## IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF PENNSYLVANIA

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No. 03-6604 The Honorable John R. Padova
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# UPDATED DECLARATION OF JOHN C. BEYER, PH.D., REGARDING CLASS CERTIFICATION

John C. Beyer, Ph.D., being duly sworn, deposes and says,

#### I. INTRODUCTION

- 1. I am President of Nathan Associates, Inc., an economic and financial consulting firm established in 1946. Nathan Associates provides economic research and analysis to public and private clients in the United States and abroad.
- 2. I have been with Nathan Associates as an economist for approximately 36 years. As part of my professional career I also have been employed by the Ford Foundation and have conducted research at the Brookings Institution. In addition to my consulting and research work, I serve as an Adjunct Professor at American University in Washington, DC. I received the degree of Bachelor of Arts from the University of the Pacific in 1962 and the degree of Doctor of Philosophy from Tuft University's Fletcher School of Law and Diplomacy in 1966.

- 3. My professional experience includes the analysis of economic issues involved in antitrust litigation, including matters concerning the structure, conduct and performance of industries, the determination of economic impact on companies and individuals as a result of alleged market restraints, as well as the estimation of damages arising from such restraints. In several instances, my analyses have addressed the issue of impact upon multiple plaintiffs and plaintiff classes, as well as the development of methodologies to assess damages on a class-wide basis. During my career I have provided analyses and opinions regarding the economic impact and damages associated with several antitrust class action matters including: In re Corrugated Container Antitrust Litigation, In re Flat Glass Antitrust Litigation, In re Industrial Diamonds Antitrust Litigation, In re Commercial Explosives Antitrust Litigation, In re Carbon Dioxide Antitrust Litigation, In re Domestic Air Transportation, In re Monosodium Glutamate Antitrust Litigation, In re Mercedes-Benz Antitrust Litigation, and In re Linerboard Antitrust Litigation, among others. A description of my education, professional experience as an economist, publications, and affiliations is attached as Appendix A of this declaration. Nathan Associates is being compensated at my hourly rate of \$490.
- 4. Counsel for Plaintiffs in this litigation have asked me to determine whether Defendants' (herein collectively referred to as Comcast) alleged violations of Section 1 and Section 2 of the Sherman Antitrust Act - the imposition of horizontal market restraints by swapping cable systems with actual and potential competitors and acquiring cable systems from actual and potential competitors, and the alleged unlawful acquisition and maintenance of monopoly power by building clusters of cable systems in the Philadelphia, Pennsylvania and Chicago, Illinois areas, in part by swapping cable systems with potential competitors, and other unlawful activities - would have impacted all members of the proposed Classes. I have previously submitted, on November 29, 2004, a Declaration Regarding Class Certification. Counsel for Plaintiffs have asked me to update that Declaration to reflect the latest available information about prices and subscriber counts in Comcast's cable systems in the Philadelphia and Chicago clusters. Also, since my first declaration was submitted, plaintiffs have filed

Plaintiffs' Third Amended Class Action Complaint for Violations of the Sherman Antitrust Act.<sup>1</sup> The proposed Classes are defined as:

- (1) All cable television customers who subscribe or subscribed at any time since December 1, 1999, to the present to video programming services (other than solely to basic cable services) from Comcast, or any of its subsidiaries or affiliates in Comcast's Philadelphia cluster. The class excludes governmental entities, Defendants, Defendants' subsidiaries and affiliates and this Court.
- (2) All cable television customers who subscribe or subscribed at any time since December 1, 1999, to the present to video programming services (other than solely to basic cable services) from AT&T and/or Comcast, or any of their subsidiaries or affiliates in Comcast's Chicago cluster. The class excludes governmental entities, Defendants, Defendants' subsidiaries and affiliates and this Court.<sup>2</sup>

For the purpose of this declaration I have assumed that the facts and antitrust violations alleged in the Plaintiffs' Complaint did in fact occur.

- 5. I also have been asked to determine if there are accepted and feasible methodologies available to estimate the economic impact and damages of the alleged wrongdoing on a classwide and individual basis.
- 6. In preparing this declaration I have examined the economic characteristics of the market for subscription television programming in which Comcast operates by reviewing publicly available documents and information. The documents and information I have reviewed include the Third Amended Class Action Complaint, annual reports issued by the Federal Communications Commission (FCC) concerning competition and prices in the cable TV industry, U.S. Government Accounting Office (GAO) reports concerning competition and prices in the cable TV industry, various published studies by professional economists concerning prices and competition in the cable TV industry, and various annual issues of the Television & Cable

<sup>&</sup>lt;sup>1</sup> Behrend, et al., Plaintiffs, v. Comcast Corporation, et al., Defendants. Third Amended Class Action Complaint for Violations of the Sherman Antitrust Act, hereinafter the "Complaint."

<sup>&</sup>lt;sup>2</sup> Complaint, ¶ 31.b(1) and 31.b.(2).

<u>Factbook</u> and the <u>Broadcasting & Cable Yearbook</u>. Other than current price information available on the Comcast website, I have not yet examined or reviewed any documents or information kept by Comcast. A list of documents, information and other materials reviewed is contained in Appendix B to this declaration.

- 7. Based on the information I have seen to date, I have concluded that the alleged antitrust violations would have impacted all members of the proposed Classes through the payment of higher prices for subscription cable programming services than would have otherwise prevailed in the marketplace. This conclusion is based on the following economic considerations:
  - (a) The product supplied is essentially the same for all Class members within each cluster area:
    - All members of the proposed Classes have purchased a package of cable TV programming from Comcast which must include at least Comcast's "expanded basic" tier of television channels.<sup>3</sup>
    - Comcast's "expanded basic" tier of television channels is fundamentally the same for all subscribers in each of the market areas, Philadelphia and Chicago.
    - All members of the proposed Classes are subscribers to Comcast cable systems that are part of Comcast's Philadelphia or Chicago cluster of cable systems.
  - (b) Comcast has market power in the Philadelphia and Chicago market areas as a consequence of:
    - Comcast's building of the Philadelphia and Chicago clusters of cable systems has increased its monopoly power, and raised entry barriers for potential competitors, including multiple cable system operators, cable companies who previously competed in the Philadelphia and Chicago markets, but were removed from and did not reenter those markets as a result of Comcast's conduct alleged in the complaint, other cable companies, and overbuilders, in those market areas.<sup>4</sup>
    - Comcast does not face competition sufficient to constrain prices in the Philadelphia and Chicago clusters. Competition from Direct Broadcast Satellite (DBS) providers is not sufficient to constrain Comcast's prices and existing and potential competition from overbuild cable operators is not sufficient to constrain Comcast's prices.
    - Purchasers of Comcast's services are not able to avoid Comcast's exercise of market power, and therefore, to the extent that Plaintiffs' allegations are true, prices for Comcast's services in the Philadelphia and Chicago cluster areas would be lower

<sup>&</sup>lt;sup>3</sup> Comcast refers to its "expanded basic" tier of channels as "Standard Cable" in the Philadelphia and Chicago cluster systems.

<sup>&</sup>lt;sup>4</sup> I.e., those potential competitors who might build a second, wireline cable system serving the same subscriber communities.

absent Comcast's alleged antitrust violations, and all members of the proposed Classes have been impacted.

- (c) Class members in each cluster are all impacted by Comcast's pricing decisions:
  - Comcast subscribers generally pay exactly or nearly the same price for the "expanded basic" tier of cable service across all systems in each cluster.
  - The price that subscribers pay for "expanded basic" service has become common under Comcast ownership.
  - The price that subscribers pay for "expanded basic" service has increased as a consequence of Comcast's increased market power in each cluster area.
- (d) Comcast's price increases for "expanded basic" service have been exactly or nearly the same across all systems in each cluster.
- (e) Comcast's subscribers in the Philadelphia and Chicago clusters would all benefit from effective competition in each market area. Such competition would result in lower prices for Comcast's subscribers in those market areas.
- 8. I have also concluded that there are accepted methodologies available, which are common to all members of the proposed Classes, to quantify damages related to the defendants' antitrust violations, and that damages can be feasibly calculated on a class-wide basis. Based upon my review of U.S. Government and academic economic studies of cable TV competition and prices, I have identified two benchmarks, established from the pricing patterns of other cable systems, that can feasibly be used to estimate class-wide economic impact and damages: (1) the supra-competitive overcharge; and/or (2) the supra-competitive rate of price increase for cable TV service in Comcast's Philadelphia and Chicago clusters since 1999. First, Comcast's subscribers in the Philadelphia and Chicago clusters continue to pay higher, supra-competitive prices for cable TV programming because Comcast's alleged antitrust violations in those market areas have raised entry barriers to potential competition, including from other cable companies who previously competed with Comcast in the Philadelphia and Chicago markets but were removed as a result of Comcast's alleged antitrust violations and did not reenter, as well as other potential competitors, including overbuild competitors. For example, the supra-competitive overcharge absent effective overbuild competition has been estimated by a U.S. government study to be approximately 15 percent. This 15 percent difference, established from the prices of cable systems that have overbuild competition, provides the first overcharge benchmark. Second, the average price for the "expanded basic" tier of television channels in both Comcast clusters

has increased more rapidly (almost twice the rate of increase) since 1999 than has the average price for equivalent cable TV programming across all cable TV systems in the United States. The differences between Comcast's rates of price increases in the Philadelphia and Chicago Cluster systems and the average rate of price increase for other cable systems provide the second type of benchmark measures of the Comcast overcharge in each cluster.

#### II. INDUSTRY BACKGROUND

#### History

- 9. The cable TV industry began in the late 1940s as a retransmission service to provide local broadcast channels to areas with poor over-the-air broadcast signal reception. Cable system operators obtained franchise rights from a local government authority, such as a city, township or county. Until 1992, cable franchise rights were commonly granted on an exclusive basis. During the early years of cable TV, local franchising authorities largely regulated the terms and prices for cable TV service. By the late 1970s cable TV systems began to compete for viewers by providing new cable networks such as HBO, Showtime and ESPN. Since the late 1970s the cable TV industry's penetration rate as a percentage of television households has increased substantially, from 14 percent in 1975 to 59 percent in 2006.<sup>5</sup>
- 10. In 1984 Congress passed the Cable Communications Policy Act, which restricted local franchising authorities' regulation of cable service prices to only "limited basic" service, for cable systems that were not subject to effective competition.<sup>6</sup> "Limited basic" service is the lowest tier of cable TV programming. It includes only local broadcast channels and public, education and government access channels (PEG channels). In response to rapidly increasing cable TV prices however, in 1992 Congress passed the Cable Television Consumer Protection and Competition Act, which required the FCC to establish regulations ensuring reasonable rates

<sup>&</sup>lt;sup>5</sup> Kagan Research LLC as reported on www.ncta.com "Industry Statistics", September12, 2006.

<sup>&</sup>lt;sup>6</sup> GAO Report to the Chairman, Committee on Commerce, Science, and Transportation, U.S. Senate, "Telecommunications Issues Related to Competition and Subscriber Rates in the Cable Television Industry", GAO-04-08, October 2003, page 8. The FCC initially determined that "effective competition" existed if three or

for "limited basic" service, unless a cable system had been found to be subject to effective competition as defined in the act. The 1992 act also gave the FCC authority to regulate any unreasonable rates for upper tiers of cable TV service (often referred to as "expanded basic" and "premium" service tiers). The "expanded basic" tier includes channels in addition to the local broadcast stations and PEG channels provided in the more limited basic tier of cable TV service.7 "Expanded basic" service typically includes popular cable networks such as ESPN, CNN, and USA Network. According to the FCC's latest annual Report on Cable Industry Prices, approximately 90 percent of cable subscribers receive the expanded-basic service, including the limited basic tier. The other 10 percent receive the limited basic tier only.8

- 11. In 1996 Congress passed the Telecommunications Act, which, anticipating growing competition from DBS, other wireless, and overbuild video service providers, phased out all regulation of expanded-basic cable service rates by March 31, 1999. However, local franchise authorities could still regulate the price of lower, basic tier of cable rates, where there had been no finding of "effective competition".<sup>9</sup>
- 12. Following the 1992 act the cable TV industry experienced a period of rapid consolidation by operators of multiple cable systems (cable MSOs). As shown in Exhibit 1, the share of U.S. cable TV subscribers accounted for by the ten largest cable MSOs grew from 51.3 percent in 1992 to 72.4 percent in 1996, to 80.1 percent in 2004, and to 88.6 percent in 2006. After the 1996 act, as alleged in the Complaint, the largest cable MSOs began to build

more over-the-air broadcast signals existed in a given market. Under this definition, over 90 percent of all cable systems would be subject to effective competition and therefore not subject to rate regulation. GAO-04-8, fn. 6.

<sup>&</sup>lt;sup>7</sup> *Ibid.* page 8. The 1992 act also requires the FCC to report annually on competition in the cable industry and on average cable prices for cable system operators subject to a revised definition of "effective competition" compared with cable operators not subject to effective competition. Under the revised definition, cable operators face effective competition if any one of three conditions exist: 1) fewer than 30% of the households in the franchise area subscribe to cable service (low penetration test); 2) at least two companies unaffiliated with each other offer comparable video programming service through wire or wireless (e.g., DBS) to 50 percent or more of the households in the franchise area, and at least 15 percent of the households take service other than from the largest company (competitive provider test); and 3) the franchising authority offers video programming service to at least 50 percent of the households in the franchise area (municipal test). The 1996 act added a fourth test: a local telephone company or its affiliate (or any other company using the facilities of such a carrier or its affiliate) offers video programming, by means other than DBS, that is comparable to that offered by the cable provider in the franchise area (local exchange carrier (LEC) test). For the LEC test to apply, the LEC and the cable company must be unaffiliated. GAO-04-8, page 16, fn. 20.

<sup>&</sup>lt;sup>8</sup> FCC Report on Cable Industry Prices, FCC 05-12, February 4, 2005, ¶ 5.

<sup>&</sup>lt;sup>9</sup> GAO-04-8, page 8.

increasingly large clusters of cable systems by swapping systems with each other and by acquiring the systems of smaller cable MSOs. As shown in Exhibit 2 the percentage of U.S. cable subscribers that were in a cable system cluster more than doubled from 35 percent in 1994 to nearly 79 percent in 2004 (the latest year for which such information has been reported by the FCC). Further, the portion of cluster subscribers in the largest clusters (i.e., 300,000 or more subscribers in the cluster) grew from 30 percent in 1994 to over 77 percent in 2004. Thus, by 2004, over 60 percent of all U.S. cable TV subscribers were in cable system clusters with 300,000 or more subscribers.

#### No Effective Competition

- 13. Most cable systems operate without effective competition in the communities that they serve. The FCC's latest annual competition report indicates that only 3% of all cable communities have "effective competition" According to the latest FCC Report on Cable Competition, only 1.5% of all subscribers to video programming services are served by one type of cable competitor, wireline overbuild operators. 11
- 14. Prices for cable TV service have increased substantially during this period of consolidation and clustering. The Consumer Price Index (CPI) for Cable and Satellite TV services published by the Bureau of Labor Statistics indicates that cable prices have increased at nearly twice the rate of the CPI for all items. From January 1996 through July 2006 the CPI for Cable and Satellite TV services increased at the average annual rate of 5.1 percent, while the CPI for all items increased at the average annual rate of 2.6 percent. FCC survey data indicate a more rapid rate of price increases for cable TV services, including programming and subscriber equipment. According to FCC data, from July 1995 through January 2004 (the latest reported by the FCC), the average price per month for cable TV programming and equipment increased from \$24.34 to \$45.32, a 7.6 percent annual rate of increase.

<sup>&</sup>lt;sup>10</sup> FCC 05-12, ¶ 2, fn. 4.

<sup>&</sup>lt;sup>11</sup> FCC 06-11, Appendix B, Table B-1 (BSP subscribers as percent of MVPD total).

<sup>&</sup>lt;sup>12</sup> Source: CPI series CUSR0000SA0 (all items) and CUSR0000SERA02 (cable and satellite TV) as reported by data.bls.gov on September 12, 2006.

#### Comcast

- Defendant Comcast is the largest cable MSO in the United States. As shown in Exhibit 1, with approximately 21.5 million subscribers as of March 2006, Comcast accounted for approximately 33 percent of all cable TV subscribers and nearly 23 percent of all video programming subscribers, including DBS subscribers. In November 2002, Comcast acquired cable MSO AT&T Broadband (formerly TCI) which had 12.8 million subscribers at the time. Including the cable system clusters acquired with AT&T Broadband, Comcast has six of the ten largest cable system clusters in the United States. Comcast's Boston, Philadelphia, Chicago, San Francisco, Seattle, and Detroit clusters reportedly have approximately 1.94, 1.91, 1.76, 1.61, 1.03, 0.98 million subscribers, respectively. Comcast's Washington, DC and Baltimore clusters, which together with the Philadelphia cluster used to be known as the "Mid-Atlantic Super Cluster", have 0.96 and 0.65 million subscribers, respectively. 13
- 16. Plaintiffs' Complaint describes a series of cable system swaps and acquisitions of competitor cable systems through which Comcast accumulated its Philadelphia and Chicago clusters. Notably, as a part of its Philadelphia Cluster strategy, in a swap that occurred in late 2000, Comcast swapped cable systems serving approximately 460,000 total subscribers in and around Los Angeles, California and in Florida for Adelphia cable systems in and around Philadelphia, Pennsylvania serving a total of approximately 440,000 subscribers. In another swap agreement, completed in early 2001, Comcast swapped its cable systems serving approximately 700,000 subscribers in various parts of the United States in exchange for AT&T Broadband cable systems serving approximately 770,000 subscribers in various areas of the country. This swap agreement between Comcast and AT&T Broadband was part of a settlement agreement allowing AT&T Broadband to buy MediaOne Group, which had cable systems in the Chicago cluster area. Subsequently, in 2002, Comcast acquired AT&T Broadband and all of its cable systems and subscribers. In 2005 Comcast and Time Warner Cable announced an agreement to purchase cable systems owned by Adelphia Communications, and to swap some cable systems with each other. Comcast gained approximately 1.8 million additional basic

<sup>&</sup>lt;sup>13</sup> Broadcasting & Cable Yearbook 2006, Top 100 Cable Clusters/Systems, p. A-9.

subscribers and enhanced its clusters in the Philadelphia, Boston, Washington, D.C., and Florida regions as a consequence of the system acquisitions and swaps.<sup>14</sup>

- In addition to the swap agreements described above, Plaintiffs' Complaint describes a number of cable system acquisitions by which Comcast acquired its Philadelphia and Chicago clusters. In acquisitions spanning the period April 1998 through November 2002, Comcast acquired cable systems from Marcus Cable, Greater Media, Garden State Cable, Lenfest Communications and AT&T Broadband to accumulate its Philadelphia cluster. According to information reported in the Television & Cable Factbook, Comcast's operations in the Philadelphia cluster area grew from 8 systems to 37 cable systems (a subscriber count growth from 409,000 to 2.2 million) as a consequence of these system swaps and acquisitions. Comcast's cluster presence in the Philadelphia area currently, as compared to its system presence in 1999 is depicted, respectively in Exhibit 3 and Exhibit 4. Appendix C is a table listing the Comcast Philadelphia Cluster systems and subscriber estimates identified using the Television & Cable Factbook 2006, along with current prices compiled from the Comcast website. Appendix C also depicts the cable system owner and "expanded basic" price identified for the corresponding cable systems in the Television & Cable Factbook 1999.
- 18. According to Plaintiffs' Complaint, Comcast's accumulation of the Chicago Cluster cable systems spanned the period July 1998 through November 2002, initially involving AT&T Broadband's purchase of Tele-Communications Inc (TCI), a cable MSO with systems that served approximately 1.6 million subscribers in the Chicago area. Comcast largely acquired the Chicago Cluster with its acquisition of AT&T Broadband in November 2002. However, in August 2000, Comcast bought Prime Cable Company, which served approximately 140,000 subscribers in the northern suburbs of Chicago. Plaintiffs allege that Comcast transferred its Prime Cable system to AT&T Broadband as part of the swap settlement described in paragraph 16 above. After its acquisition of AT&T Broadband, Comcast's Chicago cluster consisted of 67 systems serving approximately 1.8 million subscribers. Since 2004, Comcast has consolidated many of its smaller systems into neighboring Comcast systems, so that as of 2006 there are 42 distinct systems in its Chicago cluster.

<sup>&</sup>lt;sup>14</sup> Time Warner Cable 04/21/2005 press release on www.timewarnercable.com, visited 09/12/2006.

- 19. Appendix D of this declaration is a table listing the Comcast Chicago Cluster systems and subscriber estimates identified using the Television & Cable Factbook 2006, along with current prices compiled from the Comcast website. Appendix D also depicts the cable system owner and "expanded basic" price identified for the corresponding cable systems in the Television & Cable Factbook 1999. Comcast's Chicago Cluster presence now, as compared to the TCI systems presence in 1999, is depicted, respectively in Exhibit 5 and Exhibit 6. These exhibits show the growth of the Chicago Cluster over that period, from 27 TCI systems then to 67 in 2004, which subsequently declined to 43 systems in 2006, due to consolidation of smaller systems, (a subscriber count growth from approximately 330,000 then to 2.1 million now).
- 20. As a consequence of Comcast's accumulation of Philadelphia and Chicago cluster systems through allegedly unlawful "swap" agreements and system acquisitions, major competitor cable MSOs that once had a significant share of the cable subscribers in each cluster area have exited the market and no longer exert any competitive constraint on Comcast's ability to raise prices in each cluster area, as they did prior to the "swaps" and acquisitions described in the Complaint. As shown in Appendix C of this declaration, as of the time reported by the 1999 Television & Cable Factbook, many of the cable systems now in the Comcast Philadelphia cluster were owned by other major cable MSOs that previously competed with Comcast. Cable MSOs Adelphia Cable, Garden State Cable TV, Suburban Cable, TCI, and Time Warner Cable each owned competing cable systems, representing a significant share of subscribers in the region, that have since become part of the Comcast Philadelphia cluster. Having exited the Philadelphia cluster area, these other cable MSOs no longer constrain cable prices in the area. Additionally, these other cable MSOs, as potential competitors to Comcast, face more substantial barriers to re-entering the market, particularly with Comcast having accumulated its Philadelphia cluster and its dominant share of subscribers in the area, than they did before the transactions challenged in the complaint occurred. In fact, these cable MSOs, having exited the market, now face more substantial barriers to reentry, and competing with Comcast's systems, than they did when they had operating systems in the Philadelphia area.
- 21. Similarly, as shown in Appendix D of this declaration, as of the time reported by the 1999 Television & Cable Factbook, all of the Comcast Chicago cluster systems were then owned

by other competing cable operators, including major cable MSOs. Cable MSOs Chicago Cable TV, Jones Intercable, MediaOne, Multimedia Cablevision, Prime Cable of Chicago, TCI, Telenois Inc, and Time Warner Cable each owned cable systems, representing a significant share of subscribers in the region, that have since become part of the Comcast Chicago cluster. As in the Philadelphia cluster area, these other cable MSOs no longer constrain cable prices in the Chicago cluster area, as they did previously in the Chicago area, and these other cable MSOs, to the extent that they are still in business elsewhere, face barriers to re-entering the Chicago market area as competitors of Comcast.

#### III. COMMON IMPACT<sup>15</sup>

Plaintiffs allege that defendant Comcast has "accomplished [a] division of markets through a series of transactions in which they have acquired competitors and then 'swapped' customers in one geographic area for customers in another, thereby 'clustering' their cable systems in particular regions." Plaintiffs further allege that "[t]his conduct has allowed cable companies, including Defendants, to acquire or maintain monopoly power in regional markets, engage in anticompetitive conduct, charge supra-competitive prices, and limit choice for cable consumers ..." For the purpose of this declaration I have assumed that the facts and antitrust violations alleged in the Plaintiffs' Complaint are true and did in fact occur.

#### Same Product for All Class Members

23. All Class members have purchased a package of cable services from Comcast that includes the "expanded basic" tier of local and cable channels. In the Philadelphia cluster systems the "expanded basic" tier is offered under the label "Preferred Basic", while in the Chicago cluster systems it is offered under the label "Standard Cable". All Comcast systems in the Philadelphia Cluster provide fundamentally the same package of local and cable channels in

<sup>&</sup>lt;sup>15</sup> "Common Impact" is a shorthand term for describing class-wide impact, or that all members of the proposed class would be adversely affected if the alleged anticompetitive conduct were true.

<sup>&</sup>lt;sup>16</sup> Third Amended Complaint, ¶ 1.

<sup>&</sup>lt;sup>17</sup> Third Amended Complaint, ¶ 2.

the "Preferred Basic" tier, and all Comcast systems in the Chicago Cluster provide fundamentally the same package of local and cable channels in the "Standard Cable" tier.

- 24. For example, the Philadelphia NE system and the Bucks County system in Comcast's Philadelphia cluster, both offer an "Expanded Basic" tier of channels to subscribers. The Philadelphia system includes 80 channels in its expanded basic "Total Preferred Service" tier, while the Bucks County system includes 72 channels in its expanded basic "Total Basic and Standard" Tier. Both packages include essentially the same mix of local broadcast stations and popular cable channels such as ESPN, CNN and Comcast Sportsnet.<sup>18</sup>
- 25. Similarly, the Chicago Area 4 system and the Chicago West system serving Elmhurst, IL in Comcast's Chicago cluster both offer the "Standard Cable" tier of channels to subscribers. Both the Chicago Area 4 and Chicago West systems include 73 channels in the "Standard Cable" tier. Both "Standard Cable" packages include essentially the same mix of local broadcast stations and popular cable channels.<sup>19</sup>

#### Comcast's Market Power

26. Comcast has market power in communities served by its cable systems and has increased that market power in the Philadelphia and Chicago market areas by accumulating large clusters of systems in those areas.<sup>20</sup> Comcast's large system clusters raise the entry barriers faced by potential competitors, including overbuilders. Potential overbuilders include not only independent competitors such as RCN, but also former incumbent cable systems operators who exited the cluster region after swapping cable systems that it had operated in the region. Absent effective competition, including from incumbent cable MSOs and from overbuild system operators, Comcast's ability to raise prices is not constrained.

<sup>&</sup>lt;sup>18</sup> Information concerning channel line-ups and prices was taken from Comcast's website, www.comcast.com, September 13-15, 2006.

<sup>&</sup>lt;sup>19</sup> *Ibid*.

<sup>&</sup>lt;sup>20</sup> By "market power," economists mean that the incumbent supplier(s) have the ability to raise prices above competitive levels, and/or restrict output, and/or exclude competitors. See for example, Dennis Carlton and Jeffrey Perloff, *Modern Industrial Organization*, 3<sup>rd</sup> Edition, 2000.

27. Potential wireline cable TV competitors in the Philadelphia and Chicago areas face significant entry barriers. Plaintiffs' Complaint alleges that entry barriers faced by potential wireline competitors include: high capital costs; obtaining essential franchise agreements from local governmental authorities; gaining access to essential video programming, including regional sports programming; overcoming the 'clustering' scheme engaged in by Defendant and other large cable operators; and overcoming anticompetitive acts and practices of the incumbent monopolist cable company. In its Tenth Annual Report on cable competition, the FCC notes that barriers to competition are alleged to include, "among other things, that incumbent cable operators continue to leverage their vertical relationships to restrict competitive access to programming, and use their buying power to enforce exclusive agreements with unaffiliated programmers, especially sports programming."<sup>21</sup> The increased market presence and market power created by the clustering strategy also raises barriers to entry by potential competitors. With more systems in the region, providing service to a larger share of television viewers, Comcast's Philadelphia and Chicago clusters are formidable incumbent cable operations that can more easily attract local and regional advertisers. With approximately 2.5 million subscribers in its Philadelphia cluster and approximately 2.1 million subscribers in its Chicago cluster, Comcast controls at least 87 percent of television households in the Philadelphia cluster area and at least 61 percent of television households in the Chicago cluster area.<sup>22</sup>

<sup>&</sup>lt;sup>21</sup> FCC Tenth Annual Report, FCC 04-5, January 28, 2004, at ¶ 84, referencing footnote 375.

<sup>&</sup>lt;sup>22</sup> For purposes of calculating Comcast's share of cable subscribers in each cluster area I have defined each area using the Nielsen Designated Market Area (DMA). DMA's are used by Nielsen to measure audience share for radio, broadcast television and cable television programs. Although the DMA is not necessarily the relevant geographic market for purposes of antitrust liability in this case, it is nevertheless useful for establishing Comcast's share of subscribers in the Philadelphia and Chicago cluster areas. Regardless of whether the relevant geographic markets are as broadly defined as the Philadelphia and Chicago DMAs, or more narrowly defined, it is evident that Comcast has a dominant share of the cable subscribers in each area. Comcast's Philadelphia cluster area has been defined in the Complaint as "those areas covered by Comcast's cable franchises located in the Philadelphia, Pennsylvania and geographically contiguous areas, or areas in close proximity to Philadelphia, Pennsylvania, which is comprised of the areas covered by Comcast's cable franchises located in the following counties: Berks, Bucks, Chester, Delaware, Montgomery and Philadelphia, Pennsylvania; Kent and New Castle, Delaware; and Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Mercer and Salem, New Jersey." According to the Broadcasting & Cable Yearbook 2006, these counties account for approximately 92 percent of the television households in Nielsen's Philadelphia DMA, (2,919,410 total televisions households in the DMA). The Philadelphia DMA also includes Lehigh and Northampton counties in Pennsylvania, which the Complaint has not designated as part of the area covered by Comcast's Philadelphia Cluster. Comcast's Chicago cluster has been defined in the Complaint as "those areas covered by Comcast's cable franchises located in the Chicago, Illinois and geographically contiguous areas, or areas in close proximity to Chicago, Illinois, which is comprised of the areas covered by Comcast's cable franchises located in the following counties: Cook, DeKalb,

- 28. Economic studies have found that cable system clustering and increased share of subscribers in a market area deter entry by potential overbuild competitors and correlate with higher prices. An economic study reported in 2003 concluded that "an increase in the size of the cluster significantly decreases the probability of overbuild activity when controlling for all other factors that might influence the entry decision."<sup>23</sup> A study reported in 1997 found that an increase in the number of cable systems owned by a cable MSO was associated with higher monthly cable rates.<sup>24</sup> A study conducted by the U.S. Government Accounting Office (GAO) using 1998 cable prices found a positive and statistically significant relationship between a cable operator's affiliation with a large cable MSO and the average monthly price for cable service.<sup>25</sup> Another economic study reported that "the effectiveness of competition in lowering prices is contingent on the degree of system overlap", indicating that increasingly large cable system clusters reduce, proportionately, the extent of overbuild overlap, and consequently the effectiveness of price competition from the overbuild competitor.<sup>26</sup> A more recent GAO study found that cable prices are 17 percent lower when there is a non-satellite competitor.<sup>27</sup>
- 29. One FCC study examined the effect of clusters and multiple system operations on prices and concluded that prices are higher in systems operated by cable MSOs and even higher when those systems are part of a cable MSO cluster. In its Cable Price Report for 2000, the FCC reported that cable operators who were part of a cluster had higher monthly rates, on average, than cable operators who were not part of a cluster. Specifically, the FCC reported that, after controlling for the number of channels offered, systems that were part of a cluster had prices that were 2.4 percent higher. Additionally, the FCC study found that when a cable system is affiliated

DuPage, Grundy, Kane, Kankakee, Kendall, Lake, LaSalle, McHenry and Will, Illinois; Jasper, Lake, LaPorte and Porter, Indiana." According to the Broadcasting & Cable Yearbook 2006, these counties account for approximately 99.8 percent of the television households in the Nielsen Chicago DMA, (3,417,330 total television households in the DMA). The Chicago DMA also includes Newton county in Indiana, which the Complaint has not designated as part of the area covered by Comcast's Chicago Cluster.

<sup>&</sup>lt;sup>23</sup> Hal J. Singer, Criterion Economics, "Does Clustering by Incumbent Cable MSOs Deter Entry by Overbuilders?," Draft, May 2003.

<sup>&</sup>lt;sup>24</sup> William Emmons and Robin Prager, "The effects of market structure and ownership on prices and service offerings in the U.S. cable television industry", *RAND Journal of Economics*, Vol. 28, No. 4, Winter 1997, pp. 732-750.

<sup>&</sup>lt;sup>25</sup> GAO, "The Effect of Competition From Satellite Providers on Cable Rates", GAO/RCED-00-164, July 2000.

<sup>&</sup>lt;sup>26</sup> T. Randolph Beard, George Ford, R. Carter Hill, and Richard Saba, "Fragmented Duopoly: A Conceptual And Empirical Investigation", Journal of Business, volume 78 (2005).

<sup>&</sup>lt;sup>27</sup> GAO-05-257, April 2005, "Direct Broadcast Satellite Subscribership Has Grown Rapidly, but Varies across Different Types of Markets", Appendix III, Table 3.

with a cable MSO, prices are 13.7% higher, on average.<sup>28</sup> The FCC study noted that the findings were contrary to its expectation that clustering would be associated with lower monthly prices due to increasing economies of scale.<sup>29</sup>

- 30. Numerous FCC, GAO and other economic studies indicate that effective competition from a wireline overbuild cable operator constrains and reduces cable prices. Most recently, a 2003 GAO study found that prices for cable service are 15 percent lower where incumbent cable system operators have wireline overbuild competition.<sup>30</sup> An earlier, 2002 GAO study found that cable prices are 17 percent lower where there was a second cable provider.<sup>31</sup> The FCC's annual studies of cable industry prices have consistently found that prices are significantly lower where there is effective wireline overbuild competition. A study reported in 1997 found that monthly cable prices were approximately 20 percent lower where cable companies faced overbuild competition from private cable operators, and even lower if the overbuild competitor was municipally or subscriber owned (i.e., non-profit).<sup>32</sup> The latest, 2005 FCC Report on Cable Industry Prices found, as of January 2004, that incumbent cable system prices average 15 percent lower where the incumbent cable system has a wireline rival.<sup>33</sup>
- 31. Some of these same studies indicate that where DBS providers offer local channels, DBS competition is associated with more channels and improved, digital service being offered by cable operators, but that DBS competition does not constrain the price charged by cable operators. For example, the 2002 GAO study found that "our model results do not indicate that the provision of local broadcast channels by DBS companies is associated with lower cable

<sup>30</sup> GAO, "Telecommunications Issues Related to Competition and Subscriber Rates in the Cable Television Industry", GAO-04-8, October 2003, page 10.

<sup>&</sup>lt;sup>28</sup> FCC, "REPORT ON CABLE INDUSTRY PRICES", FCC 01-49, February 14, 2001, ¶ 42 and Attachment D-1.

<sup>&</sup>lt;sup>29</sup> *Ibid*, page 31.

<sup>&</sup>lt;sup>31</sup> GAO, "Telecommunications Issues in Providing Cable and Satellite Televisions Services", GAO-03-130, October 2002, page 9.

<sup>&</sup>lt;sup>32</sup> William Emmons and Robin Prager, "The effects of market structure and ownership on prices and service offerings in the U.S. cable television industry", RAND Journal of Economics, Vol. 28, No. 4, Winter 1997, page 746.

<sup>&</sup>lt;sup>33</sup> FCC 05-12, Report on Cable Industry Prices, February 4, 2005, Attachment 7, comparing the \$45.56 monthly cable rate for the "noncompetitive group" with the \$38.67 rate for the wireline incumbent facing a wireline rival.

prices".<sup>34</sup> The more recent 2003 GAO study found that "Competition from DBS operators has induced cable operators to lower cable rates slightly, and DBS provision of local broadcast channels has induced cable operators to improve the quality of their service".<sup>35</sup>

32. Purchasers of Comcast's services are not able to avoid Comcast's exercise of market power, and therefore, assuming that Plaintiffs' allegations are true, prices for Comcast's cable services in the Philadelphia and Chicago cluster areas would be lower absent Comcast's alleged antitrust violations and all Class members have been impacted.

#### Class Members are All Affected by Comcast's Pricing

33. Comcast's price for the "expanded basic" tier of channels is exactly the same, or nearly the same, across all systems in each cluster, indicating that the price that Comcast charges in each system is influenced, if not dictated, by the prices it charges in all the other systems in each cluster. As shown in Exhibit 7, in both the Philadelphia and Chicago areas many Comcast systems charge exactly the same price for the "expanded basic" tier of cable service and subscribers pay exactly or nearly the same price. In the Philadelphia area 13 of 37 Comcast systems charge exactly the same \$50.40 price for "expanded basic" and 16 other systems charge within 5% of that price. In the Chicago area 34 of 42 Comcast systems charge exactly the same \$49.99 for "expanded basic" and 3 other systems charge within 5% of that price. Exhibit 8 provides, for each cluster area, the portion of all Comcast subscribers that have the mode price (i.e. the most common price) for "expanded basic" service, and the portion of subscribers that have a price for "expanded basic" service that is within 5 percent of the mode price. As Exhibit 8 shows, over 70% of all Philadelphia cluster subscribers have an "expanded basic" service price that is at or within 5 percent of the mode price charged by Philadelphia cluster systems. In the Chicago cluster, nearly 68% of all Comcast subscribers have the same, mode price for "expanded basic" service, while another nearly 20% of subscribers have an "expanded basic" service price that is within 5 percent of the mode price charged by Chicago cluster systems.

<sup>&</sup>lt;sup>34</sup> GAO, "Telecommunications Issues Related to Competition and Subscriber Rates in the Cable Television Industry", GAO-04-8, October 2003, page 9.

<sup>&</sup>lt;sup>35</sup> GAO, "Telecommunications Issues in Providing Cable and Satellite Televisions Services", GAO-03-130, October 2002, page 9

- 34. Exhibit 9 and Exhibit 10 depict graphically the variation of Comcast's price for "expanded basic" service for the Philadelphia and Chicago cluster systems, respectively. The red circles depict the Comcast systems that all have the exact same, most common (i.e. mode) price in each market area. The yellow circles depict the Comcast systems where the price charged is within 5% of the mode price in each market area. And the blue circles depict the Comcast systems that charge a price outside of the 5% range.
- 35. As cable systems in each market have come under Comcast control, prices have become more uniform across the systems in each market area and have increased rapidly, reflecting Comcast's increased pricing in each market and indicating the common pricing control that Comcast has over its subscribers in each cluster area. As indicated by the information depicted in Appendix C and Appendix D of this declaration, in 1999, prior to Comcast accumulating the Philadelphia and Chicago clusters, prices for "expanded basic" service varied considerably across cable systems owned by competing operators in each market area. Now, under Comcast ownership, as described earlier, most Comcast systems and subscribers in each market have exactly or nearly the same price for "expanded basic" service in each cluster area. Additionally, Comcast's subscribers in each cluster area have had exactly or nearly the same price increases.<sup>36</sup>
- Cable prices in the Comcast Philadelphia and Chicago cluster systems have increased substantially since 1999, as Comcast's dominance in the cluster areas has grown. As shown in Exhibit 11, on average, prices for the "expanded basic" tier of channels increased from \$24.94 per month in 1999 to \$51.15 per month currently in Comcast's Philadelphia cluster systems, and from \$25.82 per month in 1999 to \$49.24 per month currently in Comcast's Chicago cluster systems. The average annual rate of price increase in the Philadelphia cluster systems was 10.8%, while the annual rate of price increase in the Chicago cluster systems was 9.7%. These rates of price increase are much higher than the average annual rate of price increase of 5.8% for cable systems facing "effective competition" as indicated by cable service price data reported by

<sup>&</sup>lt;sup>36</sup> See for example, "As Comcast Grows, Rates Go Up", Philadelphia Inquirer, November 16, 2003, and "Comcast to Raise Cable Rates 5.9% Next Year", Chicago Sun-Times, December 17, 2003.

the FCC in its latest annual cable price report.<sup>37</sup> The average rate of price increase of Comcast's Philadelphia cluster systems has been almost double the average for systems that face "effective competition", as defined by the FCC, while the average rate of price increase of Comcast's Chicago cluster systems has been more than 65% more rapid.

#### Conclusion

37. Plaintiffs' Complaint alleges that Comcast's market allocating "swap" agreements with its competitors, its acquisitions, its elimination of competitors, its cluster building conduct, its additional anticompetitive conduct set forth in the Complaint, and its unlawful acquisition and maintenance of market power in the Philadelphia and Chicago areas have resulted in higher prices to cable subscribers. My review of available information indicates that Comcast subscribers pay substantially higher prices now than they were charged before Comcast's Philadelphia and Chicago clusters were accumulated, and that prices charged in those systems have increased more rapidly than prices charged on average by all cable system operators in the United States. If the allegations in the Complaint are true, namely that Comcast's conduct and accumulation of the Philadelphia and Chicago clusters, and the enhanced market presence and power arising from having those system clusters, have excluded competition and deterred entry of potential competitors, including, but certainly not limited to, overbuilders, in each of the cluster areas, then all Comcast subscribers in those clusters (i.e., the Plaintiff Class members), would benefit from effective competition. Given all these facts and considerations, it is clear that Comcast subscribers in the Philadelphia and Chicago clusters are paying higher prices for cable services than they would have paid absent Comcast's alleged wrongdoing. Therefore, all members of the proposed Classes would have been adversely affected by Comcast's allegedly unlawful conduct.

<sup>&</sup>lt;sup>37</sup> The 5.8% rate of increase of cable prices for systems facing "effective competition" is derived from the July 1999 monthly programming price of \$27.96 reported in FCC 02-107, Attachment B-1 and the January 2004 monthly programming price of \$38.17 reported in FCC 05-12, Attachment 2.

#### IV. FEASIBILITY OF ASSESSING DAMAGES ON A CLASS-WIDE BASIS

- There are two steps involved in the quantification of damages in an antitrust matter. The first step is the estimation of the overcharge, which is the measure (either in dollar or percentage terms) by which the price per unit of the good or service in question is higher than it would have been but for the anticompetitive conduct. In this matter, the unit purchased is a month of "expanded basic" cable television service. If the actual price, hypothetically, were \$47 per month, and the but for price is estimated to be, say \$40 per month, the overcharge is \$7.00 or nearly 15 percent (\$47-\$40/\$47). The second step is to multiply the units purchased from Comcast (say, 27 months of cable service or \$1,269.00) by the overcharge to determine the dollar amount of damages. In this illustration (27 months times \$7.00, or \$1,296 times nearly 15%), the damages would be \$189.
- 39. The focus of a damages methodology is on the estimate of the overcharge. The method proposed here is the "yardstick approach", which involves identifying either another geographic market where there is competition to sell the product, or another product that is directly comparable to the product and geographic market that are involved in the alleged anticompetitive conduct. This method is well recognized in the economics literature.<sup>38</sup> With this approach the price level and movements of the yardstick product are compared to the price movements of the product of the alleged anticompetitive conduct. The difference between the two price levels and/or the two price movements provides an estimate of the overcharge resulting from the alleged anticompetitive conduct. As described earlier in this declaration, in the cable TV industry, government and academic economic studies have used the "yardstick approach" to contrast cable prices in local markets where there is more competition with cable prices in local markets where effective competition does not exist.

<sup>&</sup>lt;sup>38</sup> See for example, *Proving Antitrust Damages: Legal and Economic Issues*, William H. Page, ed., Section of Antitrust Law American Bar Association, 1996, page 37, Hall, Robert E. and Victoria A. Lazear, "Reference Guide on Estimation of Economic Losses in Damages Awards," *Reference Manual on Scientific Evidence*, 2<sup>nd</sup> ed. Federal Judicial Center, 2000, pages 322-325, and Robert R. Bergstrom, "The Role of the Expert in Proving and Disproving Damages in Antitrust Claims", *Antitrust Bulletin*, pages 677-706.

- 40. The economic impact of Comcast's conduct and cluster accumulation can be assessed on a class-wide basis using two different "yardstick approach" benchmarks, using the prices of other cable systems, as a basis for estimating Comcast's supra-competitive overcharge in each of the two Comcast cluster market regions – Philadelphia and Chicago.<sup>39</sup> The estimates of supracompetitive overcharge can then be applied to Comcast's total revenue from the cable systems in each cluster area to estimate the total class-wide damages for subscribers in each cluster.<sup>40</sup> The first "yardstick approach" benchmark is to estimate the supra-competitive overcharge that Comcast's subscribers have paid, and continue to pay, because Comcast's cluster systems do not have effective competition from an existing or potential competitor, including an overbuilder or another large cable MSO that has exited the cluster area. Government and academic economic studies have variously estimated that where incumbent cable system operators face effective overbuild competition, cable service prices are 15 percent to 20 percent lower than in comparable cable system markets that do not face effective overbuild competition. These studies, or a similar study using a combination of information and data that are publicly available and that can be provided by defendant Comcast, can be used as a basis for estimating the supracompetitive price level that Comcast has maintained as a consequence of its cluster strategy. The percentage overcharge can then be applied to Comcast's total revenue from Class members in each cluster to estimate total class-wide damages. For example, if the appropriate overcharge benchmark is determined to be 15 percent, estimated class-wide damages would be 15 percent of Comcast's total cable service revenue from Class members during the Class or damage period.
- 41. The second "yardstick" benchmark is to contrast the difference between the rate of price increases during the Class period in Comcast's cluster markets with the rate of price increases during the same period by other cable systems that do face effective competition. As described earlier, on average the annual rate of increase of cable prices in Comcast's Philadelphia cluster systems since 1999 has been 10.8 percent, while in the Chicago cluster it has

<sup>&</sup>lt;sup>39</sup> If it is determined that the class-wide average overcharge to class members in, say, the Philadelphia cluster is subject to too great variation, there are statistical tools available by which to estimate a lower bound, (some might refer to this as a minimum overcharge), which captures a significant part of the impact on the Class.

<sup>&</sup>lt;sup>40</sup> Similarly, the estimated overcharge can be multiplied by the dollars of relevant service purchased from Comcast during the Class period. The records of such purchases should be available electronically in Comcast's records.

been 9.7 percent. In contrast, according to data from the latest annual FCC report on cable industry prices, the average annual rate of increase of cable prices has been 5.8 percent where cable systems face effective competition, according to the FCC definition of effective competition. The 5.8 percent annual rate of price increase, (or a similar measure derived from analysis of cable price data produced during discovery by defendant Comcast, and from publicly available data and information), can be applied to the cable prices in Comcast's cluster systems at the start of the Class period, to estimate the cable price changes that would have occurred absent the alleged anticompetitive increases. The percentage difference between the estimated and actual cable prices can then be calculated and applied to the revenue received from Comcast subscribers in each cluster to determine damages attributable to the overcharge resulting from more, supra-competitive price increases. This second damage methodology is illustrated in Exhibit 12.

- 42. Both "yardstick approach" methods for estimating damages the supra-competitive price level and the supra-competitive annual rate of price increase can also be applied to estimate individual Class member damages using operating records and data that defendant Comcast should be able to produce during discovery.
- 43. The economic analysis to be conducted in this case, which can be conducted with publicly available information and information yet to be produced by Comcast in discovery, will be the same for all Class members in each cluster area.

#### V. CONCLUSION

44. Based on my review and analysis of available information as described in this declaration, I have concluded that Comcast's alleged violations of Section 1 and Section 2 of the Sherman Antitrust Act would have had a common impact on each of the proposed Philadelphia and Chicago Class members. All Class members would have benefited from effective

<sup>&</sup>lt;sup>41</sup> The 5.8% rate of increase of cable prices for systems facing "effective competition" is derived from the July 1999 monthly programming price of \$27.96 reported in FCC 02-107, Attachment B-1 and the January 2004 monthly programming price of \$38.17 reported in FCC 05-12, Attachment 2.

competition which has been deterred by Comcast's cluster building conduct, specifically the the unlawful conduct alleged in the Plaintiffs' Complaint, and the alleged unlawful acquisition and maintenance of monopoly power. I have also concluded that there are feasible and accepted methods for assessing overcharge damages on a class-wide basis, as to the proposed Philadelphia and Chicago Classes.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on 9/21/06(Date)

Shy C, Beyer

John C. Beyer, Ph.D.

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Exhibit 1. Subscribers and Share of Top Ten Cable MSOs: 1992, 1996, 2004 and 2006

1992			1996	i		2004[a]			2006[b]		
	No. of	% of		No. of	% of		No. of	% of		No. of	% of
	Subscribers	Total		Subscribers	Total		Subscribers	Total		Subscribers	Total
Tele-Communications (TCI)	10,165,000	18.4%	Tele-Communications (TCI)	13,900,000	21.9%	Comcast Cable Communications	21,518,000	29.2%	Comcast Cable Communications	21,495,000	32.8%
Time Warner	5,600,000	10.1%	Time Warner	12,300,000	19.4%	Time Warner Cable	10,930,000	14.8%	Time Warner Cable	11,039,000	16.9%
Comcast	2,583,000	4.7%	US West (Media One)	4,354,287	6.9%	Cox Communications	6,368,878	8.6%	Charter Communications	5,913,900	9.0%
Continental	2,856,000	5.2%	Comcast	4,280,000	6.7%	Charter Communications	6,192,000	8.4%	Cox Communications	5,400,000	8.2%
Cox Comm.	1,722,007	3.1%	Cox Comm.	3,259,384	5.1%	Adelphia Communications [c]	5,415,109	7.3%	Adelphia Communications	4,876,900	7.4%
Cablevision Systems	1,262,000	2.3%	Cablevision Systems	2,445,000	3.9%	Cablevision Systems Corporation	2,941,180	4.0%	Cablevision Systems Corporation	3,065,700	4.7%
Times Mirror	1,182,581	2.1%	Adelphia	1,824,000	2.9%	Bright House Networks	2,181,855	3.0%	Bright House Networks	2,275,000	3.5%
Viacom	1,116,000	2.0%	Marcus Cable	1,275,000	2.0%	Mediacom Communications Corp.	1,533,000	2.1%	Mediacom LLC	1,422,000	2.2%
Century Comm.	920,500	1.7%	Century Comm.	1,250,000	2.0%	Insight Communications	1,297,900	1.8%	Insight Communications	1,306,700	2.0%
Cablevision Industries	904,648	1.6%	Lenfest Group	1,110,703	1.7%	<u>CableOne</u>	727,707	1.0%	Suddenlink Communications	1,269,000	1.9%
Top Ten Total	28,311,736	51.3%	Top Ten Total		72.4%	Top Ten Total		80.1%	Top Ten Total		88.6%
U.S. Total	55,200,000	100.0%	U.S. Total	63,500,000	100.0%	U.S. Total	73,782,520	100.0%	U.S. Total	65,500,000	100.0%

Notes:

[a] As of March, 2004

[b] As of March, 2006

[c] The count includes non-filing entities and Rigas entities

Sources: 1992: Annual Assessment of the Status of Competition in the Market for the Delivery of

Video Programming (Second Annual Report) (FCC 95-491), Appendix Table 7

1996: Annual Assessment of the Status of Competition in Markets for the Delivery of

Video Programming (Fourth Annual Report) (FCC 97-423), Table 7b

2004: Kagan Research, LLC from the National Cable & Telecommunications Association web site, www.ncta.com.

2006: Kagan Research, LLC from the National Cable & Telecommunications Association web site, www.ncta.com.

Exhibit 2. Cable Subscribers are Increasingly in Large System Clusters

(millions, except %s)	1994	1998	2001	2002	2004
Total Cable Subscribers	57.2	65.4	68.5	68.8	65.4
Total Cluster Subscribers	20.1	40.4	52.3	51.3	51.5
Cluster %	35.1%	61.8%	76.4%	74.6%	78.7%
Subscribers in Clusters with 300k+ % of Total Cluster Subscribers	6.1 30.3%	29.5 73.0%	43.8 83.7%	42.5 82.8%	39.8 77.3%

Sources: FCC 10th Annual Report on Competition, FCC 04-5, Tables B-1 and B-3. and FCC 12th Annual Report on Competition, FCC 06-11, Tables B-1 and B-2. Note: The Kagan LLC Broadband Cable Financial Databook, which is the underlying source for the FCC's Tables B-3 and B-2 referenced above, changed its methodology starting with the 2004 version, splitting Comcast's Northeast and Mid-Atlantic "super cluster" into smaller clusters. Thus, the 2004 measure of subscribers in clusters with 300k+ subscribers is not comparable to prior year values.

Exhibit 3. Philadelphia Cluster Area: Comcast Systems by Location and Subscribers, 2006

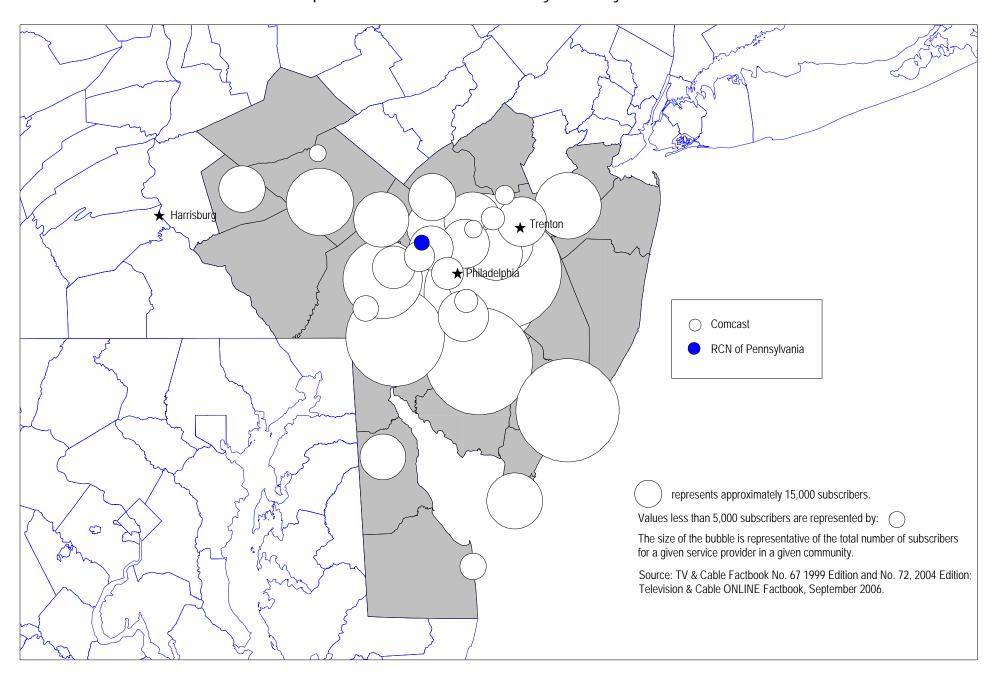


Exhibit 4. Philadelphia Cluster Area: Comcast Systems by Location and Subscribers, 1999

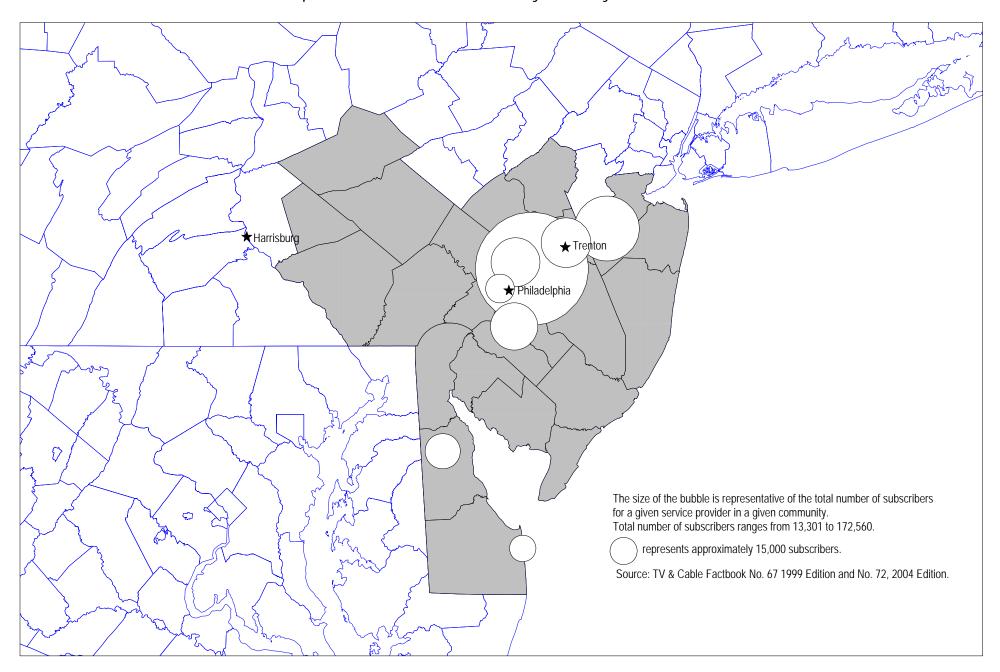


Exhibit 5. Chicago Cluster Area: Comcast Systems by Location and Subscribers 2006

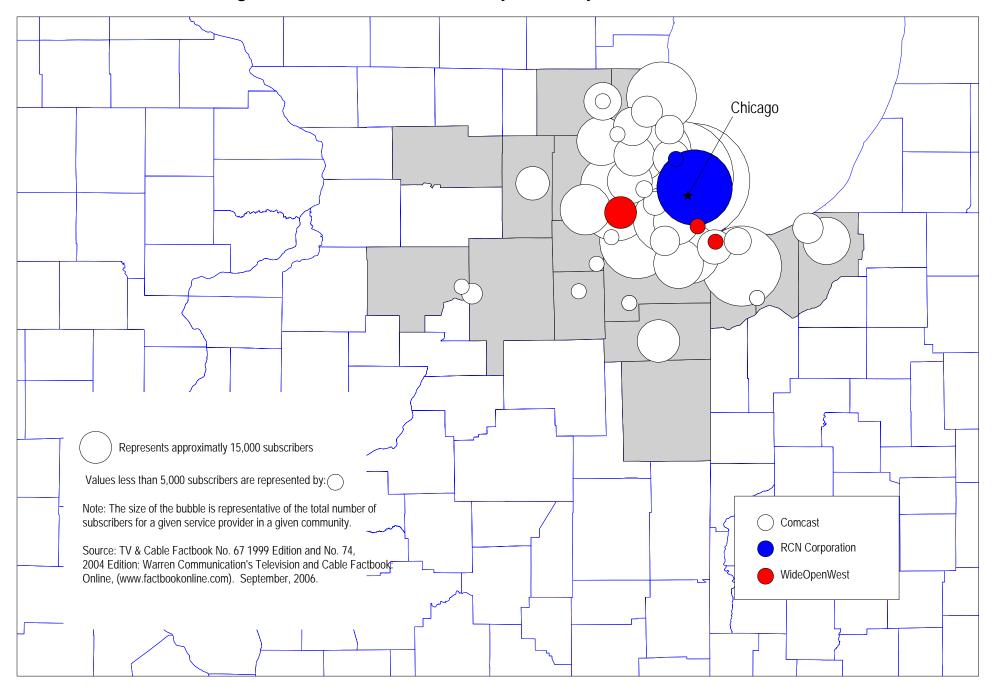


Exhibit 6. Chicago Cluster Area: TCI Systems by Location and Subscribers, 1999 [a]

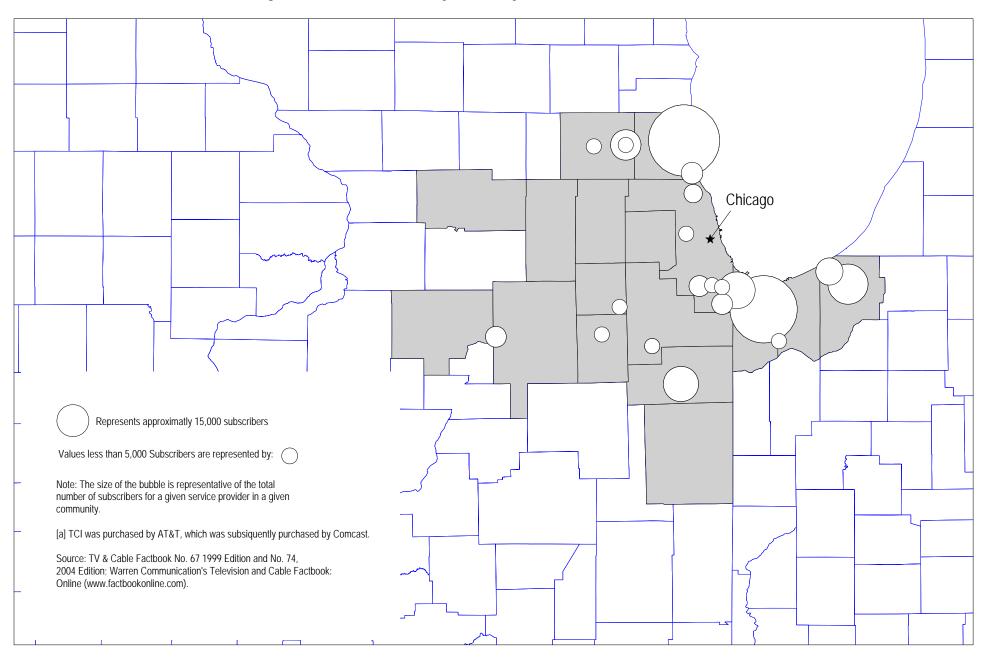


Exhibit 7. Total Number of Comcast Systems and Subscribers by Pricing Structure and Cluster, 2006

		Philadelphia			Chicago	
Pricing Structure [a]	Total Number of Systems	Total Number of Subscribers	Subscriber Weighted Average Price	Total Number of Systems	Total Number of Subscribers [b]	Subscriber Weighted Average Price
Mode Price [c]	13	498,773	\$50.40	34	1,398,812	\$49.99
Within 5 Percent of Mode Price [d]	16	1,361,113	\$51.83	3	408,255	\$49.48
Outside 5 Percent of Mode Price [e]	8	702,953	\$50.60	5	257,789	\$44.79
Total	37	2,562,839	\$51.15	42	2,064,856	\$49.24

<sup>[</sup>a] Based upon Analog "expanded basic" pricing.

Source: Appendices C and D.

<sup>[</sup>b] Total Number of Subscribers not available for all clusters; therefore, numbers presented underrepresent actual values.

<sup>[</sup>c] For Philadelphia, equal to 50.40. For Chicago, equal to 49.99.

<sup>[</sup>d] For Philadelphia, equal to values within 47.88 to 52.92. For Chicago, equal to values within 47.49 to 52.49.

<sup>[</sup>e] For Philadelphia, equal to values outside of 47.88 to 52.92. For Chicago, equal to values outside of 47.49 to 52.49.

Exhibit 8. Comcast Pricing Structure by Cluster, 2006

	Percent of Cluster					
Pricing Structure [a]	Philadelphia	Chicago				
Mode Price [b]	19.5%	67.7%				
Within 5 Percent of Mode Price [c]	53.1%	19.8%				
Outside 5 Percent of Mode Price [d]	27.4%	12.5%				
Total	100.0%	100.0%				
Subscriber Weighted Average Price [e]	\$51.15	\$49.24				

<sup>[</sup>a] Based upon Analog ("expanded basic") pricing. Only includes Comcast systems.

Source: Appendices C and D.

<sup>[</sup>b] For Philadelphia, equal to 50.40. For Chicago, equal to 49.99.

<sup>[</sup>c] For Philadelphia, equal to values within 47.88 to 52.92. For Chicago, equal to values within 47.49 to 52.49.

<sup>[</sup>d] For Philadelphia, equal to values outside of 47.88 to 52.92. For Chicago, equal to values outside of 47.49 to 52.49.

<sup>[</sup>e] Weighted by Total Number of Subscribers.

Exhibit 9. Philadelphia Cluster Area: Comcast Pricing Structure for Expanded Basic Service, 2006

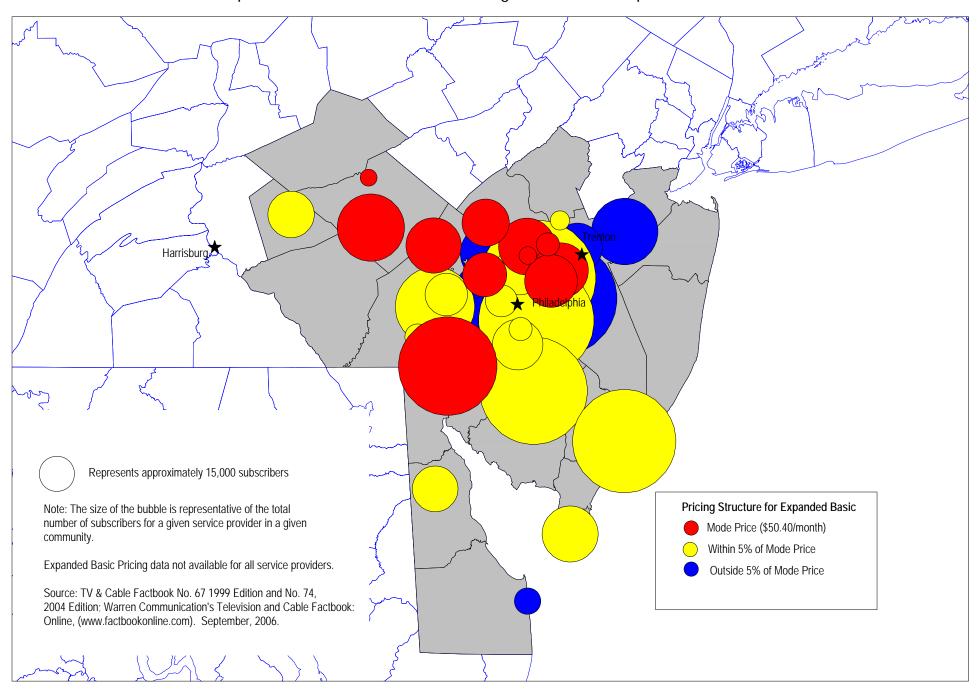
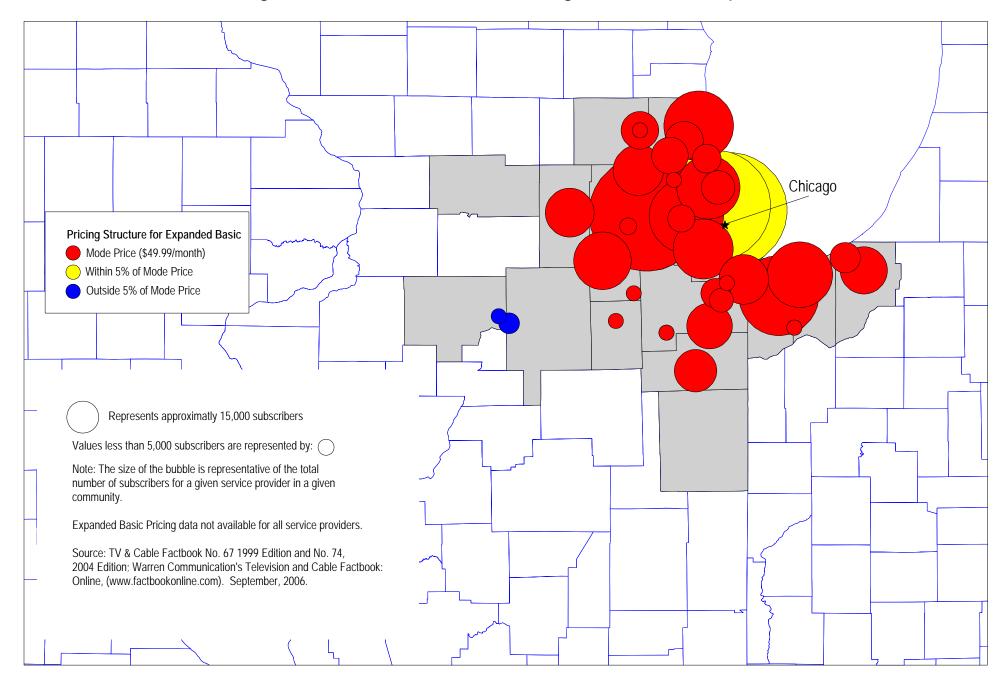


Exhibit 10. Chicago Cluster Area: Comcast Pricing Structure for Expanded Basic, 2006



# Exhibit 11. Compound Annual Growth Rate of Subscriber Weighted Average Comcast Price for Expanded Basic by Cluster, 1999 - 2006

	Philadelphia	Chicago							
Subscriber Weighted Average Price for Expanded Basic [a]									
1999	24.94	25.82							
2006	51.15	49.24							
Compound Annual Growth Rate	10.8%	9.7%							
US Average Compound Annual Growth Rate [b]	5.8%	5.8%							

<sup>[</sup>a] Weighted by Total Number of Subscribers. Only includes Comcast systems.

Sources: Appendices C and D, FCC Cable Price Report, 2003. Attachment 3.

<sup>[</sup>b] US Average Compound Annual Growth Rate for cable systems with "effective competition" calculated from 1999 to 2004, the latest available year.

**Exhibit 12. Illustration of Damages Calculation Attributable to More Rapid Price Increase** 

										Annual Rate of
		1999	2000	2001	2002	2003	2004	2005	2006	Increase
	Price of Expanded Basic Service in Illustrativ	ve Comcast S	System:							
(1)	Actual Price	24.94	27.63	30.62	33.92	37.59	41.65	46.15	51.13	10.8%
(2)	Price But For Alleged Unlawful Conduct	24.94	26.39	27.92	29.54	31.25	33.06	34.98	37.01	5.8%
(3)=(1)-(2)	Difference in Price	0	1.25	2.70	4.39	6.34	8.59	11.17	14.12	
(4)=(3)/(1)	Percent Difference from Actual		4.5%	8.8%	12.9%	16.9%	20.6%	24.2%	27.6%	
(5)	Total Revenue from Expanded Basic		\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	
(6)=(5)*(4)	Amount of Overcharge Damages		\$45.13	\$88.22	\$129.36	\$168.65	\$206.17	\$241.99	\$276.20	

### Glossary of Terms and Acronyms

cable multiple system operator cable MSO

Comcast's cable systems in the Chicago area Chicago cluster

Consumer Price Index CPI

**DBS** direct broadcast sattelite supplier of television

programming

Designated Market Area defined by Nielsen for DMA

measuring audience share

the cable service tier that typically includes cable "expanded basic"

channels in addition to those provided in the "limited

basic" tier

**FCC** Federal Communications Commission **GAO** U.S. Government Accounting Office

local exchange carrier - the incumbent local telephone LEC

company

"premium" channels

"limited basic" the cable service tier limited primarily to local over-the-

air channels

overbuilder the builder of a second wireline cable TV system in a

> community (including, potentially, other incumbent cable system operators, Cable MSOs who have been removed from the area and could return, and new

entrant independent wireline system builders)

Comcast's cable systems in the Philadelphia area Philadelphia cluster

individual or select groups of cable channels typically

sold for an additional monthly fee

# Appendix A

# JOHN C. BEYER



# **CURRENT POSITIONS**

President, Nathan Associates Inc. Adjunct Professor, The American University, Washington, D.C.

## **EDUCATION**

Ph.D., Fletcher School, 1966
M.A.L.D., Law and Diplomacy, Fletcher School, 1964
M.A., International and Development Economics, Fletcher School, 1963
B.A., Philosophy and History, University of the Pacific, 1962

## **COUNTRIES OF WORK EXPERIENCE:**

Bolivia, Colombia, El Salvador, Egypt, Guatemala, Guyana, Honduras, India, Indonesia, Jordan, Kuwait, Malaysia, Nepal, Nicaragua, Nigeria, Poland, Puerto Rico, South Africa, Suriname, Thailand, United States, Venezuela, Western Samoa

# **EXPERIENCE SUMMARY:**

Dr. Beyer is an economist with over 40 years of experience in economic policy research and analysis in developing countries and applied microeconomics analysis in the United States. Since 1978, he has served as president of Nathan Associates. His economic policy analysis has focused on the impacts of structural adjustment, foreign exchange and trade liberalization, and changes in domestic pricing, taxes, and related regulations. He has carried out assignments for key government agencies in several Asian countries, including Indonesia, India and Nepal.

Dr. Beyer has conducted microeconomic analysis, particularly in relation to competition (antitrust), the impact of tax changes on firms, and the effects of deregulation on industries (air transport, communications, and natural gas). He has designed and implemented short-term training programs and seminars in economic analysis and is an adjunct professor at The American University.

# **EMPLOYMENT RECORD:**

<b>President</b> , Nathan Associates Inc., Arlington, Virginia, June 1978-prese	President. Nat	han Associates I	Inc., Arlington,	Virginia, Jur	ne 1978-presen
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President, Nathan	Associates Inc., Arlington, Virginia, June 1978-present
United States 2004-present	Manager, Creating Economic Growth Opportunities in Peru (CRECER), a multi-year technical assistance project to the Government of Peru. For the U.S. Agency for International Development.
United States 2005-present	Expert witness on behalf of a class of purchasers of <i>Thermus aquaticus</i> DNA polymerase ( <i>Taq</i> ). In the United States District Court for the District of Columbia, Civil No. 04-1649 (HHK) (D.D.C.).
United States 2005-present	Expert witness on behalf of a class of purchasers of plastics additives. In the U.S. District Court for the Eastern District of Pennsylvania, Master Docket No. 2:03-CV-2038 and MDL Docket No. 1684.
United States 2005-present	Expert witness on behalf of a class of purchasers of publication paper. In the U.S. District Court for the District of Connecticut, Docket No. 3:04 md 1631.
United States 2005-present	Expert witness on behalf of a class of purchasers of light cigarettes. United States District Court for the Eastern District of New York, Civil Action No. CV 04-1945.
United States 2004-present	Expert witness on behalf of a class of purchasers of bulk (extruded) graphite products. In the U.S. District Court for the District of New Jersey, Master File No. 02-CV-06030 (WHW).
United States 2004-present	Expert witness on behalf of a class of purchasers of carbon black. In the U.S. District Court, District of Massachusetts, Civil Action No. 03-10191-DPW, MDL Docket No. 1543.
United States 2004-present	Expert witness on behalf of a class of purchasers of cable services in Philadelphia and Chicago. In the United States District Court for the Eastern District of Pennsylvania, No. 03-6604.
United States 2001-present	Expert witness on behalf of some purchasers of microcrystalline cellulose (MCC). In the U.S. District Court, Eastern District of Pennsylvania, MDL No. 1402.
United States 2001-present	Expert witness on behalf of purchasers of Mercedes Benz automobiles in the New York metropolitan region. In the U.S. District Court for the District of New Jersey, Master File No. 99-4311 (AMW).
United States 2001-present	Expert witness on behalf of purchasers of high pressure laminates (HPL). In the United States District Court for the Southern District of New York, Master File No. 00-MD-1368 (CLB).

United States 2002-2004	Expert witness on behalf of Vlasic Food International concerning an alleged fraudulent conveyance by Campbell Soup Company. In the U.S. District Court for the District of Delaware, Case No. 02137 KAJ.
United States 2002-2004	Expert witness on behalf of a class of purchasers of long distance telephone services in an antitrust matter against the providers of these services. In the United States District Court for the Northern District of Illinois, Case No. C3844.
United States 2002-2004	Expert witness on behalf of 15 independent pay telephone providers in Texas concerning an alleged monopolization by Southwestern Bell Company. In the 18 <sup>th</sup> Judicial District Court of Johnson County, Texas, No. C-2001-00072.
United States 2002-2003	Expert witness on behalf of producers of non-GMO corn and soybeans. (U.S. District Court, Eastern District of Missouri, Civil No. 4:01cv00070 RWS).
United States 2002-2003	Expert witness on behalf of land owners concerning right of way along fiber optic networks (In the U.S. District Court for the Northern District of Illinois, Case No. C3844).
United States 2001-2004	Manager, Jordan Poverty Alleviation Project. Direct a multi-year technical assistance project to the ministries of Social Development and Labor to identify policies and programs to reduce the incidence of poverty in Jordan. For the U.S. Agency for International Development.
United States 2003	Expert witness on behalf of a class of models in an antitrust action. In the U.S. District Court Southern District of New York, Case No. 02CV6146.
United States 2001-2003	Expert witness on behalf of purchasers of smokeless tobacco. In the U.S. District Court for the District of Columbia, Case Nos. 1:00 CV01454 (PLF) and 1:00 CV01415 (PLF).
United States 2000-2004	Expert witness on behalf of growers and quota holders of leaf tobacco (In the U.S. District Court for the Middle District of North Carolina, Greensboro Division, Case No. 00-CV-1235).
United States 2000-2003	Expert witness on behalf of purchasers of MSG (In the United States District Court, District of Minnesota, MDL Docket No. 00-1328).
United States 2000-2001	Expert witness on behalf of plaintiff in a health care services antitrust matter (In the United States District Court for the Eastern District of Pennsylvania, Civil Action No. 96-2861).
United States 1999-2003	Expert witness on behalf of purchasers of corrugated containers (In the United States District Court for the Eastern District of Pennsylvania, MDL No. 1261)

United States 1999-2005	Manager, South Africa Economic Growth Activities (SEGA). Direct a multi-year technical assistance project to various departments of the government of South Africa. For the U.S. Agency for International Development.
United States 1999-2002	Expert witness on behalf of holders of American Airlines frequent flyer certificates (In the Circuit Court of Cook County, Illinois County Department, Chancery Division, Case No. 95 CH 982).
United States 1999-2001	Expert witness on behalf of plaintiffs Women's Health Associates, P.C., a corporation of OB/GYNs. Analysis of health care markets, determination of market power and whether an exclusive contract arrangement between a hospital and providers adversely affected competition (U.S. District Court, District of Connecticut, Civil No. 3:98CV2495 (AWT).
United States 1999-Present	Expert witness on behalf of purchasers of airline transport services. Analyzed economic issues related to an alleged conspiracy surrounding restrictive ticketing policies (United States District Court for the Eastern District of Michigan Case No. 96-74711 (E.D. Mich).
United States 2000-Present	Expert witness on behalf of purchasers of automobiles. Analyzed the economic issues related to alleged conspiracy to raise prices via an inventory tax (United States District Court for the Eastern District of Texas, Texarkana Division, Civil Action No. 5.97 CV 273).
United States 1999-2001	Expert witness on behalf of Microbix Biosystems, Inc. Analyzed economic issues related to an exclusive supply agreement (United States District Court for the District of Maryland, Case No. MJG-97-2525).
United States 1999-2000	Expert witness on behalf of Rite Aid Corporation. Analyzed economic issues related to breech of contract to supply goods (Court of Common Pleas of Chester County, Pennsylvania, Case No. 98-04896).
United States 2000	Expert witness on behalf of Advertising Facility owners. Analyzed the economic issues related to changes in local zoning ordinances (District Court, Harris County, Texas, 281 <sup>st</sup> Judicial District, Case No. 87-000827-A).
United States 1998-2005	Expert witness on behalf of purchasers of flat glass. Analyzed economic issues related to certification of the class (U.S. District Court for the Western District of Pennsylvania, MDL No. 1200, Master File No. 97-550).
United States 1994-1998	Expert witness on behalf of Litton Systems, Inc. Analyzed harm to competition and injury to Litton and estimated damages stemming from anticompetitive behavior by Honeywell Inc. in the market for RLG inertial navigation systems for commercial jet aircraft (U.S. District Court, Central District of California, No. CV 90-4823 MRP).

John	C.	<b>Beyer</b>		5
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United States 1999-2003	Expert witness on behalf of the equity holders of Paragon Trade Brands. Analyzed likelihood of success in on-going patent litigation and Paragon emerging from bankruptcy as a healthy business (United States Bankruptcy Court for the Northern District of Georgia, Atlanta Division, Case No. 98-60390, Chapter 11).
United States 1998-2001	Expert witness on behalf of Lantec, a designer and manufacturer of business software. Defined relevant product market, impact on competition, and assessed market power of defendant, Novell (U.S. District Court, District of Utah, Central Division, Case No. 95 C 97 S).
Indonesia 1997, 2003	Economic consultant to the Ministry of Industry and Trade on instituting a competition policy in Indonesia.
United States 1996	Expert witness on behalf of purchasers of physician and HMO services from Marshfield Clinic, Wisconsin. Analyzed anticompetitive behavior, defined relevant markets, estimated extent of market power and defined injury (U.S. District Court, Western District of Wisconsin, Case No. 96-C-592C).
United States 1996-1998	Expert witness on behalf of purchasers of commercial explosives. Analyzed industry characteristics, conduct of defendant manufacturers and issues pertaining to common impact (U.S. District Court, Utah, No. 2:95MD1093S).
United States 1995-1996	Expert witness on behalf of defendant Schumacher, manufacturer of wall coverings. Assessment of damages (U.S. District Court for the Eastern District of Pennsylvania, Civil Action No. 90-3617).
United States 1994-1996	Expert witness on behalf of Blue Cross Blue Shield of Wisconsin. Estimation of effect on physician fees caused by market power and conduct of a large clinic in north central Wisconsin; estimation of damages incurred due to clinic's foreclosure of competing HMOs, and estimation of damages due to agreements to allocate markets for physician services (U.S. District Court, Western District of Wisconsin, No. 94-C-0137-S).
United States 1995	Expert witness on behalf of purchasers of certain agricultural chemicals. Analyzed market and industry to assess issues of common impact and potential approaches to damages (U.S. District Court, Northern District of Florida, No. 94-40216 (MMP)
United States 1994-1996	Expert witness on behalf of Pacific Great Lakes Corporation. Assessed impact on and estimated damages incurred by PGLC as a consequence of an understanding among certain railroads to forestall a new technology for the shipment of iron ore to Lower Lake Erie (Court of Common Pleas, County of Cuyahoga, Ohio, No. 189590).
United States 1994-1996	Expert witness on behalf of class of Kansas purchasers of infant formula. Analyzed structure, performance, and conduct of U.S. infant formula manufacturers, and estimated damages (District Court, Sedgwick County, Kansas, No. 94-C-709).

John	C.	Beyer		6
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United States 1994	Expert witness on behalf of Complete Newborn Care, P.C., a corporation of neonatologists. Analysis of health care markets, determination of market power and whether a tying arrangement by a hospital adversely affected competition (U.S. District Court, District of Connecticut, Civil No. 394CV00416PCD).
United States 1993-1997	Consultant to American Maritime Congress on an economic analysis of the U.S. merchant marine.
United States 1993	Expert witness on behalf of B.F. Goodrich involving a patent dispute concerning brakes and wheels for commercial jet aircraft (U.S. District Court for the District of Delaware, Civil Action Nos. 91-048 and 91-515)
United States 1992-1996	Consultant and expert witness on behalf of purchasers of processed catfish products. Analysis regarding impact of and estimation of damages resulting from an alleged price-fixing agreement among processors of farm-raised catfish (U.S. District Court for the Northern District of Mississippi, Delta Division, Master File No. 2:92CV073-D-O, MDL No. 928).
United States 1992-1993	Consultant and expert witness to DEVCO and related companies on 482 transfer pricing regarding purchase of professional services from an affiliated firm. U.S. Tax Court, Washington, D.C.
United States 1992-1995	Consultant and expert witness on the valuation of two life insurance companies in receivership (United States Bankruptcy Court, Central District of California, Adv. No. LA 92-01723-SB).
United States 1992-1994	Served as a consultant to two firms engaged in iron scrap processing and the export of iron scrap to Asia. Analyzed prices, profitability, and changes in supplies of raw materials.
United States 1992-1993	Expert witness on behalf of purchasers of infant formula in an antitrust matter involving the three major producers. Analyzed and conducted research on the behavior of firms in an oligopolistic industry and assessed noncompetitive behavior (U.S. District Court for the Northern District of Florida, Tallahassee Division, MDL Docket No. 878).
Saudi Arabia 1991-1992	Consultant to international defense engineering company concerning economic issues on subpart F taxable income and definition of transfer pricing implications for procurement of services and maintenance parts from an affiliated firm.
United States 1987-1991	As a consultant to an international chemical products firm, examined the guidelines for transfer pricing, royalties, licensing fees, and cost allocation between U.S. parent and foreign affiliates. Also prepared economic analyses in response to tax deficiency claims by the Internal Revenue Service.

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United	States
1991	

Expert witness on behalf of plaintiffs in an antitrust matter concerning the major air carriers in the U.S. Analyzed and conducted research on the impact of prices as a consequence of alleged joint pricing behavior by the airlines (U.S. District Court for the Northern District of Georgia, Atlanta Division, No. 1:90-CV-2485-MHS and MDL No. 861).

# United States 1988-1989

As a consultant and expert witness on behalf of Texas Utilities in the matter of TUC versus Santa Fe Industries, defined relevant market for coal transportation, measured market power in the relevant market, and analyzed actions by the defendant to leverage this power in the coal market (United States Court for the District of New Mexico, Civil No. 82-1419-C).

# Nepal 1986-1989

As a consultant to the Asian Development Bank, directed a 2-year project to assist the Government of Nepal with improvements to its national budgeting system. Worked with Ministry of Health on long-term health care issues.

# United States 1984-1989

Directed a worldwide project financed by the U.S. Agency for International Development (A.I.D.) that focused on agricultural policy issues, such as prices for agricultural commodities and production inputs, marketing, and international trade.

# United States 1986-1988

Expert witness for the Decker Coal Company, estimated damages incurred by Decker Coal Co. as a result of the termination of a long-term coal contract with the City of Austin and Lower Colorado River Authority (U.S. District Court, Western District of Texas, No. A-85-CA-104).

# United States 1985-1988

Expert witness on behalf of the State of South Dakota, analyzed the market for Powder River Basin coal and the transportation system for moving this coal to utilities in the Gulf Coast and Southwest (State of South Dakota versus Kansas City Southern Industries, Civil Action Number 83-5046).

# United States 1984-1989

Expert witness on behalf of National Steel and Sharon Steel in the Lower Lake Erie Iron Ore Antitrust Litigation, analyzed the transportation system and estimated costs for moving iron ore to steel plants on or near Lake Erie. Assessed impact and estimated damages (United States District Court for the Eastern District of Pennsylvania, MDL 587).

# United States 1983-1985

Expert witness for Schering Corporation, estimated damages incurred by the plaintiff resulting from an alleged conspiracy to fix prices of corrugated containers and related packaging materials (U.S. District Court of New Jersey, No. 82-291).

# United States 1983

As a consultant and expert witness for the American Maritime Association, analyzed the financial and economic impacts that would result from lifting the ban on exporting Alaskan crude oil. Presented to Subcommittee on East Asian and Pacific Affairs, Committee on Foreign Relations, U.S. Senate.

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United States 1982-1983

As a consultant and expert witness for Kraft Inc., Aluminum Specialty Company, Metropak Containers Corporation, and Universal Packaging Corporation, analyzed industry characteristics and estimated damages incurred by the plaintiffs as a result of the alleged price fixing of corrugated containers (U.S. District Court, Southern District of Texas, Houston Division, MDL No. 310).

United States 1980 Expert witness for purchasers of corrugated containers, analyzed industry characteristics, relevant market, and assessed damages incurred by plaintiff class as a result of alleged price fixing by producers of corrugated containers (U.S. District Court, Southern District of Texas, Houston Division, MDL No. 310).

Senior Associate and Vice President, Nathan Associates Inc., Washington, D.C., January 1973-June 1978

United States 1976-1984 As consultant for A.I.D., developed training programs in economic and financial analysis of capital projects and enterprises. Established curriculum and provided overall supervision.

United States 1977-1979 As consultant for the National Science Foundation, directed study of the public and private benefits of technological innovations in 20 industries.

United States 1975 For the Office of Technology Assessment, performed cost-benefit analyses of alternative policies for stockpiling commodities including petroleum, copper, and zinc.

Western Samoa 1975 For the Asian Development Bank and the Government of Western Samoa, provided direction and formulated recommendations for investment and policies for national development plan.

Indonesia 1974-1976 For the Government of Indonesia and the World Bank, directed Sumatra Regional Planning Project, to prepare an integrated program of specific investment projects and policies in agriculture, irrigation, air transportation, and social services for the period until 1983.

United States 1974

For the Coastal Plains Regional Commission, directed cost-benefit and regional economic impact analyses of the proposed construction of a deepwater petroleum transfer system and on-shore refinery complex.

United States 1974 As consultant to NASA, directed study to assess criteria for space shuttle rocket manufacture in which economic models were used to evaluate alternative system, scale, and locations for producing fuel tanks.

Thailand 1973 As consultant to a private client, projected trade for proposed trans-isthmus Kra Canal in Thailand.

Guest Scholar, The Brookings Institution, Washington, D.C., August 1972-December 1972

Development Economist, The Ford Foundation, June 1970-July 1972

India As consultant to the Indian Planning Commission and the Government of India,

developed staff capability at the state level for investment planning and the design of an operationally useful methodology for project analysis in irrigation, forestry, and

mining; project conducted by the Ford Foundation.

Economist, The Ford Foundation, Washington, D.C., May 1968-May 1970

Nepal As economic adviser to the National Planning Commission and Ministry of Finance, prepared and evaluated projects for international financing and assisted with the

prepared and evaluated projects for international financing and assisted with the introduction of a program budgeting system; project conducted by the Ford Foundation. Advised Government on procurement of aircraft and expansion of

airport facilities.

Associate, Nathan Associates Inc., Washington, D.C., June 1966-April 1968

Indonesia As consultant to International Nickel Company, evaluated proposed infrastructure for

a large mining operation in Indonesia.

#### **PUBLICATIONS:**

#### **Books**

Budget Innovations in Developing Countries: The Experience of Nepal, New York: Praeger Publishers, 1973

Cost Benefit Analysis: A Case Study of the Ratnagiri Fisheries Project, with S.N. Mishra, Institute of Economic Growth: New Delhi, 1976.

## Articles

"Regional Inequalities and Economic Growth in Malaysia." *Yorkshire Bulletin of Economic and Social Research* 21 (May 1969): 17-30.

"High Growth, Unemployment, and Planning in Venezuela: Some Observations." *Economic Development and Cultural Change* 18, No. 2 (January 1970): 267-273.

"Economic Integration Among Developing Countries: The Advantages and Disadvantages for Nepal." *Development Review* 2 (January-March 1970): 1-14.

Dimensions of Project Analysis for State Planning. The Ford Foundation: New Delhi, June 1970.

An Economic Framework for Project Analysis in India: Some Preliminary Estimates. The Ford Foundation: New Delhi, December 1972.

*Uncertainty, Probability Analysis, and Project Choice: An Illustration*, with S.N. Mishra. Institute of Economic Growth: New Delhi, May 1973.

"Estimating the Shadow Price of Foreign Exchange: An Illustration from India." *The Journal of Development Studies* 11, No. 4 (July 1975).

Inflation and the Dollar: No Easy Choices. Washington, D.C., Nathan Associates Inc., October 1978. "The Chicago School's View of Economic Reality." Eighth Annual ATP Western Transportation Law Seminar, Association of Transportation Practitioners, February 1985.

"Adjustment with Development: Strategies for Linkage," paper presented at the Economic Forum, International Monetary Fund, June 1987.

#### **OTHER ACTIVITIES:**

Adjunct Professor, The American University, Washington, D.C.

Member: American Economic Association

#### **DEPOSITION AND TESTIMONY (2001 THROUGH 2006)**

- 1. Lantec, Inc., a Utah corporation, Plaintiff vs. Novell, Inc., a Delaware corporation, Defendant, In the United States District Court for the District of Utah, Case No. 95 C 97 S; deposition and trial testimony (1998, 2001).
- 2. *Flat Glass Antitrust Litigation*, In the United States District Court for the Western District of Pennsylvania, MDL No. 1200, Master File No. 97-550; deposition testimony (1999; 2001).
- 3. *Paragon Trade Brands, Inc. Federal Tax I.D. No. 91-1554663 Debtor,* In the United States District Court for the Northern District of Georgia, Atlanta Division; Hearing (1999), deposition testimony (2001; 2003) and trial testimony (2003).
- 4. *Northwest Airlines Antitrust Litigation*, In the United States District Court for the Eastern District of Michigan, Case No. 96-74711 (E.D. Mich); deposition and hearing testimony (2000 and 2001).
- 5. Women's Health Associates, P.C. et al., Plaintiff(s) vs. The Danbury Hospital, et al., Defendant(s), Civil No. 3:98CV2495 (AWT); deposition testimony (2000 and trial testimony 2001).
- 6. *Linerboard Antitrust Litigation*, In the United States District Court for the Eastern District of Pennsylvania, MDL No. 1261; deposition testimony (2001).
- 7. *Monosodium Glutamate Antitrust Litigation*, In the United States District Court, District of Minnesota, MDL Docket No. 00-1328; deposition testimony (2001 and 2002).
- 8. Richard J. Angelico, M.D., Plaintiff vs. LeHigh Valley Hospital, Inc., et al., Defendants, In the United States District Court for the Eastern District of Pennsylvania, Civil Action No. 96-2861; trial testimony (2001).

- 9. Arthur Gutterman, et al., Plaintiffs v. American Airlines, Inc., Defendants, In the Circuit Court of Cook County, Illinois County Department, Chancery Division, Case No. 95 CH 982; deposition and hearing testimony (2001).
- 10. In Re: Vitamins Antitrust Litigation: Livengood Feeds, Inc., et al., Plaintiffs v. Merck KgaA, et al., Defendants, In the United States District Court for the District of Columbia, Misc. No. 99-197 (TFH); MDL 1285 (2001).
- 11. *In Re: High Pressure Laminates Antitrust Litigation*, In the United States District Court for the Southern District of New York, Master File No. 00-MD-1368 (CLB) (2001, 2003, 2005, and 2006).
- 12. D. Lamar Deloach, et al., Plaintiffs v. Philip Morris, Inc., et al., Defendants, In the United States District Court for the Middle District of North Carolina, Greensboro Division, Case No. 00-CV-1235 (2001 and 2003).
- 13. *In Re: Microcrystalline Cellulose Antitrust Litigation*, In the United States District Court for the Eastern District of Pennsylvania, MDL No. 1402 (2002 and 2005).
- 14. Frederick Sample, et al., Plaintiffs v. Monsanto Company, et al., Defendants, United States District Court, Eastern District of Missouri, Civil No: 4:01cv00070RWS (2002).
- 15. *In Re: Mercedes-Benz Antitrust Litigation*, In the United States District Court for the District of New Jersey, Master File No. 99-4311 (AMW) (2002 and 2006).
- 16. In re: Smokeless Tobacco Antitrust Litigation, Mutual Wholesale Services Inc., Plaintiff v. United States Tobacco Company, Case No. 1:00 CV01454 (PLF); Keystone Tobacco Co., Inc., Plaintiff v. United States Tobacco Company, et al., Case No. 1:00 CV01415 (PLF). In the United States District Court for the District of Columbia (2002).
- 17. Wayne Smith, Plaintiffs vs. Sprint Communications Company, LP, et al., Defendants, In the United States District Court for the Northern District of Illinois, Case No. C3844 (2002 and 2003).
- 18. VFB, LLC, Plaintiff v. Campbell's Soup Company, et al., Defendant. In the United States District Court for the District of Delaware, Case No. 02137 KAJ (2003).
- 19. ComChoice, Inc., et al. v. Southwestern Bell Telephone Company, In the 18<sup>th</sup> Judicial District Court of Johnson County, Texas, Case No. C-2001-00072 (2003).
- 20. Carolyn Fears, Donna Gibbs, Ann Rogan, Plaintiffs v. Wilhelmina Model Agency, Inc., Ford Models, Inc., Defendants. In the United States District Court Southern District of New York, Case No. 02CV6146 (2004).
- 21. *In Re: Carbon Black Antitrust Litigation*. In the United States District Court, District of Massachusetts, Civil Action No. 03-10191-DPW, MDL Docket No. 1543 (2004 and 2006).
- 22. Andrew Behrend, Caroline Cutler, Marc Dambrosio, Barbi J. Weinberg, Kenneth Saffren, Stanford Glaberson, Michael Kellman, Lawrence Rudman, Joan Evanchuk-Kind and Eric Brislawn, Plaintiff,

- v. Comcast Corporation, Comcast Holdings Corporation, Comcast Cable Communications, Inc., Comcast Cable Communications Holdings, Inc., and Comcast Cable Holdings, LLC, Defendants. In the United States District Court for the Eastern District of Pennsylvania, No. 03-6604 (2004).
- 23. *In Re Plastics Additives Antitrust Litigation*. In the United States District Court for the Eastern District of Pennsylvania, Master Docket No. 2:03-CV-2038.
- 24. *Re: Publication Paper Antitrust Litigation*. In the United States District Court for the District of Connecticut, Docket No. 3:04 md 1631.
- 25. *In re Bulk (Extruded) Graphite Products Antitrust Litigation*, In the U.S. District Court for the District of New Jersey, Master File No. 02-CV-06030 (WHW); deposition testimony (2005).
- 26. *In Re Barbara Schwab et al.*, *Plaintiffs v. Philip Morris USA, Inc., et al.*, *Defendants*. In the United States District Court for the Eastern District of New York, Civil Action No. CV 04-1945; deposition testimony (2006).
- 27. *Molecular Diagnostics Laboratories v. Hoffmann-La Roche Inc.*, et. al. Civil No. 04-1649 (HHK) (D.D.C.); deposition testimony (2006).

# Appendix B Documents Reviewed and Relied Upon

#### **Legal Documents**

Behrend, et al., Plaintiffs, v. Comcast Corporation, et al., Defendants, Second Amended Class Action Complaint for Violations of the Sherman Antitrust Act.

Behrend, et al., Plaintiffs, v. Comcast Corporation, et al., Defendants, Third Amended Class Action Complaint for Violations of the Sherman Antitrust Act.

#### **Public Documents**

"Cable Link Price Rises to \$40.55" Rednova News 20 October 2003 <a href="http://www.rednova.com/news/display/?id=20204">http://www.rednova.com/news/display/?id=20204</a>>.

"Comcast to raise cable rates in 2004." The Associated Press 20 November 2003 <a href="http://www.katu.com/printstory.asp?ID=62625">http://www.katu.com/printstory.asp?ID=62625</a>.

Beard, T. Randolph and George S. Ford, R. Carter Hill and Richard P. Saba. "Fragmented Duopoly: A Conceptual and Empirical Investigation.' June 2003, forthcoming in Journal of Business.

Bergstrom, Robert R. "The Role of the Expert in Proving and Disproving Damages in Antitrust Claims." Antitrust Bulletin

Carlton, Dennis and Jeffrey Perloff. "Modern Industrial Organization," 3rd edition, 2000.

Chase, Tammy. "Comcast to raise cable rates 5.9% next year; Company says it has invested a lot to improve service." Chicago Sun-Times 17 December 2003: News.

Church, Steven. "Cable rates increase." The News Journal 24 January 2004: Business, D.

Cooper, Mark. "Cable Mergers, Monopoly Power and Price Increases." Consumer Federation of America January 2003.

Cooper, Mark. "The Failure of 'Intermodal' Competition in Cable Markets." Consumer Federation of America April 2002.

Emmons, William M. III and Robin A. Prager. "The effects of market structure and ownership on prices and service offerings in the U.S. cable television industry." RAND Journal of Economics Vol. 28, No. 4 (Winter 1997) pp. 732-750.

Gannon, Joyce. "Comcast raising rates for most customers." Pittsburgh Post-Gazette 23 December 2003.

Goolsbee, Austan and Amil Petrin. "The Consumer Gains from Direct Broadcast Satellites and the Competition with Cable Television." NBER Working Paper 8317 <a href="http://www.nber.org/papers.w8317">http://www.nber.org/papers.w8317</a> June 2001.

Hall, Robert E. and Victoria A. Lazear. "Reference Guide on Estimation of Economic Losses in Damages Awards." <u>Reference Manual on</u> Scientific Evidence, 2nd edition, Federal Judicial Center, 2000.

Kagan World Media. "Kagan Broadband Cable Financial Databook 2002."

Mohl, Bruce. "Comcast hiking cable rates." The Boston Globe 22 January 2003.

Mullins, Angela. "Prices fray viewers' attachment to cable." The Times Herald 15 February 2004.

Naujeck, Jeanne A. "Higher cable TV bills stir satellite services to action." The Tennessean 3 September 2003.

Page, William H. "Proving Antitrust Damages: Legal and Economic Issues." Section of Antitrust Law American Bar Association, 1996.

Parker, Akweli. "Comcast raising rates in Phila. It attributed the increase in cable-TV rates, in large part, to the escalating cost of sports programming." The Philadelphia Inquirer 30 March 2002: Region.

Parkers, Akweli. "As Comcast Grows, Rates Go Up." The Philadelphia Inquirer Knight Ridder/Tribune Business News 16 November 2003.

Russell, Keith. "Comcast raising cable rates." The Tennessean 28 August 2003.

Savage, Scott J. and Michael Wirth. "Entry and Potential Competition in United States Cable TV Markets." August 31, 2002.

Singer, Hal J. "Does Clustering by Incumbent Cable MSOs Deter Entry by Overbuilders?" Draft, May 2003.

Stern, Christopher. "Comcast Bundles TV, Internet to Keep Customers." The Washington Post 26 March 2003: Tech.

U.S. Public Interest Research Group. "The Failure of Cable Deregulation: A Blueprint for Creating a Competitive, Pro-Consumer Cable Television Marketplace." August 2003. <a href="https://uspirg.org">http://uspirg.org</a>>

Warren Communications, "Television & Cable Factbook", various editions and current online version as of September 2006

Kagan LLC, "Broadband Cable Financial Databook - 2000"

Reed Elsevier Inc., "Broadcasting & Cable Yearbook," various editions

- FCC Twelfth Annual Report on Competition in Video Markets, FCC 06-11, March 3, 2006.
- FCC Eleventh Annual Report on Competition in Video Markets, FCC 05-13, February 4, 2005.
- FCC Tenth Annual Report on Competition in Video Markets, FCC 04-5, January 28, 2004
- FCC Ninth Annual Report on Competition in Video Markets, FCC 02-338, December 31, 2002
- FCC Eighth Annual Report on Competition in Video Markets, FCC 01-389, January 14, 2002.
- FCC Seventh Annual Report on Competition in Video Markets, FCC 01-1, January 8, 2001.
- FCC Sixth Annual Report on Competition in Video Markets, FCC 99-418, January 14, 2000.
- FCC Fifth Annual Report on Competition in Video Markets, FCC 98-335, December 23, 1998.
- FCC Fourth Annual Report on Competition in Video Markets, FCC 97-423, January 13, 1998.
- FCC Third Annual Report on Competition in Video Markets, FCC 96-496, January 2, 1997.
- FCC Second Annual Report on Competition in Video Markets, FCC 95-491, December 11, 1995
- FCC Consumer Alert: "FCC Role in Cable Rate Regulation Ends," FCC-99-57, March 1999.
- FCC Fact Sheet: "General Cable Television Industry and Regulation Information Fact Sheet," June 2000.
- FCC Report on Cable Industry Prices, FCC-05-12, February 4, 2005.
- FCC Report on Cable Industry Prices, FCC-03-136, July 8, 2003.
- FCC Report on Cable Industry Prices, FCC-02-107, April 4, 2002.
- FCC Report on Cable Industry Prices, FCC-01-49, February 14, 2001.
- GAO Report to Congressional Requesters, "Telecommunications, The Effect of Competition From Satellite Providers on Cable Rates," GAO/RCED-00-164, July 2000.
- GAO Report to the Chairman, Committee on Commerce, Science, and Transportation, U.S. Senate, "Telecommunications Issues Related to Competition and Subscriber Rates in the Cable Television Industry," GAO-04-8, October 2003.
- GAO Report to the Honorable Byron L. Dorgan, U.S. Senate, "Telecommunications Impact of Sports Programming Costs on Cable Television Rates," GAO/RCED-99-136, June 1999.
- GAO Report to the Subcommittee on Antitrust, Competition, and Business and Consumer Rights, Committee on the Judiciary, U.S. Senate "Telecommunications Issues in Providing Cable and Satellite Television Services," GAO-03-130, October 2002.
- GAO Report to the Subcommittee on Antitrust, Competition, and Business and Consumer Rights, Committee on the Judiciary, U.S. Senate "Telecommunications, The Changing Status of Competition to Cable Television," GAO/RCED-99-158, July 1999.
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Appendix C. List of Communities Served in "Comcast Philadelphia Cluster" by Comcast Cable Communications and Prices Charged

								2006 Pric	ing	Number of Subscribers - 2006		s - 2006
Former Service Provider (as of 1999 TV & Cable Factbook)	Current Service Provider (2006)	Community	County	State	Zip Code 1999	Pricing	Analog (Standard Cable) (	Digital Digital Classic)	Categorization of Analog (Relative to Mode)	Expanded Basic	Digital Basic	Total
Comcast Cablevision of Delmarva	Comcast of Delmarva Kent County	Dover	Kent/New Castle	Delaware	19904	31.26	51.65	69.74	Within 5 Percent of Mode	35,652	N.A.	35,652 [d], [g]
Comcast Cablevision of Delmarva	Comcast of Delmarva Sussex	Rehoboth Beach	Kent/Sussex	Delaware	19971	24.05	52.95	71.04	Outside 5 Percent of Mode	13,301	N.A.	13,301 [d]
Suburban Cable TV Co.	Comcast of Wilmington	Wilmington	New Castle	Delaware	19801	26.18	50.40	60.35	Mode	136,714	N.A.	136,714
Time Warner Cable of Avalon	Comcast of Avalon/Wildwood	Avalon	Cape May	New Jersey	08202		51.90	66.85	Within 5 Percent of Mode			0 [b], [i]
Garden State Cable TV	Comcast of Garden State	Cherry Hill	Burlington/Camden/Gloucester/Ocean/Salem	New Jersey	08002	24.68	52.25	66.90	Within 5 Percent of Mode	211,419	N.A.	211,419 [b]
Comcast Cable Communications	Comcast of Monmouth/Ocean/Centra	al East Windsor	Mercer/Middlesex/Monmouth	New Jersey	08512		56.75	71.70	Outside 5 Percent of Mode	68,469	N.A.	68,469 [b], [g]
Suburban Cable	Comcast of South Jersey	Franklinville	Atlantic/Camden/Cumberland/Gloucester/Saler	n New Jersey	08322	24.31	52.05	81.95	Within 5 Percent of Mode	109,543	49,358	158,901 [e]
TCI of Gloucester	Comcast of Burlington	Gloucester	Burlington/Camden	New Jersey	08030		50.20	65.15	Within 5 Percent of Mode	10,735	N.A.	10,735 [b]
Suburban Cable	Comcast of Trenton/Lambertville	Lambertville	Hunterdon/Mercer NJ; Bucks PA	New Jersey	08530	29.95	50.45	65.40	Within 5 Percent of Mode	7,714	N.A.	7,714 [b], [g]
Suburban Cable TV	Comcast of South Jersey	Pleasantville	Atlantic/Cape May	New Jersey	08232	19.97	51.15	70.10	Within 5 Percent of Mode	100,965	47,595	148,560 [b]
Comcast Cablevision of Mercer County	Comcast of Trenton/Lambertville	Trenton	Mercer	New Jersey	08618	28.75	53.75	68.70	Outside 5 Percent of Mode	41,714	N.A.	41,714 [b]
TKR of Wildwood	Comcast of Avalon/Wildwood	Wildwood	Cape May	New Jersey	08260	20.35	50.70	77.65	Within 5 Percent of Mode	34,056	17,455	51,511 [e], [j]
Comcast Cable Communications	Comcast Cable	Willingboro	Burlington	New Jersey	08046	25.72	53.90	68.55	Outside 5 Percent of Mode	326,119	137,000	326,119 [b]
Comcast Cable Communications	Comcast of Gloucester	Woodbury	Cumberland/Gloucester	New Jersey	08096	19.23	52.80	67.45	Within 5 Percent of Mode	41,861	N.A.	41,861 [b], [g]
Suburban Cable TV	Comcast of Bucks County	Bensalem Twp.	Bucks	Pennsylvania	19020	27.50	50.40	60.35	Mode	45,886	N.A.	45,886
Suburban Cable TV	Comcast of Coatesville	Chester County (West Chester)	Chester/Delaware	Pennsylvania	19380		50.65	80.25	Within 5 Percent of Mode	57,397	35,888	93,285 [e]
Time Warner Cable	Comcast of Reading	Hamburg	Berks/Lancaster/Schuykill	Pennsylvania	19526	23.23	50.40	65.35	Mode	6,088	N.A.	6,088 [b]
Suburban Cable TV Co.	Comcast of Bucks County	Holland	Bucks	Pennsylvania	18974	21.70	50.40	60.35	Mode	6,922	-	6,922
Suburban Cable TV	Comcast of Bucks County	Jamison	Bucks	Pennsylvania	18929	28.60	50.40	60.35	Mode	52,667	N.A.	52,667
Harron Communications	Comcast of Coatesville	Kennett Square	Chester/Delaware	Pennsylvania	19348	30.61	50.45	80.25	Within 5 Percent of Mode	12,717	N.A.	12,717 [e]
Suburban Cable TV	Comcast of Montgomery County	King of Prussia	Delaware/Montgomery	Pennsylvania	19406	21.95	34.80	80.25	Outside 5 Percent of Mode	17,138	N.A.	17,138 [e], [k]
Adelphia Cable [a]	Comcast of Montgomery County	Lansdale	Delaware/Montgomery	Pennsylvania	19446		34.80	58.35	Outside 5 Percent of Mode	55,954	N.A.	55,954 [d], [g], [k]
Time Warner Cable	Comcast of Reading	Lebanon	Berks/Lancaster/Lebanon	Pennsylvania	17046	21.40	48.70	63.65	Within 5 Percent of Mode	28,380	8,568	36,948 [b]
Lower Bucks Cablevision	Comcast of Bucks County	Levittown	Bucks	Pennsylvania	19056	28.63	50.40	60.35	Mode	44,250	5,000	49,250 [g]
Comcast Cablevision of Montgomery Coun	ty Comcast of Willow Grove	Lower Merion Twp.	Montgomery	Pennsylvania	19004	22.41	50.75	65.70	Within 5 Percent of Mode	18,949	N.A.	18,949 [b], [c], [g]
Harron Communications	Comcast of Coatesville	Malvern	Chester/Delaware	Pennsylvania	19355	32.19	49.50	80.25	Within 5 Percent of Mode	31,044	N.A.	31,044 [e]
Adelphia Cable	Comcast of Montgomery County	Montgomery	Montgomery	Pennsylvania	19462	21.45	50.40	60.35	Mode			0 [d], [f]
Suburban Cable TV	Comcast of Bucks County	Newtown	Bucks	Pennsylvania	18940	22.95	50.40	60.35	Mode	10,773	N.A.	10,773 [g]
Suburban Cable TV	Comcast of Montgomery County	Norristown	Montgomery	Pennsylvania	19401	20.24	50.40	60.35	Mode	33,380	N.A.	33,380 [d]
Greater Media Cable	Comcast of Center City Philadelphia	Philadelphia (area 1)	Philadelphia	Pennsylvania	19147	28.31	55.90	70.85	Outside 5 Percent of Mode			0 [b], [c], [h]
Comcast Cablevision of Philadelphia	Comcast of Philadelphia/NE	Philadelphia (areas 3 & 4)	Philadelphia	Pennsylvania	19116	21.50	52.85	67.80	Within 5 Percent of Mode	322,342	140,000	462,342 [b], [c], [q], [h]
Suburban Cable TV	Comcast of Montgomery County	Pottstown	Berks/Chester/Montgomery	Pennsylvania	19464	21.25	50.40	60.35	Mode	49,508	N.A.	49,508 [d]
Time Warner Cable	Comcast of Reading	Reading	Berks/Lancaster	Pennsylvania	19610	25.70	50.40	65.35	Mode	70,000	N.A.	70,000 [b], [g]
Suburban Cable	Comcast of Bucks County	Sellersville	Bucks/Montgomery	Pennsylvania	18960		50.40	60.35	Mode	37,585	N.A.	37,585
	Comcast Cable	Trappe	Montgomery	Pennsylvania	19426		50.40	60.35	Mode	N.A.	N.A.	- [d]
Suburban Cable TV	Comcast of Delaware County	Wallingford	Delaware	Pennsylvania	19015	34.90	47.80	79.25	Outside 5 Percent of Mode	128,401	51,857	180,258 [e]
Comcast Cablevision Corp.	Comcast of Willow Grove	Willow Grove	Montgomery	Pennsylvania	19090	21.92	49.10	64.05	Within 5 Percent of Mode	39,475	N.A.	39,475 [b], [c], [g]
Total Current Comcast Subscribers										2.207.118	492,721	2 562 839

Notes: Subscriber figures include residential and commercial where given.

[a] Analog (Preferred Basic) Pricing unavailable. Based upon Analog (Preferred Basic) Pricing for other Current Service Providers with the same Digital (Digital Plus) Pricing.

Sources: TV & Cable Factbook No. 67 1999 Edition and No. 72, 2004 Edition; Television & Cable ONLINE Factbook, September 2006; Comcast web site at www.comcast.com (week of 10/25/04 and 9/5/06).

<sup>[</sup>b] "Digital classic" package was not available so "Digital Plus with ON DEMAND" was used.

<sup>[</sup>c] "Standard cable" package was not available so "Total Preferred Service" was used.

<sup>[</sup>d] "Digital classic" package was not available so "Digital Classic with ON DEMAND" was used.

<sup>[</sup>e] "Digital classic" package was not available so "Digital Silver with ON DEMAND" (including 1 premium movie network) was used.

<sup>[</sup>f] Montgomery, PA now served by Lansdale, PA.

<sup>[</sup>g] Basic service subscriber figures were used since expanded basic service subscriber figures were not available.

<sup>[</sup>h] Philadelphia now includes Philadelphia (areas 1, 3 & 4). There is no longer a Philadelphia (area 1).

<sup>[</sup>i] Avalon is now served by Rio Grande (formerly Wildwood), NJ.

<sup>[</sup>j] Wildwood is now Rio Grande, New Jersey.

<sup>[</sup>k] "Standard cable" package was not available so "Family Tier" service was used.

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# Appendix D. List of Communities Served in "Comcast Chicago Cluster" by Comcast Cable Communications and Prices Charged

							2006 Pricing			Number of Subscribers - 2006		
								Digital				
								(Digital Classic				
Former Service Provider							Analog	with ON	Categorization of Analog	Expanded		
(as of 1999 TV & Cable Factbook)	Current Service Provider (2006)	Community	County	State	Zip Code 19	999 Pricing	(Standard Cable)	DEMAND)	(Relative to Mode)	Basic E	Digital Basic	Total
Jones Intercable	Comcast of Chicago West	Aurora	DuPage/Kane/Kendall	Illinois	60506	27.45	49.99	59.98	Mode	31,365	10,642	42,007
Multimedia Cablevision	Comcast of Chicago North and Northwest	Barrington Hills	Cook/Lake/McHenry	Illinois	60010	26.95	49.99	59.98	Mode	2,904	988	3,892
Multimedia Cablevision of Batavia	Comcast of Chicago West	Batavia	Kane	Illinois	60510	26.95	49.99	59.98	Mode			0 [m]
Multimedia Cablevision	Comcast of Chicago West	Campton Twp. (St. Charles)	Kane	Illinois	60175	26.95	49.99	59.98	Mode			0 [m]
United Cable Television Corp. of No	rtl Comcast of Chicago North and Northwest	Carpentersville	Kane/Lake/McHenry	Illinois	60110	24.40	49.99	59.98	Mode	29,283	10,308	39,591
21st Century Cable TV Inc.	Comcast of City of Chicago	Chicago (area 1)	Cook	Illinois	60614	21.72	49.49	59.48	Within 5 Percent of Mode	169,631	67,537	237,168 [n]
Chicago Cable TV	Comcast of City of Chicago	Chicago (area 4)	Cook	Illinois	60636	21.72	49.49	59.48	Within 5 Percent of Mode			0 [n]
Chicago Cable TV	Comcast of City of Chicago	Chicago (area 5)	Cook	Illinois	60628	21.72	49.49	59.48	Within 5 Percent of Mode			0 [n]
Prime Cable of Chicago	Comcast of City of Chicago	Chicago (areas 2 & 3)	Cook	Illinois	60641	26.25	49.49	59.48	Within 5 Percent of Mode	125,406	42,023	167,429 [d]
TCI Great Lakes	Comcast of S Chicago-N Indiana-SW Michigan	Chicago Heights	Cook/Will	Illinois	60411	21.60	44.99	54.98	Outside 5 Percent of Mode			0 [a], [f]
TCI of Illinois	Comcast of Chicago West	Custer Park	Grundy/Will	Illinois	60481	-	49.99	59.98	Mode	840	N.A.	840 [d]
Time Warner Cable of De Kalb	Comcast of Chicago North and Northwest	De Kalb	De Kalb/Ogle	Illinois	60115	24.95	49.99	59.98	Mode	15,053	5,403	20,456
MediaOne	Comcast of S Chicago-N Indiana-SW Michigan	Dolton	Cook	Illinois	60419	-	49.99	59.98	Mode			0 [a], [f]
Jones Intercable	Comcast of Chicago West	Elgin	Cook/Kane	Illinois	60123	-	49.99	59.98	Mode			0 [m]
Jones Intercable	Comcast of Chicago West	Elgin Apartments	Cook/Kane	Illinois	60123	-	44.04	54.03	Outside 5 Percent of Mode			0 [m]
MediaOne	Comcast of Chicago West	Elmhurst	Cook/DuPage	Illinois	60126	30.10	49.99	59.98	Mode	337,631	117,711	455,342
Time Warner Cable	Comcast of Chicago West	Glendale Heights	Cook/DuPage	Illinois	60139	18.45	44.04	54.03	Outside 5 Percent of Mode	26,064	8,837	34,901 [d]
TCI of Illinois	Comcast of Chicago North and Northwest	Glenview	Cook	Illinois	60025	20.16	45.99	55.98				0 [h]
TCI of Illinois	Comcast of Chicago North and Northwest	Great Lakes Naval Training Center	Lake	Illinois	60050	20.41	49.99	59.98		1,900	-	1,900
TCI of Illinois	Comcast of S Chicago-N Indiana-SW Michigan	Harvey	Cook	Illinois	60426	21.99	49.99	59.98	Mode			0 [a], [f]
Illinois Communications Cablevision	9	Herscher	Kankakee	Illinois	60941	20.10	49.99	59.98				0 [a], [o]
Time Warner Cable	Comcast of S Chicago-N Indiana-SW Michigan (2006)	Hickory Hills	Cook/DuPage/Will	Illinois	60457	21.95	49.99	59.98		50,167	17,007	67,174 [d]
Tele-Communications, Inc.	Comcast of Chicago North and Northwest	Highland Park	Cook/Lake	Illinois	60035	29.80	49.99	59.98		9,694	5,860	15,554 [k]
	Comcast of S Chicago-N Indiana-SW Michigan (2006)	Homewood	Cook/Kankakee/Will	Illinois	60430		49.99	59.98		42,299	14,708	57,007
TCI of Illinois	Comcast of S Chicago-N Indiana-SW Michigan	Kankakee	Iroquois/Kankakee	Illinois	60901	25.36	49.99	59.98		22,922	7,906	30,828 [a]
TCI Cable	Comcast/Insight	Ladd	Bureau/LaSalle	Illinois	61329	22.95	ownership 50% Insi		st Outside 5 Percent of Mode	1,304	N.A.	1,304 [d]
TCI Cable	Comcast of Chicago West	Lake Holiday	La Salle	Illinois	60548		47.99	57.98		.,		0 [e]
Jones Intercable	Comcast of Chicago North and Northwest	Lake Zurich	Cook/Lake	Illinois	60047	-	49.99	59.98		19,314	6,861	26,175
Jones Intercable	Comcast of S Chicago-N Indiana-SW Michigan	Lansing	Cook	Illinois	60438	24.70	49.99	59.98		17,011	0,001	0 [a], [p]
Cable TV Fund 12-A	Comcast of Chicago North and Northwest	Libertyville	Lake	Illinois	60048	22.13	49.99	59.98		13,865	4,807	18,672
Multimedia Cablevision	Comcast of Chicago West	Lisle	DuPage	Illinois	60532	26.95	49.99	59.98		10,000	1,007	0 [m]
Jones Intercable	Comcast of S Chicago-N Indiana-SW Michigan	Matteson	Cook/Will	Illinois	60443	24.70	49.99	59.98		30,637	10,386	41,023 [a], [d]
TCI of Illinois	Comcast of Chicago West	Maywood	Cook	Illinois	60153	20.96	47.99	57.98		30,037	10,500	0 [i]
TCI of Illinois	Comcast of Chicago North and Northwest	McHenry	Lake/McHenry	Illinois	60050	-	49.99	59.98		18,528	6,593	25,121
TCI Cable	Comcast of Chicago West	Millington	DeKalb/Kendall/La Salle	Illinois	60537		49.99	46.98		1,320	-	1,320 [d]
TCI of Illinois	Comcast of Chicago West	Minooka	Grundy/Will	Illinois	60447	21.57	49.99	59.98		1,561	650	2,211
TCI of Illinois	Comcast of Chicago West	Morris	Grundy	Illinois	60450	23.21	49.99	59.98		3,726	1,267	4,993
MediaOne	Comcast of Chicago North and Northwest	Morton Grove	Cook	Illinois	60053	22.41	49.99	59.98		18,165	6,158	24,323 [d]
Telenois Inc.	Comcast of Chicago North and Northwest	Mount Prospect	Cook/DuPage/Kane/Lake	Illinois	60056	22.41	45.99	55.98		66,320	26,582	92,902
Cable TV Fund 14-A	Comcast of Chicago West	Naperville	DuPage/Will	Illinois	60563	22.89	44.04	54.03		58,642	20,562	79,283
TCI of Illinois	Comcast of S Chicago-N Indiana-SW Michigan	Oak Forest	Cook	Illinois	60452	21.99	44.99	54.03		30,042	20,041	79,263 0 [a], [f]
	Comcast of S Chicago-N Indiana-SW Michigan	Oak Lawn	Cook	Illinois	60452	26.95	49.99	59.98		26,296	9,024	35,320 [a]
	9						49.99				4,358	
Jones Intercable Time Warner Cable	Comcast of S Chicago-N Indiana-SW Michigan Comcast of S Chicago-N Indiana-SW Michigan	Orland Park	Cook/Will	Illinois	60462	25.16	49.99 49.99	59.98		12,442	4,358	16,800 [a]
	3	Palos Hills	Cook/DuPage/Will	Illinois	60465	21.95		59.98				0 [g]
Jones Intercable	Comcast of S Chicago N Indiana-SW Michigan	Park Forest	Cook/Will	Illinois	60466	27.35	49.99	59.98				0 [a], [p]
MediaOne	Comcast of S Chicago-N Indiana-SW Michigan	Peotone	Kankakee/Will	Illinois	60468	17.95	49.99		Mode	0.000	A. A	0 [a], [f]
TCI Cable	Comcast/Insight	Peru	Bureau/La Salle	Illinois	61354	21.48		•	st Outside 5 Percent of Mode	9,000	N.A.	9,000
	Comcast of Chicago West (2006)	Plainfield	Will	Illinois	60544	01.00	49.99		Mode	4,863	-	4,863 [d]
Jones Intercable	Comcast of Chicago West	Plano	Kendall	Illinois	60545	21.00	49.99	59.98				0 [e]
TCI Lake Area	Comcast of S Chicago-N Indiana-SW Michigan	Robbins	Cook	Illinois	60472	14.95	49.99	56.98			40	0 [a], [g]
MediaOne	Comcast of Chicago North and Northwest	Rolling Meadows	Cook/Du Page/Lake	Illinois	60008	28.63	49.99	59.98		47,036	15,945	62,981 [d]
MediaOne	Comcast of Chicago West	Romeoville	Cook/Will	Illinois	60441	22.50	49.99	59.98	Mode	62,652	20,981	83,633 [d]
Telenois Inc.	Comcast of Chicago North and Northwest	Schaumburg	Cook/DuPage	Illinois	60173	25.61	45.99		Outside 5 Percent of Mode	21,410	7,406	28,816

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#### Appendix D. List of Communities Served in "Comcast Chicago Cluster" by Comcast Cable Communications and Prices Charged

							2006 Pricing			Number of Subscribers - 2006		
Former Service Provider							Analog	Digital (Digital Classic with ON	Categorization of Analog	Expanded		
(as of 1999 TV & Cable Factbook)	Current Service Provider (2006)	Community	County	State	Zip Code	1999 Pricing	(Standard Cable)	DEMAND)	(Relative to Mode)		Digital Basic	Total
Telenois Inc.	Comcast of Chicago North and Northwest	Skokie	Cook	Illinois	60076	21.25	49.99	59.98	Mode			0 [h]
TCI of Illinois	Comcast of S Chicago-N Indiana-SW Michigan	South Holland	Cook	Illinois	60473	21.99	44.99	54.98	Outside 5 Percent of Mode			0 [a], [f]
Telenois Inc.	Comcast of Chicago North and Northwest	Streamwood	Cook	Illinois	60107	19.20	45.99	55.98	Outside 5 Percent of Mode			0 [I]
Multimedia Cablevision of Villa Park	Comcast of Chicago West	Villa Park	DuPage	Illinois	60181	26.95	49.99	59.98	Mode	4,444	1,531	5,975
TCI North East Illinois	Comcast of Chicago North and Northwest	Waukegan	Lake	Illinois	60085	24.45	49.99	59.98	Mode	56,011	19,005	75,016
Jones Intercable	Comcast of Chicago West	West Chicago	DuPage/Kane	Illinois	60185	22.11	49.99	59.98	Mode	39,808	13,495	53,303 [d]
Jones Intercable	Comcast of S Chicago-N Indiana-SW Michigan	Western Springs	Cook	Illinois	60558	24.70	49.99	59.98	Mode	8,637	2,928	11,565 [a], [d]
TCI of Illinois	Comcast of Chicago West	Wilmington	Grundy/Will	Illinois	60481	20.88	47.99	57.98	Within 5 Percent of Mode	3,658	-	3,658
TCI of Illinois	Comcast of Chicago North and Northwest	Woodstock	McHenry	Illinois	60098	-	49.99	59.98	Mode			0 [j]
Cablevision Association of Gary	Comcast of S Chicago-N Indiana-SW Michigan	Gary	Lake	Indiana	46402	20.12	49.99	54.98	Mode	14,297	-	14,297 [a]
TCI of Northern Indiana	Comcast of S Chicago-N Indiana-SW Michigan	Hammond	Lake	Indiana	46324	-	41.99	51.98	Outside 5 Percent of Mode	21,887	-	21,887 [d]
TCI Lake Area	Comcast of S Chicago-N Indiana-SW Michigan	Hebron	Porter	Indiana	46341	17.15	49.99	59.98	Mode	2,642	896	3,538 [a], [d]
TCI	Comcast of S Chicago-N Indiana-SW Michigan	La Porte	La Porte/Porter	Indiana	46350	26.95	49.99	64.98	Mode	28,400	9,628	38,028 [a], [b]
TCI Lake Area	Comcast of S Chicago-N Indiana-SW Michigan	Lake of the Four Seasons (Hebron zip code)	Lake	Indiana	46341	-	49.99	59.98	Mode	1,943	659	2,602 [a], [d]
TCI Lake Area	Comcast of S Chicago-N Indiana-SW Michigan	Merrillville	Cook/Will(IL)/Lake(IN)	Indiana	46410	-	49.99	59.98	Mode	71,170	24,127	95,297 [a], [d]
TCI Lake Area	Comcast of S Chicago-N Indiana-SW Michigan	Michigan City	La Porte/Porter	Indiana	46360	23.63	49.99	59.98	Mode	12,819	4,346	17,165 [a], [d]
Time Warner Cable	Comcast of S Chicago-N Indiana-SW Michigan	Portage	Porter	Indiana	46368	28.64	49.99	59.98	Mode			0 [a], [q]
	Comcast of S Chicago-N Indiana-SW Michigan (2006)	St. Joseph Twp.	LaPorte	Michigan	49085		47.99	57.98	Within 5 Percent of Mode	13,995	2,075	16,070 [r]
Total Current Comcast Subscriber	rs									1,547,956	527,204	2,075,160

Notes: Subscriber figures include residential and commercial where given.

[a] Analog (Standard Cable) Pricing unavailable in 2004. Based upon Analog (Standard Cable) Pricing for other Current Service Providers with the same Digital (Digital Plus) Pricing.

[b] "Digital Classic" pricing was not available so "Digital Plus with ON DEMAND" was used. (2006 pricing)

[c] WOW analog pricing was for basic cable plus one movie channel. Basic cable only prices vary by region.

[d] Basic service subscriber figures were used since expanded basic service subscriber figures were not available.

[e] Now served by Aurora, IL.

[f] Now served by Homewood, IL.

[g] Now served by Hickory Hills, IL.

[h] Now served by Mount Prospect, IL.

[i] Now served by Elmhurst, IL.

[j] Now served by McHenry, IL.

[k] Highland Park, IL was not found in ONLINE Factbook, so subscriber figures were taken from 2006 print version.

[I] Now served by Schaumburg, IL.

[m] Now served by Naperville, IL.

[n] Chicago (area 1) has been combined with Chicago (area 4) and Chicago (area 5) to form Chicago (areas 1, 4 & 5).

[o] Now served by Kankakee, IL.

[p] Now served by Matteson, IL.

[q] Now served by Merrillville, IN.

[r] Not included in subscriber total or pricing analysis for Comcast because zip code is in Michigan.

Sources: TV & Cable Factbook No. 67 1999 Edition and No. 72, 2004 Edition; Television & Cable ONLINE Factbook, September 2006;

Comcast web site www.comcast.com (week of 10/25/04 and 9/11/06)