ATTACHMENT A

A FURTHER ECONOMIC ANALYSIS OF THE PROPOSED COMCAST-NBCU TRANSACTION

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by

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I. INTRODUCTION

In their initial application, the parties to this transaction submitted an economic report prepared by Drs. Mark Israel and Michael L. Katz[1] ("*Israel Katz Report I")* meant to address the issue of competitive harms from the transaction that could occur through its impact on markets for MVPD services. Along with its initial comments, the American Cable Association submitted a paper written by myself [2] ("*Rogerson Report I*") describing and estimating the magnitude of two significant competitive harms that the transaction would create through its impact on MVPD markets that had not been considered in the *Israel Katz Report* I or in any other materials initially submitted by the applicants. In their reply comments, the applicants submitted an additional economic report by Drs. Israel and Katz[3] ("*Israel-Katz Report II*") meant to refute the analysis in *Rogerson Report I.* In this follow-up report, I will present my own analysis of *Israel-Katz Report II*. In particular, I will explain why this report fails to successfully refute any of the arguments

[1]*See* Mark Israel and Michael L Katz, "Application of the Commission Staff Model of Vertical Foreclosure to the Proposed Comcast-NBCU Transaction," February 26, 2010, (*Israel Katz Report I"*), submitted with *Application and Public Interest Statement, In the Matter of Applications for Consent to the Transfer of Control of Licenses, General Electric, Transferor, to Comcast Corporation, Transferee*, MB Docket No. 10-56, February 26, 2010.

[2]*See* William P. Rogerson, "Economic Analysis of the Competitive Harms of the Proposed Comcast-NBCU Transaction," June 21, 2010, ("*Rogerson Report I*"), submitted by the American Cable Association (ACA) along with its initial comments in the Commission's proceeding examining this transaction. *See* ACA, *Comments In the Matter of Applications of Comcast Corporation, General Electric Company, and NBC Universal, Inc., to Assign and Transfer Control of FCC Licenses,* MB Docket No. 10-56, June 21, 2010("*ACA Initial Comments")*

[3]*See* Mark Israel and Michael L. Katz, "Economic Analysis of the Proposed Comcast-NBCU-GE Transaction," July 20, 2010, submitted with *Opposition to Petitions to Deny and Response to Comments, In the Matter of Applications for Consent to the Transfer of Control of Licenses, General Electric, Transferor, to Comcast Corporation, Transferee*, MB Docket No. 10-56, July 21 2010.

that I advanced in my initial report.[4] After this, I will describe a set of conditions proposed by the American Cable Association (that they developed with my advice) and explain why I believe that this set of conditions would substantially address the harms that I have identified, while still allowing the transaction to proceed.

II. VERTICAL HARM

1. INTRODUCTION

The theory of vertical harm that I outline in my initial report[5] is that Comcast's ownership share of the joint venture combined with its ownership of its MVPD business will increase the joint venture's ability to bargain for higher programming fees from MVPDs that compete with Comcast, and that these fee increases will be substantially passed through to subscribers in the form of higher subscription fees. I will refer to this effect as the "raising rivals' costs" effect of the transaction. This effect occurs because the joint venture will take account of the fact that selling programming to MVPDs that compete with Comcast will reduce Comcast's profits. Essentially, this means that the transaction will create a new opportunity cost to the joint venture of selling NBCU programming to rivals of Comcast. I show that the magnitude of the opportunity cost created by the transaction is determined by the simple formula

$$C = \alpha d \pi \qquad \text{(II.1)}$$

[4]In addition to the two reports by Drs. Israel and Katz referenced above, the applicants have submitted three additional economic reports (one additional report by Drs. Israel and Katz and two reports by Dr. Greg Rosston). However, these additional reports deal with other issues and I will not refer to them further in this report.

[5]*See Rogerson Report I*, Section 3.

where C denotes the increased opportunity cost per subscriber due to the transaction, d denotes the share of the customers that would leave the rival MVPD if it were unable to offer the NBCU programming, α denotes the share of these customers that would switch to Comcast, and π denotes the per subscriber profit margin of Comcast. Following the standard and well-accepted Nash bargaining model, I predict that half of this increase in opportunity cost will be passed through to MVPDs in the form of higher programming fees. This means that the formula for calculating the increase in programming fees that the merged entity will charge to MVPDs that compete with Comcast is given by

$$\Delta P = \alpha \, d \, \pi / 2 \qquad \text{(II.2)}$$

Equation (II.2) provides a formula for estimating the cost increase (experienced by MVPDs that compete with Comcast) due to the raising rivals' costs effect of the transaction. To provide some information on the rough order of magnitude of this cost increase, I use publicly available data to determine plausible values for these parameters. I assume that π is equal to $42.98.[6] I assume that d is equal to .05 for the NBC local broadcast signal and is also equal to .05 for the block of NBCU national cable networks.[7] In order to estimate α, I follow the perfectly reasonable procedure of assuming that customers that leave a given MVPD will switch to other MPVDs in proportion to the relative market shares of these other MVPDs. This is the procedure

[6] *See Rogerson Report I* at page 30.

[7] *See Rogerson Report I* at pages 30-31.

that the Commission itself has routinely used in its own calculations of this sort[8] and is also the procedure that Drs. Israel and Katz used in their initial report.[9] The value of α will vary from MVPD to MVPD and from programming type to programming type depending upon the extent to which Comcast has subscribers in the relevant region affected by the programming withdrawal.[10] There are six major urban areas of the country that are served by an NBC O&O where Comcast is the dominant cable operator.[11] These are Philadelphia, Chicago, San Francisco-Oakland-San Jose, Miami-Ft. Lauderdale, Washington DC, and Hartford-New Haven. For withdrawal of retransmission consent for an NBC O&O from a national telco[12] or DBS provider is these areas, the value of α varies between .43 and .7 with an average value of .62.[13] For withdrawal of NBCU cable networks from a national telco or DBS provider, the value of α is approximately equal to

[8]*See*, for example, *DirecTV-News Corp. Order*, Appendix D, para. 29.

[9]*See Israel Katz Report I* at para. 55, which states "we assume that, if the joint venture chose to foreclose any MVPD (after the contract had expired), then the diversion ratio to each of the remaining, non-foreclosed MVPDs in the DMA would be proportional to the MVPD's share of all MVPD subscribers in that DMA."

[10]*See Rogerson Report I* at pages 33-40 for a detailed explanation of the formula that determines α.

[11]Although the NBC network does not currently negotiate retransmission consent fees on behalf of its affiliate stations, it is possible that the NBC network might begin doing this at some point. To the extent that the NBC network begins to negotiate retransmission consent fees on behalf of NBC affiliates, the transaction will cause retransmission consent fees for NBC affiliates to rise by the same amount that it will cause retransmission consent fees for NBC O&O's to rise. For purposes of simplifying the exposition of my report, I will only explicitly refer to the effect of the transaction on increasing retransmission consent fees for NBC O&Os. However, the reader should keep in mind that these effects will also occur for retransmission consent fees of all NBC affiliates if NBC ever begins negotiating retransmission consent fees on their behalf.

[12]In this report I will use the term "national telco" to refer to AT&T or Verizon, which are the two national telephone companies that are rolling out MVPD service in their service areas.

[13]*See Rogerson Report I*, Table 3, at page 56.

.26.[14] Substitution of these values into formula (II.2) yields

RetransΔP	=	.62 x .05 x 42.98 / 2	=	$.67	
CablenetΔP	=	.26 x .05 x 42.98/2	=	$.28	(II.3)
TotalΔP	=		=	$.95	

Thus, in the six major urban areas of the United States served by an NBC O&O where Comcast is the dominant cable operator we would expect total programming fees charged to national telcos and DBS providers to increase by $.95 per subscriber per month. In the remainder of the country programming fees to these same MVPDs would increase by $.28 per subscriber per month. For regional cable overbuilders, the value of α depends on the share of the MVPD's subscribers passed by Comcast. If 80% of a cable overbuilder's homes were passed by Comcast, the value of α is .49.[15] Substitution of this value into equation (II.2) yields

RetransΔP	=	.49 x .05 x 42.98 / 2	=	$.53	
CablenetΔP	=	.49 x .05 x 42.98/2	=	$.53	(II.4)
TotalΔP	=		=	$1.06	

Thus, a regional cable overbuilder that competes primarily with Comcast will experience a fee increase of $.53 per subscriber per month for NBCU national cable networks and an additional fee increase of $.53 per subscriber per month for retransmission consent for the local NBC broadcast television signal if it is in a region served by an NBC O&O. Thus the magnitude of the likely fee

[14] *See Rogerson Report I* at page 38.

[15] *See Rogerson Report I* at pages 38-40.

increases experienced by regional cable overbuilders that compete primarily with Comcast will be comparable to the magnitude of the fee increases experienced by the two DBS providers and the two national telcos.

Drs. Israel and Katz essentially adopt three different lines of argument in attempting to refute my analysis and estimation. Their first line of argument is that, even if my raising rivals' costs theory is completely correct and programming fees charged to MVPDs that compete with Comcast will increase by the amount that I predict, there is a second additional effect on subscription prices that I am ignoring which will have the reverse impact on subscription fees and overwhelm the effect that I do identify. This second effect is that Comcast's own marginal cost of providing MVPD service will be reduced by the transaction and that a share of this cost reduction will be passed through to subscribers in the form of lower subscription prices. I will refer to this effect as the "reduced double marginalization" effect. Drs. Israel and Katz assert that the magnitude of the cost reduction experienced by Comcast due to the reduced double marginalization effect is equal to the full amount of the programming fees that Comcast currently pays NBCU (before the transaction). Based on this assertion, they argue that the cost reduction (experienced by Comcast) due to reduced double marginalization will likely exceed the cost increase (experienced by Comcast's rivals) due to the raising rivals costs effect and that the beneficial effects of the vertical transaction on Comcast's own pricing will therefore likely overwhelm the harmful effects of the vertical transaction on the pricing of rival MVPDs. Their second line of argument is to advance a number of different reasons why they believe that my raising rivals' costs theory predicting that Comcast will raise programming prices to its rivals is incorrect or why the estimate of this effect that I calculate overstates the likely effect. Their third

line of argument is that the programming fee increases experience by regional cable overbuilders can be ignored because regional cable overbuilders serve an insignificant share of the entire U.S. population.

I will deal with each of the lines of argument separately in the next three sections of the paper.

2. REDUCED DOUBLE MARGINALIZATION

As described above, Drs. Israel and Katz argue that an additional effect of the transaction will be that Comcast's own marginal cost of providing MVPD service will be reduced, and that a share of this cost reduction will be passed through to Comcast subscribers in the form of lower subscription fees. I will refer to this effect as the "reduced double marginalization" effect.

To develop a formula for measuring the magnitude of the cost decrease that Comcast will experience due to the reduced double marginalization effect, Drs. Israel and Katz begin by noting that, after the transaction, Comcast will view the true marginal cost of purchasing NBCU programming as zero, since any fee paid by one division of the firm to another division is a simple transfer payment that does not affect the total profit of the firm. They claim that this implies that Comcast's marginal cost will drop by an amount equal to the value of programming fees that Comcast pays NBCU before the transaction occurs. That is, if Comcast currently pays a fee of w dollars per subscriber per month for NBCU programming, Drs. Israel and Katz claim that an additional effect of the vertical transaction will be that, after the transaction, Comcast will view its costs of providing service to subscribers as being w dollars per subscriber per month lower than before the transaction. Thus the pricing effects created by the fact that MVPDs competing with

Comcast will have programming prices that are $.95 per subscriber per month higher than before the transaction must be weighed against the pricing effects created by the fact that Comcast will view its own costs of providing service as being w dollars per subscriber per month lower than before the transaction. In particular, then, Drs. Israel and Katz argue that if w is somewhat larger than $.95 per subscriber per month, then this should be interpreted as suggesting that the effect of reduced double marginalization will outweigh the effect of increased programming fees for MVPDs that compete with Comcast. Publicly available data suggests that a reasonably plausible value to use for w would be $1.56.[16] This obviously is somewhat larger than $.95

I will now explain why the theory of Drs. Israel and Katz is completely incorrect because of a basic error in economic reasoning in their analysis. In particular, although their analysis starts with a grain of truth, they almost immediately make a grave error in economic reasoning that results in a completely false conclusion on their part.

The grain of truth they begin with is the observation that, after the vertical transaction, Comcast will view its true marginal cost of providing NBCU programming to its subscribers as being zero. The fatal error in their analysis is to ignore a new opportunity cost that Comcast will now take account of because of the transaction. For purposes of my explanation of this ignored new opportunity cost, I will use the figure I mention above of $1.56 per subscriber per month as being the programming fee that NBCU charges all MPVDs for its programming. The new opportunity cost is created by the fact that the joint venture charges $1.56 per subscriber per month not only to Comcast but also to all MVPDs that compete with Comcast. Furthermore, since the marginal cost to the joint venture of providing this programming to an additional viewer is

[16] See *Rogerson Report I,* footnote 29, which cites Kagan data as reported in Peter Kafka, "Hate Paying for Cable? Here's Why," *All Things Digital*, http://mediamemo.allthingsd.com/20100308/hate-paying-for-cable-heres-the-reason-why/.

essentially zero, this entire fee of $1.56 per subscriber per month represents profit to the joint venture. Now suppose that Comcast lowers its subscription price slightly in an attempt to attract more customers. The critical point to recognize (which is the point that Drs. Israel and Katz fail recognize in their analysis) is that to the extent that these new customers are customers that switch from some other MVPD, this will cause the joint venture to lose $1.56 per subscriber per month in programming profit. In particular, if 100% of the customers that Comcast would attract are customers that would switch from some other MVPD, then the opportunity cost of attracting new customers is exactly equal to $1.56 per subscriber per month. This is because, when Comcast attracts a new customer, it loses a profit of $1.56 on sales of NBCU programming to the MVPD that the customer switches from.

More generally, we can define the "switcher share" of Comcast as follows. Suppose that Comcast slightly lowers its subscription price to attract new subscribers. It will attract two different types of subscribers - people who previously subscribed to a different MVPD and people who previously subscribed to no MVPD. Define the "switcher share" of Comcast to be the share of new subscribers that are switchers from some other MVPD. I will let the parameter θ denote Comcast's switcher share. Although I am not aware of any publicly available data that provides information on the precise magnitude of θ for a typical MPVD, it is completely clear that θ is a very large number and will likely be close to 1. That is, when Comcast lowers its price in an attempt to attract new customers, most of the customers that it attracts will be customers that switch from some other MVPD. To put this another way, Comcast is essentially competing with other MPVDs for most of its business. There are very few customers that view themselves as choosing between the two options of subscribing to Comcast versus not subscribing to any MVPD

at all.

To return to the example above, if θ is the switcher share for Comcast, then this means that θ of the customers that it would attract by lowering its price slightly would be customers that switch from some other MVPD. This means that the opportunity cost of attracting a new customer is θ x $1.56, because this is the amount of profit that the vertically integrated firm will lose when it attracts new customers. Therefore a complete accounting of the effects of vertical integration on the marginal cost to the combined entity of serving new MVPD customers is as follows. First, because the payment of Comcast to the joint venture of $1.56 is now simple a transfer payment, the marginal cost goes down by $1.56. However, second, because θ of the customers that Comcast attracts will be from other MVPDs, there is a new opportunity cost of θ x $1.56 per subscriber per month. A decrease in cost of $1.56 combined with an increase in cost of θ x $1.56 yields a net decrease in cost of (1-θ) x $1.56. In particular, if θ is close to 1, then the net decrease in cost due to the double marginalization effect is close to 0.

To summarize, Drs. Israel and Katz erroneously claim that the magnitude of the cost decrease due to the reduced double marginalization effect is $1.56 per subscriber per month. In reality it is actually equal to only (1-θ) x $1.56 per subscriber per month where θ is the switcher share of Comcast. It is completely clear that the value of θ is close to 1. Even if it were as low as .9, the magnitude of the cost reduction due to the reduced double marginalization effect would only be $.16 per subscriber per month, which is completely swamped by the increase in other MVPDs' marginal costs of $.95 I suspect that a more realistic estimate of the correct value θ is much larger than .9. If, for example, the correct value θ is .98, then the correct magnitude of the cost reduction due to the reduced double marginalization effect would be $.03 per subscriber per

month. The important point to notice is that over any plausible range of values for the parameter θ, it is clear that the reduced double marginalization effect will be completely swamped by increases in programming fees of rival MPVDs if this latter effect is in the neighborhood of $.95 as I have estimated.

Therefore, in summary, I agree with Drs. Israel and Katz that there are two separate effects that need to be taken into account. The first effect is the increase in programming fees that MPVDs competing with Comcast will experience. The second effect is the decrease in marginal cost that Comcast will experience. The critical mistake of Drs. Israel and Katz is that their estimate of the second effect is orders of magnitude higher than the true value. This is because they erroneously fail to take into account the fact that the vertically integrated firm will still experience a marginal cost of $1.56 per subscriber per month when it attracts new subscribers so long as the subscribers that it attracts shift from some other MVPD that was also carrying the NBCU programming.

To put this another way, I believe that the issue of reduced double marginalization raised by Drs. Israel and Katz is a essentially a red herring. Although this effect exists, its magnitude is almost certainly very small. The real issue is whether or not the vertically integrated firm will have an incentive to increase the programming fees that it charges to its rivals. If the increase in programming fees is anywhere in the neighborhood of the value of $.95 per subscriber per month that I predict, this effect will completely overwhelm the reduced double marginalization effect.[17]

[17] As an aside, I would also like to raise the more minor point that even if the reduced double marginalization effect was of the same order of magnitude as the raising rivals' costs effect, this would still potentially create an issue of concern for the Commission. In the markets that Comcast serves, it is generally the dominant provider. Any transaction that had the effect of giving Comcast a significant cost advantage over its competitors might threaten to drive Comcast's competitors out of the market entirely or at least weaken them considerably, and thus damage competition. Thus, even if the effect of the transaction was to lower Comcast's own costs

I will now turn to the criticisms that Drs. Katz and Israel raise about my raising rivals' costs theory.

Also, note that a more formal version of the economic arguments that I have made in this section is presented in an Appendix to this report.

3. RAISING RIVALS' COSTS

In this section I will consider Drs. Israel and Katz's second line of argument that my raising rivals' costs theory is incorrect or that the estimated magnitude of this effect that I calculate overstates the effect. They offer four different reasons to support this line of argument and I will consider each separately.

Reason #1: Partial Ownership of the Joint Venture by GE

The raising rivals' costs theory requires that the joint venture have the incentive to take actions that maximize the joint profits of the joint venture and Comcast. This will be true if the joint venture and Comcast are able to closely coordinate their actions and redistribute profits between themselves so as to leave both parties better off from any action that maximizes their joint profits. I stated in my initial paper that it would be completely untenable for the applicants or their economists to attempt to argue that this type of close coordination would be impossible, because many of the claimed efficiencies for the transaction would require exactly the same type of close coordination and redistribution of profits between the joint venture and Comcast.[18] I

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and raise its rivals' costs by approximately the same amount, it is not at all clear that the net effect on subscribers would be minor. If the result of this was to drive Comcast's competitors from the market or at least considerably weaken them, the reduction in competition might ultimately make it profitable for Comcast to raise its own subscription prices.

[18] *See Rogerson Report I* at pages 19-20.

further noted that the Commission itself unequivocally made this same point itself in its analysis of the DirecTV-News Corp. transaction.[19]

Drs. Israel and Katz have responded to this by giving one small example of one particular type of efficiency that could be achieved without close coordination and redistribution of profits. This is the reduced double marginalization efficiency that I have already discussed above. Namely, they point out that if Comcast has a 51% ownership share in the joint venture, it would automatically create incentives for Comcast to internalize 51% of the joint venture's profits when it chose a downstream subscription price for its MVPD services, without the need for any additional consultation or coordination with the joint venture.

I have two observations to offer about this argument. First, as I have already demonstrated in the previous section, Drs. Israel and Katz are largely mistaken when they claim that there is a significant efficiency associated with the reduced double marginalization effect. As I showed in the previous section, even if Comcast fully internalized 100% of the upstream profits, this alone would not cause it to make significantly different pricing decisions at the downstream level. Second, even if it is possible to find an occasional example of an efficiency that could be achieved without close coordination and profit redistribution, it completely clear that achievement of many important classes of efficiencies will require close coordination and profit redistribution.

[19]The DirecTV- News Corp. transaction involved News Corp. purchasing a 34% interest in DirecTV which could be increased to 50%. One of the scenarios which the Commission considered in evaluating foreclosure incentives was the scenario where News Corp. made decisions to maximize the combined profits of both firms. It described one of the rationales for this decision as follows. "The proposed joint endeavors between News Corp. and DirecTV that are a basis for many of the Applicants' claimed benefits provide ample opportunities to compensate News Corp. for the losses in programming revenue associated with foreclosure and make the strategy profitable to both firms and their stockholders." *See Appendix D, Staff Analysis of the Likelihood of Foreclosure in the Broadcast Television Programming Market, See DirecTV-News Corp. Order,* at para. 7 as cited in *Rogerson Report I* at page 20.

Reason #2: Bargaining Models are Too Stylized For Analyzing Competitive Effects

Drs. Israel and Katz suggest the bargaining model that the vertical theory of harm is based on is "far too stylized"[20] to be used for purposes of analyzing the competitive effects of this transaction even though they admit that this same framework "commonly is used in academic settings to derive basic insights about various types of negotiations." [21] It is difficult to know what to make of this critique, especially in light of the fact that Professor Katz himself has recently used precisely this same type of model to provide extensive policy guidance to the Commission on the issue of retransmission consent.[22] Almost all economic models are highly stylized, including most of the game theoretic models that provide the foundation for modern industrial organization theory and that play a key role in providing guidance for antitrust policy. Bargaining models are a completely well-accepted and standard type of model used in the industrial organization literature to derive basic insights useful for policy analysis. Furthermore, as I noted in my previous paper, the Commission itself used precisely this sort of model to analyze the Adelphia-Time Warner-Comcast transaction which is the most recent significant transaction with vertical competitive harms that the Commission has evaluated.[23]

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[20] *See Israel Katz Report II* at para. 43.

[21] *See Israel Katz Report II* at para. 43.

[22] *See* Michael L. Katz, Jonathan Orszag, and Theresa Sullivan, "An Economic Analysis of Consumer Harm From the Current Retransmission Consent Regime," November 12, 2009, ("Katz, Orszag, and Sullivan (2009)*"*), submitted by NCTA as part of its comments, *In the Matter of A National Broadband Plan for Our Future,* NBP Public Notice #26, GN docket Nos. 09-47, 09-51, 09-137 and *In the Matter of Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, MB Docket No. 07-269, December 16, 2009.

[23] *See Adelphia-Time Warner-Comcast Order,* Appendix D, as cited in *Rogerson Report I* at page 22, including footnote 33.

Reason #3: Parameter Values

As I explained in Section II.1 of this paper, the formula for calculating the fee increase that an MPVD competing with Comcast will face due to the transaction is given by

$$\Delta P = \alpha \, d \, \pi / 2 \qquad \text{(II.5)}$$

where ΔP denotes the per subscriber fee increase due to the transaction, d denotes the share of the customers that would leave the rival MVPD if it were unable to offer the NBCU programming, α denotes the share of these customers that would switch to Comcast, and π denotes the per subscriber profit margin of Comcast. In order to provide some information on the rough order of magnitude of this cost increase, I substituted plausible parameter values into equation (II.4) to yield a predicted fee increase of $.95 per subscriber per month.[24] The only significant disagreement on parameter values that Drs. Israel and Katz have with me regards the parameter α, which is the share of customers leaving a rival MVPD that would switch to Comcast as opposed to some other MVPD. In fact, they recommend using slightly higher values for π and d than I use, which would result in a larger estimate of harm. To determine plausible values of α, I make the completely reasonable assumption that Drs. Israel and Katz used themselves in their initial report[25] and that the Commission routinely uses itself,[26] that customers leaving any particular MVPD will

[24] *See* equation (II.3), above, for details.

[25] *See Israel Katz Report I* at para. 55, which states "we assume that, if the joint venture chose to foreclose any MVPD (after the contract had expired), then the diversion ratio to each of the remaining, non-foreclosed MVPDs in the DMA would be proportional to the MVPD's share of all MVPD subscribers in that DMA."

distribute themselves among other MVPDs according to the relative market shares of the other MVPDs. I will refer to this as the "relative market shares" method of calculating α. In their follow-up report Drs. Israel and Katz report that, although they believe that this is still the correct procedure to use for cable overbuilders and national telcos, they now believe that it would be appropriate for the case of DBS providers, to use a value of α equal to one third of the value produced by the relative market shares method.[27]

Drs. Israel and Katz's explanation for their new approach is as follows. They note that in their initial report they conducted an empirical analysis of Comcast subscription data and determined that Comcast did not appear to gain any additional customers in regions where the DISH network was unable to carry certain broadcast signals for a 6 month period. They also note that in its comments the DISH network filed information indicating that a relatively substantial share of DISH subscribers left DISH during this same time period. Thus, based on these two pieces of evidence it appears that although a relatively significant number of subscribers left DISH, no additional subscribers went to Comcast. Drs. Israel and Katz suggest that this could be explained by the theory that customers of one DBS provider have such a strong preference for DBS over non-DBS MVPD service, that if they decide to leave one of the two DBS providers because programming is unavailable, they almost all choose to switch to the other DBS provider. If one literally accepted Drs. Israel and Katz's data and theory at face value, one would then conclude that α should literally be equal to zero. Instead of recommending that α be set equal to zero, Drs. Israel and Katz recommend that the value of α still be calculated using the relative market shares method but then that the resulting value be divided by 3.

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[26]*See*, for example, *DirecTV-News Corp. Order*, Appendix D, para. 29.

[27]See *Israel Katz Report II* at para. 15, 16 and 67.

I have three major comments on this issue. First, I think that the Commission should be very cautious about basing a major policy decision entirely on one piece of evidence provided by a party with a major interest in the outcome based on that party's own reported analysis of its own private data. This should be especially true when the evidence seems to suggest a somewhat surprising conclusion. Drs. Israel and Katz correctly point out that theirs is the only data available on the particular issue of whether or not local cable operators' subscriptions increase when a DBS provider in the area they serve loses carriage of a piece of must-have programming.[28] However, the Commission should note that no-one other than a major cable operator would be in a position to have data of this sort, and Comcast is the only large cable operator taking any active interest in this proceeding. Furthermore, I expect that Comcast almost surely keeps data on the where their new customers come from, and what proportion of them switch from a DBS provider. This data would likely show that many of Comcast's new customers are, in fact, former DBS subscribers. If this is correct, this would suggest that many DBS subscribers do view cable service as a relevant substitute for DBS. Comcast has not chosen to share any data of this sort with the Commission.

Second, there is a reverse side to this same coin. Namely, if it is true that the two DBS providers are particularly close substitutes for one another, it seems equally plausible to hypothesize that non-DBS providers might also be particularly close substitutes for one another. For example, because of their particular geographic situation, some households are not able to obtain clear reception of DBS signals. As another example, many households apparently prefer to purchase a bundle of services including broadband and telephony from a single provider, which is not possible with a DBS provider. Finally, some households may either have zoning

[28]The more commonly available type of data is the share of subscribers that leave a particular MVPD when programming is withheld from it rather than which particular MVPD the leaving customers switch to.

restrictions prohibiting the placement of a DBS satellite dish or simply view the satellite dish as being too unsightly. To the extent that non-DBS providers are particularly close substitutes, then when Comcast withheld programming from a national telco or cable overbuilder, it would be the case that Comcast would receive a larger share of switchers that the relative market share method would suggest.

Third, even if we divide my prediction of the likely fee increase by three, the predicted level of harm from the raising rivals' costs effect would still clearly swamp any possible projected benefits from the reduced double marginalization effect. Dividing the estimate of a $.95 per subscriber per month increase in programming fees by three yields a projected increase in programming fees of $.32 per subscriber per month. As I discussed above in Section II.2, if the switching rate for Comcast is 98%, the reduced double marginalization effect will reduce Comcast's own costs by only $.03 per subscriber per month. Thus the harm from the raising rivals' costs effect would still be more the 10 times as large as the benefit from the reduced double marginalization effect.

Reason #4: Empirical Analysis of Price Effects of Past Vertical Transactions

Drs. Israel and Katz conduct an empirical analysis to attempt to determine whether or not they can find any evidence that vertical integration of a network with an MPVD results in higher program fees and report that they fail to find any such effect. My own assessment of this study is that it suffers from so many defects and flaws both in design and data, that it is not useful for purposes of providing evidence on this issue. I believe that inherent limitations in data availability would make it very difficult and perhaps even impossible to conduct a study that

provided good information on this issue. Therefore, I do not fault Drs. Israel and Katz for being unable to conduct such a study. My only point is that the study they have presented does not provide useful evidence.

To explain the flaws in their study I will have to begin by describing the nature of the study. Drs. Israel and Katz consider four different instances of vertical integration or disintegration. The first instance occurred in 2002, when Cablevision sold its 85% interest in Bravo. The second instance occurred in 2007, when Cox purchased the Travel Channel. The third instance occurred in 2004 when News Corp. purchased a controlling interest in DirecTV. The fourth instance occurred in 2008 when News Corp. sold its controlling interest in DirecTV. For the third and fourth instances, the five networks owned by News Corp. that Drs. Israel and Katz have pricing data for are Fox News, Fox Sports en Espanol, FX, National Geographic, and Speed. For each instance Drs. Israel and Katz have pricing data for the annual fees charged by the networks in the years both before and after the transaction occurred. They attempt to assess the impact of the integration/disintegration events on network prices. Although they do not provide great detail, they report that they attempt to control to some extent for general trends in network pricing over the relevant time periods and some other factors.

I will now make four observations about this study.

First, the instances involving Cablevsion and Cox are completely inappropriate to use for this study. This is because the networks involved are national networks and Cablevision and Cox both have extremely small subscriber shares at the national level, and, in fact, do not compete at all with the major incumbent cable operators, Comcast and Time Warner. Therefore, the raising rivals' costs theory would suggest that vertical integration of a national cable network with Cox or

Cablevision would have absolutely no effect on the fees it would charge to the other major incumbent cable operators such as Comcast and Time Warner and would also have an extremely modest effect on the fees it would charge the two DBS providers. Although Drs. Israel and Katz do not report where their pricing data came from, commonly available fee data such as that published by Kagan is normally interpreted as being data on the average fee charged for various networks weighted by the number of subscribers for which each fee is being charged. Therefore, the theory itself predicts that fee changes associated with these two events would likely be too small to detect. This is because the vast bulk of subscribers that these networks were sold to were subscribers of the major cable operators and the theory predicts no change in these fees. Furthermore, the theory predicts a relatively modest change even in the fees charged to the two DBS providers. A modest change for a small number of subscribers averaged together with no change for most subscribers would likely produce an average effect too small to measure. Therefore, it is immediately clear that two of the four instances that Drs. Israel and Katz report results for are completely inappropriate to use for their study. This leaves Drs. Israel and Katz with two events to study, the integration of News Corp. with DirecTV in 2004 and the subsequent disintegration of News Corp. with DirecTV in 2008.

My second observation relates to the validity of using the disintegration of News Corp. with DirecTV in 20008. Although Drs. Israel and Katz do not explicitly state the source of their pricing data, they do explicitly state that the most recent year for which they have pricing data is 2009 and that their data is annual.[29] This means that they have one year of data for post-transaction pricing - 2009. Furthermore, it is typically the case that programmers and MVPDs sign multi-year contracts. Therefore it may well be the case that many of the prices paid

[29] *See Israel Katz Report II* at para. 82 and 83.

in 2009 were determined by contracts signed prior to News Corp.'s spin off of DirecTV. This leaves Drs. Israel and Katz with only one event to study - the integration of News Corp. with DirecTV in 2004.

Third, even for the one event that in principle might be able to provide useful information, Drs. Israel and Katz are not clear how they deal with the issue of long term contracts that extend over the transaction date. Given that they must have interpreted 2009 data as being post transaction data to be able to include News Corp.'s 2008 sale of DirecTV in their study, it seems likely that they interpreted data in 2005 and later as being post transaction data for News Corp.'s 2004 purchase of DirecTV. Once again, to the extent that program fees were determined by longer term contracts that spanned the transaction date, we would not necessarily expect there to be much of an immediate impact.

Fourth, although I am confident that Drs. Israel and Katz were likely able to control effectively for any general trends in network prices over the period, I am much less confident that they were able to control properly for issues such as age of the network, quality changes to the network, entry or exit of networks that compete with the networks being studied, and how the networks were bundled together. In a study with a large amount of data, this may not be as important, since one might hope that some of randomness associated with uncontrolled-for events may simply average out. However, given that Drs. Israel and Katz actually have only one data point that appears to be a reasonable candidate for them to study, their inability to properly control for other factors is an extremely serious issue.

4. REGIONAL CABLE OVERBUILDERS

As I described above in Section II.1, regional cable overbuilders that compete significantly

with Comcast will experience the same general magnitude of programming fee increases as will the two DBS providers and the two national telcos. When Drs. Israel and Katz calculate the dollar value of harm from the raising rivals' costs effect, they decide to only consider the programming fee increases experienced by the two DBS providers and the two national telcos. The reason they give for this decision is that, since regional cable overbuilders serve an insignificant number of subscribers on a national level, the harms that the transaction creates for regional cable overbuilders and their customers are insignificant on a national level. [30]

I have three comments to offer on this. First, I think it is important for the Commission to recognize the factual issue that regional cable overbuilders and their customers will suffer the same magnitude of competitive harm per subscriber from this transaction as will the two DBS providers and the two national telcos and their subscribers. It is certainly part of the Commission's mandate to decide how to weight various harms to various different groups and regions, but I think that it would still be important for the Commission to determine the per subscriber magnitude of the harm for various groups of subscribers before determining whether or not to ignore and of these harms.

Second, to the extent that one of the goals of the Commission is to foster the future growth of competition, it may be that the Commission would determine that competitive harm to overbuilders might be more significant than their current market shares would suggest.

Third, the competitive harm to cable overbuilders that compete with Comcast will also spill over to affect customers of Comcast in the regions where it competes with these overbuilders to the extent the competition from these overbuilders creates pressure for Comcast to lower its own prices and improve the quality of its own services.

[30] *See Israel Katz Report II*, footnote 100, page 54.

III. HORIZONTAL HARM

1. INTRODUCTION

In my initial paper, I present an economic model that explains why a sufficient condition for combined ownership of two networks (or blocks of networks) to raise programming fees is that the two networks be partial substitutes for one another in the particular sense that the value of one network to an MVPD is lower conditional on already carrying the other network. I also argue that, since MVPD subscribers likely value increases in variety at a decreasing rate, this implies that any two "must have" networks will likely have such an effect on one another's' marginal values and thus be partial substitutes for one another in the required sense. In particular, I argue that the NBC O&O's and Comcast RSNs are likely partial substitutes for one another in the particular sense defined above.[31]

Drs. Israel and Katz make five different arguments to attempt to rebut my horizontal theory of harm. In the next section I will begin by reviewing the underlying economic model that my theory of harm is based on. Then I will separately consider each of the five arguments raised by Drs. Israel and Katz.

2. THE UNDERLYING ECONOMIC MODEL

[31]I also argue that NBCU's block of popular national cable networks can be reasonably categorized as "must have" programming and, to the extent this is true, then this block of programming and Comcast's RSNs are also likely partial substitutes for one another in the particular sense defined above. For purposes of describing the disagreements between Drs. Israel and Katz and myself most clearly and simply, I will focus only on the combination of the NBC O&Os with the Comcast RSNs. However, all of the arguments I make with respect to this combination also apply to the combination of the NBCU's block of national cable networks with the Comcast RSNs.

In my initial report, I presented only a numerical example. To fully discuss some of the arguments presented by Drs. Israel and Katz, it will be useful to generalize the example by substituting parameters for the numerical values.

Suppose that an MVPD can carry two networks. Suppose that it would earn a profit of v per subscriber if it carried only one of the networks and would earn an additional profit of v- δ per subscriber if it also carried the second network where

$$0 \leq \delta \leq v \qquad \text{(III.1)}$$

I will refer to v as the marginal value of carrying the first network and v- δ as the marginal value of carrying the second network. The parameter δ is a measure of substitutability between the two networks, with higher values of δ corresponding to a higher degree of substitutability between the two networks. To the extent that subscribers value increases in variety at a decreasing rate, we would generally expect any two networks to be substitutes for one another to some extent. When $\delta = 0$, we would normally refer to the networks as being "independent" and when $\delta = v$ we would normally refer to the networks as being "perfect substitutes" for one another. When δ is between these two extreme values, we would normally refer to the networks as being "partial substitutes" for one another.

To keep the example as simple as possible, assume that the programmer's cost of providing the network to the MVPD is zero so the joint gain if the MVPD carries the network is simply equal to the MVPD's profit.[32] Assume also that the MVPD and programmer have equal bargaining

[32]It is easy to see that the example described below continues to yield the same conclusion if we assume that there is a cost of delivering the programming or if the programmer earns additional advertising revenue when the MVPD shows the programming.

strength in the sense that they choose a price to evenly split the joint profit. [33]

First, suppose that two different programmers each own one of the two networks. Then, so long as the MVPD carries both networks in equilibrium, when the MVPD negotiates with either of the two programmers, the marginal profit of adding a network will be equal to $v-\delta$ per subscriber and the negotiated fee will therefore be equal to half this amount or $(v-\delta)/2$. Therefore the total fees paid for both networks will be double this amount or

$$v-\delta \qquad \text{(III.2)}$$

Now suppose that the same programmer owns both networks. In this case the joint profit of adding both networks is equal to $2v-\delta$. Therefore, so long as the programmer sells both networks bundled together as a single item, the negotiated fee for the bundle will be half this amount or

$$v - \delta/2 \qquad \text{(III.3)}$$

A comparison of (III.2) and (III.3) reveals that the programming fees rise by $\delta/2$ because of combined ownership. This shows that combined ownership will increase programming fees to the extent that the two networks are partial substitutes for one another and that the increase in programming fees will be larger to the extent that the degree of substitutability between the two networks grows larger.

Thus a single owner will be able to negotiate higher total fees than will two separate

[33]It is easy to see that the example described below continues to yield the same conclusion if we assume that the programmer receives some share α of the total surplus where α is between 0 and 1.

owners to the extent that the two networks are partial substitutes. The basic economic reason is simply that, when negotiations for each network occur separately, each programmer is only able to extract some share of the joint profit from adding the last network. However, when negotiations occur for a bundle of networks, the programmer is able to extract a share of the joint surplus from adding the entire bundle. So long as networks within the bundle are partial substitutes, the joint surplus from adding a bundle of both networks will be greater than twice the surplus from adding the last network.

Recall that the particular example I considered in my first report is the case where v = $1.00 and δ = $.50. That is, the marginal value of the first network is equal to $1.00 but the marginal value of the second network in only equal to half this amount, or $.50. In this case, total programming fees are $.50 under separate ownership and $.75 under combined ownership. Note in particular that the fee increase due to combined ownership in this case is extremely significant even though the two networks are far from being perfect substitutes for one another. Combined ownership causes programming fees to rise from $.50 to $.75 which is a 50% increase. This illustrates a very important point that I will return to below. Namely, if the parameter δ is large, combined ownership of two networks will result in large increases in programming fees even if the networks are far from being perfect substitutes. To put this another way, it is NOT necessary for two networks to be perfect substitutes or to even be close to being perfect substitutes in order for combined ownership of the networks to significantly increase programming fees. Combined ownership of two networks may result in significant increases in programming fees even if the two networks are only partial substitutes. Combined ownership will have a large dollar impact on programming fees to the extent that the carriage of one network has a large dollar impact on the

marginal value of carriage of the other network. There is absolutely no need for the two networks to be perfect substitutes in order for combined ownership to have a significant effect on programming fees.

3. DIFFERENT TYPES OF PROGRAMMING

Drs. Israel and Katz observe that local broadcast stations carry programming that, in at least some respects, is clearly quite different than the programming carried by RSNs.[34] They also note that the Commission itself has observed exactly the same thing.[35] They assert that the fact that these two different types of networks carry different types of programming should be viewed as evidence that these two types of networks are not partial substitutes for one another.

While I agree that local broadcast stations and RSNs carry different types of programming, I completely reject the assertion that this somehow implies that these two types of networks cannot be partial substitutes for one another. To the extent that substitutability between networks is caused simply by the fact that subscribers value increases in variety at a decreasing rate, it is perfectly possible and reasonable that two very different types of networks could be partial substitutes for one another in the sense that the value of adding one of the two networks decreases conditional on the other network already being carried.

Consider the numerical example I described in the previous section where the marginal value of carrying the first network is $1.00 and the marginal value of carrying the second network is $.50. It is perfectly reasonable to interpret this example as corresponding to the case where the two networks carry different types of programming. Suppose, for example that one of the

[34] *See Israel Katz Report II* at para. 111.

[35] *See Israel Katz Report II* at para. 104.

networks is a movie network and one is a sports network. Suppose all subscribers are identical and like to watch some sports and some movies. It is perfectly reasonable and plausible to hypothesize that subscribers would be willing to pay an extra dollar to add either a movie or sports channel but, once one of the two had been added and they had more variety to choose from, that they would only be willing to pay an additional $.50 to add the second network.

4. PERFECT SUBSTITUTES

In addition to noting that the Commission has observed that local broadcast stations carry different types of programming than RSNs, Drs. Israel and Katz also quote the Commission as having noted that the "unique nature" of regional sports programming means that there are "no adequate substitutes" for this type of programming.[36] As I understand the argument of Drs. Israel and Katz, they would like us to conclude that the Commission's statement that there are "no adequate substitutes" for RSNs should be interpreted as meaning that the Commission is stating that local broadcast stations and RSNs cannot be partial substitutes for one another in the sense necessary for combined ownership to result in increased program fees. I completely disagree with this interpretation. The straightforward interpretation of the Commission's statement is that it is observing that there are no perfect substitutes or even near-perfect substitutes for RSNs. I have already explained why my theory of harm does NOT require networks to be perfect substitutes in order for combined ownership to result in increased program fees. It is sufficient that the networks be partial substitutes in order for my theory to apply.

5. DEMOGRAPHIC DIFFERENCES IN VIEWERS

[36] *See Israel Katz Report II* at para. 104 citing the *DirecTV-News Corp. Order* at para. 59-60.

Drs. Israel and Katz report that there are some demographic differences between viewers of local broadcast stations and viewers. In particular they note that RSNs tend to attract an audience that is somewhat more male and younger than the audience for local broadcast stations. They assert that these differences imply that the two types of networks cannot be partial substitutes for one another. Once again, it is not clear why the fact that two networks have somewhat different demographic profiles would necessarily imply that they cannot be partial substitutes for one another. First, even if the demographics of the networks are not identical, it may well still be the case that a large majority of individuals watch both types of networks. So long as most individuals watch both types of networks, it would be possible for most individuals to view the networks as partial substitutes. Furthermore, many households consist of multiple individuals with different demographic characteristics. Therefore even if not all individuals in a household watch both types of networks, it may well be that a much larger percentage of households watch both types of networks. Therefore households may view two networks as being partial substitutes even if individuals within the household do not. Of course, it is the entire household that must make the decision of what MVPD to subscribe to.

5. CONCENTRATION RATIOS

Drs. Israel and Katz define the concentration ratio for a programmer to be the share of total viewing hours that households devote to all networks produced by the programmer. They calculate concentration ratios for NBCU and Comcast prior to the transaction and the concentration ratio for the joint venture after the transaction and note that all of these concentration ratios are relatively low compared to the levels of concentration ratios that antitrust authorities

would traditionally view as creating market power. As I understand their argument, they suggest that this provides evidence that neither NBCU, Comcast, nor the joint venture have market power over any programming and that no horizontal theory of harm could therefore be true. This completely ignores the Commission's own determination that calculating concentration ratios in this manner is not the correct way to assess the extent of market power in programming markets. In particular, Commission has repeatedly concluded that RSNs and local broadcast networks both create significant amounts of market power. [37]

6. EMPIRICAL ANALYSIS

In my initial report I described some empirical evidence that suggests that joint ownership or control of multiple Big 4 local broadcast stations in the same DMA results in higher retransmission consent fees. While this does not provide any direct evidence on the issue of whether combined ownership of an RSN and local broadcast station will result in increased programming fees, it does provide evidence on the somewhat more general point that combined control of multiple must have networks can result in higher programming fees. However, I certainly agree that the most direct evidence on my theory of horizontal harm as it applies to the combination of NBC O&Os and Comcast RSNs would be evidence on whether combined ownership of an RSN and local broadcast station results in increased programming fees, holding

[37] For example, in its evaluation of the DirecTV-News Corp. transaction, the Commission concluded that "News Corp. currently possesses significant market power in the DMAs in which it has the ability to negotiate retransmission consent agreements on behalf of local broadcast stations" and justified this conclusion in part by observing that "carriage of local television broadcast stations is critical to MVPD offerings." (*See DirecTV-News Corp. Order* at para. 201-202). It similarly concluded that "News Corp. currently possesses significant market power with respect to its RSNs within each of their specific geographic regions" (*See Adelphia-Time Warner-Comcast Order* at para. 147) based on similar observations.

all other factors constant. In my initial report I stated that no such evidence was available and that the evidence I presented on the effect of combined ownership or control of multiple Big 4 local broadcast stations in the same DMA was therefore the best available evidence.

There is, of course, some data that is potentially available on the issue of how combined ownership of an RSN and local broadcaster in the same region affects programming fees. This is because News Corp. owns a large number of Fox local broadcast stations and RSNs and has purchased and sold various Fox local broadcast stations and RSNs over the last decade. Consider any particular RSN. If News Corp. owns the RSN and also owns a Fox local broadcast station that operates in at least part of the region served by the RSN, I will say that the RSN is under "combined ownership." If Fox does not own the RSN or if Fox does own the RSN but does not own a Fox local broadcast station that overlaps with the RSN, I will say that the RSN is not under combined ownership. When News Corp. purchases or sells an RSN, it is possible that the transaction will affect the combined ownership status of the RSN. Similarly if News Corp. purchases or sells a Fox local broadcast station, it is possible that the transaction will affect the combined ownership status of RSNs owned by News Corp. that operate in the DMA served by the Fox local broadcast station. Therefore, if one were able to identify transactions that changed the combined ownership status of particular RSNs and gather fee data for each RSN for a period both before and after the transaction, it would in principle be possible to attempt to determine how the transaction affected programming fees. Drs. Israel and Katz conduct a study of this sort.

To the best of my knowledge, at the time that I wrote my initial report, no one had attempted to conduct such an exercise, and for good reason. Because of limitations in the amount and type of data available and the inherent impossibility of controlling for other factors that might

affect RSN fees, it would be impossible or at least very difficult to draw any meaningful or useful conclusions from such a study. The two main, related problems are that: (1) there is only a handful of such events; and, (2) RSN fees can be dramatically affected by a variety of events that are difficult to control for. In particular, changes in which sports teams are carried by a particular RSN can dramatically change the attractiveness of an RSN to subscribers overnight. A compounding factor in this particular type of study is that many of the events involve a change in ownership of the RSN itself. When the ownership of an RSN changes, it is reasonable to expect that there may be large changes in the fees charged by the RSN, simply because the new management has a different type of strategy or management style or because changes in ownership are associated with changes in the teams carried by the RSN or changes in other important factors that might affect fees. Thus, a change in ownership of an RSN is inherently an event that we would expect to have potentially large and unpredictable effects on the RSN's pricing quite independent of any issue associated with combined ownership. If there were a very large number of such events, perhaps we could hope that these difficult-to-control-for variables would average out. However, when there is only a handful of such events to begin with, and there are inherently so many other factors that could affect RSN fees that are likely to be changing at the same time, an empirical analysis that simply ignores all of these issues would not be able to provide any useful information about the effect of combined ownership on RSN fees.

To be more specific about the flaws with the empirical analysis undertaken by Drs. Israel and Katz, it will be necessary for me to describe the data they consider in somewhat more detail. Drs. Israel and Katz have annual fee data on all RSNs for the period 1999-2009. Define a "transaction" to be an RSN/year pair where the combined ownership status of the RSN changed in

the given year. As I understand their procedure, Drs. Israel and Katz made the judgment that having one year of data on each side of the transaction was sufficient to allow them to investigate for the presence or absence of pricing effects. Therefore, as I understand their procedure, Drs. Israel and Katz considered all transactions in the years 2000-2008.[38] Based on my interpretation of Table V.5 in *Israel Katz Report II,* it appears that Drs. Israel and Katz were able to identify eleven transactions to investigate. I list all of these transactions below in Table III.1 and describe the nature of each transaction.

[38]This guarantees that there will be at least one year of data before the event and at least one year of data after the event.

TABLE III.1
A LIST OF ALL TRANSACTIONS CONSIDERED BY DRS. ISRAEL AND KATZ IN THEIR EMPIRICAL ANALYSIS OF THE EFFECT OF COMBINED OWNERSHIP ON PROGRAM FEES

RSN*	DATE	DESCRIPTION OF THE TRANSACTION**
FSRM	2008	News Corp. sold a Fox station in the RSN's region
FSM	2008	News Corp. sold a Fox station in the RSN's region
FSU	2008	News Corp. sold a Fox O&O in the RSN's region
FSM	2008	News Corp. sold a Fox O&O in the RSN's region
FSW	2008	News Corp. sold a Fox O&O in the RSN's region
FSO	2008	News Corp. sold a Fox O&O in the RSN's region
SS	2006	News Corp. purchased the RSN; a Fox O&O
FSF	2005	News Corp. purchased the RSN and already owned a Fox station
FSO	2005	News Corp. purchased the RSN and already owned a Fox station
FSW	2001	News Corp. purchased the RSN and already owned a Fox station
FSN	2001	News Corp. purchased the RSN and already owned a Fox station

* The following abbreviations are used for RSNs.

FSRM = Fox Sports Rocky Mountain
FSM = Fox Sports Midwest
FSU = Fox Sports Utah
FSW = Fox Sports Wisconsin
FSN = Fox Sports North
FSO = Fox Sports Ohio
FSF = Fox Sports Florida
SS = Sports South

** "News Corp. sold a Fox station in the RSN's region" means "Before the transaction, News Corp. owned the RSN and a Fox local broadcast station serving the RSN's region. The transaction is that News Corp. sold the Fox station."

"News Corp. purchased the RSN and already owned a Fox station" means "Before the transaction, News Corp. did not own the RSN but did own a Fox station that operated in the RSN's region. The transaction is that News. Corp. purchased the RSN."

The first thing to notice about this list of transactions is that six of the eleven listed transactions all occurred in 2008 when News Corp. sold a number of Fox O&Os. Since Drs. Israel and Katz have annual fee data from 1999-2009, this means that they only have one post-transaction year of data for RSN fees for these six transactions. Furthermore, it is typically the case that programmers and MVPDs sign multi-year agreements. Therefore it may well be the case that many of the RSN fees paid in 2009 were determined by contracts signed prior to News Corp.'s sale of the Fox affiliates. Therefore, in my judgment, these six transactions should not be included in the study. This leaves Drs. Israel and Katz with only five transactions.

Examination of these five transactions shows that all of them involve News Corp. purchasing the RSN. As I stated above, the inherent problem with looking at RSN fee data around the time of an ownership change is that we might expect there to be large changes in the RSN's fee structure at this point due to changes in ownership that are completely unrelated to any combined ownership effect. For example, just prior to News Corp. purchasing Turner South in 2006 from Turner Broadcasting, the network showed a variety of regionally-oriented programming and, in particular, did not restrict itself to showing only sports programming. However, after purchasing the network, News Corp. changed the network's name to SportSouth and changed its focus so that it exclusively showed regional sports programming.[39] This transformation in programming focus may well have resulted in significant changes in program fees quite unrelated to the combined ownership effect.

Finally, recall that another general problem I identified above is that RSN program fees can change dramatically and unpredictably due to changes in the sports teams that the network carries. If a team change occurs at the same time as an ownership change, it would be critical to control for

[39] *See* Mike Reynolds, "Network Reclaims Old Name," Multichannel News, October 7, 2008.

the team change. Drs. Israel and Katz make no attempt of any sort to control for changes in the teams that RSNs carry. In particular, note that one event that Drs. Israel and Katz include in their analysis is News Corp.'s acquisition of a controlling interest in Fox Sports Ohio in 2005. They attribute any subsequent changes in Fox Sports Ohio's fees to this change in ownership. However, during this same year Fox Sports Ohio experienced a major team loss, as reported in a declaration of the President of Massillon Cable TV that is another MVPD that operates in this area and carries Fox Sports Ohio.

> "In 2005, Massillon had an agreement with Fox Cable Networks, Inc. ("Fox") to carry Fox Sports Net Ohio ("FSNO"). The vast bulk of 'marquee' live sporting events carried on FSNO - more than two-thirds (2/3) of the professional sports content – was Cleveland Indians baseball games. On December 26, 2005, the Cleveland Indians announced that its was creating its own regional sports network, Sports Time Ohio, and moving all of its games from FSNO."[40]

This event may well have significantly reduced the level of program fees that Fox Sports Ohio was able to charge. Thus, even if the effect of combined ownership in 2005 was to raise programming fees, the loss of the Cleveland Indians may well have caused an even larger reduction in program fees. Thus it is certainly possible that the net effect on Fox Sports Ohio's fees from all of the events of 2005 was to reduce its program fees. Drs. Israel and Katz would interpret this as suggesting that combined ownership can reduce program fees. I think it would be more correct to interpret this an example of a uncontrolled-for events that invalidates their analysis.

Therefore, of the five remaining transactions that might in principle be reasonable events

[40] *Declaration of Robert Gessner,* Attached to *Reply Comments of the American Cable Association, In the Matter of Comcast Corporation, General Electric Company, and NBC Universal, Inc. To Assign and Transfer Control of FCC Licenses, MB Docket No. 10-56,* August 19, 2010 ("*Gessner Declaration"*) at para. 4.

for Drs. Israel and Katz to study, my own very limited search for uncontrolled for events has revealed that for at least two of the transactions, there were uncontrolled for events that likely had a significant effect on pricing. My search for uncontrolled for events was not exhaustive or complete. It is very possible that uncontrolled for events also occurred along with the other three transactions. Therefore I would view even these three remaining transactions as being suspect. Therefore, at best Drs. Israel and Katz are left with three suspect transactions to analyze.

In summary then, although Drs. Israel and Katz have conducted an empirical study that attempts to measure the effect of combined ownership of an RSN and local broadcaster serving the same region on program fees, there are simply too many flaws with the study and the data for these results to provide any useful information on the issue they claim to be studying. Therefore, the evidence I report on the effect of combined ownership of multiple Big 4 broadcasters in the same DMA on retransmission consent prices is still the best available evidence on this issue. While not directly addressing the issue of whether combined ownership of an RSN and local broadcast station in the same region will raise programming fees, it provides evidence on the more general point that combined ownership of multiple must have networks can result in higher programming fees.

IV. REMEDIES

1. INTRODUCTION

With my advice, the ACA has constructed a set of conditions that I believe would substantially address both the vertical and horizontal harms of the transaction that I have identified, while still allowing the transaction to proceed. A statement of the proposed ACA

conditions is included in an attachment to the ACA reply comments.[41] In this section I will begin by briefly reviewing two important points relevant to the issue of conditions that I discussed in my initial paper. Then, I will describe the ACA conditions and explain why they will address the vertical and horizontal harms created by this transaction, both for larger MVPDs and their customers and for smaller MVPDs and their customers.

2. PROGRAM ACCESS RULES

Program access rules are in a general sense intended to prevent vertically integrated programmers from discriminating against unaffiliated MVPDs. Although they do not apply to retransmission consent agreements and it is not clear whether they apply to on-line programming, it would certainly be possible to extend their application to these types of programming as a condition of approving the transaction. Therefore, two natural first questions to consider are: (1) whether it would make sense to extend the application of program access rules to these types of programming as a condition of the transaction; and, (ii) whether this simple condition would be sufficient to address the vertical harm created by the transaction.

In my initial report, I described two significant problems with program access rules over and above the fact that they do not apply to some types of programming. The first problem is the "quantity discounts loophole." This problem occurs because program access rules have been interpreted as allowing a vertically integrated MVPD significant freedom to charge competing MVPDs higher rates for programming than it charges itself, so long as the competing MVPDs

[41] *See* "ACA's Proposed Comcast-NBCU License Transfer Conditions," Attachment C in *ACA Reply Comments, In the Matter of Applications of Comcast Corporation, General Electric Company, and NBC Universal, Inc., to Assign and Transfer Control of FCC Licenses,* MB Docket No. 10-56, August 19, 2010("*ACA Reply Comments")*

have a smaller number of subscribers than the vertically integrated MVPD. Since Comcast is the nation's largest MVPD, this means that program access rules would be particularly ineffectual in limiting the extent to which Comcast-NBCU will be able to discriminate against its rivals. The second problem is the "arbitrary transfer prices" problem. This problem occurs because vertically integrated firms who wish to charge high discriminatory prices to rival MVPDs may be able to do so without violating program access rules simply by raising the internal transfer price they charge themselves to the same high level and then instructing their downstream divisions to continue to purchase the integrated programming at artificially high internal transfer prices.

I believe that even given these problems, program access rules may have some impact on limiting the extent to which vertically integrated firms can discriminate against rival MVPDs. Furthermore, the non-exclusivity provisions of program access rules play the desirable role of preventing vertically integrated firms from simply announcing that they will not sell their programming to rival MVPDs at any price. Therefore, I believe that it would be desirable for the Commission to impose conditions on this transaction that require Comcast-NBCU's retransmission consent agreements and its carriage agreements for online programming to both be subject to the nondiscrimination requirements and non-exclusivity requirements of program access rules. However, these conditions alone will clearly not be sufficient to fully remedy the vertical harms of this transaction.

3. BINDING ARBITRATION

In previous transactions with vertical harms, such as the DirecTV-News Corp. and Adelphia-Time Warner-Comcast transactions, one remedy used by the Commission has been to

give parties that purchase certain classes of programming from the combined entity the right to ask for binding baseball-style arbitration with mandatory interim carriage in the event that a dispute over program fees cannot be resolved. The purpose of the arbitration is to determine a fair market value for the programming in question. In this report I will refer to this arbitration process as the "regular arbitration process" to distinguish it from another arbitration process which the ACA conditions would also implement which I will refer to as the "special arbitration process for smaller MVPDs." The important point that I wish to make in this section of my report is that the regular arbitration process has turned out to be unaffordable for smaller MVPDs. I believe that making the regular arbitration process available to MVPDs would be a very reasonable condition for the Commission to consider in order to help protect larger MVPDs and their customers from the competitive harms of this transaction. However, the fact that it is not affordable for smaller MVPDs means that additional conditions still need to be adopted to protect smaller MVPDs and their customers.

The essential economic issue is that the costs of engaging in an arbitration are relatively fixed regardless of the number of subscribers that an MVPD has. However, the potential benefits of engaging in an arbitration - lower programming fees - are of course directly proportional to the number of subscribers that an MVPD has. Therefore, incurring the cost of engaging in a full-blown arbitration proceeding becomes progressively less attractive to an MVPD as its subscribership decreases.

For purposes of designing an appropriate set of conditions, the Commission will have to determine of the level of MVPD subscribership below which this type of arbitration becomes unaffordable. The key parameter in such a calculation is of course the total cost of engaging in

such an arbitration. In my initial report, I noted that Colleen Abdoulah, the CEO of the cable system operator WOW! has testified that, when her company was faced with the decision of whether to undertake such an arbitration, it determined that the likely cost would exceed $1 million and that this estimate did not include the cost of the time that WOW!'s own management and employees would need to devote to the arbitration.[42] Since I wrote my original report, a declaration by Robert Gessner, President of Massillon Cable TV, Inc. has been filed with the Commission in which he describes his actual experience when he attempted to use the arbitration process to settle a dispute with Fox Cable Networks, Inc. He reports that his actual arbitration costs were approximately $1 million and that this cost estimate does not include the cost of the time that Massillon's own management and employees devoted to this issue.[43] Based on this evidence, I conclude that $1 million dollars is a reasonable estimate of the cost of participating in such an arbitration and may actually be somewhat conservative in the sense that it does not include

[42] "The FCC sought to tighten these loopholes in subsequent transactions between content providers and distributors, for instance, by permitting complainants to use third-party arbitration or collectively bargain for rights. But, here again, programmers affiliated with larger cable operators quickly found how to beat the system. WOW! considered using the arbitration process imposed on Comcast in the Adelphia decision but determined the cost of the process was likely to exceed $1 million, take one year or longer, and require key personnel to take large amounts of time from their regular jobs. In other words, the costs of using arbitration were going to be close enough to the extra price Comcast was going to charge us in the first place. Instead, we had no choice but to "eat" an enormous rate increase to carry Comcast's RSN. In effect, the program access process has essentially given us a right without a remedy. It would be a grave error to buy into the contention of Comcast and NBC Universal that these processes constitute a legitimate backstop for anticompetitive harms arising from the deal." *See Testimony of Colleen Abdoulah, President and CEO, WOW! Board Member ACA Before the Senate Subcommittee on Antitrust, Competition Policy and Consumer Rights*, February 4, 2010 at page 8.

[43] "When all costs of arbitration are considered, Massillon spent approximately $1,000,000 from the date of the arbitration request (October 2006) through the present day. The amount does not include the considerable out-of-pocket costs (including travel expenses) incurred by Massillon and substantial time and resources spent by Massillon management and employees to participate in the dispute and arbitration process." *See Gessner Declaration* at para. 15.

the cost of the time that an MVPD's own management and employees would need to devote to the arbitration.

I will now suggest one possible approach that the Commission could use to determine the level of MVPD subscribership below which this type of arbitration becomes unaffordable. In particular, I will describe a set of payoffs that could be interpreted as describing a "reasonably strong" case for which the Commission would hope that arbitration would be a feasible alternative for an MVPD and calculate the level of subscribership for an MVPD at which the MVPD would view the expected benefits of the arbitration as being exactly equal to the costs. This would mean that an MVPD with any lower level of subscribership would be unwilling to engage in arbitration.

Suppose that Comcast-NBCU is raising the fee for a particular network above its fair market value by $.50 per subscriber per month.[44] Suppose that an MVPD believes that it has a 50% chance of winning an arbitration case on this issue, which would result in a fee decrease of $.50 per subscriber per month over the life of the contract. I will assume that the contract lasts 3 years (36 months) and that the MVPD uses a cost of capital of 10%. Straightforward calculation shows that the expected discounted gain to the MVPD from engaging in an arbitration is then equal to $7.80 per subscriber.[45] If the MVPD has s subscribers then its expected net benefit to participating in the arbitration is given by

$$7.80\ s \quad - 1{,}000{,}000 \qquad \text{(IV.1)}$$

[44]Recall that this is the approximate amount that I predict retransmission consent fees will rise by due to the vertical aspect of the transaction in the six DMAs with an NBC O&O where Comcast has a substantial presence as a cable provider.

[45]The present discounted value of $1 per month for 36 months using an annual interest rate of 10% is $31.20. Therefore the present discounted value of the expected fee increase from arbitration is equal to ½ x $.50 x 31.20 or $7.80.

The first term of Equation (IV.1) is the expected benefit from winning the arbitration and the second term is the cost of the arbitration. Let s* denote the level of subscribership at which the MVPD would just break even from participating in the arbitration. It is given by

$$s^* = 1{,}000{,}000/7.80 = 128{,}205. \quad \text{(IV.2)}$$

Based on this calculation, it therefore appears that an MVPD with fewer than approximately 125,000 subscribers for any particular piece of programming would not find it affordable to enter into arbitration even when it had a reasonably strong case.

4. THE ACA CONDITIONS

In this section I will describe the conditions being suggested by the ACA and explain why they would substantially address the competitive harms of the transaction that I have identified for both large MVPDs as well as smaller MVPDs.[46] The set of conditions that the ACA is proposing can be divided into five main groups. I will consider each group of conditions separately and explain the economic role that each group plays in remedying the harms of the transaction. The section numbers in parentheses in each sub-title below refer to the numbering used in the formal statement of the conditions.

[46]Recall that a complete statement of the ACA proposed conditions is contained in attachment C to the *ACA Reply Comments*.

Program Access Conditions (Section II.A)

This group of conditions simply extends the applicability of the non-discrimination and non-exclusion requirements of program access rules to apply to Comcast-NBCU's retransmission consent agreements and its carriage agreements for online programming. As discussed above, while these conditions will likely place some additional restraint on Comcast-NBCU's ability to disadvantage rival MVPDs, they will clearly not be sufficient to fully address the problem.

The Regular Arbitration Process (Section II.C)

This condition allows MPVDs purchasing programming from Comcast-NBCU to request baseball-style binding arbitration and is the type of condition that the Commission used to remedy vertical competitive harms in both the DirecTV-News Corp. and Adelphia-Time Warner-Comcast transactions. As I noted above, I will refer to this type of arbitrations process as the "regular arbitration process" to distinguish it from another type of arbitration process which the ACA conditions also implement (and which will be described below) which will I will call the "special arbitration process for smaller MVPDs."

An important point to note about the regular arbitration process in the context of the Comcast-NBCU transaction is that it can remedy both the vertical and horizontal competitive harms of the transaction. That is, to the extent that the arbitration process allows MVPDs to obtain programming from Comcast-NBCU at fair market value, it will prevent Comcast-NBCU from charging fees higher than fair market value regardless of whether the problem originates with the horizontal or vertical aspect of the transaction. The fact that the condition remedies both vertical and horizontal competitive harms is one of the rationales for applying it to all types of

Comcast-NBCU programming and not just to programming that was owned by NBCU prior to the transaction. In particular, it provides a rationale for applying the binding arbitration condition to Comcast RSNs.

Note that the ACA condition makes binding arbitration available for MVPDs purchasing any type of programming from Comcast-NBCU, including NBC O&Os, Comcast RSNs, and national cable networks. In past transactions the Commission has limited the availability of binding arbitration to carriage agreements for local broadcast stations and RSNs. I argued in my initial report that the block of popular NBCU national cable networks has ratings as high or higher than most of the Big 4 broadcast networks and that it is plausible that withdrawal of this block of programming might have as large an effect on an MVPDs subscribership as withdrawal of the signal of an NBC O&O or RSN.[47] To the extent that this is true, the rationale for making the binding arbitration remedy available to MVPDs that purchase carriage of NBC O&Os or RSNs applies equally well to MVPDs that purchase carriage of national cable networks.

As I explained above, the main problem with this type of condition is that smaller MVPDs have found this type of arbitration to be unaffordable. Thus, while it may remedy the harms of the transaction for larger MVPDs and their customers, it provides little relief for smaller MVPDs and their customers. The remaining conditions are largely focused on providing the same relief for smaller MVPDs that the regular arbitration process will provide for larger MVPDs.

Stand-Alone Agreements for NBC O&Os and Comcast RSNs (Section II.B)

This group of conditions requires that when Comcast-NBCU enters into carriage agreements for NBC O&Os or RSNs with any MVPD, that it sign a separate agreement for each

[47] *See Rogerson Report I* at pages 9-10.

NBC O&O and a separate agreement for each RSN.

The purpose of this group of conditions is to dramatically increase the transparency of Comcast-NBCUs pricing arrangements for its RSNs and NBC O&Os in order to reduce the cost of arbitration over the pricing of these types of programming. When multiple different types of programming are bundled together in a single carriage agreement, there is no simple way to determine the rate that each individual item of programming is being sold for. Thus the issue of determining the fair market value of any particular type of programming becomes much more difficult and complex. The fact that Comcast-NBCU will be required to use stand-alone agreements for carriage of each of its NBC O&Os and RSNs means that the it will be relatively straightforward for an arbitrator to determine the rates that Comcast charges other MVPDs for NBC O&Os and RSNs. Of course a complete determination of fair market value may still require consideration of the rates that other programmers charge for similar type of programming as well as factors such as the advertising revenue that the programming generates. Thus the determination of fair market value in the regular arbitration process may still be somewhat complex and costly. However, even a moderate reduction in the cost of the regular arbitration process would be of benefit. Furthermore, as will be described below, the increased transparency of Comcast-NBCUs pricing for carriage of NBC O&Os and RSNS will have an even more dramatic effect on reducing the costs of the new special arbitration process for smaller MVPDs.

Special Rules for Smaller MVPDs (Sections III.A and III.B)

This group of conditions requires that Comcast-NBCU make carriage of its NBC O&Os and RSNs available to smaller MVPDs at rates no more than 5% higher than the best rates that

Comcast-NBCU offers any MVPD. The purpose of this group of conditions is to provide smaller MVPDs with the same protection from programming fee increases for carriage of NBC O&Os and RSNs that larger MVPDs will receive from the regular arbitration process already described above. A special commercial arbitration process for smaller MVPDs is established that allows an MVPD to file a complaint if it believes this condition is not being met. If an MVPD files a complaint, Comcast-NBCU will be obliged to formally make the MVPD a final offer and to provide an arbitrator with both the final offer and with access to all of its contracts so that the arbitrator can make an independent interpretation of whether the rate in the final offer is no more than 5% higher than the best rate that Comcast-NBCU offers any MVPD for the programming in question. If the offer meets the condition, this becomes the carriage agreement. If it does not meet the condition, the arbitrator adjusts the rate appropriately so that the condition is met and then this adjusted offer becomes the carriage agreement.

The key point to notice is that, because of the conditions described above that require stand-alone contracting for NBC O&Os and RSNs, the arbitration process required to determine whether the 5% condition is being met will be extremely simple and therefore very inexpensive. In particular, it should be affordable my most smaller MVPDs. Since the stand-alone contracting condition already will result in a completely transparent price for each carriage agreement that Comcast-NBCU signs for NBC O&Os and RSNs, and the arbitrator will have access to all of these contracts, the only issue of any substance to deal with will be that the particular terms and conditions under which carriage of a given NBC O&O or RSN is provided may vary somewhat from MVPD to MVPD. However, it is a standard commercial practice in the programming industry, for purposes of enforcing MFN agreements, to calculate dollar equivalents for variations

in terms and conditions. Such calculations produce a so-called "Net Effective Rate" for each contract that provides the effective rate corrected for differences in terms and conditions. The condition instructs the arbitrator to follow this standard commercial practice. Namely the arbitrator is instructed to deal with variations in terms and conditions by calculating the net effective rate of each agreement and then simply checking if the net effective rate being offered to the MVPD no more than 5% higher than the lowest net effective rate received by any MVPD for the programming in question.

Three additional points to note about this group of conditions are as follows.

First, the provision that rates for smaller MVPDs may be 5% higher than the best rates that Comcast-NBCU offers any MVPD is meant to allow for the fact that there may be some cost savings associated with contracting with larger MVPDs in the sense that the fixed cost of contracting can be spread over a larger number of subscribers. I believe that 5% is likely a very generous over-estimate of the extent to which programmers' per subscriber costs of dealing with smaller MVPDs are higher than their per subscriber costs of dealing with larger MVPDs. In the course of reviewing this transaction, the Commission may consider assessing for itself the magnitude of such cost differences and use this to determine the appropriate percentage.

Second, the rationale for defining "smaller MVPDs" as being MVPDs with 125,000 or less subscribers for the programming in question was developed in Section IV.3 above.

Third, note that the arbitration process is this case is not baseball-style arbitration where both parties make offers and the arbitrator selects the offer that most closely meets the condition specified in the arbitration rules. Instead, only Comcast-NBCU makes a final offer and then the arbitrator directly determines if this offer meets the 5% condition or not.[48] The rationale for using

[48]Under baseball-style arbitration, both Comcast-NBCU and the MVPD would make final offers

this simpler type of arbitration is that, since Comcast-NBCU and the arbitrator will both have access to all of Comcast's contracts and the MVPD will not, Comcast-NBCU and the arbitrator will both have vastly superior information about the value of the correct rate than will the MVPD. Furthermore under the specified arbitration process Comcast-NBCU will know that it has to choose a rate that meets the 5% condition because the arbitrator will find it very easy to determine if the condition is met. Therefore there will be no need (or advantage) to try to involve the MVPD in a more active way. That is, the arbitrator is the appropriate actor to discipline Comcast-NBCU because it will have access to the same information that Comcast-NBCU has access to and it will be simple and inexpensive for the arbitrator to directly determine if the 5% condition is met.

Special Rules for Bargaining Agents (Section III.C)

The previous group of conditions is designed to protect smaller MVPDs from programming fee increases for carriage of NBC O&O's and Comcast RSNs due to the transaction. This group of conditions is designed to provide smaller MVPDs with protection from programming fee increases for national cable networks due to the transaction. This turns out to be a simpler problem to address because of the fact that the National Cable Television Cooperative (NCTC) already acts as a bargaining agent on behalf of most smaller MVPDs and collectively represents all of them in negotiations over fees for national cable networks.

The manner in which the NCTC negotiates agreements on behalf of its members is as follows. The NCTC begins by negotiating the terms and conditions of a carriage agreement for a particular network or group of networks with a programmer. At the time the agreement is

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and the arbitrator would choose the offer that is closest to being 5% higher than the best rate that Comcast-NBCU offers any MVPD for the programming in question.

negotiated, the NCTC has no authority to commit any of its members to accept the agreement. Rather, after the agreement is negotiated, members of the NCTC have the option to opt into the agreement if they wish. In the terms of the formal language of the ACA conditions, the NCTC is a bargaining agent whose members "are not bound by the prices, terms, and conditions entered into by the bargaining agent."[49]

It is generally the case in the programming industry that, holding all other factors constant, that an entity purchasing carriage rights for programming will be able to negotiate a lower per subscriber programming fee as the number of subscribers it is purchasing programming for increases. The main purpose of the NCTC is to attempt to obtain lower rates for its members by collectively negotiating on their behalf. Programmers and the NCTC deal with the fact that the NCTC is not able to commit its members in advance by negotiating different rates depending on the actual number of subscribers that end up receiving the programming under the agreement. Higher numbers of subscribers generally result in lower per subscriber rates. I will refer to a rate schedule that specifies the actual per subscriber rate that will be paid as a function of the total number of subscribers that actually end up being served under the agreement as a "conditional rate schedule."

This group of conditions takes two different approaches to strengthening the NCTC's ability to negotiate better programming fees on behalf of its members. The first approach, described by the conditions listed in Section III.C.1, is to more clearly require Comcast-NBCU to allow NCTC to negotiate contracts on behalf of all of its members, including its largest members. In particular, programmers sometimes inform the NCTC that some of its members will not be

[49] *See ACA's Proposed Comcast-NBCU License Transfer Conditions,* Appendix B of this report, Sections III.C. 1.b and III.C.2.a.

eligible to opt into particular agreements. Other programmers simply refuse to negotiate conditional rate schedules for large subscriber levels corresponding to the case where most NCTC members, including its largest members, opt into a deal. Finally, it may be that some programmers pressure particular MVPDs that are members of the NCTC to agree to separate carriage agreements that contain the provision that they are not able to opt into deals negotiated by the NCTC even if these deals contain better terms. The conditions in Section III.C,1 prohibit these types of behaviors. In a sense these are relatively weak conditions, since nothing would prevent a programmer subject to them from simply announcing a rate schedule that specifies the same high rate regardless of the total number of subscribers that end up being covered by agreement. Similarly, nothing would prevent larger NCTC members from accepting individual programming agreements that committed them not to opt into NCTC deals so long as they found these deals more attractive than deals that did not require this commitment. However, based on my discussions with NCTC staff and with other industry participants, there is a general belief that requiring Comcast-NBCU to agree to these "good faith" conditions might well result in NCTC being able to negotiate deals that more of its members would opt into and that result in all of them paying lower programming fees. I certainly see no harm in the Commission adopting this type of condition. At minimum, it might provide useful information on the efficacy of this type of "good faith" condition that could inform the Commission's decision-making in future transactions that it considers.

The second approach, described in Section III.C.2 of the conditions, provides a much more tangible mechanism that will increase the ability of the NCTC to achieve lower program rates more commensurate with the aggregate subscribership of its members. This approach gives

NCTC the same rights as any individual MVPD to request that the regular binding arbitration process be used to determine the fair market value for programming. Furthermore the binding arbitration process is used to determine an entire conditional rate schedule over the entire range of subscribership levels that the NCTCs membership could provide.[50] The condition instructs the arbitrator that the fair market value of the programming at any subscribership level is defined to be the fair market value of the programming for an MVPD with this number of subscribers.

By allowing smaller MVPDs to collectively engage in a single arbitration to determine a fee that they all pay, this approach completely finesses the problem that individual smaller MVPDs are not able to afford the arbitration process. Thus, through this approach, the regular arbitration process would essentially become available to smaller MVPDs for the case of national cable networks.

V. CONCLUSION

In my initial report (*Rogerson Report I*), I described and estimated the magnitude of two significant competitive harms that will result from this transaction. The Applicants for this transaction subsequently submitted an economic report by Drs. Mark Israel and Michael L. Katz (*Israel Katz Report II*) meant to refute the analysis in my initial report. In this follow-up report, I have presented my own analysis of *Israel Katz Report II*. In particular, I have explained why this report fails to successfully refute any of the arguments that I advanced in my initial report. I

[50]Specifically, it allows the MVPD to select a set of different subscribership levels, where each subscribership level can be any number less than or equal to the aggregate number of subscribers of its entire membership, and ask for binding arbitration to determine a rate for each subscribership level. Baseball-style arbitration is used to set the rate for each subscribership level. That is, both firms announce a rate for each subscribership level and the arbitrator chooses the rate closest to the fair market value of the programming for each subscribership level.

have also described a set of conditions proposed by the American Cable Association (that they developed with my advice) and explained why I believe that this set of conditions would substantially address the harms that I have identified, while still allowing the transaction to proceed.

APPENDIX
CORRECTLY CALCULATING THE MAGNITUDE OF THE REDUCED DOUBLE MARGINALIZATION EFFECT

The purpose of this Appendix is to provide a more formal demonstration of the economic reasoning presented in Section II.2 of this paper. It explains the correct method for calculating the magnitude of Comcast's cost reduction due to the reduced double marginalization effect. In particular, it shows that the method for calculating this cost reduction suggested by Drs. Israel and Katz dramatically overestimates the true value of the cost reduction because it fails to properly account for the opportunity cost of lost programming profits that the vertically integrated firm will experience when it attracts new customers that switch from other MVPDs.

To do this, I will consider a model where there is initially an unintegrated programmer that sells programming to n different MVPDs at some given programming fee. I will calculate the equilibrium subscription prices in the downstream MVPD market conditional on the given programming fee. Then I will assume that the programmer merges with one of the MVPDs. As explained in section II.2, Drs. Israel and Katz claim that one effect of the vertical transaction, completely independent of any effects associated with whether or not the vertically integrated firm will have an ability to raise programming prices for rivals, is that the vertically integrated firm will now view its own marginal cost as being reduced by an amount equal to the programming fees of the programmer it purchased. I will investigate this claim by calculating the new downstream pricing equilibrium in the MVPD market after the vertical transaction, holding the programming fee constant at the pre-transaction level. This will allow me to isolate the effects of the vertical transaction on firms' downstream pricing decisions independent of any effect of the transaction on the programmer's ability or incentive to raise programming fees. What I will show is that, while

there is an effect, it is trivially small compared to the effect that Drs. Israel and Katz assert will exist. This is because Drs. Israel and Katz fail to take account of the opportunity cost of lost programming profits that the vertically integrated firm will experience when it attracts new customers from other MVPDs.

Suppose that there is a programmer that sells its programming to n different MVPDs indexed by $i \in \{1, \ldots, n\}$. For the purposes of simplicity, assume that the programmer charges the same fee to all MVPDs. Let w denote this fee. Suppose that the MVPDs also purchase programming from a number of other programmers. Once again, for purposes of simplicity, assume that all MVPDs purchase the same block of other programming from other programmers at the same fee. Let c denote the fee of all other programming that the MVPDs purchase. Let p_i denote the subscription price that MVPD i charges to its customers and let $\mathbf{p} = (p_1, \ldots, p_n)$ denote the vector of all subscription prices. Let $q_i(\mathbf{p})$ denote the demand function for MPVD i and let $q_{ij}(\mathbf{p})$ denote the derivative of q_i with respect to p_j. Assume that $q_{ii}(\mathbf{p})$ is negative (i.e., if an MPVD raises its own price, it will lose subscribers) and $q_{ij}(\mathbf{p})$ is positive for all $j \neq i$ (i.e., if an MVPD raises its own price, all other MVPDs will gain subscribers.)

When MVPD i slightly lowers its price to attract new customers, it will attract two different types of subscribers - people who previously subscribed to a different MVPD and switch to MVPD i, and people who previously subscribed to no MVPD. Let θ_i denote the fraction of new customers that are switchers. I will refer to θ_i as the "switcher share" for MVPD i. As I discuss in the main body of the paper, it is likely that the switcher share for most MVPDs is very close to 1. This simply reflects the fact that most people already subscribe to an MVPD. Therefore when an MVPD lowers its price to attract new subscribers, most of the subscribers must necessarily be

switchers.

Prior to analyzing the model, it will be useful to derive an expression for θ_i based on the derivatives of the demand curves. Suppose that MVPD i slightly lowers its price. The number of new customers that arrive is given by

$$-q_{ii}(\mathbf{p}) \tag{A.1}$$

and the number of customers that leave other firms is given by

$$\sum_{j \neq i} q_{ij}(\mathbf{p}) \tag{A.2}$$

This means that θ_i is given by (A.1) divided by (A.2) or

$$\theta_i = \frac{\sum_{j \neq i} q_{ij}(\mathbf{p})}{-q_{ii}(\mathbf{p})} \tag{A.3}$$

For later use, note that we can rewrite equation (A.3) as

$$\sum_{i \neq j} q_{ij}(\mathbf{p}) = -\theta_i \, q_{ii}(\mathbf{p}). \tag{A.4}$$

First consider the case where the programmer and each of the MVPDs are separately owned. MVPD i chooses p_i to maximize its profits, given by

$$q_i(\mathbf{p})p_i - q_i(\mathbf{p})(w + c) \tag{A.5}.$$

The first order condition for this problem is given by

$$q_{ii}(\mathbf{p})p_i + q_i(\mathbf{p}) = (w + c)\, q_{ii}(\mathbf{p}) \tag{A.6}.$$

A Nash equilibrium to the downstream pricing game occurs when all of the first order conditions are satisfied.

Now suppose that the programmer merges with MVPD 1 to form a vertically integrated firm. The objective functions and first order conditions for MVPDs 2 through n remain unchanged as described above in equations (A.5) and (A.6). The question of interest is to determine the objective function of the vertically integrated firm and compare it to the objective function of MPVD 1 before the transaction. This will determine how the incentives for choosing p_1 are changed by the transaction. The vertically integrated firm's profit now consists of two separate terms. The first term is its downstream profit given by

$$q_1(\mathbf{p})\,(p_1 - w - c). \tag{A.7}$$

The second term is its upstream profit given by

$$\sum_{j=1}^{n} q_j(\mathbf{p})w \tag{A.8}$$

The vertically integrated firm's total profit is given by the sum of these two expressions or

$$q_1(\mathbf{p})p_1 \quad - \quad q_1(\mathbf{p})c \quad + \quad \sum_{j\neq 1} q_i(\mathbf{p})w. \tag{A.9}$$

The first term of equation (A.9) is the vertically integrated firm's downstream revenue. The second term is its downstream costs ignoring the transfer payment from the downstream division

to the upstream division. The third term is its upstream profit, once again ignoring the transfer payment from the downstream firm to the upstream firm.

If the third term of (A.9) did not exist, Drs. Israel and Katz would be correct in their assertion that the vertically integrated firm chooses p_1 to maximize the downstream division's profits ignoring the transfer payment to the upstream division. However, the third term of (A.9) does exist, and the vertically integrated firm will most surely take account of this term when it chooses a profit maximizing level of p_1. In particular, the third term is the programming profit that the vertically integrated firm earns from selling programming to other MVPDs. If the vertically integrated firm lowers price slightly in an attempt to attract more customers, it will lose w dollars of profit for every subscriber that switches from some other MVPD to MVPD 1. This is the effect that Drs. Israel and Katz ignore.

The first order condition for maximization of (A.9) is given by

$$q_{11}(\mathbf{p})p_1 + q_1(\mathbf{p}) = cq_{11}(\mathbf{p}) - \sum_{i\neq 1} q_{i1}(p)w \qquad \text{(A.10)}$$

Substitute i = 1 into equation (A.5) and substitute the result into equation (A.10) to yield

$$q_{11}(\mathbf{p})p_1 + q_1(\mathbf{p}) = (c + \theta w)\, q_{11}(\mathbf{p}) \qquad \text{(A.11)}$$

Equation (A.11) is the first order condition determining p_1 under vertical integration. Substitute i = 1 into equation (A.5) to yield the FOC determining p_1 under no vertical integration.

$$q_{11}(\mathbf{p})p_1 + q_1(\mathbf{p}) = (c + w)q_{11}(\mathbf{p}) \qquad \text{(A.12)}$$

A comparison of (A.11) and (A.12) shows that the only difference is that the term "c+w" in (A.12) is replaced by the term "c+ θw" in (A.11). That is, with no vertical integration p_1 is chosen to maximize downstream profits viewing the marginal cost of providing service to an additional subscriber as c+w. With vertical integration, p_1 is chosen to maximize downstream profits viewing the marginal cost of providing service to an additional subscriber as $c + \theta w$. In particular, marginal cost is NOT reduced by w. Rather it is only reduced by $(1-\theta)w$. Therefore if θ is close to 1, the cost reduction due to vertical integration will be very small.

This is of course very intuitive. Drs. Israel and Katz are correct in their observation that the vertically integrated firm will not view its payment of w between divisions to be a cost of providing MVPD service. What they fail to recognize is that, when the vertically integrated firm lowers p_1 in an attempt to attract more customers, it will lose w dollars of programming profit on every customer that switches from some other MVPD. When this counteracting effect is taken into account, we conclude that vertical integration will only lower the vertically integrated firm's downstream cost to the extent that the new customers that it attracts are not simply customers that switch from some other MVPD but are instead entirely new subscribers to any MVPD service.