15. The first step in analyzing the behaviors of service providers is to estimate numbers of subscribers. The number of DBS subscribers in each cluster is estimated by multiplying the Nielsen November 2001 DBS penetration rate for the relevant designated marketing areas (DMA) by populations in those areas. For example, the "Carolinas" Region contains the following DMAs: (1) Greenville, North Carolina; (2) Charlotte, North Carolina; (3) Greensboro, North Carolina; (4) Columbia, South Carolina; (5) Charleston, South Carolina; (6) Florence, South Carolina; (7) Wilmington, North Carolina; (8) Norfolk, Virginia; (9) Richmond, Virginia; (10) Roanoke, West Virginia; (11) Tri Cities, Tennessee; and (12) Knoxville, Tennessee. Weighting specific DMA penetration rates by the number of homes not passed by cable yields specific DMA subscribers, which in turn yields a weighted-average penetration for the Carolinas Region of 16.7 percent.[29] Summing DBS penetration times DMA home not passed for all DMAs in the cluster results in the Carolinas cluster estimate of DBS subscribers. Table One contains the weighted-average penetration rate and my estimate of the number of DBS subscribers for each cluster.

[29.] The weighing scheme was designed to give more weight to those DMAs that represented the largest share of homes not passed in the region. Hence, a DMA that only partially overlaps with a region is given less weight.

TABLE ONE: GEOGRAPHIC CLUSTERS THAT ARE NOT PASSED BY CABLE

Region Name	Households (2000)	Weighted-Average DBS Penetration Rate (%)	Estimated DBS Subscribers	DMAs Included	Largest Towns/Cities
Carolinas	1,043,647	18.4	191,739	Roanoke-Lynchburg; Richmond-Petersburg; Norfolk-Portsmouth-Newport News; Greenville-N.Bern-Washington; Raleigh-Durham (Fayetteville); Greensboro-H.Point-W. Salem; Charlotte; Tri-Cities, TN-VA; Knoxville; Chattanooga; Atlanta; Greenville-Sparta-Asheville-And; Columbia, SC; Charleston, SC; Wilmington; Florence-Myrtle Beach	Wilmington NC, Danville VA, Martinsville VA
Gulf Coast	803,980	17.7	142,521	Shreveport; New Orleans; Monroe-El Dorado; Birmingham; Paducah-C.Gird-Harbg-Mt VN; Jackson, TN; Memphis; Lafayette, LA; Lake Charles; Alexandria, LA; Greenwood-Greenville; Sherman, TX-Ada, OK; Nashville; Ft. Smith-Fay-Springdale-Rgrs; Tulsa; Columbus-Tupelo-West Point; Mobile-Pensacola; Huntsville-Decatur; Beaumont-Port Arthur; Little Rock-Pine Bluff; Montgomery (Selma); Tyler-Longview (Lufkin); Hattiesburg-Laurel; Meridian; Baton Rouge; Jackson, MS; Jonesboro; Biloxi-Gulfport	Lafayette LA, Port Arthur TX , Gulf Port MS
Hoosier	464,502	17.8	82,909	Ft. Wayne; Cincinnati; Indianapolis; Louisville; Lexington; Dayton; Toledo; Grand Rapids-Kalamazoo-B.Crk; Terre Haute; Lafayette, IN; South Bend-Elkhart; Chicago; St. Louis; Paducah-C.Gird-Harbg-Mt VN; Champaign & Springfield-Decatur; Evansville; Nashville; Bowling Green	North Terrehaute IN, Georgetown IN, Indian Heights* IN
Appalachian	360,430	18.8	67,738	Pittsburgh; Washington, DC (Hagerstown); Tri-Cities, TN-VA; Lexington; Wheeling-Steubenville; Knoxville; Bluefield-Beckley-Oak Hill; Charleston-Huntington; Harrisonburg; Roanoke-Lynchburg; Chattanooga; Parkersburg; Clarksburg-Weston; Nashville; Bowling Green	Nashville TN, Corbin KY, Covington VA
Chesapeake	318,073	11.5	36,432	Washington, DC (Hagerstown); Baltimore; Norfolk-Portsmouth-Newport News; Richmond-Petersburg; Johnstown-Altoona; Salisbury; Charlottesville	Annapolis MD, Manassas VA, Winchester VA
Central Midwest	278,560	22.3	62,108	Joplin-Pittsburgh; Columbia-Jefferson City; Topeka; St. Louis; Kansas City; Springfield, MO; Ottumwa-Kirksville; Paducah-C.Gird-Harbg-Mt VN; Ft. Smith-Fay-Springdale-Rgrs; Tulsa; Wichita-Hutchinson Plus; Little Rock-Pine Bluff; Quincy-Hannibal-Keokuk; Jonesboro	Murphy MO, Sullivan MO, Winchester IL
Upper Midwest	131,379	16.6	21,806	Marquette; Minneapolis-St. Paul; Green Bay-Appleton; Duluth-Superior; La Crosse-Eau Claire; Wausau-Rhinelander; Fargo-Valley City	Superior WI, Hibbing MN, Aurora

Gator	162,152	11.9	19,243	Miami-Ft. Lauderdale; Tallahassee-Thomasville; Orlando-Daytona Bch-Melbourne; West Palm Beach-Ft. Pierce; Jacksonville, Brunswick; Ft. Myers-Naples; Gainesville; Panama City	Sharpes FL, Woodville FL, High Point FL
Sierra Nevada	101,410	12.5	12,691	San Francisco-Oak-San Jose; Sacramento-Stktn-Modesto; Reno; Fresno-Visalia; Bakersfield; Los Angeles; Chico-Redding	Gardnerville Ranchos NV, Jackson CA, Angwin CA
Native American	72,947	16.4	11,958	Odessa; Amarillo, Denver, Phoenix	El Paso, TX; White River, AZ
Plains	43,967	14.9	6,565	Colorado Springs-Pueblo; Denver; Wichita-Hutchinson Plus; Topeka; Kansas City; Sioux City; Omaha; Lincoln & Hastings-Krny Plus; Amarillo	Fort Riley North KS, Oaklawn - Sunview KS, Camp Forsyth KS
Northern Plains	50,194	18.2	9,145	Minneapolis-St. Paul; Sioux City; Minot-Bismarck-Dickinson; Lincoln & Hastings-Krny Plus; Fargo-Valley City; Sioux Falls (Mitchell); North Platte; Denver; Great Falls; Billings; Cheyenne, WY-Scottsbluff, NE; Glendive; Rapid City	Ranchettes WY, Ellendale ND, Northwood ND
Northwest	76,073	17.0	12,918	Denver; Butte-Bozeman, MT; Billings; Boise; Idaho Falls-Pocatello; Twin Falls; Missoula; Salt Lake City; San Francisco-Oak-San Jose; Reno; Medford-Klamath Falls; Portland, OR; Bend, OR; Chico-Redding; Spokane	Fort Hall ID, Deschutes River Woods OR, Mill City OR
Upper New England	80,074	21.5	17,197	Presque Isle; Bangor; Portland-Auburn; Burlington-Plattsburgh; Watertown; Syracuse; Utica; Albany-Schenectady-Troy	Star Lake NY, Edwards NY, Alburg VT

Source: 2000 Census.

As the table indicates there are over one million households in the Carolinas Region who would have no choice in broadcast distribution service if the proposed merger between EchoStar and DirecTV were to be approved. There would be more than a half million in the Gulf Coast, and a quarter million in Hoosier, Appalachian, Chesapeake, and Central Midwest that would be vulnerable to a post-merger reduction in service alternatives. In thousands of smaller clusters, not identified here, the number of residences in a similar circumstance is much less but they contain at least twice as many subscribers in total. If I were able to obtain data demonstrating the overstatement of homes passed by cable by the Nielsen database then the number of consumers not able to access cable would be significantly higher. This number would be substantially higher still if I were to exclude those households passed only by analog cable as well.

C. Entry Conditions

16. There are currently three full-CONUS and two one-half-CONUS high-powered DBS orbital slots that are currently licensed by the U.S. government and are usable. These satellite assets are authorized by the FCC to provide digital video services direct to the home as received on a small 18-inch dish. There are currently four companies licensed by the FCC to provide DBS service: DirecTV, EchoStar, Dominion Video Satellite, Inc. (marketed as Sky Angel), and R/L DBS Company (which has not commenced service as of the time of this declaration).[30] Of these, DirecTV, EchoStar and Dominion currently provide DBS service.[31] A merged EchoStar-DirecTV would control 100 percent of the full-CONUS licenses and about 55 percent of the two half-CONUS licenses.[32] In addition, a merged EchoStar-DirecTV would have at its disposal other satellite spectrum assets that reside in the Ku- and Ka-bands.[33] Because the allocation of additional slots is controlled by the International Telecommunications Union, the FCC does not have the discretion to allocate additional capacity in a unilateral fashion. There is no basis at this time on which I could anticipate full-scale national service from Dominion and R/L DBS.

17. Even if one were to consider the remote possibility that alternative forms of video distribution somehow might constrain the pricing of DBS service, entry is limited. According to the FCC, the barriers to entry into the MVPD market are significant:

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30. *Eighth Annual Report* at ¶ 118 Dominion leases eight channel to EchoStar.

31. *Id*.

32. *WSNet Files for U.S. Landing Rights From Two Canadian Orbital Locations; In Response to the EchoStar/DIRECTV Merger, WSNet Pursues Alternative DBS Spectrum,* BUS. WIRE, Nov. 27, 2001.

33. *Id.*

> The market for the delivery of video programming to households continues to be highly concentrated and characterized by substantial barriers to entry. These barriers may include: (a) strategic behavior by an incumbent designed to raise its rival's costs, e.g., limiting the availability to rivals of certain popular programming as well as equipment; (b) local and state level regulations, e.g., causing new entrants to incur a delay in gaining access to local public rights-of way facilities; and (c) technological limitations, e.g., DBS and MMDS line-of-sight problems.[34]

The FCC does not even consider the large upfront costs that would be required to acquire a competitive programming package and to launch satellites. Applying the rules embodied in the *Merger Guidelines*, entry by a rival MVPD in rural areas would not be "timely, likely, and sufficient in its magnitude, character and scope to deter or counteract the competitive effects of concern."[35]

18. Cable operators, as well, face barriers in extending their systems to compete effectively against DBS service in rural areas not now passed by cable. An October 2001 study by Credit Suisse First Boston concluded that high per-subscriber cost of upgrades and extensions prevents expansion of existing cable operations to rural areas.[36] Cable operators cannot achieve the necessary economies to justify providing service much beyond current footprints. Low household densities in rural areas do not support the capital expenditures required for digital cable infrastructure upgrades. Because analog cable offerings are an inferior substitute to DBS service, the existing analog cable plants will likely become smaller footprints, leading to larger geographic areas in which DBS services are all that is available.

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34. Eighth Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming, FCC Dkt. No. 01-389 at ¶ 118 (released Jan. 14, 2002).

35. Department of Justice and Federal Trade Commission, Horizontal Merger Guidelines at § 3.0 (released Apr. 2, 1992).

36. CREDIT SUISSE FIRST BOSTON, NATURAL SELECTION: DBS SHOULD THRIVE AS THE FITTEST TO SERVE RURAL AMERICA 3 (Oct. 12, 2001) [hereinafter CSFB DIGITAL CABLE REPORT].

II. COMPETITION BETWEEN DBS SERVICE PROVIDERS IN RURAL AREAS WHERE CABLE IS NOT AVAILABLE

19. The second step in examining pre and post merger behavior is to move from descriptions of size of markets to service providers and their competitive behavior. The key issue in assessing competition between DBS providers in rural, non cable areas is whether, in reducing the number of providers from two to one, there will be any change in competitive behavior that will affect retail distributors of the equipment packages and affect final subscribers to monthly broadcast packages. If the two DBS providers do not compete against each other for customers or for retail distribution channels before the merger, then common sense implies that the merger would not have any adverse effects. Joint or collusive monopoly behavior before the merger will be followed by single firm monopoly behavior after the merger. After reviewing the evidence, as to the extent currently of head-to-head DBS competition, I conclude that current behavior is noncooperative and indeed quite competitive, so that the proposed merger would eliminate the competitive pricing strategies that DirecTV and EchoStar impose on each other. The pricing rivalry for new customers and for more channels of service to old customers will be eliminated.

A. Competition Between DBS Service Providers for Customers

20. In December 2001, NRTC conducted a survey of its members that shows the extent of competitive pricing between EchoStar and DirecTV for rural customers making decisions on which system to install. Responses, while providing only examples, indicated numerous points at which EchoStar and DirecTV compete for the opportunity to install their systems in the homes of rural customers. Specific cases have been documented that reveal a strategy of EchoStar to switch DirecTV customers to its system.

- **"Trade Up to DISH Promotion"**: In Vernal, Utah (adjacent to the "Northwest Region"), EchoStar targeted DirecTV subscribers to switch to EchoStar. EchoStar ran a promotion for its retailers from August 1, 2001 to September 30, 2001. Only DirecTV customers qualified for the promotion. In particular, DirecTV customers were asked to trade in their DirecTV system equipment. In addition, potential subscribers under this plan had to provide the DISH Network retailer with an original DirecTV bill or original credit card statement showing a payment to DirecTV. The retailer then mailed that item to EchoStar for the customer to qualify for the offer. Under the offer, the new subscriber switching from DirecTV received a DishPVR 501 satellite dish for half price ($199) in addition to a monthly credit of $21.99 on the AT100, DISH Latino, or America's Top 150 programming plans.[37]

- **"The Cross-DBS Upgrade"**: On November 21, 2001, Home Care Plus, an EchoStar distributor, ran an advertisement in *The Crete News* of Nebraska ("Plains Region") for the Dish 500, with a boldface offer for "DirecTV Customers."[38] The advertisement read: "Upgrade your system to a Dish 500—either 1 or 2 receivers—with no upfront costs. First month of programming Free. 100 channels for $35.99 monthly."

- **"The Dish Swap Promotion"**: A local DISH Network retailer in Clarks, Nebraska ("Plains Region") offered to exchange an EchoStar Dish for the customer's current satellite dish for $24.95 and to install the new EchoStar Dish for free.[39]

- **"The Trade-In Discount"**: On January 2, 2002, Johnson's Satellite Service, a DISH distributor, ran the following advertisement in various newspapers in Baudette, Minnesota ("Upper Midwest Region"): "Attention: Direct TV / DSS / Pegasus customers—trade in your old system on a DISH Network Dish 500! 100 channels $9.00 a month. Free Install! Call for details."[40] On January 2, 2002, in Halstad, Minnesota, Johnson's Satellite Service ran the same advertisement in the *Farmers Independent* of Bagley, Minnesota, and a nearly identical advertisement in the *Fertile Journal* of Fertile, Minnesota.[41] On January 6, 2002, Dave's Satellite ran the following advertisement in the *Bemidji Pioneer* of Bemidji, Minnesota: "Attention DSS customers! Trade in your Direct TV system. 100 channels $9.00/mo."[42]

- **"Can Your Satellite Company Do That**?": An advertisement run by Alternative Entertainment, a DISH distributor providing EchoStar Service, in Olathe, Kansas ("Central Midwest Region") and Iola, Wisconsin ("Upper Midwest Region") offered "Over 100 Digital Channels" for $9 per month. In boldface type, the

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37. Official DISH Network Claim Form / Customer Agreement, received in letter to Kristie Price of NRTC from UBTA-UBET Communications in Vernal, Utah (Jan. 8, 2002).

38. Letter to Kristie Price of NRTC from Diode Cable & DBS of Diller, Nebraska (Jan. 9, 2002).

39. Letter to Kristie Price of NRTC from Andrea Schroeder of Clarks Telecom in Clarks, Nebraska (Jan. 9, 2002).

40. Letter to Kristie Price of NRTC from North Star Electric Cooperative, Inc. in Baudette, Minnesota (Jan. 7, 2002).

41. Letter to Kristie Price of NRTC from Garden Valley Telephone Company in Erskine, Minnesota (Jan. 8, 2002).

42. *Id*.

customer is asked: "Can your satellite company do that?"[43] This urges subscribers to DirecTV to compare their service with that of the DISH Network, given that DirecTV is the only other major satellite company.

- **"Luring the RVs from DirecTV"**: EchoStar attracted DirecTV customers to switch in Almosa, Colorado ("Plains Region") by offering local networks from other areas on EchoStar. For example, EchoStar offered the Denver networks to customers in Costilla County, Colorado, and it also offered local networks from across the country to subscribers. As Jade Communications, LLC of Alamosa, California explains: "EchoStar allows customers to have their home networks as they move across the country. (For example the customer's home is in Colorado and he has the Denver networks. The customer then places his dish on his RV and travels east. The customer still receives the Denver Networks). DirecTV does not allow this!"[44]

- **"The DirecTV Dealer Conversion Mailing**": On August 20, 2001, Clear Choices, Inc. of Chippewa Falls, Wisconsin ("Upper Midwest Region") received notification from DirecTV that its Sales Agency Agreement with DirecTV was being terminated. Clear Choices promptly switched to become a DISH Network dealer and sent a mailing to all DirecTV subscribers whose systems had been installed by Clear Choices. The mailing begins: "Clear Choices would like to take this time to thank each and every one of our customers who we activated with DirecTV over the past three years. Effective October 4, 2001, we will no longer be able to sell and install DirecTV Satellite Systems, and for this we apologize."[45] The letter goes on to outline two DISH Network promotions. The letter specifically targets DirecTV subscribers for DISH Network service.

That this short list of examples includes several clusters clearly indicates an existing strategy to take away customers already using the other providers system. This is the most difficult substitution to achieve competitively and requires price cuts as well as the provision of special services, such as free installation.

21. Both DirecTV and EchoStar have undertaken significant price discounts, in order to add to total subscribers, as well as to take market share from the other. Data on promotions as compiled by the Carmel Group, indicate that DirecTV promotions have significantly affected the pricing of EchoStar, and *vice versa*. The recent chronology of interactive discounts between

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43. Letter to Kristie Price of NRTC from Chad Ogren in Olathe, Kansas (Jan. 10, 2002).

44. Letter from Jade Communications, LLC in Alamosa, Colorado (Jan. 9, 2002).

45. Letter to Kristie Price of NRTC from Clark Electric Appliance & Satellite Inc. in Greenwood, Wisconsin (Jan. 9, 2002) (citing letter from Alan P. Lee, President of Clear Choices, Inc. in Chippewa Falls, Wisconsin, to "Valued Customers").

EchoStar and DirecTV at the customer level illustrates this aspect of competitive behavior across all clusters at the same time.

- **"The Cash-Back Promotion"**: On July 31, 1996, EchoStar lowered the price of its equipment to $199.[46] On August 26, 1996—26 days later—DirecTV offered $200 cash back to new customers who committed to a one-year subscription, which effectively lowered the cost of equipment to $199.[47]

- **"$100 Off Installation"**: On July 25, 1997, EchoStar offered new customers a choice between $100 off the installation charge or a free self-installation kit.[48] On October 23, 1997—91 days later—DirecTV offered the identical promotion.[49]

- **"Christmas in November"**: On November 3, 1997, EchoStar announced that it would give new customers a $50 gift certificate, which could be used toward professional installation.[50] On December 4, 1997—31 days later—DirecTV offered new customers a $54 gift certificate that could be used toward any programming purchases.[51]

- **"Cable Customers Beware"**: On February 23, 1998, DirecTV launched an advertising campaign urging cable customers to switch to DirecTV.[52] On March 11, 1998—17 days later—EchoStar offered free programming to cable customers who turned in their cable bills.[53]

- **"Discovering Latinos"**: On January 13, 2000, DirecTV announced that the following week it would launch DirecTV Para Todos—its Spanish language programming service—in seven new markets.[54] The very next day, EchoStar announced that it would unleash a marketing campaign, "Join the DISH Latino

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46. *EchoStar Announces Special Promotion In Select Cable Rate Increase Markets*, EchoStar Press Release (Jun 6, 1996).

47. *New DIRECTV® $200 Cash Back Offer Lowers DSS® Hardware Price To $199 Nationwide*, DirecTV Press Release (Aug. 20, 1996).

48. *EchoStar Announces Fee Installation; DISH Network Offers Free Installation Kit or $100 Off of Professional Installation*, EchoStar Press Release (Jul. 25, 1997).

49. *DIRECTV® Offers $100 Off Installation for New Subscribers; Offer Makes it Even Easier for Consumers to Own a DSS® System*, DirecTV Press Release (Oct. 23, 1997).

50. *EchoStar Announces 1997 Holiday Promotion*, EchoStar Press Release (Nov. 3, 1997).

51. *DIRECTV®, Inc. Announces Holiday Promotion for New Subscribers: $50 Worth of Programming Certificates Offered With the Activation of a DIRECTV Programming Package*, DirecTV Press Release (Dec. 4, 1997).

52. *DIRECTV Starts Ad Blitz To Attract Cable Customers*, Communications Today (February 24, 1998).

53. *DISH Network Announces Unbeatable Deal*, EchoStar Press Release (March 11, 1998).

54. *DIRECTV Introduces New Spanish-language Service DIRECTV PARA TODOS™ in Seven Additional Markets; PUMA TV to Join Programming Lineup*, DirecTV Press Release (Jan. 13, 2000).

Revolution," in two week's time. The campaign touted EchoStar's Spanish programming option, DISH Latino.[55]

- **"Free Installation"**: On February 23, 2000, EchoStar offered new customers who purchased the DISHPLAYER 500 set-top box a $199 rebate and free installation.[56] On February 24, 2000—1 day later—DirecTV offered free installation for new customers at a value of $200.[57]

- **"Programming Price Wars"**: On July 30, 2001, DirecTV announced what it termed its "most aggressive promotion to date," whereby new customers who subscribed to the NFL Sunday ticket received four free months of Total Choice Platinum and the Family Pak upon activation of those packages—a savings of over $300.[58] The next day, on July 31, 2001, EchoStar introduced its new "I Like 9" promotion for new subscribers who purchased a DISH network system for $199. The promotion offered new customers America's Top 100 or DISH Latino Dos programming for only $9 per month for one full year—a savings of $264.[59]

- **"Personal Video Recorders (PVR)"**: On August 1, 2001, EchoStar offered a "Trade Up to DISH" program, in which former DirecTV subscribers received a 50 percent discount on the DISH PVR 501 system. On August 2, 2001—the *next* day—DirecTV lowered the price of its Ultimate TV PVR.

These pricing and product-quality interactions between DirecTV and EchoStar affected not only market shares but also the level of prices. They were not initiated by cable competition, but were intense, customer-level competition between EchoStar and DirecTV. These facts stand in sharp contrast to Prof. Willig's assertion that the two DBS service providers do not compete with one another.

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55. *DISH Network Launches Nationwide Campaign to 'Join the DISH Latino Revolution,'* EchoStar Press Release (Jan. 14, 2000).

56. *Revolutionary DISH Network Satellite Television Receiver With WebTV Digital Video Recording, Internet Features Now Available With $199 Rebate*, EchoStar Press Release (Feb. 23, 2000).

57. *DIRECTV Offers New Customers Free Professional Installation; National Promotion Stirs Buying Incentive, Features Drew Carey*, DirecTV Press Release (Feb. 24, 2000).

57. *DIRECTV Unveils Fall National Promotion and Advertising Campaign*, DirecTV Press Release (Jul. 30, 2001).

57. *DISH Network Announces New 'I Like 9' Promotion: Over 100 Channels of Satellite Television for Only $9 a Month,* BUS. WIRE, Jul. 31, 2001.

B. Competition For Retail Distribution Services

22. Competition has existed between the two DBS service providers for retail distribution outlets as well as for final customers. To some extent discounts on equipment, offered to distributors, or equipment to be sold by distributors, are passed on to end-users. Although both DirecTV and EchoStar sell antenna and receiver systems directly, each relies heavily on independent retailers for the sale and installation their systems to be deployed. The two DBS service providers have had incentive programs for independent retailers of their systems, in which wholesale prices are discounted on larger volumes. EchoStar's commission program to the retailer includes an activation bonus, plus a fixed monthly commission that depends on the customer continued subscription to programming.[60] DirecTV equipment has sold through a variety of discount stores such as Best Buy, Blockbuster, Circuit City, and Radio Shack, as well as networks of local dealers.[61] EchoStar equipment has been sold through Sears, and other independent networks of local dealers.[62] The resulting competition between DirecTV and EchoStar at the retailer level has been widespread. These cases are illustrative:

- **"The SuperSized EchoStar Dealer Commission"**: Scott Braeger, the General Manager of the Tri-County Electric Cooperative in Portland, Michigan (near the "Upper Midwest Region"), reported that several system retailers who had previously sold only DirecTV systems either began selling DISH Network systems as well or began selling DISH Network systems exclusively.[63] Braeger asserts that, in the former case, customers were encouraged to select DISH Network over DirecTV. According to Braeger, Clinton Electronics, with locations in St. Johns, Michigan and Iona, Michigan, "still carries DirecTV, but heavily promotes EchoStar because the commissions he receives from EchoStar are larger."[64] EchoStar and DirecTV in competition for the same retailers, caused EchoStar to offer higher retailer commissions than DirecTV.

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60. ECHOSTAR COMMUNICATIONS CORP., 2000 SEC FORM 10-K, at 5 (filed Apr. 2, 2001).

61. Downloaded from DirecTV's web site on Dec. 16, 2001 at http://www.DirecTV.com/howtoget/howtogetpages/0,1076,9,00.html.

62. *DirecTV, Sears to Part Ways,* Satellite Bus. News, May 19, 1999; Downloaded from EchoStar's web site on Jan. 30, 3002 at http://www.corporate-ir.net/ireye/ir_site.zhtml?ticker=dish&script=400&layout=-6

63. Letter to Kristie Price of NRTC from Scott Braeger of Rural TV of Michigan (Jan. 10, 2002).

64. *Id*.

- **"The Sears Saga"**: In May 1999, DirecTV offered an exclusive distribution agreement to Sears, whereby the retailer would no longer carry DISH Network systems.[65] Sears declined the offer, and in June 1999 DirecTV withdrew its product from all Sears' stores.[66] EchoStar, which had been selling systems through Sears since 1998, thereby acquired a *de facto* exclusive agreement with Sears. On November 3, 1999—five months after DirecTV pulled its units – EchoStar and Encore Media Group partnered with Sears to offer a "free blanket" promotion exclusively through Sears' 1,600 nationwide retail outlets.[67]

23. In February 2000, EchoStar sued DirecTV for allegedly coercing retailers to stop offering both EchoStar and DirecTV product lines.[68] In March 2000, DirecTV filed a counterclaim against EchoStar.[69] In April 2001, EchoStar amended its complaint to claim that Circuit City, Radio Shack, and Best Buy engaged in anticompetitive conduct, by excluding EchoStar equipment from sale.[70] In particular, EchoStar alleged that DirecTV had secured a series of agreements with the above stores whereby those retailers agreed not to promote or offer EchoStar's equipment and service.[71] EchoStar further alleged that those retailers received a variety of inducements for such exclusivity such as cash payments, rebates, and a percentage of DirecTV's future high-power DBS service profits through a residual program.[72] Finally, EchoStar alleged that DirecTV threatened to withhold its products from retailers that sought an alternative high-power DBS service.[73] Notwithstanding EchoStar's voluntary dismissal of its

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65. *DirecTV, Sears To Part Ways*, SATELLITE BUS. NEWS (May 19, 1999); *DirecTV Legal Docket Gets Bigger*, SATELLITE BUS. NEWS (Mar. 29, 2000).

66. *DirecTV, Sears To Part Ways*, SATELLITE BUS. NEWS (May 19, 1999).

67. *EchoStar and Encore Media Group Partner For Dish Network Marketing Promotion at Sears,* EchoStar Press Release (Nov. 3, 1999).

68. Complaint, EchoStar Communications Corp. *v*. DirecTV Enterprises, Inc. et al., No. 00-K-212 (D. Colo., filed Feb. 1, 2000).

69. Counterclaim, EchoStar Communications Corp. *v*. DirecTV Enterprises, Inc. et al., No. 00-K-212 (D. Colo., filed Mar. 13, 2000).

70. Amended Complaint, EchoStar Communications Corp. *v*. DirecTV Enterprises, Inc. et al., No. 00-K-212 at ¶ 41 (D. Colo., filed Apr. 5, 2000).

71. *Id*.

72. *Id*. at ¶¶ 41-42.

73. *Id*. at ¶¶ 43.

lawsuit, following the announcement of its proposed acquisition of DirecTV, this litigation is consistent with the existence of rivalry among DBS service providers to secure distribution channels.

24. Lastly, an incident relates to the effects of the proposed merger itself. According to a January 2002 report by Salomon Smith Barney, the proposed merger would reduce retailer commissions by $50, from $170 per gross subscriber addition to $120[74]. The effect would be to increase retailer costs by $50 and to induce retailers to recover those costs with higher retail prices, in the range of $.50 per month.[75]

25. These initiatives, primarily by EchoStar, establish a pattern of contesting market share, particularly in areas where cable is not available. The results of that pattern at least theoretically, should include lower prices than if there were tacit or overt collusion between the two providers to establish shares and achieve joint profit maximization. The price level in current markets is not likely to be that associated with the monopoly price level (which would be realized after the proposed merger), but a level between that from monopoly and that from perfect competition. Even with concentration in the provision of services in the defined market as high as it is, with only two full-scale DBS service providers, and none likely to enter the market, the price and service rivalry extent in these examples denies the presumption that the current price level in the 14 clusters is at the monopoly price. As the Department of Justice and Federal Trade Commission have noted, "market share and concentration data provide only the starting point for analyzing the competitive impact."[76] High concentration, while a necessary

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74. SALOMON SMITH BARNEY, DBS INDUSTRY UPDATE 14 (Jan. 17, 2002).

75. *Willig Declaration*, *supra* note 19, at 6. These anecdotes are not consistent with Professor Willig's evident endorsement of the assertion by executives of EchoStar and DirecTV that the two companies do not compete against one another.

76. U.S. Department of Justice and Federal Trade Commission, HORIZONTAL MERGER GUIDELINES, at § 2.0 (revised Apr. 8, 1997).

pre-condition is not by itself proof of noncompetitive pricing. As Scherer and Ross note, "[c]oncentration indices are at best only a rough one-dimensional indicator of monopoly power, and their use must be tempered with common sense."[77] This position has become more or less the consensus view of analysts;[78] in particular, the *Merger Guidelines*[79] recognize that "market share and market concentration data may either understate or overstate the likely future competitive significance of [additional] firms in the market."[80]

26. The process of determining the extent of competitiveness has to focus on market behavior. Over the last four decades, analyses of behavior have centered on the Lerner Index, equal to the difference between price and marginal cost as a percentage of price.[81] The full development of this analytical approach has provided direct relationships of the Lerner Index with concentration (or structure) and conjectural variation of prices or quantities among firms

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77. Frederick M. Scherer and David Ross (3rd ed. 1990), INDUSTRIAL MARKET STRUCTURE AND ECONOMIC PERFORMANCE, Boston, MA: Houghton Mifflin Co., p. 79.

78. While "traditional concentration measures are good predictors of market power and the efficiency of the industry equilibrium . . . the predictive power of these measures depends crucially on whether products are homogenous or differentiated, whether entry barriers exist, and whether firms compete with prices or quantities." Daniel F. Spulber (1989), REGULATION AND MARKETS, Cambridge, MA: MIT Press, pp. 504–505. Viscusi, Vernon and Harrington also recognize that "differences among industries are so complex that simple generalizations (for example, few sellers lead to high profit rates) are invalid." K. Viscusi, J. Vernon, and J. Harrington (1992), ECONOMICS OF REGULATION AND ANTITRUST, Lexington, MA: D. C. Heath, p. 54. Franklin Fisher notes, furthermore, that "while it seems likely that increased concentration matters, other things equal, we are very far from having a decent specification of just what the other things are and how to measure them. A policy that uses concentration levels . . . should be based on a theory that takes into account the many other phenomena that make industries differ in terms of the likelihood of tacit collusion." Franklin M. Fisher (1991), INDUSTRIAL ORGANIZATION, ECONOMICS, AND THE LAW, Cambridge, MA: MIT Press, pp. 202–203.

79. U.S. Department of Justice and Federal Trade Commission, HORIZONTAL MERGER GUIDELINES, at § 1.52 (revised Apr. 8, 1997).

80. U.S. Department of Justice and Federal Trade Commission, HORIZONTAL MERGER GUIDELINES, at § 2.0 (revised Apr. 8, 1997).

81. The Analytical Structure is developed in: Iwata, G. (1974), *Measurement of Conjectural Variations in Oligopoly, ECONOMETRICA*, vol. 42, pp. 949-966; Gollop and Roberts (1979), *Firm Interdependence in Oligopolistic Markets,* JOURNAL OF ECONOMETRICS, vol. 10 pp. 313-331; Cowling and Waterson (1976), *Price-Cost Margins and Market Structure,* ECONOMICA, vol. 43, pp. 267-274; Dickson, V. (1981), *Conjectural Variation Elasticities and Concentration*, ECONOMICS LETTERS, vol. 7 pp. 281-285; Clarke and Davies (1982), *Market Structure and Price-Cost Margins,* ECONOMICA, vol. 49, pp. 277-287.

(behavior). The price-cost margin has become a widely used indicator of competitiveness as determined by [$(p\text{-}mc)/p$ = (HHI × (1+v) / e], with HHI equal to the Herfidahl Hirschman Index (i.e. firm market shares squared) with v equal to the coefficient of conjectural variation (the extent to which firm *i's* share changes with respect to an initiative of firm *j* to change share) and *e* equal to the elasticity of market demand. Absent any change in the elasticity of demand, price-cost margins increase as HHI and conjectural variation increase.[82] But a higher level of concentration, in higher HHI, is not in itself "less competitive," since it does not involve less competitive interaction among service suppliers. Less competitive interaction is evidenced by a higher value of the conjectural variation coefficient *v*. The conjectural variation defines the competitiveness of prices in service markets, and will be used here to characterize current competitiveness in rural markets without cable. If these markets are competitive, one provider differentiates its offerings in order to take share away from the other; the second responds by doing the same or by reducing prices. This process results in falling price-cost margins for consumers. Whether or not markets are and have been competitive can be determined by analyzing price-cost margins. Specifically, because the price-cost margin equals [HHI (1 + v) / e], assuming that the elasticity of demand for rural services has remained constant, and HHI is approximately one half, then "v" should take on values from (v = -1) for perfectly competitive to (v = 1) for perfectly monopolistic pricing behavior.

82. As Carlton and Perloff note, however, a high level of market concentration, in and of itself, does not cause high price-cost margins, nor does it necessarily imply noncompetitive behavior by market participants. The preservation of market concentration by long-run barriers to entry is also a factor. Absent barriers to entry, firms should be attracted away from industries exhibiting low returns to those exhibiting high margins. Over time, rates of return among the industries will thus be driven toward a common level, driving down price-cost margins. These changes should register as falling HHI or increasingly negative *v* over time. Dennis W. Carlton and Jeffrey M. Perloff (2nd ed. 1994), MODERN INDUSTRIAL ORGANIZATION, New York, NY: Harper Collins College Publishers, pp. 59–360.

27. To undertake this analysis, a measure of each of the terms in the price-cost margin has to be constructed.[83] My estimates of the marginal costs of DBS service for DirecTV and EchoStar come from data in public financial statements or from reports prepared by financial analysts. According to Morgan Stanley Dean Witter, programming expenses for DirecTV for its two service packages (basic plus average premium) were $19.41 per subscriber per month and for EchoStar were $20.88 per month.[84] The second component of marginal cost, for which data are available, is customer care ($4.48 and $6.60 per month, respectively, for DirecTV and EchoStar). The third is subscriber acquisition cost,[85] which consists of outlays for equipment and advertising to sign on a subscriber to be amortized over the period of service to that new subscriber; these costs for both DBS providers are estimated by Morgan Stanley Dean Witter to be about the same, equal to $2.91 per month.[86] These sets of three estimates for DirecTV and EchoStar, as indicated in Table Two,[87] come to marginal costs of $26.80 per month for DirecTV and $30.39 per month for EchoStar. These should be the same for all clusters (data sources do not differentiate costs across regions).

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83. For applications of this Lerner Index approach: Brander and Zhang (1993), *Dynamic Oligopoly: Behavior in the Airline Industry,* INTERNATIONAL JOURNAL OF INDUSTRIAL ORGANIZATION, vol. 11, pp. 407-435; Brander and Zhang (1990), *Market Conduct in the Airline Industry: An Empirical Investigation,* RAND JOURNAL OF ECONOMICS, vol. 21, pp, 567-583; P.W. MacAvoy (1996), *The Failure of Antitrust and Regulation to Establish Competition in Long-Distance Telephone Service Markets*, AEI PRESS AND MIT PRESS; P.W. MacAvoy and M.A. Williams, (Forthcoming 2002), *Deregulation of Entry in Long-Distance Telecommunications*, MICHIGAN STATE UNIVERSITY PRESS.

84. MORGAN STANLEY DEAN WITTER, ECHOSTAR COMMUNICATIONS, INVESTEXT ANALYST REPORT, Oct. 24, 2001, at 8.

85. *Id*.

86. Because Pegasus is the retailer of DirecTV in rural areas, I use the subscriber acquisition costs reported by Pegasus, See *Pegasus Communications Corporation Reports*, *Results for Third Quarter,* BUS. WIRE, (Nov. 1, 2001)

87. MORGAN STANLEY DEAN WITTER, HUGHES ELECTRONICS, INVESTEXT ANALYST REPORT, Nov. 15, 2001, at 2.

TABLE TWO: MARGINAL COST FOR DIRECTV AND ECHOSTAR

		DirecTV		EchoStar (DISH)
Programming Expenses (per month)		$19.41		$20.88
Customer Care (per month)		$4.48		$6.60
Subscriber Acquisition Cost (total)	$310.00		$310.00	
Subscriber Acquisition Cost (per month)		$2.91		$2.91
Total Cost (per month)		$26.80		$30.39

Source: MORGAN STANLEY DEAN WITTER, HUGHES ELECTRONICS, INVESTEXT ANALYST REPORT, Nov. 15, 2001, at 2; MORGAN STANLEY DEAN WITTER, ECHOSTAR COMMUNICATIONS, INVESTEXT ANALYST REPORT, Oct. 24, 2001, at 8.

The filings of EchoStar at the Securities and Exchange Commission support those estimates of marginal cost per unit per month, if not to the same dollars and cents.[88] Since DirecTV is a subset of Hughes Electronics operations there are no separate income statement data publicly available.

28. The elasticity of demand for DBS service in rural areas is derived from a regression demand model, the data for which is a cross-section of 83 designated market areas including the number of DBS subscribers, index prices, and demographic characteristics. The equation is as follows:

$$\ln q_{DBS,\mathrm{i}} = a + B_1 \ln p_{DBS,i} + B_4 \ln \text{density} + B_4 \ln \text{households} + \epsilon_i, \qquad [1]$$

where

$q_{DBS,i}$ = total DBS subscribers in Nielsen designated market area DMA *i*

$p_{DBS,i}$ = average monthly expenditure on service per subscriber in DMA *I*

density = population density in DMA *i*

households = households located in DMA *i*, and

ε_i = an error term.

88. ECHOSTAR COMMUNICATIONS, INC., SEC FORM 10-Q (Oct. 12, 2001).

For number of subscribers I have relied on Nielsen Media Research for the total number of DBS subscribers by DMA.[89] For monthly average revenues I have used 254 observations of DirecTV retail service providers for the period December 15, 2001 to January 13, 2002 (provided by NRTC); these have been compiled for consistency with Nielsen DMA's to form a sample of 83 observations.[90] Table Three provides representative prices for each of the regional clusters aggregated from the relevant DMA's. Estimates of prices for EchoStar, for the basic package, do not vary across clusters, but there is variation due to subscribers taking different premium packages; however, we do not have access to data on customer average expenditures for premium service by cluster. The estimates for DirecTV vary from one cluster to the next because of this company's variations in installation and equipment prices, and because subscribers have varied the mix of premium services over the basic serve charge of $31.99, the same as for EchoStar.

89. For information on Nielsen Media Research, visit http://www.nielsenmedia.com.

90. For information on the Carmel Group, visit http://www.carmelgroup.com.

TABLE THREE: REPRESENTATIVE PRICES AND DBS PENETRATION RATES FOR THE CLUSTERS

Region	Penetration Rate	Monthly Price* DirecTV
Carolinas	18.4	51.15
Gulf Coast	17.7	50.98
Hoosier	17.8	49.66
Appalachian	18.8	46.40
Chesapeake	11.5	57.06
Central Midwest	22.3	47.40
Upper Midwest	16.6	44.13
Florida	11.9	49.10
Sierra Nevada	12.5	55.14
Native American	16.4	51.07
Plains	14.9	48.93
Northern Plains	18.2	47.29
Northwest	17.0	47.97
Upper New England	21.5	50.61

Note: * Monthly price is the average revenue per month of DirecTV retailers in the cluster; see text equipment and installation are amortized over three years.

In Table Three, the penetration rate varies inversely with the price of DBS service—that is, the higher the price of DBS service, the lower the penetration rate, given that the simple correlation coefficient between those two variables is –0.505 over the 14 clusters. The correlation is approximate, but an explanation that comes to mind is that lower penetration areas have to be higher. Another explanation is that low penetration areas are a result of higher prices because of less competition for share between EchoStar and DirecTV at those locations.

TABLE FOUR: REGRESSION COEFFICIENTS
(DEPENDENT VARIABLE—LOG OF THE NUMBER OF DBS SUBSCRIBERS)

	Coefficients	Standard Error	t Stat	P-value
Log price (DBS)	-1.55	0.87	-1.78	0.08
Density	-0.18	0.05	-3.51	0.00
Households	-0.96	0.04	22.11	0.00
Constant	5.56	3.42	1.62	0.11

Observations = 83
R square = .87
Adjusted R square is not defined (White Huber Standard Errors)

Note: Natural logarithms are used.

29. With these prices and Nielsen based subscriber data, the fitted values from the equation indicate that the own-price elasticity of demand for DBS service in rural areas is –1.55. (See Table Four; the coefficient of log price is the estimate of elasticity.)[91]

30. Recall that, if the coefficient of conjectural variation equals + 1.0, then there is clear indication that through their price-cost margins the two DBS providers have been able to set the monopoly price. But an estimate of –1.0 in turn indicates that the two providers have managed through discounts, rebates, free installation and other such special offers to arrive at the competitive price level. The estimated values of conjectural variation for DirecTV for the 14 rural clusters of markets range from 0.126 to 0.519 (as in Table Five).

91. This estimate differs from one recently published estimate, for all areas inclusive of rural and non-rural areas, from Professors Austan Goolsbee and Amil Petrin. Using a consumer-level demand system that accounts for choice of cable, local antenna, and satellite service, they estimated the price elasticity of demand for DBS service to be in the range of –7.4 to –8.7. I have reservations about using their estimates for this analysis of competitiveness between the two DBS providers in rural areas where cable is not available. The authors consider only survey respondents who live in the top 60 television markets, a limitation likely to make their elasticity too high for use in markets where cable is not available. Also, their estimate of the elasticity would imply a monopoly price margin cost (i.e. (p–mc)/p = -1/e) of 12% which is lower than the price-cost margins of the two DBS service providers currently in all rural areas (see Table Five below). It is not conceivable that the “best” two-firm competitive price is higher than the monopoly price. Finally, the authors did not have access to DBS prices, so that they solve for endogenous prices in their market model from other regression coefficients; this results in proxies for the price with high variances which, in turn, generate estimates for the own-price elasticity of demand with high variances.

TABLE FIVE: PRICE-COST MARGINS FOR DIRECTV BY CLUSTER

	DTV		
Region	Price $/Month	Margin (p-c)/p	Conjectural Variation
Carolinas	$51.15	47.6%	0.364
Gulf Coast	$50.98	47.4%	0.359
Hoosier	$49.66	46.0%	0.319
Appalachian	$46.40	42.2%	0.210
Chesapeake	$57.06	53.0%	0.520
Central Midwest	$47.40	43.4%	0.295
Upper Midwest	$44.13	39.3%	0.250
Gator	$49.10	45.4%	0.301
Sierra Nevada	$55.14	51.4%	0.473
Native American	$51.07	47.5%	0.362
Plains	$48.43	44.7%	0.280
Northern Plains	$47.29	43.3%	0.291
Northwest	$47.97	44.1%	0.264
Upper New England	$50.61	47.0%	0.348

The EchoStar conjectural variation coefficients are the same, equal to an estimated 0.175, assuming no premium service expenditures per subscriber. The lowest values, in the Appalachian and Upper-Central Midwest, for DirecTV are associated with programs offering discounts on equipment and/or installation, as well as low levels of subscriber acceptability of premium packages. Coefficient values of 0.125 to 0.280 are indicative of competition of the characterization associated with cooperative pricing and service offerings (i.e. that of "Cournot"). The higher coefficient values for DirecTV, in the range of 0.520 (Chesapeake) or 0.473 (Sierra) are indicative of somewhat more cooperative behavior, of the leader-follower characterization (i.e. that of "Stackelberg"). Altogether, the pattern is one associated with competition. Given an HHI of one half, equivalent to that for approximately two equal-sized firms, profit margins of 50 percent, and a price elasticity -1.5, the resulting level of the conjectural coefficient indicates that price-cost margins are at levels that are only one half of the monopoly level.

IV. The Effects of the Proposed Merger in Rural Markets

31. Reducing DBS service suppliers from two to one, in rural areas without cable, results in monopoly prices in those areas. These prices would be substantially higher than current prices.

A. Post-Merger Price Increase in Rural Areas, With and Without a "Single National Price"

32. The post-merger monopoly price in rural areas can be estimated by adjusting the conjectural variation coefficient to reflect for monopoly in each cluster. This monopoly-pricing rule, in which HHI equals one and v equals zero with no interfirm share interaction, results in [$(p - mc) / p = -l/e$]

33. EchoStar as the surviving firm would choose to operate with the lower of the two marginal costs at $26.80 per month. It would set a markup over marginal costs of 0.645 in the 14 clusters. My estimates of marginal cost differ for EchoStar and DirecTV. To make the most conservative assumption, I take the lower cost at $26.80 per month as the cost for the surviving firm to operate with; this is already a very conservative assumption since the $26.80 per month possibly results from efficiencies but most likely results from a less costly (and therefore lower quality) basic programming package associated with that service provider. Then with this assumed lower marginal cost, EchoStar to achieve the most favorable profit level would set a markup over marginal cost. *Given current cluster prices, the predicted markup for monopoly profit maximization represents at least a 29 percent increase in markup.* The resulting price increases for each cluster are shown in Table Six, ranging from $18.69 in Chesapeake to $31.62 in the Upper Midwest where current prices are the most competitive of those in all the clusters. The predicted price increases can be used to estimate a total consumer welfare loss over the rural areas not passed by cable. The price increases can be expected to come to less then 33 percent in the Chesapeake Region, where the current price is high, but to as much as 71% in the Upper

Midwest. The percentage increases in general come to fifty percent of current prices, and would be substantially harmful to both established and new subscribers.

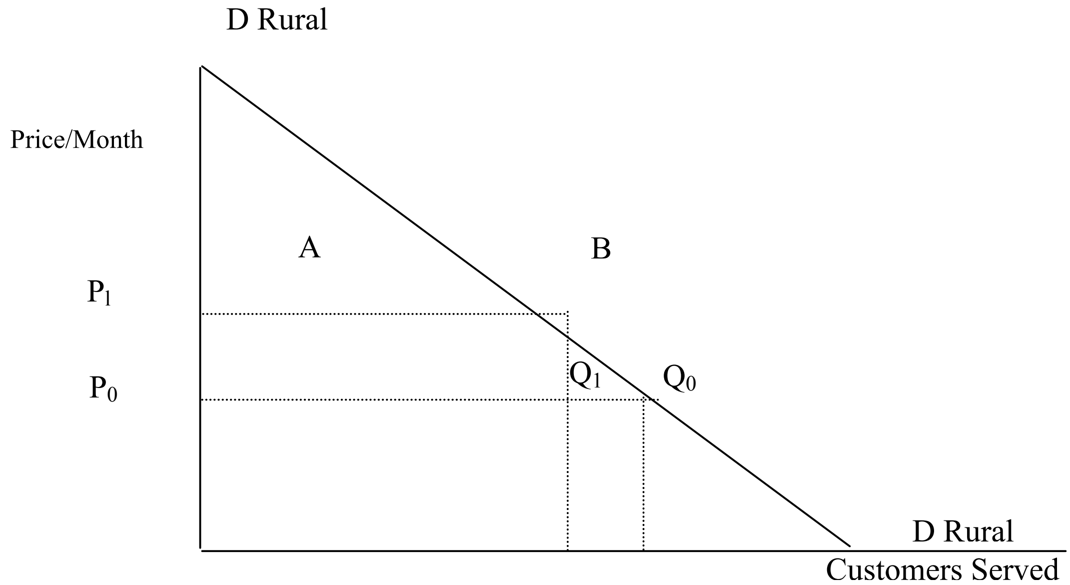
TABLE SIX: PRICE INCREASES FOR MONOPOLY CONDITIONS IN RURAL DBS MARKETS

Region	DirecTV Price $/Month	DirecTV Post Merger Monopoly Price $/Month	Increase $/Month	% Increase in Price
Carolinas	$51.15	$75.75	$24.16	47.2%
Gulf Coast	$50.98	$75.75	$24.77	48.6%
Hoosier	$49.66	$75.75	$26.09	52.5%
Appalachian	$46.40	$75.75	$29.35	63.2%
Chesapeake	$57.06	$75.75	$18.69	32.7%
Central Midwest	$47.40	$75.75	$28.35	59.8%
Upper Midwest	$44.13	$75.75	$31.62	71.6%
Gator	$49.10	$75.75	$26.65	54.2%
Sierra Nevada	$55.14	$75.75	$20.61	37.3%
Native American	$51.07	$75.75	$24.66	48.3%
Plains	$48.43	$75.75	$27.32	56.4%
Northern Plains	$47.29	$75.75	$28.46	60.1%
Northwest	$47.97	$75.75	$27.78	57.9%
Upper New England	$50.61	$75.75	$25.14	49.7%

B. The Estimation of Consumer Welfare Loss

34. What consumers lose from the higher prices when there is only one DBS provider in rural areas can be indicated by considering the "transfer" and "deadweight" losses illustrated by areas A and B in Figure Two. The figure depicts the increase in price (P_l-P_0) from only a single provider and the effect that has on the number of subscribes as reduced from Q_0 to Q_l. The "transfer" loss for surviving subscribers is how much more they pay, the increase in price times the number of subscribers (P_l-P_0)Q or Area A. The deadweight loss in subscribers is shown by the increase in price (P_l-P_0) multiplied by the loss of subscribers (Q_0 - Q_l) divided by two or Area B. Summing the price increases in each cluster, times the number of resident subscribers in that cluster provides an estimate of area (A) and the product of the changes in prices and in number of subscribers divided by two provides an estimate of area (B).

FIGURE TWO: AGGREGATE DEMAND FOR DBS SERVICE IN AREAS WITHOUT CABLE SERVICE



35. Estimates of the welfare loss for each cluster are given in Table Seven. The losses in the four clusters with large numbers of DBS households exceed one million dollars per month; that is, the combination of price increase on established service, and price increases that reduce service (deadweight loss) come to more than one million dollars in the Carolina, Gulf Coast, Hoosier, and Appalachian clusters. The estimated total loss across the 14 clusters exceeds ten million dollars per month. The rural consumers lose $120 million per year, in the 14 clusters of rural markets, alone, for as many years as the monopoly would be effective.

TABLE SEVEN: CONSUMER LOSSES FROM POST MERGER PRICE INCREASES

Region	($000, per month)
Carolinas	2,961
Gulf Coast	2,203
Hoosier	1,282
Appalachian	1,014
Chesapeake	507
Central Midwest	945
Upper Midwest	307
Gator	297
Sierra Nevada	185
Native American	184
Plains	100
Northern Plains	138
Northwest	197
Upper New England	265

36. EchoStar's proposed acquisition of Hughes DirecTV would leave existing and potential DBS customers in rural areas without cable without a significant choice of broadcast service. According to DirecTV's filings with the FCC, in August 2001, nearly thirty percent of its 8.7 million subscribers, or 2.5 million subscribers, live in areas not passed by cable. If market conditions at all such locations were like those in the 14 clusters, then total losses to all rural consumers by simple extrapolation would exceed $430 million per year for those subscribing to DirecTV and $272 million for those subscribing to EchoStar. [92]

37. Such estimates of course are widely developed and then used to assess public-policy changes in regulation and antitrust, particularly for services that affect consumers throughout the country when prices can be expected to increase from the change in policy. I believe that in this case in particular it is important to distinguish between the acute accuracy of a

92. This very approximate extrapolation assumes that all those DBS subscribers in small clusters without cable pay the same price per month now, and the predicted monopoly price after the merger, as the average customer in the 14 large clusters. The estimate is (2.900/0.697) = 4.16 ($120 for Direct TV and 38%/60% of that for EchoStar subscribers.

specific estimate of marginal increase or consumer loss and the general thrust of the effect on consumers of the change taking place. This study uses data on numbers of subscribers and average monthly payments (prices) that have become available in recent days only for the first time. (Indeed, I know of no other such data at all available.) I would anticipate as more information does become available, the estimate, for example, of average cluster price in the Carolinas cluster would change and that other estimates shown in the preceding tables could all change. But I take the position that these first available estimates clearly indicate low price-cost margins to be associated with very substantial competition between EchoStar and DirecTV in broad clusters of rural markets where cable has not been available. My estimates clearly indicate that prices in these clusters and elsewhere would increase in the range of 50 percent if the number of DBS providers is reduced from the now-present two competitors to a single monopoly service provider; many hundreds of thousands of residences served by that single provider throughout rural America would pay one-half again as much in their monthly payments. There will be millions of dollars of losses to subscribers per month. This general finding is sufficient to establish that there would be an antitrust violation consequent from the merger that is important in its effect on many DBS service users throughout the nation.

38. What are the antitrust implications? In rural areas of the country not passed by cable, the proposed merger would be a merger-to-monopoly. Based on the monopoly pricing rule, for companies to attain profitability, the single merged firm would have to raise current prices by 50 percent in these rural areas. These areas encompass 2.5 million subscribers, and potential price increases costing consumers from at least $120 million to $700 million per year. According to the *Merger Guidelines*, any potentially offsetting efficiency from a merger shall not be considered in the case of a merger to monopoly, since it violates the Clayton Act.

C. The Proposed "National Pricing Parity" Solution

39. EchoStar and DirecTV reportedly have offered to charge a uniform national price following their proposed merger. This offer is presented to respond to the obvious reduction in competition that the merger would produce, principally in rural areas, as I have demonstrated, but also in urban areas where the number of MVPD providers would be reduced from three to two major sources of service. For several reasons, a uniform national price would not eliminate, and may not even reduce, the harm that the merger would impose on consumers.

40. If it were not constrained to price in a uniform fashion, the merged EchoStar-DirecTV company would benefit by charging two separate price levels, one in rural markets and the other in urban markets. Both of these post-merger prices would be higher than current, pre-merger prices. To the extent that competition is more intense in areas that are passed by cable plant, one would expect the urban price to be less the rural price; that is, the urban price, interactive with cable prices, would have to meet wireline digital competition to some extent.

41. In contrast, if the merged firm were constrained to set a uniform price, then it would choose a price between these higher rural and lower urban prices. It is not difficult to see why that uniform price is greater than the urban price – that is, why the "best" post-merger uniform price for the merged firm in urban areas passed by cable plant would be higher than "best" price in urban areas when the firm is free to discriminate. The merged firm's profits from a such a price increase are reduced by a smaller amount than from a price decrease, since in part they are compensated by gains in the rural market. That is, the higher the uniform price, the higher the profit in the rural market from that price. (It must be the case that, in those areas not served by cable plant, price that is reduced by the smallest possible amount for achieving the uniform price is the least-profit-loss price.) Recognizing this, the merged firm will increase its uniform price over current pre-merger levels up to the point where the losses in areas served by cable (relative to the separate post-merger urban price) and the losses in areas not served by cable (relative to the rural separate post-merger price) are minimized. Thus a commitment to

uniform national pricing would increase urban cable prices and likely reduce rural prices relative to post-merger discriminatory prices that could be charged. *But that commitment would raise both urban and rural prices above current levels.*

42. There is a second weakness in application: the "national price" rule would predictably have to be an exercise in voluntary regulation, of the type that in various other experiments in communication markets appears to turn out to be unenforceable and thus ineffective. The DBS pricing data demonstrate that the two service providers now set numerous different prices at the local level by (1) discounting the price of equipment, (2) reducing charges for installation of DBS systems, (3) offering short-term promotions of combinations of these two and (4) different prices on premium program packages. A pledge of nondiscriminatory pricing, if it were to be effective would require the merged firm to price *every* component of its offering in an identical fashion to all retailers and then to all subscribers. While EchoStar and DirecTV are currently pricing monthly basic[93] at the same level, the remaining dimensions of offerings, i.e. of equipment, installation, premium service, pay per view, etc. are priced in discriminatory sequences of special programs. To realize a "uniform price" would require control on all dimensions in the monthly charge.

43. In this regard, the recent statements of EchoStar's CEO, Charles Ergen, illustrate EchoStar's acknowledgement that the promised national pricing plan should be crafted to permit variations in price at the local level:

> **Q:** So you're saying you wouldn't offer a special deal in one part of the country and not offer it in another part of the country?
>
> **Ergen:** I guess if you're saying if the cable company came in and offered a rebate in one city, would you respond to that? I think you could make allowances for that.
>
> **Q:** And you would be looking for that kind of flexibility in a consent decree on national pricing?

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93. Downloaded at http://www.dishnetwork.com/content/programming/packages/indes.shtml on Jan. 21, 2002.

Ergen: Again, this is very premature. We certainly haven't had discussions with any regulators about how to do it. But we know that there are past examples of formulas and ways that can make this work.[94]

44. Constraining prices to uniformity, with a cap, has not worked effectively, specifically in MVPD markets. In a study of price regulation of cable television providers, Thomas Hazlett and Mathew Spitzer found that the quality of service for cable television increased after price cap regulation on the basic package was relaxed in 1987.[95] In particular, Hazlett and Spitzer showed that the size of the cable package (as measured in channels) increased by 30 percent between 1986 and 1991 after price controls were removed.[96] They also found that cable system expenditures for basic cable programming increased from $8.12 per subscriber to $35.14 per subscriber over the same time period.[97] The reverse is equally plausible: If a price cap were set on a package of channels, the number of channels would be reduced if the cap were below the most profitable price level. When cable rates were regulated once again in 1993, Hazlett and Spitzer found that the cable growth came to a halt;[98] in effect, cable operators avoided rate caps on the basic package by only providing new channels within premium packages.[99]

45. Applied to the present case, a pledge to nondiscriminatory pricing is equivalent to imposing rate regulation in areas where cable is not available in such a way as to shift the focus on reducing available programming on a basic tier towards higher-priced premium packages. There would be no more discounts on installation and equipment prices. The merged firm's

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94. *Ergen Makes His Case*, Satellite Business News, December 21, 2001, at p.l.

95. Thomas W. Hazlett & Mathew L. Spitzer, Public Policy Toward Cable Television: The Economics of Rate Controls 95 (MIT Press & AEI Press 1997).

96. *Id*.

97. *Id.*

98. *Id.* at 131.

99. *Id. at 143.*

guarantee to price in a nondiscriminatory fashion would be a guarantee to increase prices for customers in urban areas and lower the quality of service for customers in rural areas.

46. There is a simple way around the uniform "national price" that would allow the merged entity to charge non-competitive prices in rural areas, while still maintaining some price competition with digital cable. EchoStar has stated that after the merger it intends to offer local-into-local service in the top 100 DMAs. These DMAs serve largely urban areas where digital cable is prevalent. The merged company could subsidize this local programming. This would result in urban America (which would be "paying for" local programming without receiving any) paying somewhat competitive prices, while rural America pays the monopoly price. Even under a regulated uniform "national price," the merged company would be able to achieve monopoly prices in the rural areas where cable is not available.

V. CONCLUSIONS

47. The competitive effects of the proposed merger between EchoStar and DirecTV take place either in local or urban MVPD markets. This declaration reports on analyses of competition in local markets not served by wireline cable systems but principally by the two nationwide direct broadcast satellite service suppliers.[100] With only two major sources of service, the merger would create only one source of service that is likely to harm the interest of subscribers in numerous significant, local markets.

48. The merger's adverse effects on terms and conditions for service in rural areas where cable is not available would be significant and pervasive. I estimate that price increases in only 14 largest "clusters" of these local markets would cost current subscribers more than

100. In its annual reports on the state of competition, the FCC has reported on the "MVPD market" as industry on a nationwide basis; it has not analyzed competition among specific entities in defined product and geographic markets. It is not obvious, however, that a hypothetical monopoly provider of DBS service would need to control the assets of all "wireless cable" facilities (and other inferior offerings) in the same geographic market to profitably sustain a price increase. As discussed below, I believe that, the relevant product market is narrower than the MVPD market. A digital MVPD market is a more accurate definition, in my view.

$10 million per month in higher prices or deadweight loss. These effects would not be eliminated by the suggestion of the resulting single DBS provider that it will charge a uniform price for its services across the country. This is because such a merger would very likely adversely affect service, increase installation charges, eliminate equipment price discounts and reduce channels in basic service packages, even while most likely increasing any (proposed) uniform price above current levels in both rural and non-rural service markets. That is, even if the consolidated EchoStar-DirecTV entity voluntarily agreed to pricing parity with urban areas, where cable is available, and rural areas, where cable is not available, that merged firm would find it more profitable to reduce the quality of non-price aspects of service in the rural areas.[101] Because of the elimination of one of only two significant DBS competitors, in both rural and non-rural markets the hypothetical single DBS price would be higher than the two prices the companies presently charge in both the rural and non-rural markets. Currently there is no "single" price, and the multiple prices charged in existing markets cannot be effectively monitored so as to produce any such hypothetical uniform price between rural markets (without cable) and non-rural markets (with cable) that solves this monopoly problem.

101. Because DBS is also the most likely source of broadband connectivity in many rural areas where neither cable nor DSL deployment is economically feasible, the monopolization of DBS service may also have significant adverse consequences for the pricing of advanced broadband services to rural residents. My declaration, however, focuses only on anticompetitive effects of the proposed merger in the MVPD market.

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BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC

In The Matter Of **Application Of** **EchoStar Communications Corporation, General Motors Corporation, And Hughes Electronics Corporation** **For Consent For A Proposed Transfer Of Control** **To: The Commission**	)))))))))))	**CS Docket No. 01-348**

DECLARATION OF PAUL W. MACAVOY

I, Paul W. MacAvoy, do hereby declare under penalty of perjury that I have prepared the foregoing Declaration, and that the statements contained therein true and correct to the best of my knowledge, information and belief.

Paul MacAvoy
Paul W. MacAvoy

February 7, 2002
Date