's recent change of view in the *Terrestrial Order* about the applicable law, Comcast's longstanding business policy not to offer carriage of CSN-P to DBS providers, including DirecTV, has not changed and remains the same. As you may know, Dish and another DBS provider previously challenged that business policy and it was found to be lawful by the FCC, in a ruling later affirmed by the United States Court of Appeals for the District of Columbia Circuit. *See Terrestrial Order* ¶ 70 n.256 (citing to these decisions).

Please let me know if you have any questions.

Very truly yours,

Amy B. Cohen

Amy B. Cohen
Vice President, Associate General Counsel
Comcast Sportsnet