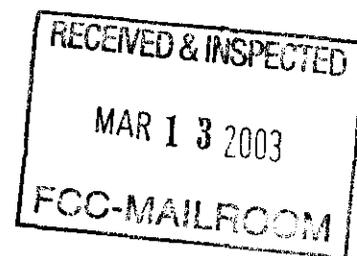


Before the
FEDERAL COMMUNICATIONS COMMISSION
 WASHINGTON, D.C. 20554



In the Matter of)
)
 Annual Assessment of the Status of Competition) MB Docket No. 05-255
 in the Market for the Delivery of Video)
 Programming)

TWELFTH ANNUAL REPORT

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I. INTRODUCTION

1. As required by Section 628(g) of the Communications Act of 1934, as amended, this is the Commission's twelfth annual report (*2005 Report*) to Congress on the status of competition in the market for the delivery of video programming.¹ Congress imposed this annual reporting requirement in the Cable Television Consumer Protection and Competition Act of 1992 (1992 Cable Act)² as a means of obtaining information on the competitive status of the market for the delivery of video programming.

A. Scope of this Report

2. Consistent with the statutory purpose, we report on developments in the market for the delivery of video programming and on the factors that have facilitated or impeded changes in the competitive environment over the past year. We present information and analysis regarding changes in the market since the *2004 Report*, and we describe how those changes affect the current state of the market. The information and analysis provided in this *Report* are based on information submitted by

¹ The Commission's previous reports appear at: *Implementation of Section 19 of the 1992 Cable Act (Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming)*, 1994 Report, 9 FCC Rcd 7442 (1994); *1995 Report*, 11 FCC Rcd 2060 (1996); *1996 Report*, 12 FCC Rcd 4358 (1997); *1997 Report*, 13 FCC Rcd 1034 (1998); *1998 Report*, 13 FCC Rcd 24284 (1998); *1999 Report*, 15 FCC Rcd 978 (2000); *2000 Report*, 16 FCC Rcd 6005 (2001); *2001 Report*, 17 FCC Rcd 1244 (2002); *2002 Report*, 17 FCC Rcd 26901 (2002); *2003 Report*, 19 FCC Rcd 1606 (2004); and *2004 Report*, 20 FCC Rcd 2755 (2005). See Communications Act of 1934 § 628(g), 47 U.S.C. § 548(g).

² Pub. L. No. 102-385, 106 Stat. 1460 (1992).

commenters in response to a *Notice of Inquiry (Notice)* in this docket,³ publicly available data, and filings in various Commission proceedings. Although the *Notice* asked commenters to provide certain kinds of data and other information, we do not require commenters to do so, nor do we audit the data that are provided.

3. The market for the delivery of video programming services is served by a number of operators using a wide range of distribution technologies. In Section II, we examine each of these delivery technologies, and the services provided over them, and we assess their ability to provide competitive services in the multichannel video market. Specifically, we examine the cable television industry, and other established multichannel video programming distributors (MVPDs), including direct broadcast satellite (DBS) providers, home satellite dishes (HSDs), and broadband service providers (BSPs), as well as broadcast television service. We also examine other wireline video providers, including local exchange carriers (LECs), which have initiated commercial services using copper-based, fiber, and hybrid-fiber coaxial cable distribution technologies for video programming, and electric and gas utilities. In addition, we address wireless video services, including services provided by private cable operators (PCOs), wireless cable systems using frequencies in the broadband radio and educational broadband services (wireless cable), and services offering video programming delivered over commercial mobile radio systems (CMRS). We also examine Internet-based video services. Finally, we review home video sales and rentals. In Section III, we examine market structure and competition, evaluating ownership trends in the multichannel video marketplace, vertical integration between programming services and distribution systems, issues pertaining to access to programming, and competitive issues in small and rural markets and multiple dwelling units (MDUs). We also address numerous technical issues (Section IV) regarding navigation and reception devices and emerging services. Finally, we survey developments in foreign markets (Section V).

B. Summary

1. The Current State of Competition: 2005

4. Americans are voracious consumers of media services, spending close to 30 percent of their day engaged in some activity involving media, with television viewing the dominant media activity.⁴ For the September 2004 – September 2005 television season, the average household tuned into television for 8 hours, 11 minutes a day.⁵ This is almost three percent higher than the previous season, over 12 percent higher than 10 years ago, and the highest level observed since television viewing was first measured by Nielsen Media Research in the 1950s.⁶ Within the same period, the average person watched 4 hours, 32 minutes each day, again a record high.⁷

³ *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, 20 FCC Rcd 14117 (2005) (*Notice*). Where possible, we requested data as of June 30, 2005. Appendix A lists commenters and the abbreviations by which they are identified herein.

⁴ *Study: Average Person Spends More Time Using Media than Anything Else*, Radio Business Report, Sept 5, 2005, available at http://www.rbr.com/tvepaper/pages/september05/05-190_news1.html, citing the Middletown Media Studies 2 from Ball State University.

⁵ Nielsen Media Research, *Nielsen Reports Americans Watch TV at Record Levels* (press release), Sept. 29, 2005. Nielsen's estimates are based on its National People Meter service.

⁶ *Id.*

⁷ *Id.* Children and teens are spending an increasing amount of time using new media. Young people are exposed to 8 hours and 33 minutes of media content each day; 3 hours and 51 minutes of which are spent watching television and videos. Kaiser Family Foundation, *Media Multitasking – Changing the Amount and Nature of Young People's Media Use* (press release), Mar. 9, 2005.

5. Competition in the delivery of video programming services has provided consumers with increased choice, better picture quality, and greater technological innovation. In particular, the effect of DBS competition has resulted in the addition of networks to cable operators' channel line ups, although it has only lowered cable rates slightly.⁸ We find that almost all consumers have the choice between over-the-air broadcast television, a cable service, and at least two DBS providers. In some areas, consumers also may have access to video programming delivered by emerging technologies, such as digital broadcast spectrum, fiber to the home, or video over the Internet. In addition, through the use of advanced set-top boxes and digital video recorders, and the introduction of new mobile video services, consumers are now able to maintain more control over what, when, and how they receive information. Further, MVPDs of all stripes are offering nonvideo services in tandem with their traditional video services.

2. General Findings

6. The MVPD market has continued to grow. While the largest MVPD remains a cable operator, cable subscribership declined slightly since the *2004 Report*. The second and third largest MVPDs now are DBS operators. In addition, other delivery technologies continue to serve small numbers of subscribers in limited areas. LECs, such as SBC⁹ and Verizon, who continue to partner with DBS providers to offer video service, have spent the past year preparing to offer video in their operating areas and are building out their facilities to add video offerings.

7. Large numbers of consumers continue to subscribe to cable service, which commands approximately 69 percent of all MVPD households. Cable operators have responded to the growth of DBS and its competitive service offerings by, among other things, expanding their channel line ups and bundling video service with other service offerings, such as cable modem service or telephone service. The number of cable subscribers selecting digital tiers and advanced services not offered by DBS continues to grow. These competitive efforts are matched by DBS operators' offering of local broadcast channels, additional sports and international programming, and advanced set-top boxes with digital video recorder (DVR) capabilities. Similarly, broadband service providers continue to offer a triple play of video, voice and Internet access service, which is proving to be price competitive with cable. Among our findings in rural and small markets are that LECs are upgrading their traditional copper facilities to digital subscriber line (DSL) and fiber-based platforms to allow them to offer a suite of video, telephone, and data services.

3. Specific Findings

8. The number of TV households and the number of MVPD subscribers increased in the past year. As of June 2005, there were 109.6 million TV households, compared to 108.4 million in June 2004. Of that number, approximately 94.2 million TV households, or almost 86 percent of TV households subscribe to an MVPD service, as compared to 92.3 million, or 85.1 percent as of June 2004. Cable serves the largest percentage of MVPD subscribers, but cable's share of the MVPD market continued to decline. As of June 2005, 69.4 percent of MVPD subscribers received video programming from a franchised cable operator, as compared to 71.6 percent as of June 2004.¹⁰ DBS subscribers

⁸ See paras. 41 *infra*.

⁹ Following its acquisition of AT&T Corp., SBC changed its name to AT&T Inc. We continue to refer to the company as SBC, the name under which it submitted its filings in this proceeding. See AT&T Inc., *New AT&T Launches* (press release), Nov. 18, 2005.

¹⁰ This percentage is the result of adding together the number of subscribers to all MVPD services and calculating the percentage of this total represented by cable subscribers. See Appendix B, Table B-1. The 70/70 test, referred to in para. 12, *infra*, measures the share of cable subscribers to systems with 36 or more channels as a percent of homes to which cable systems with 36 or more channels are available.

comprise the second largest group of MVPD households, representing 27.7 percent of total MVPD subscribers as of June 2005, compared to 25.1 percent in June 2004, an increase of more than 10 percent. The competitive presence of MVPDs other than cable or DBS declined. The number of MVPD subscribers choosing all other delivery technologies decreased, representing 2.9 percent of all subscribers in June 2005, as compared to 3.3 percent in June 2004.

9. In 2005, the four MVPDs with the largest subscribership served 63 percent of all MVPD subscribers, while in 2004, the top four served 58 percent of all subscribers. The share of subscribers served by the top ten MVPDs also increased from approximately 85 percent in 2004 to 88 percent in 2005. Relatively few consumers have a second wireline alternative, such as an overbuild cable system. BSPs, which typically operate overbuild systems, reported no appreciable change in subscribership since last year, maintaining total subscribership of approximately 1.4 million.

10. **Cable Service.** The number of basic cable subscribers declined slightly, falling from 66.1 million in June 2004 to 65.4 million in June 2005. Cable penetration (*i.e.*, subscribers/homes passed) declined in 2004, as the number of subscribers decreased and the number of homes passed increased.

11. Cable revenue was projected to grow 10.8 percent in 2005 to \$66.5 billion. Much of the increase in revenue comes from advanced services, especially high-speed Internet service and digital cable services, and from higher basic cable rates. In addition to traditional analog video services, many cable operators offer subscribers one or more advanced video services, including digital video, video-on-demand, digital video recorders, and high-definition television; and nonvideo advanced services, including high-speed Internet access and telephony (circuit-switched telephony and/or voice over Internet protocol telephony). At year-end 2004, according to industry reports, 96 percent of all cable homes passed were offered digital video services, 93 percent were offered high-speed Internet access services, and telephony service (both VoIP and circuit-switched) was available to 38 percent of homes passed by cable.

12. Section 612(g) of the Communications Act provides that when cable systems with 36 or more activated channels are available to 70 percent of households within the United States and when 70 percent of those households subscribe to them, the Commission may promulgate any additional rules necessary to promote diversity of information sources. Data submitted in the record this year raises questions as to whether the so-called "70/70 test" has been satisfied. Accordingly, the Commission is seeking further public comment on the best methodologies and data for measuring the 70-percent thresholds and, if the thresholds have been met, what action might be warranted to achieve the statutory goals.

13. **Direct-to-Home (DTH) Satellite Service (DBS and Home Satellite Dish, or HSD).** As of June 2005, approximately 26.1 million U.S. households subscribed to DBS service. This represents an increase of 12.8 percent over the approximately 23.2 million DBS subscribers we reported last year. DBS accounts for approximately 27.7 percent of all U.S. MVPD subscribers. DBS operators continue to add local-into-local broadcast television service. In 167 of 210 television markets (*i.e.*, designated market areas, or DMAs), covering 96 percent of all U.S. TV households, at least one DBS provider offers the signals of local broadcast stations (local-into-local service). As of June 2005, there were 206,358 households authorized to receive HSD service, a decrease of 38.5 percent from the 335,766 we reported last year.

14. **Other Wireline MVPD Services.** For the purposes of this report, we consider broadband service providers (BSPs) to be newer firms that are building state-of-the-art, facilities-based networks to provide video, voice, and data services over a single network. As of June 2005, BSPs served approximately 1.4 million subscribers, representing 1.5 percent of all MVPD households. Electric and gas utilities also provide MVPD and other services. Reports indicate that 616 public power entities offer some kind of broadband services, serving about 14 percent of total households in the United States. Of those, 102 offered video service, 128 offered high-speed Internet access, 52 offered local telephone

service, and 42 offered long distance telephone service. Of the 102 offering video services, 10 are offering video-on-demand (VOD).

15. Incumbent local exchange carriers (ILECs) have reported plans to provide video service via asymmetric digital subscriber line (ADSL), very high-speed digital subscriber line (VDSL), or fiber to the home (FTTH) or fiber to the node (FTTN).¹¹ There are 652 communities in 46 states currently served at least in part by FTTH networks, with 322,700 “connected homes.” The larger LECs have accelerated their plans to roll out video services using DSL and fiber-based distribution platforms. Verizon is deploying an FTTH network under the brand name “FiOS” that will allow delivery of multichannel video services in addition to telephony and high-speed Internet access service at speeds above those of ADSL technology. Verizon has received franchises from local communities in California, Florida, Virginia, Texas, Massachusetts, and Maryland. It began offering multichannel video service in Keller, Texas, in September 2005, and now offers service to more than a dozen Texas communities; in Herndon, Virginia, in November 2005; and in Temple Terrace, Florida, in December 2005. SBC is planning to deploy an IP-enabled broadband network called “Project Lightspeed” using both FTTN and FTTH to deliver video and other services to residential customers. SBC reports that the network will be available to 18 million homes nationwide within three years. Qwest and a number of smaller incumbent LECs are offering, or preparing to offer, MVPD service over existing telephone lines using VDSL or ADSL technologies.

16. *Wireless Services.* Wireless cable systems provide video competition to incumbent cable operators only on a limited basis. The number of wireless cable subscribers has declined steadily from a peak of 1.2 million in 1996 to approximately 100,000 as of March 2005, down from an estimated 200,000 subscribers in April 2004. Several major cellular telephone companies are offering video services through handheld devices such as mobile telephones.¹² Verizon Wireless rolled out V-Cast, a service that offers video programming to cellular telephone users, in February 2005, and Sprint Nextel offers news, video clips, and other content in real time over their cellular phones. In addition, PCOs, also known as satellite master antenna (SMATV) systems, continue to serve a small number of MVPD subscribers, either through their own facilities or through partnership arrangements with DBS operators. PCO subscribership has declined to one million subscribers this year, a decrease of 9.1 percent from last year’s 1.1 million.

17. *Broadcast Television Service.* In this year’s *Report*, we find that there are almost 15.4 million U.S. TV households that do not subscribe to an MVPD service and thus rely solely on over-the-air broadcast television for their video programming. In addition, we note that many households that subscribe to an MVPD also rely on over-the-air signals to receive broadcast programming on some of their television sets.¹³ They represent 14 percent of all U.S. TV households. From June 30, 2004 to June 30, 2005, the number of commercial and noncommercial television stations has remained unchanged at 1,747. As of October 2005, more than 1,537 stations nationwide are on the air with DTV operations, including all 119 of the top-four network affiliates in the top 30 television markets. The major broadcast networks (ABC, CBS, Fox, and NBC) now provide their most popular programming in high-definition.

¹¹ Fiber to the node (also known as fiber to the neighborhood) is a hybrid network architecture involving optical fiber from the carrier network, terminating in a neighborhood cabinet (or “node”), which converts the signal from optical to electrical. The connection from the cabinet to the user premises is provided over unshielded twisted pair (UTC) or coaxial cable. While fiber to the house is preferable in terms of overall performance, it is more expensive to deploy than fiber to the node. See Harry Newton, *NEWTON’S TELECOM DICTIONARY* (CMP Books, 17th ed., 2001), at 296.

¹² In general, wireless carriers are providing video in clip form, allowing users to select segments of news, sporting event recaps, weather reports and music videos, although full-length video is available. See, e.g., Verizon, <http://getitnow.vzshop.com/index.aspx?id=vcast> video. See also paras. 134, 231-2 *infra*.

¹³ See Media Bureau, Staff Report Concerning Over-the-Air Broadcast Television Viewers, MB Docket 04-210, Feb. 28, 2005 (*OTA Report*).

Hundreds of local stations are using their digital channels to provide multicast programming, including news, weather, sports, religious material, music videos and coverage of local musicians and concerts, as well as foreign language programming. As of May 2005, cable operators were carrying commercial broadcasters' multicast programming in more than 50 markets (including at least seven of the top 10 markets).¹⁴

18. **Internet Video.** The amount of web-based video provided over the Internet continues to increase significantly each year. The overall number of homes with access to the Internet continues to grow, as does the number of Americans who access the Internet via a high-speed broadband connection. As of June 2005, there were approximately 33.7 million high-speed residential Internet access subscribers, representing approximately 48 percent of the 70.3 million residential Internet subscription households. As of January 2005, an average of 14 percent of all Americans had watched some form of streaming video in the preceding month, and approximately eight percent of Americans had accessed streaming video content in the preceding week.

19. **Home Video Sales and Rentals.** The sale and rental of home videos, including videocassettes and DVDs, offer consumers an alternative to the premium and pay-per-view offerings of MVPDs. Video-on-demand services provided by cable, DBS, and Internet providers have emerged, in turn, as competitive alternatives to home video. Nine out of 10 TV households have at least one VCR, and an estimated 80 million households have DVD capability, representing nearly three-quarters of all U.S. households.

20. **Cable System Ownership.** Between July 2004 and June 2005, a total of 22 MVPD transactions were announced.¹⁵ Together these transactions were valued at approximately \$48.7 billion and affected approximately 12.7 million subscribers. At the end of 2004, there were 118 clusters with approximately 51.5 million subscribers compared to 108 clusters and approximately 53.6 million subscribers at the end of 2003 (although due to a change in methodology, these figures are not directly comparable). In the largest cluster size category (over 500,000 subscribers), the number of clusters remained constant at 29 between 2003 and 2004.

21. **Video Programming Services.** In 2005, using additional data resources, we identified 531 satellite-delivered national programming networks, an increase of 143 networks over the 2004 total of 388 networks. Of the 531 networks, 116 networks (21.8 percent) were vertically integrated with at least one cable operator. Five of the top seven cable operators (*i.e.*, Comcast, Time Warner, Cox, Charter, and Cablevision) hold ownership interests in satellite-delivered national programming networks. All of the vertically integrated networks are owned in whole or in part by one or more of these companies. Of the 531 national nonbroadcast networks we have identified, 274, or 51.6 percent, that are not affiliated with any cable operator or other media entity. There are 107 national, satellite-delivered nonbroadcast networks that are owned by a DBS operator or one or more national broadcast networks (*i.e.*, Fox, ABC, CBS, NBC Universal, and Univision) and that are not also owned by a cable operator. These networks represent 20.2 percent of the 531 national nonbroadcast networks we have identified, and 25.8 percent of the 415 networks that are unaffiliated with a cable operator. Twenty-two national nonbroadcast networks, not owned by a cable MSO, are vertically integrated with a DBS provider. During the 2004-2005 television season, more than half of all prime time viewers watched ad-supported nonbroadcast networks, the second consecutive year that these networks, combined, have topped all national broadcast networks, combined, for an entire TV season. Of the 15 top-rated prime time nonbroadcast networks, three are

¹⁴ This does not necessarily include all multicast programming available from broadcasters in all markets and may include only carriage of special events in certain markets. For example, several cable operators agreed to carry CBS stations' extra coverage of the 2005 NCAA men's college basketball tournament on multicast channels.

¹⁵ These figures are for announced transactions, including the sale of Adelphia's assets to Comcast and Time Warner currently under review by the Commission.

vertically integrated with a cable operator. The remaining 12 networks are owned by other media entities. In addition, six of the top 20 nonbroadcast networks (ranked by subscribership) are vertically integrated with a cable operator. Of the other 14 networks, one is C-SPAN, which is funded, but not directly owned or controlled, by MVPDs; 12 are affiliated with noncable media entities; and one is unaffiliated.

22. In 2005, we identified 96 regional networks, the same number that we identified in 2004. Many, but not all, regional networks are delivered by satellite. These networks provide programming of local or regional interest and are distributed to subscribers of one or more MVPDs in an area. A number of regional networks offer local news or sports programming, but some provide more general programming, such as religious or ethnic programming. Of the 96 regional networks we identified, 44 networks, or 45.8 percent, were vertically integrated with at least one cable multiple system operator (MSO). We continue to monitor the availability of sports programming. There are 37 regional sports networks, representing 38.5 percent of all regional networks, devoted to sports programming, as compared to the 38 we reported last year. Of the 37 regional sports networks, 17, or 45.9 percent, are vertically integrated with a cable MSO. In addition, News Corp., which holds an interest in DBS operator DIRECTV, is affiliated with 16 regional sports networks.

23. **Consumer Equipment and Technical Developments.** The sale of DTV consumer electronics continues to accelerate. For 2005, industry estimates indicate that 8.2 million HD-ready monitors will be shipped to retailers. CEA reports that during the first six months of 2005, DTV products sold at a faster rate than during any previous comparable period of time, with 3.8 million DTV products sold, a 40 percent increase in unit sales from the same time period in 2004. In 2005, the average retail price of a DTV set was expected to drop to \$1,189 from \$1,489 in 2004, down from the average price of \$3,147 in 1998. CEA states that currently several DTV models are available for under \$700, and it expects that soon there will be DTV sets that sell for as low as \$400.

24. The development and deployment of CableCARDs continued in 2005. CableCARDs permit the reception of one-way secured digital cable services without the addition of a set-top box. As of November 30, 2005, there were 375 certified or verified models of CableCARD products collectively offered by 22 manufacturers, up from 60 models offered by 11 manufacturers the previous year. One-way CableCARDs have been deployed to more than 90,000 subscribers by the ten largest MSOs.

25. The video industry is evaluating the use of advanced compression technologies, such as MPEG-4/H.264 and Microsoft's VC-1, to replace the MPEG-2 standard in order to decrease the amount of bandwidth required to transmit digital video. For example, DIRECTV is using MPEG-4 to provide HD local-into-local in a number of markets. These advances are expected to allow existing video delivery services to provide more programming and to decrease barriers to entry for new entrants to the MVPD market.

26. **Foreign Markets.** In foreign markets, a number of incumbent operators and new entrants are providing Internet protocol television (IPTV) over DSL. Services are offered generally through a "triple play" service package of video, telephone and broadband Internet access. Operators also offer a wide selection of a la carte and themed video programming packages.

II. COMPETITORS IN THE MARKET FOR THE DELIVERY OF VIDEO PROGRAMMING

A. Cable Television Service

27. This section addresses the performance of cable television system operators during the past year.¹⁶ First, we report on the general performance of the industry, including subscriber levels, availability of basic services, viewership, and cable rates. Second, we discuss the cable industry's financial performance, including its revenue, cash flow status, stock valuations, and system transactions. Third, we examine the cable industry's acquisition and disposition of capital. Lastly, we address the growth of advanced video services, including digital and high-definition television, video-on-demand, and digital video recorders; and nonvideo advanced services, including high-speed Internet access and voice over Internet protocol telephony.

1. General Performance

28. The number of subscribers to basic cable service¹⁷ and premium cable service¹⁸ declined in 2004. Basic cable penetration, the ratio of the number of basic cable subscribers to the number of homes passed,¹⁹ declined in 2004 and is estimated to have declined further in the first half of 2005. By many other measures, however, general cable industry performance increased across the board. For example, premium service subscriptions²⁰ and subscriptions to digital video service increased.²¹ Although basic cable penetration decreased in 2004, homes passed increased during the same period. Channel capacity²² and deployment of video-on-demand,²³ digital video recorders,²⁴ and high-definition service all

¹⁶ A cable system operator is "any person or group of persons (A) who provides cable service over a cable system, and directly or through one or more affiliates owns a significant interest in such cable system; or (B) who otherwise controls or is responsible for, through any arrangement, the management and operation of such a cable system." 47 U.S.C. § 522(5).

¹⁷ Basic cable service, also referred to as the basic service tier (BST), is the level of cable television service that must be taken by all cable television subscribers. The content of basic cable service varies among cable systems but, pursuant to the Communications Act, must include all local television signals and public, educational, and governmental access channels and, at the discretion of the cable operator, may include other video services. Expanded basic cable service, also referred to as the cable programming service tier (CPST) for purposes of rate regulation, offers additional video channels on one or more service tiers. 47 U.S.C. § 543(b)(7); 47 U.S.C. § 543 (k)(2).

¹⁸ Premium services are nonbroadcast networks provided by a cable operator on a per-channel basis for an extra monthly fee. Pay-per-view (PPV) services are nonbroadcast networks provided on a per program basis. PPV service is a separate category from premium service.

¹⁹ Homes passed is the total number of households capable of receiving cable television service.

²⁰ Premium service subscriptions are the number of premium services to which homes are subscribing (also known as pay units).

²¹ Digital cable service refers to digitally compressed video channels offered on digital service tiers. Every subscriber of a cable system must subscribe to the basic tier in order to subscribe to any other tier of video service or to purchase any other video service. 47 C.F.R. § 76.920.

²² Channel capacity is bandwidth dedicated to video use. Video channel capacity can be increased or decreased on any given system simply by using more or less bandwidth for other services, such as high-speed Internet access services or cable telephony.

²³ Video-on-demand (VOD) allows subscribers to select at any time movies and other programs they wish to view from a selection of titles stored on a remote server.

²⁴ Digital video recorders (DVRs) use a hard disk drive to record video programs.

increased during 2004 and the first half of 2005.²⁵ Deployment of nonvideo advanced services, such as high-speed Internet access service and telephone service, also increased during this period.

29. **Cable's Capacity to Serve Television Households.** A widely used industry measurement of cable availability is the percentage of homes with a television that are passed by a cable system. The calculation of cable availability has been a subject of controversy.²⁶ The number of homes passed depends on the data source used, and the percentage of homes passed varies based on the universe used for the comparison.²⁷

30. According to NCTA, at the end of 2004, cable systems passed 108.2 million occupied homes with a television, and 109.6 million homes had a television.²⁸ Thus, NCTA estimates that at the end of 2004, cable systems passed approximately 99 percent of homes with a television.²⁹ We continue to use, as we have in the past, data derived from Kagan World Media (homes passed by cable systems) and Nielsen Media Research (total TV households) for historical consistency. We present these data to indicate trends, rather than as an absolute measure of cable availability. Kagan estimates that at the end of 2004, 109.6 million households had at least one television, and cable systems passed 108.6 million occupied homes (not all of them with a television).³⁰ Using Kagan's numbers, at the end of 2004, the percentage of occupied homes with a television that were passed by a cable system was approximately 99 percent, which is consistent with NCTA's estimate.³¹

31. Section 612(g) of the Communications Act provides that at such time as cable systems with 36 or more activated channels are available to 70 percent of households within the United States and are subscribed to by 70 percent of those households, the Commission may promulgate any additional rules necessary to promote diversity of information sources.³² As discussed below, data submitted in the

²⁵ High-definition (HD) service provides television signals with greater detail and fidelity than provided by the National Television Systems Committee (NTSC) system. The high-definition picture has approximately twice the visual resolution as NTSC. High-definition service also supports 5.1 channel Dolby Digital surround sound.

²⁶ See *Application of EchoStar Communications Corporation, General Motors Corporation, and Hughes Electronics Corporation, Transferors and EchoStar Communications Corporation, Transferee*, 17 FCC Rcd 20559, 20611-12 ¶¶ 122-25 (2002) (*EchoStar-Hughes HDO*) (designating for hearing the issue of the precise number of households that are not served by a cable operator, the number served by a low-capacity cable system, and the number served by a high-capacity cable system).

²⁷ Homes passed data evaluated in the context of our review of the EchoStar-DIRECTV merger application indicated that the number of homes not passed by cable might vary from four percent to 21.28 percent depending on the estimation methods. *EchoStar-Hughes HDO*, 17 FCC Rcd at 20612 ¶ 124 and n.356.

²⁸ NCTA, *Industry Statistics, Cable Developments 2005*, at 5. NCTA's estimate of 108.2 million occupied homes with a television that were passed by a cable system is a projection, not a current estimate, from Kagan Research, LLC, *Broadband Cable Financial Databook*, Aug. 2004, at 11. NCTA's estimate of 109.6 million homes with a television comes from Nielsen Media Research (January 2005).

²⁹ NCTA, *Industry Statistics, Cable Developments 2005*, at 5. NCTA calculated the 99 percent figure as follows: 108.2 million/109.6 million = 98.7 percent.

³⁰ Kagan Research, LLC, *Broadband Cable Financial Databook*, Aug 2005 (Cable Databook), at 11. Occupied homes passed by cable systems equals total cable homes passed times percent of total housing units that are occupied (108.6 million = 120.7 million x (111.4 million/123.8 million)). Cable Databook at 11 and 13.

³¹ The 99 percent estimate is derived as follows: 108.6 million/109.6 million = 99.1 percent. Since the numerator includes homes that may not have a television, the calculation may overstate cable availability.

³² 47 U.S.C. § 532(g). This provision was added to the Communications Act by the Cable Communications Policy Act of 1984, Pub. L. No. 98-549, 98 Stat. 2779.

record this year raises questions as to whether the so-called "70/70 test" has been satisfied.³³ Accordingly, we are seeking additional input to help the Commission further consider this issue.

32. Current Census Bureau data indicate that there are 107,850,000 occupied housing units.³⁴ According to Warren Communications News (Warren), there are 93,077,522 occupied homes passed by cable systems with 36 or more channels.³⁵ Thus, based on these data sources, cable systems with 36 or more channels are available to 86.3 percent (93,077,522/107,850,000) of occupied households.³⁶ No commenter provided any conflicting data relevant to the first prong of the test, and so there appears to be no serious disagreement that this prong of the analysis has been satisfied.

33. With respect to the second prong of the analysis, however, the record is less clear. At least one commenter has submitted a statistical analysis that suggests the cable subscription threshold has been satisfied, while other measures indicate that current cable subscribership falls just short of the statutory mark. SBC believes the second prong of the benchmark may have been met. Specifically, SBC calculates that 77.2 percent of all households passed by cable systems with 36 or more channels subscribe to these cable systems.³⁷ Using figures estimated by the Commission and NCTA, SBC asserts that 65,155,440 households subscribe to cable systems with 36 or more channels.³⁸ SBC derives this figure from NCTA's estimate that 73,219,360 households subscribed to cable as of February 2005,³⁹ and the Commission's calculation in last year's *Report*, using Warren data as of October 2004, that 8,063,920 households subscribed to cable systems with fewer than 36 channels.⁴⁰ SBC subtracts the Commission's estimate from NCTA's estimate (73,219,360 - 8,063,920 = 65,155,440).⁴¹ SBC then divides its estimate of households that subscribe to cable systems offering 36 or more channels by Warren's October 2004 estimate, cited in the 2004 *Report*, that 84,415,707 households homes were passed by cable systems with 36 or more channels.⁴² This calculation produces a figure of 77.2 percent (65,155,440/84,415,707 = 0.772). SBC acknowledges that its data for households passed by cable systems and cable subscribers differ from the data used by the Commission to determine whether the statutory trigger has been met.⁴³

³³ We observe that each data source provides different estimates of the number of occupied homes, the number of homes passed by cable systems, and the number of basic cable subscribers. Some data sources identify cable systems with 36 or more channels, while other data sources report estimates for all cable systems without distinguishing between those with 36 or more channels and those with less than 36 channels.

³⁴ U.S. Census Bureau, *Census Bureau Reports on Residential Vacancies and Homeownership* (press release), July 28, 2005, Table 3. See <http://www.census.gov/hhes/www/housing/hvs/qtr205/q205prss/pdf> (visited Sept. 20, 2005).

³⁵ Warren Communications News, *Custom Report: From Television and Cable Factbook Online Datasets*, Sept. 21, 2005.

³⁶ *Id.* Warren defines homes passed as the total number of homes passed by cable systems having the potential of being served by a cable operator promptly. Specifically, the homes passed must be occupied and are assumed to have a television.

³⁷ See SBC Reply Comments at 15.

³⁸ *Id.*

³⁹ See NCTA, at <http://www.ncta.com/Docs/PageContent.cfm?pageID=86> (visited Oct. 21, 2005). NCTA's website indicates that Nielsen Media Research is the source for this subscriber number.

⁴⁰ See 2004 *Report*, 20 FCC Rcd 2768 ¶ 20. The Commission's estimate is calculated using data from Warren Communications News, *Custom Report: From Television and Cable Factbook Online Datasets*, Oct. 19, 2004.

⁴¹ See SBC Reply Comments at 15.

⁴² See 2004 *Report*, 20 FCC Rcd 2768 ¶ 20. The Commission's data source was Warren Communications News, *Custom Report: From Television and Cable Factbook Online Datasets*, Oct. 19, 2004.

⁴³ SBC Reply Comments at 14-16. SBC acknowledges, however, that different data sources produce different results and that calculations based on available data may not be definitive.

To better determine whether the statutory trigger has been met, SBC asks the Commission to insist that the cable industry provide “the relevant data calculated on a consistent and transparent basis.”⁴⁴

34. In contrast several other calculations indicate that the second prong of the 70/70 test has not been met. Warren estimates that of the occupied U.S. homes passed by cable systems with 36 or more channels, 63,145,124 of those households subscribe to cable service offered by such systems.⁴⁵ As a percentage measure, then, the Warren data indicates that 67.8 percent of homes passed (63,145,124/93,077,522) subscribe to these systems.⁴⁶ As alternatives, data from the 2005 Price Survey and the *Annual Report of Cable Television Systems* (FCC Form 325) could be used to estimate the second prong of the 70/70 benchmark. Neither source, however, indicates that the second element of the test has been met. From the 2005 Price Survey sample, the Commission staff estimates that the subscribers to systems with 36 or more channels as a percent of the homes passed by such systems is 56.3 percent, compared to 58.8 percent using data from the 2004 Price Survey sample.⁴⁷ Based on the Form 325 sample, our staff estimates that this figure is 54 percent, compared to 54.7 percent reported last year.⁴⁸ NCTA has arrived at still other measures. Using Warren, Nielsen, and Kagan data, NCTA submitted estimates of the second prong of the 70/70 benchmark ranging from 63.3 percent to 68.9 percent.⁴⁹

35. We recognize that the available data sources have some limitations because the reported cable penetration rates are not calculated from a complete census of cable systems.⁵⁰ Each reported

⁴⁴ SBC Reply Comments at 16.

⁴⁵ Warren Communications News, *Custom Report: From Television and Cable Factbook Online Datasets*, Sept. 30, 2005.

⁴⁶ *Id.* Warren reports that of the 66,300,059 cable subscribers in the United States, 63,145,124 subscribe to cable systems with 36 or more channels. Thus, there are 3,154,935 (66,300,059 – 63,145,124 = 3,154,935) subscribers to cable systems with fewer than 36 channels.

⁴⁷ Section 623(k) of the 1992 Cable Act, Pub. L. No. 102-385, 106 Stat. 1460, codified at 47 U.S.C. § 543(k), requires the Commission to publish annually a statistical report on average rates for the cable basic service tier, cable programming tier, and equipment. The information and analysis provided in the report are based on the Commission’s survey of a random sample of cable systems. The survey collects data on cable system subscribership, channel capacity, and homes passed. *See, e.g., Implementation of Section 3 of the Cable Television Consumer Protection and Competition Act of 1992, Statistical Report on Average Prices for Basic Service, Cable Programming Services, and Equipment*, 20 FCC Rcd 2718 (2005). Using data from the annual Price Survey sample, we calculate subscriber-weighted estimates, taking into account our sampling procedures, in the same manner that we use for our report on cable rates.

⁴⁸ 47 C.F.R. § 76.403 requires that cable television systems notified by the Commission shall file FCC Form 325 (Annual Cable Report) soliciting general information and frequency and signal distribution information. Form 325 data for filing year 2004 is as of December 31, 2004. All systems with more than 20,000 subscribers and a randomly selected sample of smaller systems are required to file the Form 325. The Commission based last year’s Form 325 estimate on data for June 30, 2003. The estimates reported here are unadjusted figures from the data reported in Form 325 submissions.

⁴⁹ *See* Letter from Daniel L. Brenner, Senior Vice President, Law & Regulatory Policy, NCTA, to Marlene H. Dortch, Secretary, FCC, Dec. 15, 2005, at 2 (providing estimates using Warren, Nielsen, and Kagan homes passed and subscriber statistics). NCTA estimates that the penetration rate for cable systems with 36 or more channels is 68.9 percent using October 2004 Warren data and 63.3 percent using both sample and adjusted Nielsen FOCUS data. NCTA also submits Kagan data to calculate a cable penetration rate of 53.1 percent for all cable systems to demonstrate that the Warren data understate the number of homes passed by cable systems with more than 36 channels. NCTA claims that all three data sources demonstrate that the penetration rate is below the 70 percent threshold. *Id.*

⁵⁰ Warren’s database includes information on the majority of, but not all, cable systems. The Price Survey uses a stratified random sample based on system size. The Form 325 data are collected from all cable systems with more (continued...)

penetration rate is an estimate, subject to some variation from the actual penetration rate. The limitations of the data sources do not appear to affect the determination with respect to the first prong of the 70/70 test, which is higher than the threshold regardless of the data source used for the calculation. The question of whether the second prong has been met is less clear since at least one party finds that the benchmark has been exceeded and some other estimates, while under 70 percent, are very close to that threshold. Given these circumstances and the fact that all available data sources are imprecise to some extent, it is possible that the second prong of the 70/70 benchmark has been met.

36. In light of the significance of this issue and commenters' disagreements as to whether the statutory standard has been satisfied, the Commission is seeking further public comment on the best methodologies and data for measuring the 70-percent thresholds. For example, controversy has arisen in other proceedings regarding how the Commission should define whether a cable system is available to a household.⁵¹ The question of how to define a household for purposes of the 70/70 test has also arisen.⁵² Should we include only households that are occupied? Should we include only households that contain a television set? How should we determine whether a household subscribes to a cable system? Should we include only households that subscribe to the basic tier of video services, thereby excluding those households that subscribe only to non-video services?⁵³ We also seek comment on SBC's suggestion that the Commission should require the cable industry to provide "the relevant data on a consistent and transparent basis."⁵⁴ We also invite comment on what, if any, additional action should be undertaken to achieve the statutory goals, should we find that the thresholds have been met.⁵⁵ As a preliminary matter, we ask commenters who advocate that the Commission promulgate additional rules to address the scope of our statutory authority under Section 612(g) to do so. We also ask commenters who advocate the promulgation of additional regulations to provide a detailed description of the suggested regulations and of their potential costs and benefits. Deadlines for public comment on these questions are provided in the final section of this Report.

37. **Subscribership.** The number of basic cable subscribers declined slightly from 66 million in 2003 to 65.4 million in 2004, as shown in Table 1 below. Kagan estimated that the number of basic cable subscribers would remain unchanged at 65.4 million basic subscribers at year-end 2005.⁵⁶

(Continued from previous page)

than 20,000 subscribers and a 5 percent sample of systems with fewer than 20,000 subscribers. SBC's estimate combines data from several publicly available data sources.

⁵¹ See *EchoStar-Hughes HDO*, 17 FCC Rcd at 20611-12 ¶¶ 122-25. See also *2004 Video Competition Report*, 20 FCC Rcd at 2766-68 ¶¶ 18-20; and *2003 Report*, 19 FCC Rcd at 1620-21 ¶¶ 21-22.

⁵² *2004 Video Competition Report*, 20 FCC Rcd at 2766-68 ¶¶ 18-20; and *2003 Video Competition Report*, 19 FCC Rcd at 1620-21 ¶¶ 21-22.

⁵³ We recognize that at the time that Congress drafted Section 612, very few cable operators were providing services beyond multichannel video offerings.

⁵⁴ SBC Reply Comments at 16.

⁵⁵ Should our analysis of the further public input here indicate that Commission action under Section 612(g) may be warranted, we will issue a Notice of Proposed Rulemaking to seek comment prior to adoption of any potential new regulations.

⁵⁶ Cable Databook at 11.

TABLE 1: Cable Television Industry Growth: 1999 - June 2005 (in millions)⁵⁷

Year	TV Households (TH) ⁵⁸		Homes Passed (HP) ⁵⁹		Basic Subscribers (Subs) ⁶⁰		HH Passed by Cable (HP/TH)	HHs Subscribing (Subs/TH)	U.S. Penetration (Subs/HP)
	Total	% Change Over Prior Yr	Total	% Change Over Prior Yr	Total	% Change Over Prior Yr			
1999	100.8	1.4%	97.6	2.1%	65.9	1.2%	96.8%	65.4%	67.5%
2000	102.2	1.4%	98.9	1.3%	66.6	1.1%	96.8%	65.2%	67.3%
2001	104.4	2.2%	100.6	1.7%	66.9	0.5%	96.4%	64.1%	66.5%
2002	106.7	2.2%	103.4	2.8%	66.1	-1.2%	96.9%	61.9%	63.9%
2003	108.4	1.6%	106.0	2.5%	66.0	-0.2%	97.8%	60.9%	62.3%
2004	109.6	1.1%	108.6	2.5%	65.4	-0.9%	99.1%	59.7%	60.2%
June 2005	109.6	0.0% ⁶¹	109.7	1.0%	65.4	0.0%	100.1%	59.7%	59.6%

38. Although the number of basic subscribers was unchanged for the second quarter of 2005, as shown in Table 2, cable companies continue to experience variations in the number of basic subscribers they serve.

⁵⁷ Historical data in this table may differ from that previously reported because some data have been updated by Kagan. See Cable Databook at 9, 11.

⁵⁸ The 2004 and estimated June 2005 TV Household numbers are reported by Kagan Research, LLC as total U.S. TV households. The numbers are derived from Nielsen Media Research and Kagan estimates. *Id.* at 11.

⁵⁹ Kagan reports the 1999 through 2004 homes passed numbers as occupied cable homes passed. The June 2005 homes passed estimate is an average calculated from the actual 2004 and the projected 2005 numbers for occupied cable homes passed. *Id.* at 9, 11.

⁶⁰ Kagan reports the 1999 through 2004 basic subscriber numbers as basic subscribers. The June 2005 basic subscriber estimate is an average calculated from the actual 2004 and the projected 2005 numbers for total basic cable subscribers. *Id.*

⁶¹ Percentage change columns in this row are from December 2004 to June 2005.

Table 2: Top MSOs' Basic Cable Subscribers – 2003 to June 2005⁶²

Operator	Year End (YE) 2003	YE 2004	Gain/(Loss) YE 03-YE 04	June 2005	Gain/(Loss)YE 04 to June 2005
Comcast ⁶³	21,540,000	21,548,000	8,000	21,448,000 ⁶⁴	(100,000)
Time Warner ⁶⁵	10,919,000	10,884,000	(35,000)	10,905,000 ⁶⁶	21,000
Cox ⁶⁷	6,285,236	6,287,395	2,159	6,283,122	(4,273)
Charter ⁶⁸	6,200,500	5,991,500	(209,000)	5,943,100	(48,400)
Cablevision ⁶⁹	2,944,694	2,963,001	18,307	3,005,558	42,557

⁶² Subscriber data reported here are those reported to the SEC and may differ from subscriber numbers reported for other purposes.

⁶³ Comcast Corp., *Comcast Reports Fourth Quarter and Year End 2004 Results* (press release), Feb. 3, 2005. Pro forma subscriber data excludes the results of the 314,000 cable subscribers sold to Bresnan Communications in March 2003 and excludes the results of the net reduction of 16,000 subscribers associated with the cable systems exchanged with Insight Communications in February 2003. Pro forma subscriber data includes the results of the 30,000 cable subscribers acquired from US Coastal Cable in April 2004 and 54,000 subscribers acquired in various small acquisitions during the periods presented. *Id.* The pro forma methodology permits an estimate of the number of Comcast's subscribers after Jan. 1, 2003, as if it had sold the cable systems to Bresnan Communications, exchanged the cable systems with Insight Communications, and bought the cable systems from US Coastal Cable on Jan. 1, 2003. For second quarter 2005 results, see Comcast Corp., *Comcast Reports Second Quarter 2005 Results* (press release), Aug. 2, 2005. Pro forma subscriber data include the results of the 30,000 subscribers acquired from US Coastal Cable in April 2004 and 60,000 subscribers acquired in various small acquisitions during the periods presented. *Id.* The pro forma methodology permits an estimate of the number of Comcast's subscribers after Jan. 1, 2004, as if it had owned the cable systems acquired from US Coastal Cable on Jan. 1, 2004.

⁶⁴ In addition to its wholly owned systems reported here, Comcast holds an attributable interest in systems serving approximately an additional 4.6 million subscribers through partnership and other ownership interests. See Application and Public Interest Statement of Adelphia Communications Corporation, Time Warner Inc., and Comcast Corporation, MB Docket No. 05-192 (filed May 18, 2005), at 14 n.27.

⁶⁵ Time Warner Inc., *Time Warner Reports Results for 2004 Full Year and Fourth Quarter* (press release), Feb. 4, 2005. Time Warner indicates that its subscriber data include "all subscribers at both consolidated entities and investees accounted for under the equity method of accounting that are managed by the Company." *Id.* at 29. For second quarter 2005 results, see Time Warner Inc., *Time Warner Inc. Reports Second Quarter 2005 Results* (press release), Aug. 3, 2005. Time Warner gained 26,000 basic cable subscribers in the first quarter of 2005 and lost 5,000 basic cable subscribers in the second quarter of 2005. See also Time Warner Inc., *Time Warner Inc. Reports First Quarter 2005 Results* (press release), May 4, 2005.

⁶⁶ In addition to its wholly owned systems reported here, Time Warner holds an attributable interest in systems serving approximately an additional 2.2 million subscribers. See Application and Public Interest Statement of Adelphia Communications Corporation, Time Warner Inc., and Comcast Corporation, MB Docket No. 05-192 (filed May 18, 2005), at 10-11, 73.

⁶⁷ Cox Communications Inc., *Cox Communications Announces Fourth Quarter and Full-Year Financial Results for 2004* (press release), Mar. 16, 2005. Subscriber data are based on the number of subscribers who receive analog or digital video service. *Id.* For second quarter 2005 results, see Cox Communications Inc., *Cox Communications Announces Second Quarter and Year-to-Date Financial Results for 2005* (press release), Aug. 9, 2005.

⁶⁸ Charter Communications Inc., *Charter Reports Fourth Quarter and Annual 2004 Financial and Operating Results* (press release), Mar. 1, 2005. Charter's subscribers include all persons that Charter's billing records show as receiving service (regardless of their payment status), except for complimentary accounts (such as Charter's employees). Pro forma subscriber data reflect the sales of systems to Atlantic Broadband Finance, LLC in Mar. and (continued....)

39. Cable penetration (*i.e.*, subscribers/homes passed) declined in 2004, as the number of subscribers decreased and the number of homes passed increased. Kagan estimated that cable penetration would decline further in the first half of 2005. The ratio of cable subscribers to television households also declined in 2004, as the number of subscribers decreased and the number of television households increased.⁷⁰

40. For the second year in a row, the number of homes subscribing to premium cable services declined from 28.3 million in 2003 to 28.1 million in 2004, as shown in Table 3 below. At the end of 2004, approximately 43 percent of cable's 65.4 million subscribers also subscribed to premium services.⁷¹ The number of premium services to which homes are subscribing (also known as pay units), however, increased from 83.4 million in 2003 to 90.8 million in 2004.⁷² While cable systems sold premium cable services to fewer homes, the total revenue received from premium services also increased 6.2 percent in 2004.⁷³ Cable systems sold premium cable services to fewer homes, but the average number of subscriptions per premium subscriber increased, from an average 2.9 subscriptions per subscribing household in 2003 to an average 3.2 subscriptions per subscribing household in 2004.⁷⁴

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April 2004 and WaveDivision Holdings, LLC, which closed in Oct. 2003, as if they both occurred as of Jan. 1, 2003. *Id.* The pro forma methodology permits an estimate of the number of Charter's subscribers after Jan. 1, 2003, as if Charter sold the cable systems to Atlantic Broadband Finance, LLC and WaveDivision Holdings on Jan. 1, 2003. For second quarter 2005 results, see Charter Communications Inc., *Charter Communications Reports Second Quarter 2005 Financial and Operating Results* (press release), Aug. 2, 2005.

⁶⁹ Cablevision Systems Corp., *Cablevision Systems Corporation Reports Fourth Quarter and Full Year 2004 Results* (press release), Feb. 23, 2005; Cablevision Systems Corp., *Cablevision Systems Corporation Reports Second Quarter 2005 Results* (press release), Aug. 9, 2005.

⁷⁰ From the end of 2004 to the end of June 2005, the ratio of cable subscribers to TV households was calculated to remain unchanged at 59.7 percent. This calculation is the result of holding the number of TV households constant at 109.6 million over the entire 2004-2005 season and assuming that the number of basic subscribers will remain unchanged at 65.4 million from January 2004 to June 2005. Cable Databook at 11.

⁷¹ Cable Databook at 9.

⁷² *Id.*

⁷³ *Id.* at 8.

⁷⁴ *Id.* at 9.

TABLE 3: Premium Cable Services: 1999 - 2004 (in millions)⁷⁵

Year	Premium Cable Service Subscribers (Pay HH)		Premium Cable Service Subscriptions (Pay Units)		Average Number of Subscriptions	
	Total	% Change Over Prior Year	Total	% Change Over Prior Year	Pay Units/ Pay HH	% Change Over Prior Year
1999	28.0	0.7%	60.2	2.7%	2.2	4.8%
2000	28.5	1.8%	66.8	11.0%	2.3	4.5%
2001	29.0	1.8%	75.6	13.2%	2.6	13.0%
2002	29.3	1.0%	81.1	7.3%	2.8	7.7%
2003	28.3	-3.4%	83.4	2.8%	2.9	3.6%
2004	28.1	-0.7%	90.8	8.9%	3.2	10.3%

41. **Cable Rates.** Several studies, most notably several released by the U.S. Government Accountability Office (GAO), have shown that competition constrains cable prices. For example, in 2003, GAO found that competition to an incumbent cable operator from a wireline provider resulted in cable rates that were “substantially lower (by 15 percent)” than in markets without this competition.⁷⁶ In this study, GAO also concluded that DBS competition had lowered cable rates slightly, although the more pronounced competitive effect of DBS was the addition of nonbroadcast networks to cable operators’ channel line-ups.⁷⁷ In 2004, GAO examined six market pairs to assess the impact of a BSP overbuilder. In each market pair, one market was served by a BSP overbuilder, and the other market was not. The market pairs were chosen based on their similarities in terms of size and demographics.⁷⁸ GAO found that communities with overbuild competition experience lower rates (an average of 23 percent lower for basic cable) and higher quality service.

42. **Cable Industry Revenue.** Total revenue grew to \$60.0 billion in 2004, as shown in Table 4 below.⁷⁹ This represents a 10.4 percent increase over the 2003 total revenues of \$54.4 billion. Cable revenue is projected to grow 10.8 percent in 2005 to \$66.5 billion. Much of the increase in revenue comes from advanced services, especially high-speed Internet service and digital cable services, and from

⁷⁵ Historical data included in this table may differ from those previously reported because some data have been updated by Kagan. See Cable Databook at 9. The 1999 through 2004 premium cable service subscribers (Pay HH) numbers are reported by Kagan as pay subscribers. *Id.* at 9. The 1999 through 2004 premium cable service subscriptions (Pay Units) numbers are reported by Kagan as the sum of premium units and mini-pay units (defined as a service or pay TV that programs less than eight hours per day). Premium units include HBO, Cinemax, Showtime, Movie Channel, Starz, and Playboy. Mini-pay units include Sundance, Flix, and Encore. *Id.* at 9.

⁷⁶ See U.S. General Accounting Office, *Issues Related to Competition and Subscriber Rates in the Cable Television Industry*, GAO-04-8, Oct. 2003, at 3, 9.

⁷⁷ *Id.* at 3, 9-10.

⁷⁸ See U.S. General Accounting Office, *Telecommunications: Wire-Based Competition Benefited Consumers in Selected Markets*, GAO-04-241, Feb. 2004.

⁷⁹ The \$60 billion of revenue generated by the cable industry is about one-fifth the \$291 billion of revenue generated by the telephone industry. Industry Analysis and Technology Division, Wireline Competition Bureau, Federal Communications Commission, *Telecommunications Industry Revenues: 2003* (rel. Mar. 1, 2005).

higher basic cable rates, which are regulated by local communities.⁸⁰ Average monthly residential revenue per subscriber grew from \$66.22 in 2003 to \$72.87 in 2004 and is projected to increase to \$80.33 in 2005.⁸¹ As shown in Table 4, all revenue categories increased, except revenue from installation/miscellaneous, which decreased 9.6 percent in 2004 but is expected to increase by 6.6 percent in 2005.⁸²

43. **Cable Industry Cash Flow.** Cash flow (generally expressed as earnings before interest, taxes, depreciation, and amortization, or EBITDA) is often used to assess the financial position of cable firms and other companies in capital intensive industries.⁸³ Cash flow from operations is the net result of cash inflows from operations (revenue) and cash outflows from operations (expenses). Cash flow from operations indicates a firm's ability to meet its net financial and investment obligations and thus does not include noncash charges to net income such as depreciation and amortization. As Table 4 shows, cash flow from operations increased during 2004.⁸⁴ In addition, cash flow as a percentage of revenue (cash flow margin) increased in 2004. That is, cash flow increased at a greater rate than revenue, indicating that revenues grew faster than operating expenses during 2004.

⁸⁰ Kagan estimated that total revenue from residential subscribers would grow from \$57.5 billion in 2004 to \$63.1 in 2005. Kagan expected total revenue from business subscribers to grow from \$2.6 billion in 2004 to \$3.4 in 2005. Cable Databook at 13.

⁸¹ Cable Databook at 4.

⁸² We note that installation/miscellaneous varies from year to year. It includes installation revenues and any other revenues reported by Kagan, but not included in the categories listed separately on Table 5.

⁸³ The cable industry has long used a cash flow valuation model. Cash flow valuation is an effective tool for valuing companies that have negative net income because they are building out capital infrastructure and accruing significant long-term debt early in their life-cycle. The traditional measurement of cash flow, a measure of operating profit, has evolved into EBITDA, which ignores the expenses of interest, taxes, depreciation and amortization, whereas the standard valuation model, net income, includes them. In the past year, free cash flow (FCF) has largely replaced EBITDA as a critical valuation metric of choice among industry analysts. Although a standardized definition of FCF does not exist, FCF essentially takes into account the periodic interest that must be paid on debt. Some analysts more recently have suggested that the cable industry should be valued on the traditional net income model, and not cash flow or its various proxies (EBITDA or FCF) because the industry has now reached a stage-of maturation that would justify use of more traditional valuation metrics. See *2003 Report*, 19 FCC Rcd at 1627 ¶ 28 and n.72.

⁸⁴ Kagan reports that it was high-speed data service that drove operating cash flow growth in 2004. Cable Databook at 7. See also Kagan Research, LLC, *HSD – Cable's Growth Driver*, Cable TV Investor: Deals and Finance (Cable TV Investor), Apr. 26, 2005, at 8.

Table 4: Cable Industry Revenue and Cash Flow: 2003 – 2005⁸⁵

	2003	2004	03-04	2005	04-05
	Total	Total	% Change	Est. Total	% Change
Basic Subscribers (mil.)	66.0	65.4	-0.9%	65.4	0.0%
Revenue Segments (mil.)					
Basic Service and CPST Tiers	\$29,000	\$30,080	3.7%	\$31,125	3.5%
Premium (Pay) Tiers	\$5,891	\$6,255	6.2%	\$6,412	2.5%
VOD/Pay-Per-View ⁸⁶	\$976	\$1,279	31.0%	\$1,527	19.4%
Local Advertising	\$3,143	\$3,527	12.2%	\$3,950	12.0%
Home Shopping	\$307	\$329	7.2%	\$358	8.8%
Total Digital Tier	\$3,396	\$3,966	16.8%	\$4,526	14.1%
High-speed Internet	\$6,772	\$8,943	32.1%	\$11,172	24.9%
DVR Service	\$36	\$150	316.7%	\$405	170.0%
Circuit Switch and VoIP	\$1,511	\$1,660	9.9%	\$2,240	34.9%
Installation/Miscellaneous ⁸⁷	\$1,421	\$1,285	-9.6%	\$1,370	6.6%
Business Services	\$1,911	\$2,551	33.5%	\$3,411	33.7%
Total Revenue (mil.)	\$54,364	\$60,025	10.4%	\$66,496	10.8%
Revenue Per Subscriber	\$823.70	\$917.81	11.4%	\$1016.76	10.8%
Operating Cash Flow (mil.)	\$20,875	\$23,410	12.1%	\$25,933	10.8%
Cash Flow per Subscriber	\$316.29	\$357.95	13.2%	\$396.53	10.8%
Cash Flow/Total Revenue	38.4%	39.0%	1.6%	39.0%	0.0%

44. **Programming Costs.** Cable operators' combined program expenditures reached \$12.68 billion in 2004 compared to \$11.46 billion in 2003.⁸⁸ This represents expenditures for existing nonbroadcast networks and expenditures for new nonbroadcast networks.⁸⁹ In addition to expenditures for national nonbroadcast networks, cable companies produced or acquired local and regional programming, including cable news and public affairs networks. Included in the \$12.68 billion in

⁸⁵ Home shopping, digital video recorder, business revenue, and installation/miscellaneous data for 2003 come from Kagan Research, LLC, Broadband Cable Financial Databook, Aug. 2004, at 8-13. All other data come from the Cable Databook at 8-13 and 150. Historical data included in this table may differ from those previously reported because some data have been updated by Kagan.

⁸⁶ Includes VOD, subscription-video-on-demand (SVOD), near-video-on-demand (NVOD), and PPV.

⁸⁷ Installation/Miscellaneous revenue includes revenues derived from basic installation and pay installation, high-definition television, interactive games, home networking, and equipment charges. We note that there is often no additional cost for the standard-definition version of HDTV channels. In many cases, MSOs charge for HDTV channels that are not offered in a standard-definition version. Some MSOs do not charge higher prices for an HD set-top box, but most apply a professional installation fee. See Time Warner Cable, at <http://www.timewarnercable.com/corporate/products/digitalcable/hdtv.html> (visited Oct. 7, 2005); Cablevision Systems Corp., at <http://www.io.tv/index.jhtml?pageType=hdtv> (visited Oct. 7, 2005); Comcast Corp., at http://comcast.p.delivery.net/m/p/com/mic/HD_Index.asp (visited Oct. 7, 2005); Charter Communications, at <http://www.charter.com/products/hdtv/hdtv.aspx> (visited Oct. 7, 2005).

⁸⁸ NCTA Comments at 40. NCTA's calculation of programming expenditures includes license fees, copyright fees, and investments in local programming.

⁸⁹ In 2005, we have identified 531 nonbroadcast networks. See para. 157 *infra*.

program expenditures are copyright fees of \$132.4 million in 2004 for broadcast signal carriage pursuant to Section 111 of the Copyright Act.⁹⁰

45. **Cable System Transactions.** The aggregate value of cable systems sold in any year depends on the number of transactions, the size of the cable systems involved, and the price paid. As shown in Table 5 below, there were 21 cable transactions in 2004, covering more than 2.7 million basic subscribers and representing an aggregate value of \$10.6 billion.⁹¹ The acquisition of Cox Communications by Cox Enterprise Inc. for \$9.0 billion (\$3,846 per subscriber) accounted for most of the dollar value.⁹² Most of the transactions, however, involved small rural cable systems with an average value of \$1,730 per subscriber.⁹³ The average value per subscriber for the 21 systems sold in 2004 was \$3,906.⁹⁴ In the first six months of 2005, there were nine proposed, but not necessarily completed, cable system transactions, representing an aggregate value of \$38.4 billion. Transactions during the first six months of 2005 included the proposed acquisition of Adelphia by Comcast and Time Warner for approximately \$17.7 billion (\$3,690 per subscriber), and the Dolan family group's proposed and recently rescinded acquisition of Cablevision for approximately \$13 billion (\$4,377 per subscriber).⁹⁵ In another transaction involving the privatization of a major cable system, Insight Communications recently reached agreement to sell its cable systems to Insight Acquisition Corp.⁹⁶

⁹⁰ Copyright Act, 17 U.S.C. § 111 *et seq.* Copyright Office, Library of Congress, *Licensing Division Report of Receipts*, Sept. 13, 2005. Copyright fees are due on a specific date, but are collected on a rolling basis.

⁹¹ Cable Databook at 171.

⁹² Cox Enterprise Inc. acquired the 38 percent of Cox Communications it did not already own. *Id.*

⁹³ Cable TV Investor, Jan. 31, 2005, at 8.

⁹⁴ Cable Databook at 171. Analysis of transactions over the past six years shows that smaller systems sold for an average of \$1,731 per subscriber and larger systems sold for an average of \$4,445 per subscriber. *Id.*

⁹⁵ *Adelphia Deal: More Efficient Industry, Attractive Price*, Cable TV Investor, Apr. 26, 2005, at 1-3; *Dolans Bid To Take Cablevision Private for \$4,377/Sub*, Cable TV Investor, June 30, 2005, at 8. Adelphia reached agreements for Time Warner and Comcast to acquire substantially all of the assets of Adelphia for \$12.7 billion in cash and 16 percent of Time Warner Cable's common equity. The applications of Adelphia, Comcast, and Time Warner to transfer control of and/or assign Adelphia's Commission licenses are pending before the Commission. *Applications for Consent to the Assignment and/or Transfer of Control of Licenses, Adelphia Communications Corporation, Assignors, to Time Warner Cable Inc., Assignees; Adelphia Communications Corporation, Assignors and Transferors, to Comcast Corporation, Assignees and Transferees; Comcast Corporation, Transferor, to Time Warner Inc., Transferee; Time Warner Inc., Transferor, to Comcast Corporation, Transferee, Applications and Public Interest Statement*, MB Docket No. 05-192 (filed May 18, 2005). See also Adelphia Communications Corp., *Adelphia Communications to be Acquired by Time Warner and Comcast* (press release), Apr. 21, 2005. Cablevision Systems Corp., *Response from Cablevision Systems Corporation Regarding Proposal by the Dolan Family Group* (press release), June 22, 2005. On Oct. 25, 2005, the Dolan Family Group withdrew their June 19, 2005, proposal to acquire the cable and telecommunications businesses of Cablevision because they were unable to reach agreement with Cablevision on the terms of their proposal. Dolan Family Group, *Dolan Family Group Withdraws Cablevision Going Private Proposal and Recommends That the Board of Directors Consider a Special Pro Rata Dividend of \$3 Billion* (press release), Oct. 25, 2005, at <http://www.prnewswire.com/cgi-bin/stories.pl?ACCT=109&STORY=/www/story/10-25-2005/0004193917&EDATE=> (visited Nov. 15, 2005). See also Cablevision Systems Corp., *Cablevision Statement on Dolan Family Group Proposal* (press release), Oct. 25, 2005, at http://www.cablevision.com/index.jhtml?pageType=financial_news (visited Nov. 15, 2005).

⁹⁶ Insight Communications Co., Inc., *Insight Communications and Insight Acquisition Corp. Enter into Definitive Merger Agreement* (press release), July 29, 2005.

TABLE 5: System Transactions: 2002 - June 2005⁹⁷

	2002	2003	2004	Jan-June 2005
Number of Systems Sold	24	34	21	9
Total Number of Subscribers Sold	607,446	650,759	2,701,552	10,143,967
Average Number of Subscribers per System Sold	25,310	19,140	128,645	1,127,107
Total Number of Homes Passed Sold	1,163,765	1,132,772	4,626,831	19,156,872
Average Number of Homes Passed per System Sold	48,490	33,317	220,325	2,128,541
Total Dollar Value (mil.)	\$1,381	\$1,495	\$10,554	\$38,398
Average Value (mil.) of System Sold	\$57.5	\$44.0	\$502.6	\$4,266
National Average Dollar Value Per Subscriber	\$2.273	\$2.297	\$3,906	\$3,785
Dollar Value Per Home Passed	\$1,186	\$1,319	\$2,281	\$2,004
Cash Flow Multiple	11.2	9.5	9.4	11.0

46. **Stock Prices.** Cable stock prices, as measured by the Kagan Cable MSO Average,⁹⁸ gained 28.8 percent from June 2004 to June 2005, while the S&P 500 gained 5.8 percent, and the NASDAQ gained 1.7 percent.⁹⁹ At the end of June 2005, cable stocks were trading at 8.5 times cash flow, which was unchanged from the historic low of 8.5 times cash flow reported at the end of June 2004.¹⁰⁰ One analyst reported that cable stocks have not risen because cable investors are concerned about the entry of telephone companies into the video delivery market and price reductions by telephone companies for their high-speed Internet service.¹⁰¹

2. Capital Acquisition and Disposition

47. **Industry Financing.** Table 6 shows the amount of financing raised per year by source. In past years, much of the money raised by cable operators was for upgrading and rebuilding cable systems. With the upgrading and rebuilding nearing completion, the majority of money raised in 2004 was for refinancing.¹⁰² Kagan reports that only small rural cable companies are still borrowing for upgrading and rebuilding their systems.¹⁰³ In 2004, cable companies reduced public debt by \$4.9 billion.

⁹⁷ Data for 2004 come from *Cable System Sales Summary (Annually Through December)*, Cable TV Investor, Jan. 31, 2005, at 9. Data for January to June 2005 come from *Cable System Sales Summary*, Cable TV Investor, July 29, 2005, at 15. The numbers for January to June 2005 include all announced and proposed deals. Historical data included in this table may differ from those previously reported because some data have been updated by Kagan. See Cable Databook.

⁹⁸ The Kagan Cable MSO Average includes the following companies (stock symbol): Adelphia (ADELQ), Rogers B (US\$) (RG), Charter (CHTR), Cable & Wireless (CWP), Alaska Comm. Sys. (ALSK), Washington Post (WPO), General Comm. (GNCMA), Mediacom (MCCC), Time Warner (TWX), Liberty Media A (L), NTL (NTLI), Comcast (CMCSA), Comcast Special A (CMCSK), Pegasus (PGTV), Telewest (TLWT), Insight (ICCI), Cablevision (CVC), and Liberty Media B (LMCB).

⁹⁹ Cable TV Investor, July 29, 2004, at 23; Cable TV Investor, July 29, 2005, at 19, 23.

¹⁰⁰ *Cable MSOs: Private Market Valuations*, Cable TV Investor, June 30, 2005, at 12; *Kagan Multichannel Projections: There's Life After DBS and Telco Competition*, Cable TV Investor, July 29, 2004, at 1.

¹⁰¹ *How Important are Telco Franchising Gains?*, Cable TV Investor, July 29, 2005, at 1-2.

¹⁰² Cable Databook at 149.

¹⁰³ *Id.*

Some companies began repurchasing stock.¹⁰⁴ As a result, Kagan reports that net equity raised by the cable industry was negative for the first time since it began tracking cable financings in 1982.¹⁰⁵

TABLE 6: Acquisition of Capital: 1999 - June 2005 (\$ in millions)¹⁰⁶

Year	Private Debt		Net New Public Debt		Private Equity (Pvt. Placement/VC)		Public Equity (Common/Preferred)		Total Capital Raised In Year
	Amount Raised	% of Total Raised in Year	Amount Raised	% of Total Raised in Year	Amount Raised	% of Total Raised in Year	Amount Raised	% of Total Raised In Year	
1999	\$34,358	51.9%	\$18,610	28.1%	\$5,385	8.1%	\$7,799	11.8%	\$66,152
2000	\$7,255	60.3%	\$4,288	35.7%	\$101	0.8%	\$380	3.2%	\$12,024
2001	\$6,668	31.4%	\$10,678	50.2%	\$623	2.9%	\$3,282	15.4%	\$21,251
2002	\$2,544	25.2%	\$3,942	39.0%	\$15	0.1%	\$3,608	35.7%	\$10,109
2003	\$1,791	66.5%	\$734	27.2%	\$116	4.3%	\$54	2.0%	\$2,695
2004	\$12,674	159.7%	-\$4,863	-61.3%	\$125	1.6%	\$0	0%	\$7,936
Jan-June 2005	\$270	28.7%	\$663	70.4%	\$9	0.9%	\$0	0%	\$942

48. **Capital Expenditures/Capital Investment.** Over the last decade, cable companies have invested heavily to rebuild and upgrade cable systems.¹⁰⁷ NCTA states that cable operators have invested almost \$100 billion since 1996 to replace coaxial cable with fiber optic technology and install new digital equipment in homes and system headends.¹⁰⁸ These investments have enabled cable operators to offer more channels of basic and digital cable services, premium movie services, pay-per-view service, high-definition service, high-speed Internet access services, CD-quality music, cable telephony, and more personalized programming options. According to NCTA, the cable industry's investment in broadband two-way networks makes available a number of advanced services on virtually every cable system today.¹⁰⁹ Kagan reports that at year-end 2004, 96 percent of all cable homes passed were offered digital video services and 93 percent were offered high-speed Internet access services.¹¹⁰ Total capital expenditures were \$10.1 billion in 2004, and Kagan projects that they will increase to \$10.3 billion in 2005.¹¹¹

¹⁰⁴ For example, Comcast completed a \$1.3 billion stock repurchase. Comcast Corp., *Comcast Reports Fourth Quarter and Year End 2004 Results* (press release), Feb. 3, 2005.

¹⁰⁵ Cable Databook at 149. Kagan reports that no money was raised through public equity, \$125 million was raised through private equity, and approximately \$1.315 billion was spent by cable companies to buy back stock shares. Thus, net equity declined approximately \$1.190 billion. *Id.* at 154.

¹⁰⁶ Data for 2004 come from Cable Databook at 154. Data for January 2005 to June 2005 come from Cable TV Investor, July 29, 2005, at 13. Historical data included in this table may differ from those previously reported because some data have been updated by Kagan. See Cable Databook at 154.

¹⁰⁷ Rebuilds are significant improvements made to existing systems that do not retain much of the old system plant and equipment. Upgrades are improvements to existing cable systems that do not require the replacement of the entire existing plant and equipment.

¹⁰⁸ NCTA Comments at 25. Kagan estimates annual cable infrastructure expenditures from 1996 to 2005 that total approximately \$104.2 billion. See Cable Databook at 150.

¹⁰⁹ NCTA Comments at 25.

¹¹⁰ *Advanced Services Spread Across Cable Systems*, Cable TV Investor, Apr. 26, 2005, at 5.

¹¹¹ Cable Databook at 150. But see NCTA projection that total capital expenditures will decrease from \$10.1 billion in 2004 to \$9.6 billion in 2005. NCTA, *Industry Statistics*, Cable Developments 2005, at 10.

49. With the rebuilding and upgrading of cable systems nearing completion, cable operators are reducing capital expenditures on system upgrades. At the same time, however, as shown in Table 7, they are increasing capital expenditures on customer premises equipment upgrades.

Table 7: Capital Expenditures by Major MSOs (millions)

Operator	2004			2005		
	Total	Plant Upgrades	Customer Premises Equipment	Total Jan. - June	Plant Upgrades	Customer Premises Equipment
Comcast ¹¹²	\$3,600	\$902	\$1,500	\$1,800	\$167	\$932
Time Warner ¹¹³	\$1,700	\$139	\$719	\$899	\$69	\$431
Cox ¹¹⁴	\$1,400	\$87	\$528	\$661	NA	NA
Charter ¹¹⁵	\$924	\$49	\$451	\$542	\$22	\$228
Cablevision ¹¹⁶	\$574	\$12	\$429	\$316	\$3	\$227

3. Advanced and Other Services

50. In addition to traditional analog video services, most cable operators offer subscribers advanced video services, including digital video, video-on-demand, digital video recorders, and high-definition television; and nonvideo advanced services, including high-speed Internet access and telephony (circuit-switched telephony and/or voice over Internet protocol telephony).¹¹⁷ Mid-sized and smaller

¹¹² Comcast Corp., *Comcast Reports Fourth Quarter and Year End 2004 Results* (press release), Feb. 3, 2005; Comcast Corp., *Comcast Reports Second Quarter 2005 Results* (press release), Aug. 2, 2005.

¹¹³ Time Warner Inc., *Time Warner Reports Results for 2004 Full Year and Fourth Quarter* (press release), Feb. 4, 2005; Time Warner Inc., *SEC Form 10-Q Quarterly Report for the Period Ending June 30, 2005*, at 31.

¹¹⁴ Cox Communications Inc., *Cox Communications Announces Fourth Quarter and Full-Year Financial Results for 2004* (press release), Mar. 16, 2005; Cox Communications Inc., *Cox Communications Announces Second Quarter and Year-to-Date Financial Results for 2005* (press release), Aug. 9, 2005. For second quarter 2005 results, Cox did not report capital expenditures devoted to plant upgrades and CPE.

¹¹⁵ Charter Communications Inc., *Charter Reports Fourth Quarter and Annual 2004 Financial and Operating Results* (press release), Mar. 1, 2005; Charter Communications Inc., *Charter Communications Reports Second Quarter 2005 Financial and Operating Results* (press release), Aug. 2, 2005.

¹¹⁶ Cablevision Systems Corp., *Cablevision Systems Corporation Reports Fourth Quarter and Full Year 2004 Results* (press release), Feb. 23, 2005; Cablevision Systems Corp., *Cablevision Systems Corporation Reports Second Quarter 2005 Results* (press release), Aug. 9, 2005.

¹¹⁷ Subscription data for advanced services shown in this *Report* are primarily for residential service, but also may include some small business service. For example, Comcast offers a business Internet service for teleworkers called Comcast Teleworker, and a business Internet service for small to medium-sized businesses called Comcast Workplace. Similarly, Time Warner also offers a business Internet service called Road Runner Business Class to small and medium-sized businesses, home offices, and telecommuters. Subscribers to these services are included in the reported numbers. Cable companies also sold \$2.6 billion in services to business in 2004 under separately run subsidiaries. For example, Cox Business Services offers high-speed Internet access, local and long distance telephone, advanced voice and data transport to businesses of all sizes; and Charter Business offers high-speed Internet access services and video services to small and large businesses. Small operators also offer advanced services to business customers. Bresnan, for example, provides high-speed Internet access, voice and data transport and video to large and small businesses under its Bresnan Business Services subsidiary; Susquehanna Communications offers businesses advanced communications services, including local and long distance telephone services, high-speed Internet access, and data transport and video; and Sunflower Broadband offers Sunflower Broadband Business Services providing high-speed Internet, telephone service, and professional IT support. Cable (continued....)

cable operators also are deploying advanced services. Our review of six mid-sized and smaller cable operators shows that all offer digital cable service and high-speed Internet service and many offer video-on-demand, digital video recorders, high-definition television, and telephone service.

51. **Digital Video Services.** Most cable operators offer digitally compressed video channels to cable subscribers. Digital cable subscribers typically rent a digital set-top box from the cable company and receive some free digital video service. Digital cable subscribers obtain video programming by purchasing one or more digital service tiers. Digital tiers provide a variety of programming similar to basic tiers or theme tiers, such as a movie tier, a sports tier, and a non-English-language tier. Digital cable subscribers may also purchase one or more premium digital tiers, such as HBO, Showtime, Cinemax, The Movie Channel, Starz!, and international programming.¹¹⁸ A high-definition service tier also is available to many digital cable subscribers.¹¹⁹ In addition, cable operators are offering interactive digital services to digital cable subscribers, such as digital video recorders and video-on-demand.¹²⁰ All of these digital services are available to subscribers with analog televisions that use a digital set-top box that converts digital signals to analog.¹²¹ Data from the Form 325 for 2004 indicates that nearly 94 percent of homes passed have access to digital video and 84 percent of systems have digital video capability.¹²² Approximately 96 percent of all cable homes passed had access to digital video services at the end of 2004 according to Kagan.¹²³ There were 25.4 million digital cable subscribers at the end of 2004, compared to 22.5 million at the end of 2003, a 12.9 percent increase.¹²⁴ At the end of June 2005, the number of digital cable subscribers rose to 26.3 million and the number was projected to increase to 28.2 million by the end of 2005.¹²⁵

(Continued from previous page) _____)

Databook at 13; Comcast Corp., at <http://work.comcast.net/> (visited Sept. 26, 2005); Time Warner, Inc., at <http://www.timewarnercable.com/corporate/products/highspeedinternet/default.html> (visited Sept. 26, 2005); Cox Communications, Inc., at <http://www.coxbusiness.com/index.html> (visited Sept. 26, 2005); Charter Business, at <http://www.charter-business.com> (visited Sept. 26, 2005); Bresnan Communications, at <http://www.bresnan.com/unst/products/business> (visited Sept. 26, 2005); Susquehanna Communications, at <http://www.suscom.com/home/business.php> (visited Sept. 26, 2005); Sunflower Broadband, at <http://www.sunflowerbroadband.com/business> (visited Sept. 26, 2005).

¹¹⁸ To receive a digital premium channel, a subscriber must subscribe to the premium channel. For example, to receive digital HBO, a subscriber must subscribe to HBO.

¹¹⁹ The high-definition service tier requires a high-definition set-top box or CableCARD. Most high-definition programming is available at no additional charge. For example, the high-definition service from the broadcast networks is often available at no additional charge. In addition, high-definition service from a premium channel often is included with a subscription to the premium channel. Other high-definition programming may require additional fees.

¹²⁰ The digital video recorder service offered by cable operators requires a DVR set-top box.

¹²¹ NCTA Comments at 26-27.

¹²² 2004 FCC Form 325 data.

¹²³ *Advanced Services Spread Across Cable Systems*, Cable TV Investor, Apr. 26, 2005, at 5.

¹²⁴ Cable Databook at 11; Kagan Research, LLC, *Broadband Cable Financial Databook*, Aug. 2004, at 11.

¹²⁵ See NCTA, at <http://www.ncta.com/Docs/PageContent.cfm?pageID=91> (visited Oct. 20, 2005); *Broadband Evolution 2004-2015*, Cable TV Investor, June 30, 2005, at 2.

52. As shown in Table 8 below, as of June 2005, the top cable operators' digital subscriber counts equal 41% to 58% of their total basic cable subscribers.

Table 8: Digital Cable Subscribers for Top MSOs (in millions)

Operator	2004		2005	
	Digital Subscribers	% Basic Cable Subs	Digital Subscribers	% Basic Cable Subs
Comcast ¹²⁶	8.6	40%	9.1	43%
Time Warner ¹²⁷	4.8	44%	5.1	46%
Cablevision ¹²⁸	1.5	50%	1.7	58%
Cox ¹²⁹	2.4	38%	2.6	41%
Charter ¹³⁰	2.7	45%	2.7	45%

53. NCTA reports that, in January 2005, cable operators were carrying the digital broadcast signals – including high-definition and multicast signals – of 504 unique broadcast television stations.¹³¹ In January 2005, NCTA reached an agreement with the Association of Public Television Stations to ensure that the digital service – including multicast channels – offered by local public television stations would be available to most cable subscribers.¹³² Comcast has agreements to carry local multicast digital signals with over 200 commercial broadcast stations in 72 DMAs.¹³³ In addition, Comcast has agreed to carry the multicast digital signals of noncommercial broadcasters and expected to be carrying the digital signals of 58 noncommercial broadcast stations in 62 markets in the fall of 2005.¹³⁴

54. In 2003, the Commission adopted rules based on an agreement between consumer electronics companies and cable operators that enable television sets to be built with “plug-and-play” functionality for one-way digital cable services, which include typical cable video services and premium channels such as HBO and Showtime.¹³⁵ For these services, consumers are able to plug their cable

¹²⁶ Comcast Corp., *Comcast Reports Second Quarter 2005 Results* (press release), Aug. 2, 2005; Comcast Corp., *Comcast Reports Fourth Quarter and Year End 2004 Results* (press release), Feb. 3, 2005.

¹²⁷ Time Warner Inc., *Time Warner Inc. Reports Second Quarter 2005 Results* (press release), Aug. 3, 2005; Time Warner Inc., *Time Warner Reports Results for 2004 Full Year and Fourth Quarter* (press release), Feb. 4, 2005.

¹²⁸ Cablevision Systems Corp., *Cablevision Systems Corporation Reports Second Quarter 2005 Results* (press release), Aug. 9, 2005; Cablevision Systems Corp., *Cablevision Systems Corporation Reports Fourth Quarter and Full Year 2004 Results* (press release), Feb. 23, 2005.

¹²⁹ Cox Communications Inc., *Cox Communications Announces Fourth Quarter and Full-Year Financial Results for 2004* (press release), Mar. 16, 2005; Cox Communications Inc., *Cox Communications Announces Second Quarter and Year-to-Date Financial Results for 2005* (press release), Aug. 9, 2005.

¹³⁰ Charter Communications Inc., *Charter Reports Second Quarter 2005 Financial and Operating Results* (press release), Aug. 1, 2005; Charter Communications Inc., *Charter Reports Fourth Quarter and Annual 2004 Financial and Operating Results* (press release), Mar. 1, 2005.

¹³¹ NCTA Comments at 26-28.

¹³² NCTA Comments at 28; APTS Comments at 2. See also NCTA, *Public Television and Cable Announce Major Digital Carriage Agreement* (press release), Jan. 31, 2005.

¹³³ Comcast Comments at 45.

¹³⁴ *Id.*

¹³⁵ *Implementation of Section 304 of the Telecommunications Act of 1996, Commercial Availability of Navigation Devices, Compatibility between Cable Systems and Consumer Electronics Equipment*, 18 FCC Rcd 20885 (2003).

directly into their digital television set without the need for a set-top box. Consumers, however, must obtain a security card (often called a CableCARD), from their local cable operator, to be inserted into the television set. Approximately 90,000 one-way CableCARDS have been deployed.¹³⁶

55. Consumers still need a set-top box to receive two-way services (e.g., video-on-demand), and the cable and consumer electronics industries continue to work on an agreement for two-way “plug-and-play” functionality.¹³⁷ Samsung Electronics recently achieved CableLabs Certified status for an OpenCable Application Platform (OCAP) enabled interactive digital television set that can connect directly to the cable system, and receive current advanced and premium cable services.¹³⁸ The television set is currently in trials with Time Warner in North Carolina.¹³⁹ Consumer electronics manufacturers are selling digital cable-ready television sets with over-the-air integrated DTV tuners as well as cable tuners.¹⁴⁰ Industry sources indicate that two-way digital devices will soon be available in retail stores.¹⁴¹

56. *Video-on-Demand (VOD)*. VOD allows subscribers to order video programs from a central server at any time of day, and to fast-forward, rewind, and pause the programs.¹⁴² In most cases, subscribers receive unlimited viewing of a VOD program for 24 hours. Some cable operators also offer subscription video-on-demand (SVOD) where subscribers pay a monthly fee for unlimited access to a library of pre-selected programs. Other cable operators offer near video-on-demand (NVOD) which typically features a schedule of popular movies and events offered on a staggered-start basis (e.g., every 15 to 30 minutes). Cable companies view VOD as a competitive service to DVD/VHS rentals and a means to help reduce subscriber churn. At year-end 2004, VOD service was available to 73 percent of

¹³⁶ NCTA reports that 90,000 CableCARDS have been deployed by the 10 largest cable operators. See Letter from Neal M. Goldberg, General Counsel, NCTA, to Marlene H. Dortch, Secretary, FCC, CS Docket No. 97-80 (Dec. 29, 2005), at 1.

¹³⁷ See para. 211 *infra*. For a description of the progress of negotiations between the consumer electronics and cable industries, see Consumer Electronics Association, Joint Status Report of the Consumer Electronics Association and the National Cable & Telecommunications Association, Oct. 14, 2005, at http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6518169296 (visited Oct. 21, 2005). See also Paul Gluckman, *Talks Progress on 2-Way Plug & Play, But Much Remains Undone, Report Says*, COMMUNICATIONS DAILY, Oct. 17, 2005.

¹³⁸ CableLabs, *Samsung Electronics Gains CableLabs Certification on 2-Way Digital Television* (press release), Aug. 23, 2005.

¹³⁹ Samsung, *Samsung and Time Warner Cable Depoly World's First Interactive OCAP TV* (press release), Jan. 11, 2006.

¹⁴⁰ CEA Comments at 5. With most cable systems, use of the digital cable-ready television set requires that cable subscribers obtain a CableCARD containing security and other circuitry for particular local cable systems. The CableCARD is a removable security module which, when inserted into an OpenCable certified device, enables delivery of digital cable service and other services. CableCARDS are provided directly by the cable operator to customers who request them. CableLabs, at <http://www.cablelabs.com/news/glossary.html#C> (visited Sept 27, 2005). See para. 211 *infra*.

¹⁴¹ See Ed Bott, *More Two-Way CableCARD Products*, ED BOTT'S MEDIA CENTRAL, Sept. 29, 2005, at <http://www.edbott.com/mediacenter/archives/more-two-way-cablecard-products> (visited Oct. 8, 2005). See also Greg Tar, *Samsung Readies Two-Way Cable Products*, TWICE, Aug. 22, 2005, at <http://www.twice.com/article/CA6250081.html?verticalid=820&industry=Video&industryid=23099&pubdate=08/22/2005> (visited Oct. 8, 2005).

¹⁴² VOD differs from PPV. PPV is a pay television service for which cable subscribers pay a one time fee for each program viewed. The programs are generally available at pre-set times and in some cases are time shifted across several channels to increase the opportunity for viewing. Once initiated, the program cannot be paused, rewound or fast-forwarded.