

ATTACHMENT 1

**DECLARATION OF GUSTAVO E. BAMBERGER,
DENNIS W. CARLTON, AND
ALLAN L. SHAMPINE**

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)	
)	
Verizon Communications Inc. and)	
MCI, Inc.)	WC Docket No. 05-75
Applications for Approval of)	
Transfer of Control)	

DECLARATION OF

GUSTAVO E. BAMBERGER,

DENNIS W. CARLTON,

and

ALLAN L. SHAMPINE

I, Gustavo E. Bamberger, hereby declare the following:

I, Dennis W. Carlton, hereby declare the following:

I, Allan L. Shampine, hereby declare the following:

I. INTRODUCTION

A. QUALIFICATIONS

1. I, Gustavo E. Bamberger, am a Senior Vice President of Lexecon, an economics consulting firm that specializes in the application of economic analysis to legal and regulatory issues. I received a B.A. degree from Southwestern at Memphis, and M.B.A. and Ph.D. degrees from the University of Chicago Graduate School of Business. I have previously provided expert testimony to the U.S. Federal Communications Commission (FCC) and state public utilities commissions on telecommunications issues. I also have provided expert testimony to federal courts, the U.S. Senate, the U.S. Federal Energy Regulatory Commission, the U.S. International Trade Commission, the U.S. Department of Transportation, U.S. state regulatory agencies, the Canadian Competition Tribunal and the High Court of New Zealand. A copy of my curriculum vita is attached in Exhibit 1 to this affidavit.

2. I, Dennis W. Carlton, am Professor of Economics at the Graduate School of Business of The University of Chicago. I have served on the faculties of the Law School and the Department of Economics at The University of Chicago and the Department of Economics at the Massachusetts Institute of Technology. I specialize in the economics of industrial organization, which is the study of individual markets and includes the study of antitrust and regulatory issues. I am co-author of Modern Industrial Organization, a leading textbook in the field of industrial organization, and I also have published numerous articles in academic journals and books. In addition, I am Co-Editor of the Journal of Law and Economics, a leading journal that publishes

research applying economic analysis to industrial organization and legal matters, and I am on the editorial board of Competition Policy International.

3. In addition to my academic experience, I am a Senior Managing Director of Lexecon. I have served as an expert witness before various state and federal courts and foreign tribunals and I have provided expert witness testimony before the U. S. Congress. I have submitted testimony before the Federal Communications Commission in a number of matters. In 2004, I was appointed to the Antitrust Modernization Commission, a 12-member commission created by Congress to review U.S. antitrust laws. I have previously served as a consultant to the Department of Justice regarding the Merger Guidelines of the Department of Justice and Federal Trade Commission, as a general consultant to the Department of Justice and Federal Trade Commission on antitrust matters, and as an advisor to the Bureau of the Census on the collection and interpretation of economic data. A copy of my curriculum vita is attached in Exhibit 2 to this affidavit.

4. I, Allan L. Shampine, am a Vice President of Lexecon. I received a B.S. summa cum laude from Southern Methodist University, and M.A. and Ph.D. degrees from the University of Chicago. I have been with Lexecon since 1996 and have performed a wide variety of economic studies relating to telecommunications and other industries. I have published a number of articles in professional economics journals on issues relating to telecommunications and technology. I am also editor of Down to the Wire: Studies in the Diffusion and Regulation of Telecommunications Technologies (Nova Press, 2003), which addresses from an economic perspective the regulation of new telecommunications technologies. In addition, I have previously testified as an expert on telecommunications matters before the FCC. A copy of my curriculum vita is attached in Exhibit 3 to this affidavit.

B. SUMMARY OF CONCLUSIONS

5. We have been asked to present our assessment of competitive issues raised by the proposed transaction between Verizon and MCI (collectively, the Parties).¹ This initial assessment is based on our general familiarity with developments in the telecommunications industry, our extensive review of public source data, and information provided by the companies to date.² We will continue to review and analyze additional data and documents during the course of this proceeding and use that information to respond to any issues raised by the Parties' Application or otherwise supplement our analysis as appropriate.

6. Our analysis to date indicates that the transaction is unlikely to create significant competitive problems due to a variety of characteristics of the industry and Parties, including: (i) the largely complementary nature of MCI's and Verizon's networks, services and target customers; (ii) MCI's prior decision to reduce its sales efforts to residential and small business customers; and (iii) changes in technology and the industry that have led to increased "intermodal" competition – including competition from cable and wireless providers – for customers ranging from residential consumers to large enterprise businesses.

7. Our major conclusions are as follows:

- Verizon's and MCI's networks, services and areas of expertise are largely complementary – Verizon primarily operates a dense local network and a major wireless network, while MCI operates an expansive national and international wireline network and a large Internet backbone.

1. One of us (Carlton) recently co-sponsored a declaration in the SBC/AT&T matter. Because many of the factors relevant to analyzing that transaction are the same as for this transaction, parts of this declaration coincide with the prior declaration.

2. We understand that the Parties will be submitting to the Commission additional non-public information when a protective order is in place. This information, when it is available to be reported, will enable us to make more precise several of the statements in this filing.

- By combining firms with complementary holdings and areas of expertise, the transaction will benefit customers by enabling the merged firm to operate at substantially lower costs than those that MCI and Verizon would face separately.
- The combination of Verizon and MCI also will enhance the ability of the combined firm to develop innovative services.
- Changes in technology, regulation and business strategy mean that historical and current measures of the extent of competition between the firms overstate any potential reduction in competition resulting from the proposed transaction.
 - MCI's "mass market" business (residential and small business customers, as discussed in the Declaration of Wayne Huyard)³ is in continuing decline, and its decision to reduce marketing to mass market customers and refocus on business customers means that it will be an increasingly less important competitive factor in serving mass market customers in the absence of the transaction.
 - Moreover, mass market customers that would have remained with MCI in the absence of the transaction, even though MCI has raised its rates, are likely to benefit from the transaction because Verizon, which has no plans to reduce its marketing, does not face the same incentives as MCI to raise prices to this group.
- Rapid technological changes are expanding the competitive alternatives available to all consumers – including mass market and business subscribers.

3. See Declaration of Wayne Huyard, ¶ 21. In particular, following Huyard, for purposes of this declaration, small business customers are those that purchase off-the-shelf, non-specialized products.

For example, the rapid growth of Internet Protocol (IP) technology is blurring the distinction between voice and data services, and increasing the number of firms competing with legacy carriers to provide service to all categories of customers.

- Wireless and cable providers, among others, are providing increased competition for mass market customers.
- In providing service to large business customers, Verizon and MCI face competition from interexchange carriers (IXCs), new network providers, competitive local exchange carriers (CLECs), systems integrators, equipment providers, value-added resellers and cable providers.
- The sophistication of business consumers; the importance of non-price dimensions of service; and the large and infrequent nature of the “bidding” contracts at issue reduce the potential for the transaction to adversely affect competition.

8. The remainder of this declaration provides the bases for these initial conclusions. Section II presents: (i) background information on Verizon and MCI; and (ii) background regarding trends in the demand for wireline telecommunications services and the rise of intermodal competition. Section III provides an overview of consumer benefits resulting from the transaction. Section IV addresses the competitive impact of the transaction on mass market customers. Section V addresses the competitive impact of the transaction on large enterprise and medium-sized business customers.

II. INDUSTRY BACKGROUND

9. Our analysis of the competitive effects of the proposed transaction begins with a review of the services that the Parties provide; current market conditions; and market and technological trends. As we explain in this section of our declaration, the economic evidence shows that: (1) the two companies offer complementary services; (2) MCI is a declining competitor for mass market customers, while Verizon is a relatively small player for large business customers; and (3) technological developments have resulted in increased intermodal competition for mass market and business customers, a trend that is expected to continue in the future.

A. MCI

10. MCI offers business customers a variety of services including local voice service (through dedicated access, “unbundled network elements – platform,” or UNE-P, and MCI’s own facilities); long distance voice services, including domestic and international long distance; data services, including frame relay, asynchronous transfer mode (ATM), IP virtual private networks (IP-VPN), and private lines; and managed services that include network design, maintenance, security, web hosting and desktop implementation.⁴ MCI also serves residential customers with long distance service, all-distance packages, and local service via UNE-P, although MCI has reduced its marketing to this group. MCI also operates a national and international Internet backbone.

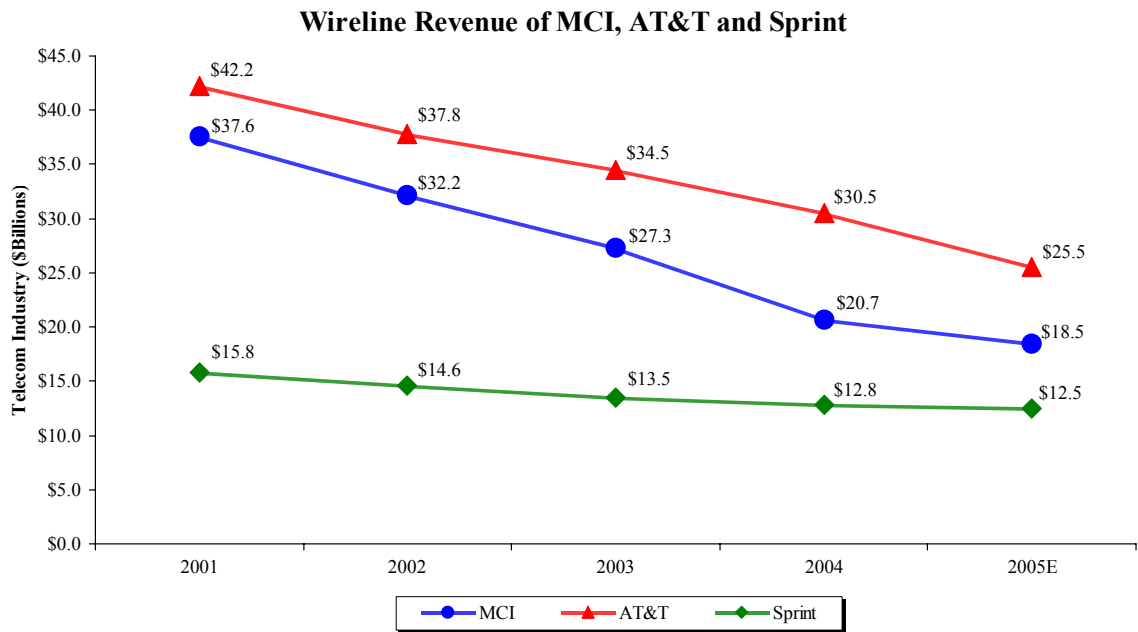
11. MCI and other IXCs have experienced substantial declines in wireline revenue in recent years. Between 2001 and 2004, MCI’s revenue fell 45 percent, even more quickly than the 25 percent average decline for AT&T and Sprint.⁵ MCI revenue is expected to continue its

4. See www.mci.com.

5. Company financial statements.

rapid decline. MCI estimates that its 2005 revenue will fall 10 to 14 percent.⁶ Analysts similarly forecast that MCI's revenues from mass market customers will decline from \$5.0 billion in 2004 to \$3.5 billion in 2005; enterprise revenues from \$4.7 billion to \$4.2 billion; commercial revenues from \$5.0 billion to \$3.6 billion; international revenues from \$3.6 billion to \$3.4 billion; and wholesale revenues from \$3.2 billion to \$2.7 billion.⁷ Further, analysts forecast that MCI's revenue will fall by 42 percent between 2004 and 2008.⁸

Figure 1



Source: Company financial reports, UBS "Wireline Telecom Play Book" - 1/14/2005.

12. In the face of rapidly declining wireline revenue, MCI and other IXC's have significantly reduced their capital expenditures. Between 2001 and 2004, MCI's wireline capital

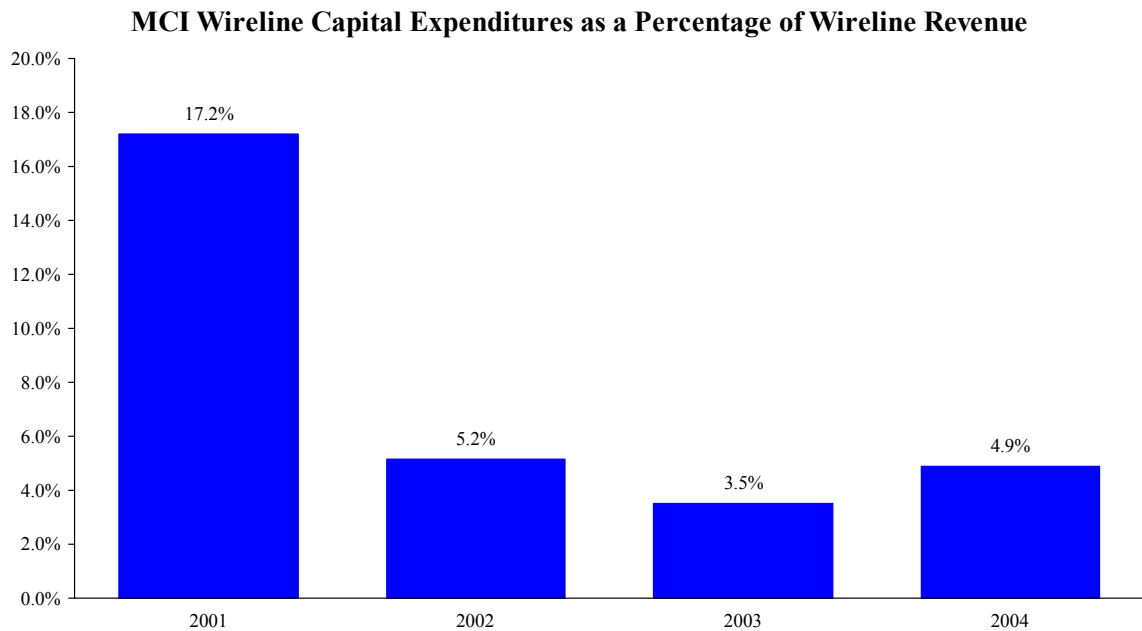
6. MCI Press Release, "MCI Announces Fourth Quarter and Full-Year 2004 Results," February 25, 2005.

7. Credit Suisse / First Boston, MCI Inc., August 11, 2004, pp. 8-12.

8. UBS Investment Research, "Wireline Telecom Play Book," January 14, 2005, p. 62.

expenditures fell from \$6.5 billion to \$1 billion.⁹ Capital expenditures (expressed as a percentage of revenue) for MCI are shown in Figure 2.

Figure 2



Source: UBS "Wireline Telecom Play Book" - 1/14/2005.

13. MCI filed for Chapter 11 bankruptcy protection in July 2002,¹⁰ and emerged from bankruptcy on April 20, 2004.¹¹ Today MCI operates a large Internet backbone and has a broad base of large business customers. Given changes in the demand for MCI services and technological developments, as well as court and FCC decisions that invalidated regulations that enabled MCI to provide local service using UNE-P at "total element long run incremental cost," or TELRIC, based rates, MCI has cut back substantially on efforts to attract mass market customers:

9. MCI 2003 10-K, p. 95; UBS Investment Research, Wireline Telecom Play Book, January 14, 2005 for 2004.

10. MCI Press Release, July 21, 2002.

11. MCI Press Release, April 20, 2004.

- MCI has reduced its sales efforts with respect to mass market customers and raised residential phone services prices.¹²
- MCI has effectively stopped mass media advertising to mass market customers;¹³ has laid off 2,000 employees in its small and mid-sized business sales unit;¹⁴ and has substantially reduced its telemarketing efforts.¹⁵

B. Verizon

14. Verizon provides local and long distance voice and data services, primarily in the former Bell Atlantic's region and the former GTE territories. Verizon offers local, long distance, high-speed Internet and wireless services to residential customers.¹⁶ Verizon offers each of these voice services on a stand-alone basis or in various packages, including "all-distance" voice packages that include local and long distance services. Verizon also offers a variety of services to business customers, including local and long distance voice and data services.¹⁷ Verizon has been able to offer long distance services in all of the states in which it operates since 2003.¹⁸

15. In 2004, local services accounted for roughly 82 percent of Verizon's 2004 wireline voice revenues.¹⁹ Analysts forecast that Verizon's U.S. wireline revenue will fall roughly eight percent between 2004 and 2008.²⁰

16. Since receiving authorization to provide long distance services in all the states in which it operates in 2003, Verizon has rapidly expanded its provision of long distance services.

12. See Declaration of Wayne Huyard, ¶¶ 16-18. Also see MCI 10-Q, September 30, 2004, pp. 57-58.

13. See Declaration of Wayne Huyard, ¶17.

14. Telecom Manager's Voice Report, "LD Carriers Zero In On Enterprise Accounts," November 29, 2004.

15. See Declaration of Wayne Huyard, ¶16.

16. <http://www22.verizon.com/>.

17. Verizon 2003 10-K, pp. 6-7, 64-65

18. http://www.fcc.gov/Bureaus/Common_Carrier/in-region_applications/.

19. Verizon Communications, Investor Quarterly for 4Q 2004.

20. UBS Investment Research, Wireline Telecom Play Book, January 14, 2005, p. 15.

The decline in Verizon's wireline revenues has also been mitigated by the sale of DSL services. Verizon now has over 3.6 million DSL lines in service.²¹ In addition, Verizon owns a 55 percent interest in Verizon Wireless, one of the leading wireless service providers, which serves both businesses and consumers.²²

17. Verizon plays a limited role for most large enterprise customers, providing local and regional service, wholesale high-capacity circuits and customer premises equipment (CPE).²³ Verizon has found that its ability to bid to provide services for large enterprise customers with out-of-region headquarters is limited, and that even for those with in-region offices, Verizon's lack of an extensive nationwide long-distance network and of certain high-end capabilities has hampered its efforts.²⁴

C. FACTORS AFFECTING THE DEMAND FOR TRADITIONAL WIRELINE SERVICES AND INTERMODAL COMPETITION

18. Dramatic changes in technology and regulation are resulting in fundamental changes in the competitive landscape for the provision of wireline services. These factors have placed increased competitive pressure on suppliers of wireline services for all types of consumers. These phenomena, and others, have reduced demand for traditional wireline services.

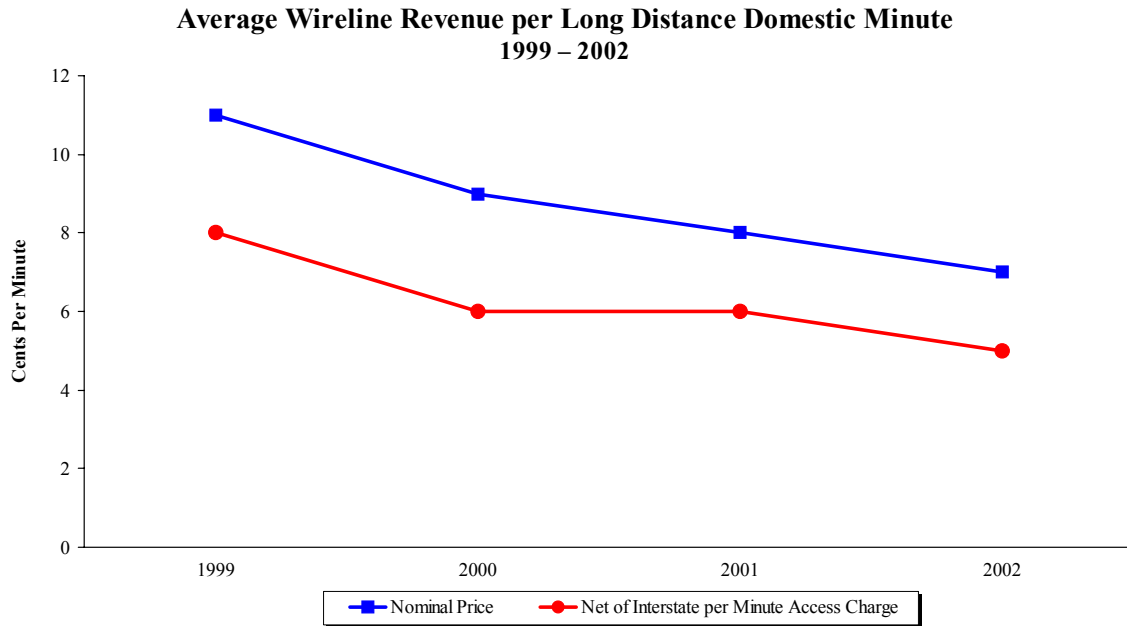
- FCC data indicate that average revenue per minute for wireline long distance services has fallen from \$0.11 per minute in 1999 to \$0.07 per minute in 2002, the last year for which data are available. Similar declines are observed if prices are measured net of access charges.

21. Verizon, 4th Quarter & Full Year 2004 Earnings, Doreen Toben (CFO), January 27, 2005, p. 21.

22. Verizon 2003 10-K, p. 33.

23. See Declaration of Eric Bruno and Shelley Murphy, ¶ 33.

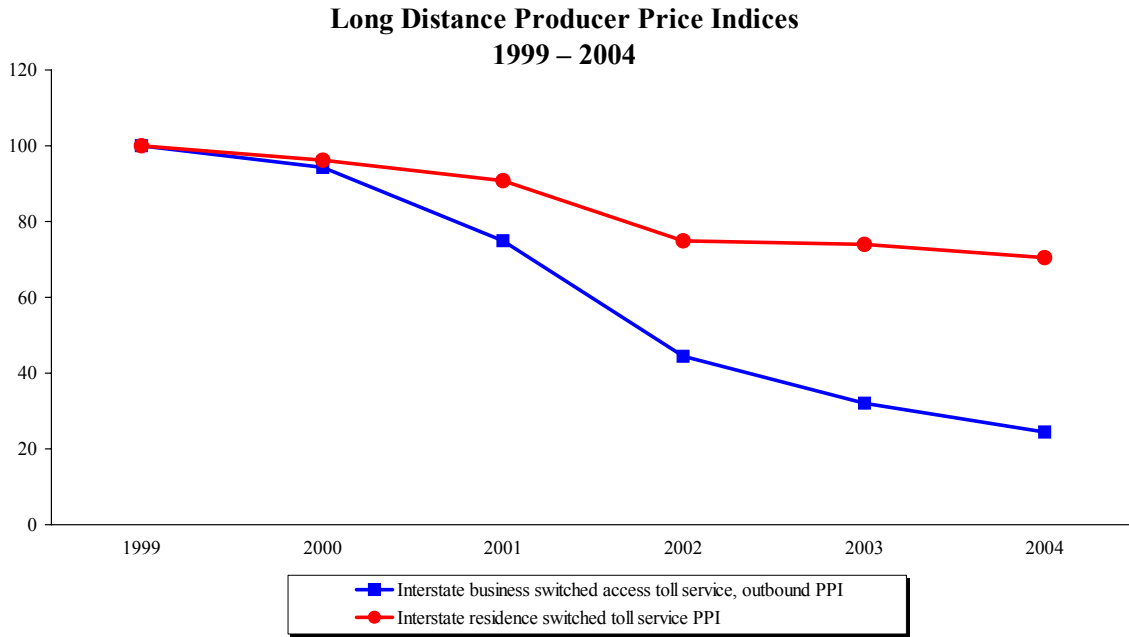
24. See Declaration of Eric Bruno and Shelley Murphy, ¶ 29.

Figure 3

Source: FCC Trends in Telephone Service, May 2004, Chart 13.1.

- Bureau of Labor Statistics data show that the prices received by carriers for long distance services to residential and business consumers have fallen between 1999 and 2004, by 30 percent for residential customers and by 76 percent for business customers.

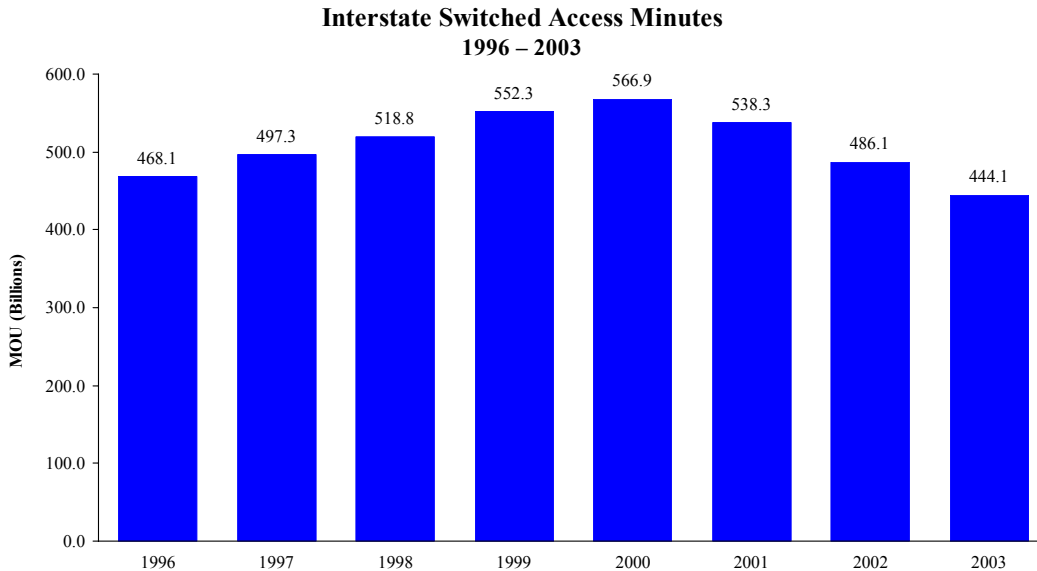
Figure 4



Source: Bureau of Labor Statistics.

- Wireline long distance minutes of use have also fallen despite falling prices. FCC data indicate that minutes of interstate calling fell more than 20 percent between 2000 and 2003.

Figure 5



Source: Trends in Telephone Service Report, Industry Analysis and Technology Division, Wireline Competition Bureau, (May 2004).

- The number of ILEC access lines, as well as the number of calls processed by ILECs, has fallen in recent years.²⁵

19. Among the factors contributing to these trends are: (i) the explosive growth in wireless service; (ii) the rapid on-going deployment of cable and other Voice over Internet Protocol (VoIP) services; (iii) the growth of broadband services; and (iv) the widespread availability and use of e-mail and internet messaging.

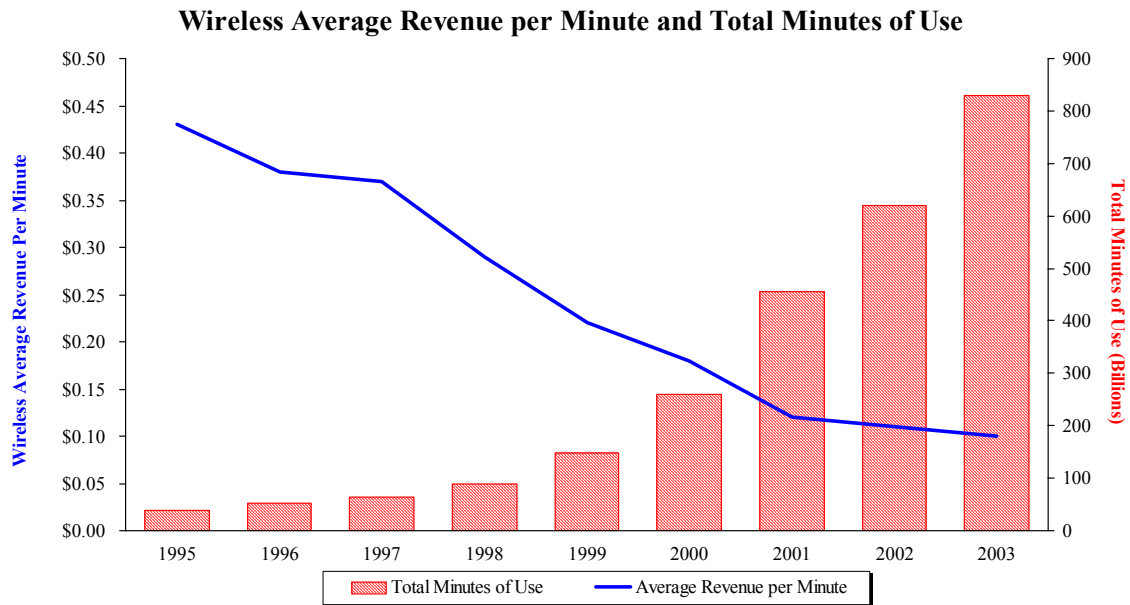
1. The Growth of Wireless Service

20. The unprecedented growth in wireless services has been widely documented:

- Between 1995 and 2003, the number of wireless subscribers grew from 34 million to almost 160 million. Over the same period, monthly minutes of use per subscriber increased from 120 to more than 500.²⁶
- Together, total minutes of use of wireless services increased from 38 billion in 1995 to 830 billion in 2003, a more than 20-fold increase in less than 10 years.

25. See FCC, "Trends in Telephone Service," May 2004, Tables 7.1 and 10.2.

26. FCC, Ninth Competition Report, FCC 04-216, September 28, 2004, Table 1 and Table 9.

Figure 6

Source: FCC, Ninth Report on Wireless Competition, FCC 04-216, September 28, 2004, p A-11. CTIA Wireless Industry Indices, Year-End 2003 Results, May 2004, p 252.

21. This increased utilization of wireless services is due in part to a rapid decline in the average revenue per minute for wireless services, which fell from \$0.43 in 1995 to \$0.10 in 2003, a 77 percent decline.

22. The explosive growth in wireless services – and its impact on wireline services – is reflected in the market value of telecommunications firms. AT&T Wireless and Nextel, two of six major nationwide wireless companies, were valued in recent transactions at \$41 billion and \$35 billion respectively. In contrast, this proposed transaction values MCI – with no wireless business – at less than \$7 billion.²⁷

23. While available data indicate that a modest (but increasing) share of subscribers have “cut the cord” and no longer subscribe to wireline service, data also indicate that consumers readily replace minutes on wireline services with minutes on wireless services. For example, a

27. Verizon / MCI Press Release, “Verizon to Acquire MCI for \$5.3 Billion in Equity & Cash,” February 14, 2005.

recent Yankee Group survey reports that 60 percent of long distance calls in households with cellular phones are now made on wireless phones.²⁸ This displacement is facilitated by the growth of “bucket” plans, which effectively lower the marginal cost of many local and long distance calls to zero. Thus, wireless services are an alternative technology that reduces usage of wireline phones.

2. VoIP

24. VoIP is a new technology for providing local and long distance voice services that is widely expected to provide significant competition for traditional wireline services. VoIP has already been deployed by a number of firms and is widely expected to provide significant future competition to ILECs and others in the provision of local and long distance services.

Prominently, cable providers are in the midst of deploying VoIP services throughout their networks. IP-VPNs are being deployed by businesses of all sizes to carry both voice and data traffic. (IP-VPNs are discussed in more detail in Section V of this declaration.)

25. VoIP can provide high quality local and long distance services, and can include advanced features, such as call logs and “follow-me” calling,²⁹ as well as enhanced 911 services (depending on the provider and location).³⁰ Analysts agree that VoIP services can be provided at lower cost than traditional circuit-switched voice services provided by legacy carriers. For example, Bernstein Research concludes that “[d]ue to the relatively low cost structure of VoIP,

28. Yankee Group, “The Success of Wireline/Wireless Strategies Hinges on Delivering Consumer Value,” October 2004, p. 7.

29. See for example, Vonage’s description of its “Call Hunt” feature.
http://www.vonage.com/features.php?feature=call_hunt.

30. See, for example,
<http://www.timewarnercable.com/austin/products/digitalphones/default.html>.

cable VoIP operators will be able to absorb significant price decreases while maintaining attractive margins.”³¹

26. There are two basic types of VoIP services.

- Cable-based VoIP services are installed by the cable provider and do not require that the consumer subscribe to a broadband service. The service is connected to a home’s inside wiring so all handsets in the home are connected to the service.³²

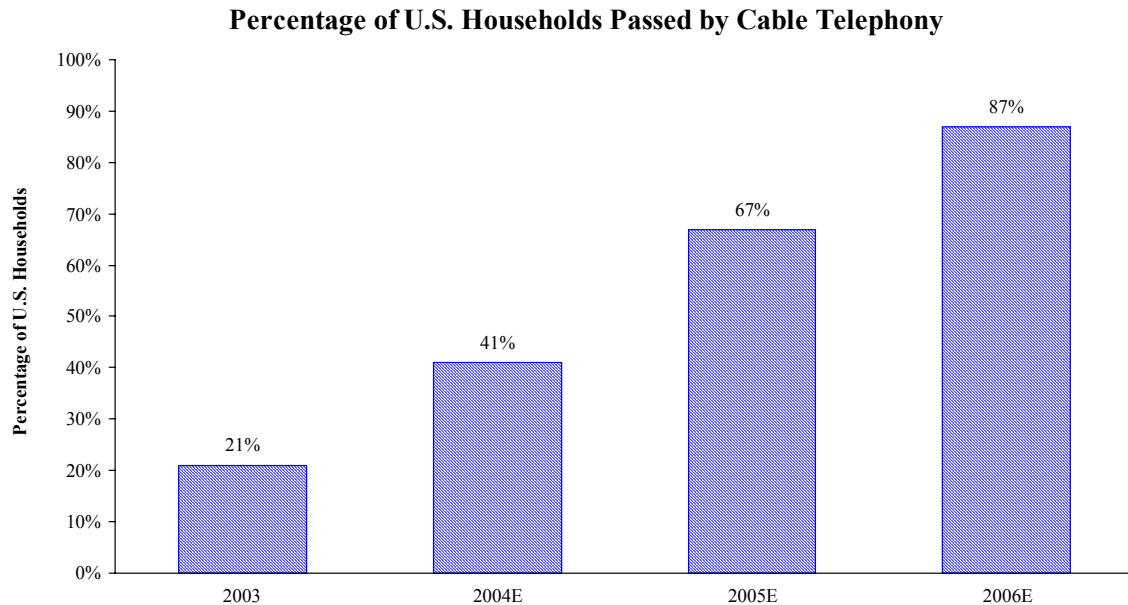
Cable-based services typically make extensive use of dedicated facilities as well as backup power in the event of a disruption.³³ Bernstein Research estimates that VoIP service will be available to 87 percent of U.S. households by the end of 2006. Cable Multiple System Operators (MSOs) today offer unlimited all-distance voice service at roughly \$35 to \$40 per month.³⁴

31. Bernstein Research, “Cable and Telecom: VoIP Will Reshape Competitive Landscape in 2005,” December 17, 2004, p. 1.

32. See, e.g., http://www.cox.com/Telephone/FAQs.asp#P25_5970 (“Will my house need to be rewired? No, the existing wiring inside your home will operate just as it always has.”)

33. See, for example, Cox Communications White Paper, “Voice over Internet Protocol: Ready for Prime Time,” May 2004 (Cox). Cox states that in designing its VoIP network that it “assumes at least four hours of standby power in the HFC plant for both technologies, with in-home battery back-up for the VoIP MTA” (p. 12). Cox also states that it “owns and operates its own end to end network infrastructure” (p. 3).

34. Stratecast Partners, “Residential Broadband Voice: End-User Experience,” January 7, 2005, p. 2.

Figure 7

Source: Bernstein Research Weekly Notes, December 17, 2004. Cable and Telecom: VoIP Reshape Competitive Landscape in 2005, p 2.

Note: Includes VoIP and Circuit-Switched Telephony.

- VoIP services provided over existing broadband connections are self-installed by subscribers and serve only those handsets connected to the broadband service. These services typically utilize the public Internet for transport. VoIP application service providers may not offer E911 service or backup power in case of blackouts.³⁵ Non-cable firms that offer this form of VoIP include Vonage, 8x8, BroadVoice, BroadVox, delta-three, Net2Phone, Primus Lingo and VoicePulse, as well as traditional wireline carriers including AT&T and Verizon. These firms offer packages of unlimited local and long distance voice for prices ranging from \$20 to \$30 a month in addition to the cost of the broadband connection itself.³⁶

35. <http://www.fcc.gov/voip/>.

36. Stratecast Partners, "Residential Broadband Voice: End-User Experience," January 7, 2005, pp. 2-3.

27. Analysts view VoIP products as a direct competitive threat to the ILECs. Morgan Stanley concludes that “[t]he introduction of VoIP, especially by cable companies, represents the largest long-term competitive threat to the Bells, in our view.”³⁷ Other analysts agree:

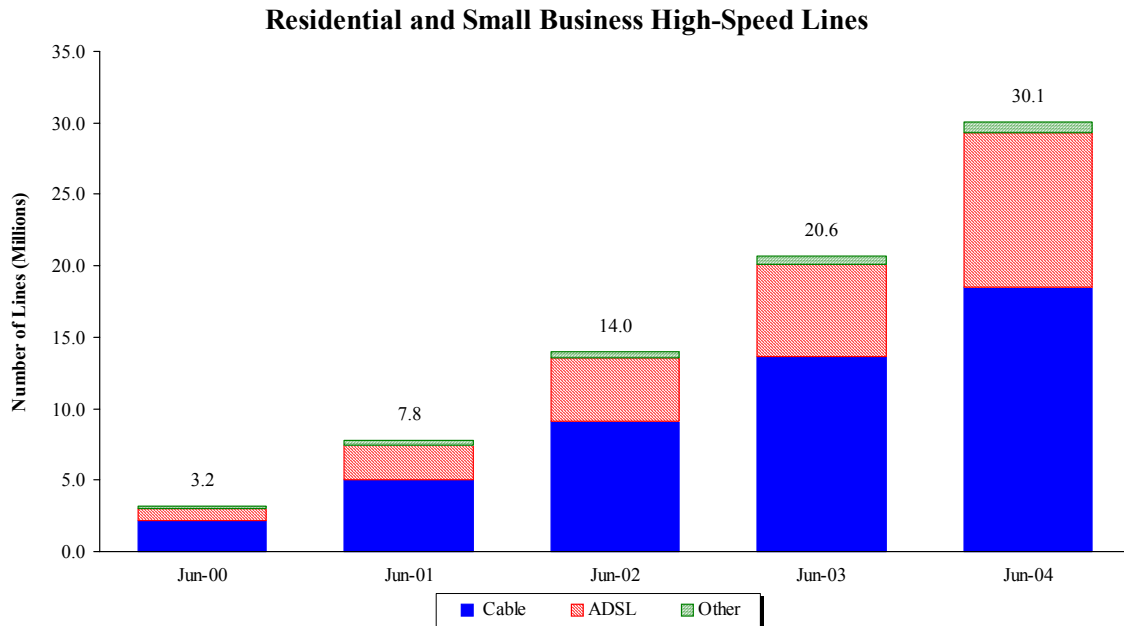
During the end of 2004 cable companies made significant moves into the telecom space. It was reported that Time Warner ... expects to have 200K Digital Phone subscribers by 2004 end, and is currently adding 10K subscribers per week. CableVision ... passed the 250K telephony subscribers milestone and its Optimum Voice service has been adding 1,000 customers per day in the New York area. Comcast ... continued to discuss plans to offer phone service to 40M homes by the end of 2006.... Going forward, we see RBOC competitive pressures increasing as internet telephony services become more feature rich, cable services become more on-demand orientated, and consumers crave more integrated offerings.³⁸

3. Broadband services and Internet usage

28. Another dramatic shift affecting the demand for wireline services in recent years is the increased adoption of high-speed Internet access technologies. FCC data indicate that the number of residential and small business high speed lines has grown from less than four million lines in 2000 to over 30 million lines in 2004. Consumer broadband services allow for more intensive use of the Internet than dial-up services.

37. Morgan Stanley, “3Q04 Trend Tracker: Let the Good Times Roll?” December 2004, p. 22.

38. Blaylock Partners, “Telecommunications: Wireline Services,” January. 20, 2005, p. 2.

Figure 8

Source: FCC Report High-Speed Services for Internet Access: Status as of June 30, 2004, December 2004, p 8.

29. The growth of broadband services has contributed to a decline in the demand for second phone lines, which are often used in part to accommodate dial-up Internet access. Additionally, as we have discussed, broadband Internet connections allow for the use of VoIP products.

30. The increase in Internet utilization has resulted in extraordinary growth in the volume of e-mail and instant messaging, which provide alternatives to a subset of both business and personal telephone calls. An estimated nine billion e-mails are sent each day in the U.S.³⁹ In addition, 80 million people in the U.S. use instant messaging (IM) and it is estimated that seven billion IMs are sent each day worldwide.⁴⁰ While it is difficult to quantify the amount of voice telephone traffic these new technologies have displaced, analysts recognize that such

39. Legal Tech Newsletter, "E-Mail and Records Management in the Legal Environment," 11/14/03, cited in UNE Fact Report 2004, October 2004, p. I-6.

40. <http://www.webpronews.com/news/ebusinessnews/wpn-45-20040824AOLAnnouncesthatInstantMessagingisMorePopularthanEver.html>, cited in UNE Fact Report 2004, October 2004, p. I-6.

substitution occurs. For example, In-Stat/MDR has stated that “[c]onsumers are using e-mail and instant messaging in place of a phone call.”⁴¹ According to an analysis presented to the FCC in the Triennial Review Order (TRO) remand proceedings, “if just 5 percent of [email and IM messages] substitute for a 90 second voice call, this data traffic has displaced more than 10 percent of the voice traffic that would otherwise have been handled by the incumbents’ networks.”⁴²

III. THE PROPOSED TRANSACTION IS LIKELY TO RESULT IN SIGNIFICANT BENEFITS TO CUSTOMERS

A. SUMMARY

31. The proposed transaction reflects the companies’ response to fundamental changes in the demand and supply of telecommunications services and is expected both to result in substantial cost savings and to bring substantial benefits to customers of all types. The cost savings and consumer benefits are described in greater detail in the accompanying declaration of Verizon’s Stephen Smith. In general, the Parties predict that the transaction will result in total benefits with a net present value of \$7 billion, reflecting cost savings and incremental revenues.

B. BENEFITS TO CUSTOMERS FROM THE TRANSACTION

1. The transaction combines firms with complementary networks and business focuses.

32. As discussed above, MCI’s and Verizon’s operations are highly complementary. For example, MCI operates an extensive national and international long distance network and has limited assets used to provide local services. Verizon operates a dense local network in the former Bell Atlantic region, as well as the former GTE service territories, and has limited out-of-region and long distance facilities.⁴³ In addition, each company offers services that the other

41. In-Stat/MDR, “State of the U.S. Carrier Market,” October 2003, p. 6.

42. UNE Fact Report (2004), p. I-6.

43. See Declaration of Eric Bruno and Shelley Murphy, ¶¶ 32, 55-56.

company does not offer. For example, Verizon offers wireless voice and wireless data services to its customers, while MCI has no such offerings. Similarly, MCI operates a major Internet backbone while Verizon does not.⁴⁴ The combination of these networks and service offerings will enable the combined firm to better serve business customers by increasing its ability to provide a broader set of services and to provide “end-to-end” services to more locations.

2. The transaction will accelerate delivery of new services to customers.

33. We understand that because Verizon and MCI have not yet been able to begin joint business planning, detailed plans for new service offerings are not available. Nevertheless, a combined firm is expected to be in a position to provide innovative IP-based services more efficiently and to accelerate the deployment of such services to a broader range of customers.⁴⁵ Also, the Parties intend to make services, such as security services, developed for enterprise customers available to other customers.⁴⁶

C. THE PROPOSED TRANSACTION IS EXPECTED TO RESULT IN SIGNIFICANT COST SAVINGS.

34. Verizon estimates that the merged firm will incur substantially lower costs than would be incurred if the two firms operated separately. More specifically, Verizon estimates that the transaction will result in annual cost savings of \$1 billion by the third year.⁴⁷ Verizon has a proven track record from prior transactions of achieving its cost savings projections. For example, we understand that the actual cost savings achieved by Verizon as a result of the Bell Atlantic / NYNEX and Bell Atlantic / GTE mergers exceeded the projected savings from those transactions.⁴⁸ Analysts agree that large savings are likely to result from the transaction. For

44. See Declaration of Eric Bruno and Shelley Murphy, ¶ 32.

45. See Declaration of Eric Bruno and Shelley Murphy, ¶¶ 37-43.

46. See Declaration of Michael K. Hassett, Kathy Koelle, Katherine C. Linder, and Vincent J. Woodbury, ¶ 28.

47. Verizon, Raymond James 2005 Institutional Investor Conference, March 7, 2005, p. 18.

48. See Declaration of Stephen E. Smith, ¶ 7.

example, in 2004 J.P. Morgan estimated that a merger between Verizon and MCI would result in savings worth \$2.3 billion in the third year.⁴⁹

35. These cost reductions come from a variety of sources, including:

- Verizon estimates that the combined firm will be able to reduce transport costs by more efficiently using the merged firm's network capacity.⁵⁰
- Verizon expects that the combined firm will be able to reduce IT expenses by, for example, eliminating duplicate operating centers and eliminating overlapping billing and ordering systems.⁵¹
- Verizon also expects that the combined firm will be able to reduced overhead costs by eliminating duplicative staff.⁵²

IV. THE TRANSACTION IS UNLIKELY TO CREATE SIGNIFICANT COMPETITIVE PROBLEMS FOR MASS MARKET CUSTOMERS

36. This section addresses issues relating to the competitive effect of the proposed transaction on services sold to mass market customers. While MCI has long been a major provider of long distance services to residential consumers and has provided local services via UNE-P in recent years, its declining sales as well as its recent decision to reduce its sales efforts for traditional services to consumers mean that current and historical information on MCI's activities is not relevant for evaluating the impact of the proposed transaction on mass market consumers.

37. In recent years, MCI, AT&T and others offered local services by purchasing UNE-P from the ILECs at TELRIC-based rates. The FCC recently adopted rules that phase out

49. JPMorgan, "MCI Inc.: Sustainable Dividend with Upside Potential from Possible M&A," September 24, 2004, pp. 42-3.

50. See Declaration of Stephen E. Smith, ¶ 3.

51. See Declaration of Stephen E. Smith, ¶ 3.

52. See Declaration of Stephen E. Smith, ¶ 3.

by early 2006 ILECs' obligation to offer UNE-P service.⁵³ As we have discussed, the FCC's decision to end ILECs' obligation to offer UNE-P at TELRIC-based rates contributed to MCI's decision to reduce its sales efforts for local and long distance services to consumers.⁵⁴

38. MCI's decision to reduce its mass market sales efforts means that, in the absence of the proposed transaction, even MCI's current shares overstate its future competitive significance. There are two reasons for this. First, in the absence of the transaction, MCI's share of subscribers in the future would be lower than its current share as customers continue to migrate away without being replaced. Second, for any given share that MCI might have in the future, its decision means that MCI is not competing as aggressively as in the past to attract new customers.

39. MCI's number of consumer lines has declined by almost half between January 2003 and January 2005, and its consumer revenues declined by 20 percent between 2003 and 2004.⁵⁵ MCI has characterized this process as a "continuing and irreversible decline."⁵⁶ Analysts also forecast that MCI's customer base will suffer rapid attrition in the absence of the proposed transaction. For example, Needham & Co. predicts that MCI mass market revenues will decline 30 percent in each of the next two years, and UBS predicts declines in mass market revenues of 27 percent in 2005, 31 percent in 2006 and another 28 percent in 2007.⁵⁷ As illustrated in Figure 9 below, Credit Suisse / First Boston has projected MCI's revenues by segment and expects mass market revenues to decline sharply both in absolute terms and relative to MCI's other areas.

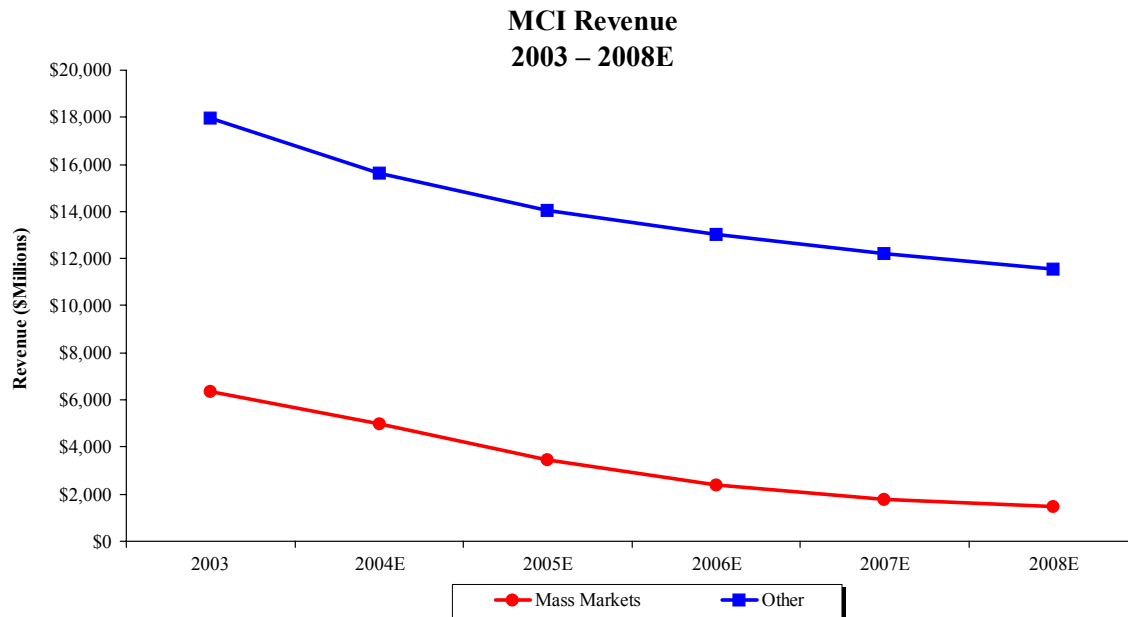
53. FCC, Order on Remand, FCC 04-290, February 4, 2005, ¶ 199.

54. See Declaration of Wayne Huyard, ¶¶ 10-12.

55. See Declaration of Wayne Huyard, ¶ 2.

56. See Declaration of Wayne Huyard, ¶ 2.

57. Needham & Co., "MCI, Inc.: Double Attack!," September 16, 2004, p. 10; UBS, Wireline Telecom Play Book, January 14, 2005, p. 62.

Figure 9

Source: Credit Suisse / First Boston, *10-Q Implies Recurring EBITDA 23% Lower*, August 11, 200

40. The likely competitive effects of the proposed transaction must be evaluated using as a benchmark estimates of the shares that would prevail in the absence of the proposed transaction. The importance of using forward-looking shares is discussed in the Horizontal Merger Guidelines of the U.S. Department of Justice and Federal Trade Commission.⁵⁸ Because of MCI's decision to reduce its sales efforts for mass market customers and its stated plans to implement rate increases,⁵⁹ MCI's future shares necessarily would be smaller than its current shares. Similarly, even if prices were to rise as the result of MCI's business decision, any such increases cannot be considered to be transaction related. To the contrary, the price expected to prevail in the future in the absence of the transaction is the appropriate benchmark for evaluating any potential impact of the proposed transaction.

58. Horizontal Merger Guidelines of the U.S. Department of Justice and Federal Trade Commission (Revised April 1997), Section 1.521.

59. MCI 10-Q, September 30, 2004, pp. 57-8.

41. The use of market shares to evaluate the competitive impact of transactions is based on the premise that firms of all sizes remain active competitors in the marketplace. Generally, a firm that does not actively compete has less of an impact on market price than one with the same market share that competes actively. Because MCI would be a less active competitor in the absence of the proposed transaction than it has been in the past, its future share would overstate its future competitive significance.

42. Due to its decision to reduce its sales efforts for mass market customers and withdraw from some areas, MCI would be a less important competitive factor in the marketplace for traditional telephone services in the absence of the transaction. As such, prices charged by Verizon and other firms would likely be constrained, not by MCI, but by other factors. Among others, these factors include rival providers of local and long distance services.

43. In addition, the transaction is likely to benefit MCI consumers that would remain with MCI in the absence of the transaction. As MCI's current customer base declines due to its decision to reduce its sales efforts and withdraw from some areas, MCI's incentives to raise prices to its remaining customers (absent the proposed transaction) would increase. As we have discussed, MCI has raised residential rates. Following the transaction, however, Verizon would not have the same incentives as MCI does today. Moreover, Verizon markets DSL and video services to its telephone subscribers and will have an incentive to retain MCI's current customers to facilitate marketing additional services to them. Thus, MCI's former customers are likely to be better off as a result of the transaction because it enables them to avoid the higher prices MCI would have been expected to charge.

44. Finally, as we have discussed, changes in technology have brought new competitors which are decreasing demand for traditional wireline services. These include wireless companies, with consumers replacing wireline minutes with wireless minutes, and, in

some cases, “cutting the cord” and using only wireless; and cable companies, which are rapidly deploying VoIP based telephone service. Competition from these sources will be unaffected by this transaction.

V. THE TRANSACTION IS UNLIKELY TO CREATE SIGNIFICANT COMPETITIVE PROBLEMS FOR LARGE ENTERPRISE AND MEDIUM-SIZED BUSINESS CUSTOMERS

A. INTRODUCTION

45. Business voice and data services offered by Verizon and MCI are described in detail in the Application and related filings and in brief earlier in this declaration. As a general matter, business voice revenue fell three percent between 2003 and 2004 and is forecast to decline eight percent over the next two years. By contrast, business data traffic is expected to grow significantly, although business data revenues are expected to grow more slowly than traffic due to increased competition and productivity.⁶⁰ This section provides a brief overview of the scope of competition in the provision of services to large enterprise (including government and other public institutions) and medium-sized businesses and assesses the potential impact of the transaction on competition for various business voice and data services.

B. ENTRY AND TECHNOLOGICAL CHANGES HAVE CREATED INCREASED COMPETITION IN THE PROVISION OF BUSINESS SERVICES

46. In recent years the widespread entry of new facilities-based telecommunications providers throughout the United States has created a variety of new competitors for both local and long distance data and voice services. Entry by service providers has been facilitated by large increases in fiber optic capacity deployed in long haul and local networks. Carriers including Qwest, Level 3, Global Crossing, Williams, Broadwing and others deployed extensive long distance fiber networks. At the same time, CLECs including AT&T (TCG), Time Warner,

60. In-Stat, Wireline in Decline, December 2004, pp. 18, 24.

Focal, as well as the new long distance providers deployed fiber networks within metropolitan areas, typically to serve central business districts.

1. Long distance fiber and service providers

47. Between 1996 and 2001, the number of fiber-kilometers of optical fiber deployed in national networks increased six-fold.⁶¹ For both long haul and metro area fiber networks, the increase in fiber deployed substantially understates the increase in potential network capacity due to improvements in electronics that increase the bandwidth that can be carried on a given strand of fiber.

48. Firms such as Qwest, Level 3, Broadwing, and Global Crossing that deployed fiber are now service providers. In addition, these new networks have also facilitated entry by additional service providers that purchased either capacity or indefeasible rights of use (IRUs) on these networks. For example, Level 3's business model focuses on providing wholesale services – enabling other companies and carriers to take advantage of Level 3's national network.

2. Metropolitan area fiber and service providers

49. CLECs have been deploying fiber in metropolitan areas. New Paradigm Resources Group (NPRG) reports that in 2004 the facilities-based CLECs tracked in its annual report operated networks with over 370,000 route miles, had deployed over 1,200 voice switches and had over 2,000 data switches in place.⁶²

50. The NPRG data identify areas in which CLECs report they operate voice and/or data networks, and provide frame relay, ATM and IP services.⁶³ For CLECs affiliated with

61. KMI Corp., *Fiberoptic Networks of Long Distance Carriers in North America: Market Developments and Forecast*, November 1999, p. A-1.

62. NPRG, *CLEC Report 2005*, p. 2-12, Table 9.

63. "Operational" networks are defined to include those in which a CLEC operates a switch within a city as well as those in which services are provided through facilities in a nearby area. CLECs that serve an area through resale are excluded from this analysis.

interexchange carriers, such as AT&T, Sprint and others, only CLEC-related activities are reported. In addition, the NPRG data do not report all CLEC activity. For example, out-of-region ILEC facilities are not reported, and not all carriers report with respect to all types of facilities.

51. As Table 1 indicates, nearly all metropolitan areas in states served by Verizon are served by multiple facilities-based CLECs that operate voice and data networks.⁶⁴ The data indicate that the 19 metropolitan statistical areas (MSAs) in Verizon's region with more than 500,000 residents have an average of nine operational data networks.⁶⁵ The data also indicate that 95 percent of the MSAs have three or more CLECs operating data networks and that 90 percent have five or more. (That is, only five percent have fewer than three networks and 10 percent have fewer than five.) On a population-weighted basis, CLEC coverage is higher, due to the fact that MSAs with larger populations typically have more CLEC activity.

Table 1

**Number of CLECs with Operations in
MSAs with more than 500,000 Residents in Verizon States - 2004**

Service	Average Number of Networks	Population Weighted Average	Percentage of MSAs with		Percentage of Population in MSAs with	
			3+ Networks	5+ Networks	3+ Networks	5+ Networks
Facilities Based Voice Network	8.8	14.7	94.7%	84.2%	98.8%	96.6%
Facilities Based Data Network	8.8	14.5	94.7%	89.5%	98.8%	97.6%
Frame Relay	6.0	10.0	78.9%	52.6%	94.0%	84.9%
ATM Service	6.1	11.0	68.4%	52.6%	91.4%	84.9%
Internet Protocol	6.7	11.6	84.2%	57.9%	93.1%	87.0%
Fiber Network in Place	4.9	7.6	84.2%	42.1%	94.1%	81.2%

Source: New Paradigm Group CLEC Report 2005; U.S. Census Bureau.

New Paradigm reports services offered through CLEC divisions only.
Does not include former GTE territories.
Includes 19 MSAs.

64. CLECs in an MSA do not necessarily serve the same routes and buildings and, to date, we have not analyzed the extent to which CLECs' facilities in a given MSA serve the same areas. Nonetheless, the NPRG data indicate that a wide variety of CLECs can deploy facilities in response to demand throughout MSAs in Verizon regions.

65. Our analysis is based on 19 MSAs in the former Bell Atlantic's 13-state region.

3. IP Convergence

52. Both legacy firms as well as entrants provide a wide variety of voice and data services. While such services have been treated as distinct markets by the FCC in the past, the growth of IP technology is rapidly blurring these distinctions. IP enables voice and data services to be carried simultaneously on the same network by the same equipment.

53. For example, IP-based services, such as IP VPNs, today compete directly with “traditional” data technologies (such as private lines, frame relay, and ATM) as well as with “traditional” voice services. This convergence between voice and data service has been widely recognized. According to Yankee Group, “[t]he market opportunity for convergent telephony solutions has never been greater, and we predict a significant SMB [small and medium business] adoption of converged solutions over the next 2 years.”⁶⁶ Industry research firms such as Forrester, IDC and In-Stat have all noted migration from these “traditional” services to IP services. For example, InStat notes in a recent report that:

IP VPN [Virtual Private Network] services are generating strong revenue growth for a number of service providers, as they migrate customers from legacy Frame Relay/ATM and private-line services to these next-generation VPN services. They will also be a key battleground for service providers looking to capture the many customers who will be converging their voice, data, and video traffic onto a single service in the future.⁶⁷

Forrester research similarly concludes that “...our recent research indicates that 56% of North American enterprises plan to replace Frame Relay with some amount of IP VPN in 2005.”⁶⁸

54. As these forecasts suggest, revenue from traditional data services such as frame relay and ATM is expected to fall, while revenue from IP VPNs is expected to increase. In-

66. Yankee Group, “Educated SMBs Have Aggressive Plans to Upgrade to Converged Phone and Data Systems,” January 2004, p. 2.

67. In-Stat, High Growth and Lots of Opportunity: The US IP VPN Services Market, January 2005, p. 1.

68. Forrester, IP VPNs: Build or Buy?, January 27, 2005, p. 1.

Stat/MDR predicts that between 2004 and 2006, ATM revenues will decline by one percent and frame relay by seven percent, while IP VPN revenues will increase by 25 percent.⁶⁹

55. The growth of data services, and particularly IP-VPNs, has resulted in important changes in the competitive environment. While legacy carriers often provide customers service through circuit-switched voice service and traditional data services, entrants offer competitive alternatives to business customers based on lower-cost IP-based technologies.

C. THERE ARE A WIDE VARIETY OF SUPPLIERS OF SERVICES TO LARGE ENTERPRISE AND MEDIUM-SIZED BUSINESSES

56. There is great heterogeneity among telecommunications carriers and others selling telecommunications solutions with respect to the products or services offered, geographic coverage and types of customers served. There is also great heterogeneity among purchasers of telecommunications services with respect to the mix of services required, service quality requirements, the number of employees to be served and the geographic location of those employees. As a result, it is difficult to identify with any precision the scope of markets for business services.

57. However, as we discuss in this section of our declaration, available data indicate that a variety of providers compete to meet the telecommunications needs of all general categories of business customers, including large enterprises and medium-sized businesses. These include traditional wireline local and long distance carriers as well as a variety of facilities-based firms that have entered in recent years. In addition, non-carriers including systems integrators and equipment manufacturers have entered into the provision of services to business customers. These non-carriers design, implement and operate networks for business customers using in part wholesale transport services purchased from carriers.

69. In-Stat/MDR, "Wireline in Decline: US Wireline Services 2004," Table 7 and IDC, "U.S. IP VPN Services 2004-2008 Forecast and Analysis," Table 1.

58. The various competitors competing to serve business customers fall into a number of broad groups including traditional IXCs, new long distance network operators, CLECs, systems integrators, equipment manufacturers and their value-added resellers (VARs), and cable television companies. The nature of competition and coordination between these members groups is not easily characterized, although groups of customers face a variety of alternative suppliers. Firms compete with respect to some customers or locations but may partner in attempting to bid for contracts with other customers. Some firms (like systems integrators, manufacturers and VARs) may compete with others (such as IXCs, ILECs and CLECs) that serve as suppliers of their wholesale transport.

59. Some of the major competitors seeking to serve business customers are briefly described below.

1. Traditional IXCs

60. Historically, the traditional IXCs, including MCI, AT&T and Sprint, have supplied a variety of services to large enterprise and medium-sized business customers. They have extensive national and international networks and provide a variety of local and long distance voice and data services. These firms serve a wide range of business customers, from smaller business to very large scale enterprise customers. Today, there are a wide variety of new companies supplying services as well.

2. Operators of new fiber networks

61. In the late 1990s a variety of firms deployed extensive long-haul fiber networks throughout the United States as well as internationally. This capacity is now used by those companies and others to provide voice and data telecommunications services. New network operators have expanded their reach by purchasing or trading fiber on multiple networks. In

some cases, the companies have merged with other carriers with local networks, thus increasing their ability to pursue large business customers.

62. Principal firms in this group include: Qwest, which has a worldwide fiber optic and also includes U S WEST's local networks in the western United States; Broadwing which has an extensive domestic network and acquired Focal, a CLEC operating in metropolitan areas across the United States; Global Crossing, which has a national and international fiber optic network; and Level 3, which has a national and international network and focuses on providing wholesale services to other carriers.

3. CLECs

63. CLECs operate local or regional networks and many operate in a number of metropolitan areas. These companies typically deploy facilities in central business districts and offer a variety of voice and data services.⁷⁰ Examples of major CLECs include XO Communications, US LEC, PaeTec and Time Warner Telecom.⁷¹

4. Systems integrators

64. Systems integrators provide managed services to larger enterprise customers. These services include, among other things, network design, desktop implementation, and network operation. Systems integrators purchase wholesale transport services from carriers. IBM, EDS, and Accenture are leading systems integrators.

5. International carriers

65. Firms associated with international carriers also provide business services to U.S. companies, focusing on those with international services needs. Equant, part of the France Telecom Group, serves a variety of multinational corporations, including Ernst & Young and

70. See, generally, NPRG CLEC Report 2005.

71. See Declaration of Eric Bruno and Shelley Murphy, ¶ 21.

ABN AMRO.⁷² Similarly, British Telecom operates a U.S. network and offers managed voice and data network services. Deutsche Telekom and its subsidiaries offer a VPN solution that allows multinational companies to have a “virtual global presence.” Colt Telecom Group, KPN Telecom, Nippon Telegraph and Telephone, and SingTEL are among other international firms that provide service to businesses in the U.S.⁷³

6. Equipment manufacturers / Value added resellers

66. Like systems integrators, manufacturers of IP equipment design, implement and manage customer networks that utilize the manufacturers’ equipment. Equipment manufacturers maintain organizations that provide these services, principally to larger customers. Value added resellers provide the same types of services to medium-sized business customers. As noted by the Yankee Group, “[c]lose collaboration allows systems integrator channel partners and vendors to gain access to SMBs.”⁷⁴ Leading firms in this category include Cisco and Avaya.

7. ILECs

67. SBC and BellSouth, like Verizon, offer local voice and data services both to businesses within their footprint but also to larger business customers with locations that spill outside of their footprint. However, both of these firms, like Verizon, primarily serve businesses that have most of their locations and employees within their home service territory.⁷⁵

8. Cable companies

68. Cable companies operate networks of optical fiber and coaxial cable. While they are traditionally viewed as serving residential consumers, they also provide broadband services

72. Datamonitor, Equant, September 27, 2004.

73. See Declaration of Eric Bruno and Shelley Murphy, ¶ 23.

74. Yankee Group, “Level 3 Reaches SMBs Through a Systems Integrator Channel Partner,” September 2004, p. 1.

75. See SBC/AT&T Public Interest Statement, Declaration of James Kahan; and In-Stat, High Growth and Lots of Opportunity: The US IP VPN Services Market, January 2005, p. 21.

throughout the United States and are deploying IP and VoIP services to business customers. Cox, for example, markets IP VPN solutions to businesses as replacements for frame relay or private lines.⁷⁶ It also offers traditional voice and Internet services to business customers within the cities that it serves.⁷⁷ Analysts view cable companies as significant competitors for business customers. For example, the Yankee Group has written that “cable operators have expanded their service offerings to include voice, video, data and internet business solutions. Initially focused on the SMB market, MSOs are now looking to capture enterprise wallet share.”⁷⁸

D. PURCHASERS OF TELECOMMUNICATIONS SERVICES ARE HIGHLY HETEROGENEOUS

69. Large enterprise and medium-sized business customers are highly heterogeneous and cannot readily be classified. They differ widely with respect to, among other factors: (i) the number of sites they operate; (ii) the geographical mix of these sites; (iii) geographical locations to be served; (iv) the number and types of services required; (iv) the complexity of these services; and (v) requirements regarding service reliability.

70. In addition, buyers differ widely with respect to their purchasing practices. Some firms choose to have a single provider for all their telecommunications services. Others may have separate carriers for, for example, local, long distance and data services. Some firms may have different providers in different locations. Some large purchasers may use multiple providers at any given location to ensure redundancy in case of a network outage. Some firms purchase services through formal Requests for Proposals (RFPs) and multiple rounds of bidding for contracts or even on-line auctions, while others purchase through informal negotiations or based on published tariff, rack, or catalog rates.

76. <http://www.coxbusiness.com/connectivity/>.

77. <http://www.coxbusiness.com/>.

78. Yankee Group, “Cable MSOs Look to Penetrate the Business Market,” December 2004, p. 1.

71. As frequently recognized by the FCC, large enterprise customers are often highly sophisticated, and often have IT staffs with considerable telecommunications expertise.⁷⁹ In addition, there are a variety of consultants that advise business customers and may assist in both the design of RFPs and evaluation of bids that are received. These services are also provided to a wide range of businesses through VARs and others that offer a variety of technological “solutions” to buyers.

72. The procurement practices that many large firms use in obtaining customized telecommunications services further reduce the likelihood of anticompetitive effects through either coordinated or unilateral actions. As we have discussed, large enterprise customers typically ask firms to submit bids in response to RFPs that describe the services desired and locations to be served. These bidding opportunities are idiosyncratic and even the form of the outcome is uncertain. A contract award could be “winner take all,” or result in a split outcome, where portions of the contract are awarded to multiple bidders. As indicated above, overlapping awards for primary and secondary or backup service may be made. The range of these outcomes is not necessarily specified in advance.

73. In bidding situations, such as those that occur in procurement for many large enterprise customers, it is widely recognized that “market share” is a poor indicator of a firm’s potential market power. If all firms in a bid competition are equally likely to win, it is the number of firms that best measures the extent of competition, not bidders’ market shares. The Merger Guidelines of the U.S. Department of Justice and Federal Trade Commission recognize that market shares may not be relevant in such situations, and note that “[w]here all firms have,

79. FCC, Bell Atlantic-GTE Order, FCC 00-221, January 16, 2000, ¶ 121.

on a forward-looking basis, an equal likelihood of securing sales, the Agency will assign equal market shares."⁸⁰

74. Additionally, the importance of non-price elements of competition further reduces the likelihood that firms can exercise market power either unilaterally or through coordinated effects. Buyers often have customized needs and bidders do not necessarily offer the same technological solutions. In addition, any type of coordination is further complicated by the fact that different buyers place different relative weights on price and quality characteristics of bids.

E. VERIZON AND MCI FACE SIGNIFICANT RIVALS FOR ALL PRODUCTS AND SERVICES FOR WHICH THEY NOW COMPETE

75. As we have discussed, rapid changes in technology as well as the heterogeneity among both consumers and service providers of telecommunications services make it difficult to define economic markets with specificity. Nonetheless, available information indicates that Verizon and MCI face competition from numerous other sources in every major business segment in which each offers services. This section provides an overview of the competitive alternatives available to customers in these major business segments.

1. Local voice and data service

76. As we have discussed, CLECs have deployed a variety of local voice and data facilities throughout the United States. Table 2 extends this analysis and shows that in virtually all areas in which MCI operates local facilities in Verizon's territory (as reported in the NPRG data), there are a number of other CLEC providers of the same service.⁸¹ These data indicate

80. Merger Guidelines of the U.S. Department of Justice and Federal Trade Commission, (Revised April 1997), Section 1.41.

81. Our analysis is based on nine MSAs in the former Bell Atlantic's 13-state region in which MCI operates local facilities.

that several CLEC providers will have facilities after the transaction in nearly all metropolitan areas in Verizon's territory with a population of 500,000 where MCI operates CLEC facilities.

Table 2

Number of CLECs with Operations in MSAs where MCI has CLEC Operations in MSAs with more than 500,000 Residents in Verizon States - 2004

Service	Average Number of Networks	Population Weighted Average	Percentage of MSAs with		Percentage of Population in MSAs with	
			3+ Networks	5+ Networks	3+ Networks	5+ Networks
Facilities Based Voice Network	13.2	16.6	100.0%	100.0%	100.0%	100.0%
Facilities Based Data Network	12.9	16.4	100.0%	100.0%	100.0%	100.0%
Frame Relay	9.2	11.4	100.0%	100.0%	100.0%	100.0%
ATM Service	9.9	12.7	100.0%	100.0%	100.0%	100.0%
Internet Protocol	10.3	13.3	100.0%	100.0%	100.0%	100.0%
Fiber Network in Place	7.2	8.6	100.0%	77.8%	100.0%	95.6%

Source: New Paradigm Group CLEC Report 2005; U.S. Census Bureau.

New Paradigm reports services offered through CLEC divisions only.
Does not include former GTE territories.
Includes 9 MSAs.

2. Long distance voice and data services

77. As our discussion in Section V.B indicates, there are a large number of providers of business long distance voice and data services, including MCI, Sprint and new networks such as Broadwing and Level 3. It is generally recognized that prices for wholesale long distance services have been falling.

- Bernstein Research reports that wholesale voice pricing “typically falls at a steady rate of 10-12% per year, while data price declines regularly exceed 20%.”⁸²
- In-Stat/MDR reports that, for business voice services, there is “[r]obust wireline long distance voice service competition driving service rates down.”⁸³

82. Bernstein Research, “U.S. Telecom: Wholesale Segment Too Large to Sweep Under Rug, But Expected to Decline at 2.5% CAGR Through '09,” January 6, 2005, p. 8.

83. In-Stat/MDR, “Wireline in Decline: US Wireline Services 2004,” December 2004, p. 25.

3. Large enterprise customers

78. As we have discussed, MCI is a leading provider of services to enterprise and large business customers. In contrast, we understand that Verizon is a "niche player" providing local and regional voice service, wholesale high-capacity circuits and CPE.⁸⁴ As we have noted, MCI also competes with AT&T, Sprint, Qwest, systems integrators such as IBM and EDS, and others to provide services to these customers, and a large number of firms other than Verizon are making efforts to expand their provision of these services to them as well.

79. As we have discussed, large enterprise customers are sophisticated and purchase in large volumes. Buyers often conduct formal bids for services and both service quality and price are important dimensions in firms' evaluation of bids. These circumstances make it difficult for suppliers to price in a non-competitive fashion.

4. Medium-sized business customers

80. Typically, medium sized business customers are less sophisticated and purchase customized solutions on a smaller scale than larger business customers, sometimes in combination with standardized products. However, as discussed above, there are many providers of standard local voice and data products, such as CLECs and VARs, which offer IP-based networks that serve these customers. Similarly, there are many providers of standard long distance voice and data products, such as traditional IXCs, new network providers, as well as resellers. These include companies such as PaeTec and Con Edison Telecom.⁸⁵

81. Cable companies now actively compete for medium-sized business customers as well:

84. See Declaration of Eric Bruno and Shelley Murphy, ¶ 32.

85. See <http://conedcom.com/businessservices.cfm/> and http://www.paetec.com/2_1/2_1_3_1.html.

[Cox] Our state-of-the-art, fiber-optic based broadband network delivers a comprehensive range of advanced communications services, including high-speed Internet access, local and long distance telephone, and digital cable television for small- and medium-sized businesses, as well as advanced voice and data transport solutions for larger companies.⁸⁶

[Time Warner / RoadRunner] Road Runner Business Class products and services are offered where small and middle-sized businesses exist.⁸⁷

[Comcast] We are the industry leader in providing quality broadband solutions to area businesses including: .. Comcast High-Speed Internet, with services flexible to suit small, medium and large business needs.⁸⁸

As one analyst noted:

We anticipate that cable operators will grow their SMB subscriber base from 654,000 at year-end 2002 to 2.3 million by year-end 2008, representing a CAGR of 23.4 percent.⁸⁹

86. <http://www.cox.com/HR/ForYourBusiness.asp>


87. <http://www.rrbiz.com/RoadRunner/index.asp?sid=1>

88. <http://www.comcast-ne.com/business/about.html>

89. Yankee Group, "Cable MSOs Continue to Get Down to Business," July 30, 2003, p.2.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed on March 9, 2005

A handwritten signature in black ink, appearing to read "Gustavo Bamberger", is written over a horizontal line.

Gustavo E. Bamberger

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed on March 9, 2005

A handwritten signature in cursive script, appearing to read "Dennis W. Carlton".

Dennis W. Carlton

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed on March 9, 2005



Allan L. Shampine

Exhibit 1

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University of Chicago Fellowship, 1981-1984
H.B. Earhart Fellowship, 1985-1986

RESEARCH PAPERS

“Antitrust and Higher Education: Was There a Conspiracy to Restrict Financial Aid?”
co-authored with D. Carlton and R. Epstein, RAND Journal of Economics, (Vol. 26, No. 1, Spring 1995, pp. 131-147).

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“An Empirical Assessment of Predation in the Airline Industry” (1999), co-authored with D. Carlton.

TESTIMONIAL EXPERIENCE

Direct, Rebuttal and Cross-Examination Testimony of Gustavo E. Bamberger on behalf of Producer - Marketers Transportation Group, before the Illinois Commerce Commission in Docket No. 90-0007, April 24, 1990 (Direct); July 6, 1990 (Rebuttal); and May 30, 1990 and August 3, 1990 (Cross-Examination).

Testimony of Gustavo E. Bamberger in Re: United States of America v. Irving A. Rubin: In the U.S. District Court for the Northern District of Illinois, Eastern Division, No. 91 CR 44-2, December 3, 1993.

Testimony of Gustavo E. Bamberger in Re: Center for Public Resources Arbitration, E. Merck and EM Industries, Incorporated, against Abbott Laboratories, February 8, 1994.

Deposition and Testimony of Gustavo E. Bamberger in Re: In the Matter of Michael R. Sparks, Debtor: In the United States Bankruptcy Court for the Northern District of Illinois, Eastern Division, No. 92 B 21692, May 9, 1994 (Deposition and Testimony).

Joint Affidavit and Joint Reply Affidavit of John P. Gould and Gustavo E. Bamberger in Re: In the Matters of Review of the Pioneer’s Preference Rules and Amendment of the Commission’s Rules to Establish New Personal Communications Services: Proceedings before the Federal Communications Commission, ET Docket 93-266, Gen. Docket 90-314, July 26, 1994 (Affidavit); and August 8, 1994 (Reply Affidavit).

Statement of John P. Gould and Gustavo E. Bamberger on Implementing Legislation for the Uruguay Round of GATT (S. 2467) (Pioneer Preference Provisions) Before the Senate Commerce Commission, November 14, 1994.

Report and Deposition of Gustavo E. Bamberger in Re: Khan, et al. v. State Oil Company; In the U.S. District Court for the Northern District of Illinois, Eastern Division, No. 94 C 00035, May 30, 1995 (Report); and July 27, 1995 (Deposition).

Statement and Supplemental Statement of Alan O. Sykes and Gustavo E. Bamberger in Re: Fresh Tomatoes and Bell Peppers, Investigation No. TA-201-66, United States International Trade Commission, June 3, 1996 (Statement); and June 10, 1996 (Supplemental Statement).

Testimony of Gustavo E. Bamberger in Re: Wisconsin Public Service Corporation; WPS Energy Services, Inc.; and WPS Power Development, Inc.: Before the Federal Energy Regulatory Commission, Docket No. ER96-1088-000, July 22, 1996.

Pre-Filed Direct, Rebuttal and Re-Direct Testimony of Gustavo E. Bamberger in Re: Disapproval of Rate Filings for American Casualty Company of Reading, Pennsylvania, and Continental Casualty Company, Before the State Office of Administrative Hearings (Texas), SOAH Docket No. 454-96-0800, September 10, 1996 (Direct); September 16, 1996 (Rebuttal); and September 27, 1996 (Re-Direct).

Affidavit of Gustavo E. Bamberger in Re: Summit Family Restaurants Inc., a Delaware Corporation; HTB Restaurants Inc., a Delaware Corporation; and CKE Restaurants Inc., a Delaware Corporation vs. HomeTown Buffet, Inc., a Delaware Corporation; and Buffets, Inc., a Minnesota Corporation: In the United States District Court for the District of Utah, Central Division, No. 96 CV 0688B, September 17, 1996.

Report, Supplemental Report, Affidavit, Deposition and Affidavit of Gustavo E. Bamberger in Re: Blue Cross & Blue Shield United of Wisconsin, and Compcare Health Services Insurance Corporation v. The Marshfield Clinic and Security Health Plan of Wisconsin, Inc.: In the U.S. District Court for the Western District of Wisconsin, No. 94-C-0137-C, December 19, 1996 (Report with William J. Lynk); February 10, 1997 (Supplemental Report William J. Lynk); March 10, 1997 (Affidavit with William J. Lynk); March 18, 1997 (Deposition); and April 4, 1997 (Affidavit).

Affidavit of Dennis W. Carlton and Gustavo E. Bamberger in Re: Pacific Gas & Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company: United States of America Before the Federal Energy Regulatory Commission, FERC Docket No. ER96-1663-000, January 16, 1997.

Testimony and Prepared Statement of Gustavo E. Bamberger on behalf of Sacramento Municipal Utility District in Re: Pacific Gas and Electric Company, San Diego Gas & Electric Company and Southern California Edison Company: Before the Federal Energy Regulatory Commission Technical Conference on Structural Mitigation Options, Docket No. ER96-1663-000, January 17, 1997.

Affidavit, Report, Rebuttal Report and Deposition of Gustavo E. Bamberger in Re: Henry & Joann Rozema, Island Sports Center, Inc., Mark McKay, Lawrence Halida, Harriet Halida, and Kathleen Malek, on behalf of themselves and all others similarly situated v. The Marshfield Clinic, Security Health Plan of Wisconsin, Inc., North Central Health Protection Plan, and Rhinelander Medical Center, S.C.: In the U.S. District Court for the Western District of Wisconsin, No. 94-C-592-C, July 11, 1997 (Affidavit); July 23, 1997 (Report with William J. Lynk); September 2, 1997 (Rebuttal Report); and September 11-12, 1997 (Deposition).

Deposition, Testimony and Surrebuttal Testimony of Gustavo E. Bamberger in Re: Deltic Farm & Timber, Co., Inc. vs. Great Lakes Chemical Corporation: In the U.S. District Court for the Western District of Arkansas, El Dorado Division, No. 95-1090, November 13, 1997 (Deposition); December 9, 1997 (Testimony); and December 10, 1997 (Surrebuttal Testimony).

Report, Deposition and Testimony of Gustavo E. Bamberger in Re: In the Arbitration of Bandag, Incorporated, Claimant, v. Treadco, Inc., Respondent; Treadco, Inc., Counter-Claimant and Claimant, v. Bandag, Incorporated, Martin Carver, William Sweatman, J.J. Seiter, Ronald Toothaker, and Ronald Hawks, Counter-Respondent and Respondents: In the American Arbitration Association, Chicago, Illinois, No. 51 114 0038 95, May 21, 1998 (Report); August 18, 1998 (Deposition); and November 12 and 16, 1998 (Testimony).

Testimony, Affidavit, Affidavit, Report, Deposition, Affidavit and Testimony of Gustavo E. Bamberger in Re: Hamilton, et al. v. Accu-Tek, et al.: In the U.S. District Court for the Eastern District of New York, No. 95 CV 0049, July 27, 1998 (Testimony before Magistrate Judge Cheryl L. Pollak); August 13, 1998 (Affidavit); October 2, 1998 (Affidavit); October 16, 1998 (Report); November 13, 1998 (Deposition); December 12, 1998 (Affidavit); and December 29, 1998 and January 27-28, 1999 (Testimony).

Expert Report of Robert H. Gertner and Gustavo E. Bamberger in Re: BDPCS, INC., d/b/a BEST DIGITAL, and BDPCS Holdings, Inc., formerly known as Questcom, Claimants, v. U S WEST, Inc. and U S WEST Communications, Inc., Respondents: American Arbitration Association, Denver Office, No. 77 181 00204 97, July 31, 1998.

Statement of Dennis W. Carlton and Gustavo E. Bamberger in Re: Enforcement Policy Regarding Unfair Exclusionary Conduct in the Air Transportation Industry: Before the Department of Transportation, Office of the Secretary, Washington, D.C., Docket OST-98-3713, September 24, 1998.

Responsive Direct Testimony and Cross-Examination Testimony of Gustavo E. Bamberger for Intervenor Oklahoma Gas and Electric Company in Re: Joint Application of American Electric Power Company, Inc., Public Service Company of Oklahoma and Central and South West Corporation Regarding Proposed Merger: Before the Corporation Commission of the State of Oklahoma, Cause No. PUD 980000444, March 29, 1999 (Responsive Direct Testimony with Dennis Carlton); and April 21, 1999 (Cross-Examination).

Prepared Answering Testimony and Exhibits of Gustavo E. Bamberger and Dennis W. Carlton on Behalf of Oklahoma Gas and Electric Company in Re: American Electric Power Company, Inc. and Central and South West Corporation: United States of America Before the Federal Energy Regulatory Commission, FERC Docket Nos. ER98-40-000, ER98-2770-000, ER98-2786-000, April 28, 1999.

Affidavit of Gustavo E. Bamberger on Behalf of Allegheny Energy in Re: Dominion Resources, Inc. and Consolidated Natural Gas Company: United States of America Before the Federal Energy Regulatory Commission, FERC Docket No. EC99-81-000, August 5, 1999.

Rebuttal Report of Dennis W. Carlton and Gustavo E. Bamberger; Reply Report of Dennis W. Carlton and Gustavo E. Bamberger; Rebuttal Report of Dennis W. Carlton and Gustavo E. Bamberger to Professor Michael Ward; Testimony of Dennis W. Carlton and Gustavo E. Bamberger; Critique of the Memorandum of Fact and Law of the Commissioner of Competition by Gustavo E. Bamberger in Re: The Commissioner of Competition and Superior Propane Inc. and ICG Propane Inc.: Before The Competition Tribunal, No. CT-98/2, September 14, 1999 (Rebuttal Report); September 19, 1999 (Reply Report); September 27, 1999 (Rebuttal Report to Professor Michael Ward); December 13-14, 1999 (Testimony); and January 31, 2000 (Critique).

Declaration and Reply Declaration of Robert H. Gertner and Gustavo E. Bamberger In the matter of: Application by New York Telephone Company (d/b/a Bell Atlantic - New York), Bell Atlantic Communications, Inc., NYNEX Long Distance, and Bell Atlantic Global Networks, Inc., for Provision of In-Region, InterLATA Services in New York: Before the Federal Communications Commission, CC Docket No. 99-295, September 29, 1999 (Declaration) and November 8, 1999 (Reply Declaration).

Statement of Gustavo E. Bamberger and Hans-Jürgen Petersen In the matter of: Proceeding on Motion of the Commission to Investigate Performance-Based Incentive Regulatory Plans for New York Telephone Company – Track 2: Before the State of New York Public Service Commission, Case 92-C-0665, November 30, 1999.

Report and Deposition of Gustavo E. Bamberger In Re: Northwest Airlines Corp. et al., Antitrust Litigation: In the United States District Court for the Eastern District of Michigan, Master File No. 96-74711, March 31, 2000 (Report); and July 21, 2000 (Deposition).

Testimony and Cross-Examination of Gustavo E. Bamberger on Behalf of Sacramento Municipal Utility District Regarding Public Interest Issues Raised by Alternative Methods of Valuation In Re: Application of Pacific Gas & Electric Company to Market Value Hydroelectric Generating Plants and Related Assets Pursuant to Public Utility Code Sections 367(b) and 851: Before the Public Utilities Commission of the State of California, Application No. 99-09-053, June 8, 2000 (Testimony); and June 27, 2000 (Cross-Examination).

Comments on the SEC's Proposed Auditor Independence Standards, SEC File No. S7-13-00, filed with the Securities and Exchange Commission, on behalf of Arthur Andersen, Deloitte & Touche, KPMG and the American Institute of Certified Public Accountants (with Charles C. Cox and Kenneth R. Cone), September 25, 2000.

Joint Reply Declaration, Joint Supplemental Declaration and Joint Supplemental Reply Declaration of Robert H. Gertner and Gustavo E. Bamberger In the matter of: Application by Verizon New England Inc., Bell Atlantic Communications, Inc. (d/b/a Verizon Long Distance), NYNEX Long Distance Company (d/b/a Verizon Enterprise Solutions), and Verizon Global Networks Inc., for Authorization To Provide In-Region, InterLATA Services in Massachusetts: Before the Federal Communications Commission, CC Docket No. 00-176 and CC Docket No. 01-9, November 3, 2000 (Reply Declaration); January 16, 2001 (Supplemental Declaration); and February 28, 2001 (Supplemental Reply Declaration).

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Testimony and Rebuttal Testimony of Gustavo E. Bamberger on Behalf of Sacramento Municipal Utility District In Re: Application of Pacific Gas & Electric Company to Market Value Hydroelectric Generating Plants and Related Assets Pursuant to Public Utility Code Sections 367(b) and 851: Before the Public Utilities Commission of the State of California, Application No. 99-09-053, December 5, 2000 (Testimony); and January 16, 2001 (Rebuttal Testimony).

Report, Rebuttal Report, Revised Damage Report, Deposition and Declaration of Gustavo E. Bamberger in Re: Republic Tobacco, L.P. v. North Atlantic Trading Company, Inc., North Atlantic Operating Company, Inc. and National Tobacco Co., L.P.: In the U.S. District Court for the Northern District of Illinois, Eastern Division, No. 98 C 4011, February 5, 2001 (Report); April 20, 2001 (Rebuttal Report); April 20, 2001 (Revised Damage Report); May 15-16 (Deposition); and November 5, 2001 (Declaration).

Joint Declaration of Robert H. Gertner and Gustavo E. Bamberger In the matter of: Application by Verizon New York Inc., Verizon Long Distance, Verizon Enterprise Solutions, Verizon Global Networks Inc., and Verizon Select Services Inc., for Authorization To Provide In-Region, InterLATA Services in Connecticut: Before the Federal Communications Commission, CC Docket No. 01-100, April 23, 2001.

Direct, Supplemental and Cross-Examination Testimony of Gustavo E. Bamberger in Re: Petition for Approval of a Statement of Generally Available Terms and Conditions Pursuant to §252(f) of the Telecommunications Act of 1996 and Notification of Intention to File a Petition for In-region InterLATA Authority With the FCC Pursuant to §271 of the Telecommunications Act of 1996: Before the Alabama Public Service Commission, Docket No. 25835, May 16, 2001 (Direct); June 19, 2001 (Supplemental); and June 27, 2001 (Cross-Examination).

Affidavit of Robert H. Gertner and Gustavo E. Bamberger In the matter of: BellSouth Telecommunications, Inc.'s Entry into InterLATA Services Pursuant To Section 271 of the Telecommunications Act of 1996: Before the Georgia Public Service Commission, Docket No. 6863-U, May 31, 2001.

Direct Testimony of Gustavo E. Bamberger In the matter of: Application of BellSouth Telecommunications, Inc. To Provide In-Region InterLATA Services Pursuant to Section 271 of the Telecommunications Act of 1996: Before the North Carolina Utilities Commission, Docket No. P-55, Sub 1022, June 11, 2001.

Direct Testimony of Gustavo E. Bamberger in Re: Consideration of the Provision of In-Region InterLATA Services By BellSouth Telecommunications, Inc. Pursuant to Section 271 of the Telecommunications Act of 1996: Before the Mississippi Public Service Commission, Docket No. 97-AD-0321, June 15, 2001.

Direct, Rebuttal and Cross-Examination Testimony of Gustavo E. Bamberger in Re: Application of BellSouth Telecommunications, Inc. to Provide In-Region InterLATA Services Pursuant to Section 271 of the Telecommunications Act of 1996: Before the Public Service Commission of South Carolina, Docket No. 2001-209-C, June 18, 2001 (Direct); July 16, 2001 (Rebuttal); and July 26-27, 2001 (Cross-Examination).

Affidavit of Robert H. Gertner and Gustavo E. Bamberger in Re: Consideration and review of BellSouth Telecommunication, Inc.'s pre-application compliance with Section 271 of the Telecommunications Act of 1996, including but not limited to, the fourteen requirements set forth in Section 271(c)(2)(B) in order to verify compliance with Section 271 and provide a recommendation to the Federal Communications Commission regarding BellSouth Telecommunications, Inc.'s application to provide interLATA services originating in-region: Before the Louisiana Public Service Commission, Docket No. U-22252-E, June 21, 2001.

Joint Declaration and Joint Reply Declaration of Robert H. Gertner, Gustavo E. Bamberger and Michael P. Bandow In the Matter of: Application by Verizon Pennsylvania Inc., Verizon Long Distance, Verizon Enterprise Solutions, Verizon Global Networks Inc., and Verizon Select Services Inc., for Authorization To Provide In-Region, InterLATA Services in Pennsylvania: Before the Federal Communications Commission, CC Docket No. 01-138, June 21, 2001 (Declaration); and August 6, 2001 (Reply Declaration).

Direct Testimony of Gustavo E. Bamberger in Re: BellSouth Telecommunications, Inc.'s Entry into Long Distance (interLATA Service) in Tennessee Pursuant to Section 271 of the Telecommunications Act of 1996: Before the Tennessee Regulatory Authority, Docket No. 97-00309, July 30, 2001.

Expert Report and Testimony of Gustavo E. Bamberger in Re: In the Arbitration of Legend Healthcare, Inc. v. United Healthcare Services, Inc., et al., American Arbitration Association, Commercial Arbitration No. 65 Y 193 00194 00, August 1, 2001 (Report); and September 27, 2001 (Testimony).

Reply Declaration of Dennis W. Carlton, Hal S. Sider and Gustavo E. Bamberger In the Matter of: Review of Regulatory Requirements for Incumbent LEC Broadband Telecommunications Services: Before the Federal Communications Commission, CC Docket No. 01-337, April 22, 2002.

Expert Preliminary Report, Supplemental Expert Report, Rebuttal Expert Report, Deposition, Declaration, Supplemental Declaration and Declaration of Gustavo E. Bamberger in Re: Nobody in Particular Presents, Inc., v. Clear Channel Communications, Inc., Clear Channel Entertainment, Inc., Clear Channel Radio, Inc., Clear Channel Broadcasting Inc., KBCO-FM, KBPI-FM, KFMD-FM, KRFX-FM, and KTCL-FM, In the U.S. District Court for the District of Colorado, Civil Action No. 01-N-1523, May 3, 2002 (Preliminary Report); July 26, 2002 (Supplemental Report); August 20, 2002 (Rebuttal Report); September 17, 2002 (Deposition); October 31, 2002 (Declaration); January 24, 2003 (Supplemental Declaration); and July 21, 2003 (Declaration).

Comments Regarding Regulation of Broadband Internet Access Services In the Matter of Inquiry Concerning High-Speed Access to Internet Over Cable and other Facilities, GN Docket No. 00-185; In the Matter of Deployment of Wireline Services Offering Advanced Telecommunications Capability, CC Docket No. 98-147; In the Matter of Computer III Further Remand Proceedings: Bell Operating Company Provision of Enhanced Services, CC Docket No. 95-20; and In the Matter of 1998 Biennial Regulatory Review: Review of Computer III and ONA Safeguards and Requirements, CC Docket No. 98-10 (with Kenneth Arrow, Gary Becker, Dennis Carlton, Daniel Fischel, Robert Gertner, Joseph Kalt and Hal Sider), May 3, 2002.

Expert Report, Reply Expert Report and Declaration of William Landes, Hal Sider and Gustavo Bamberger, and Declaration, Deposition and Supplemental Declaration of Gustavo E. Bamberger in Re: Vitamin Antitrust Litigation: In the United States District Court for the District of Columbia, M.D.L. No. 1285, May 23, 2002 (Report); July 17, 2002 (Reply Report); August 1, 2002 (Declaration with Landes and Sider); August 5, 2002 (Declaration); August 9, 2002 (Deposition); and September 27, 2002 (Supplemental Declaration).

Deposition of Gustavo E. Bamberger in Re: Devin Daniels, et al v. Philip Morris Companies, Inc., et al.: In San Diego Superior Court, Case No. 719446, June 10, 2002.

Declaration of Gustavo E. Bamberger and Michael P. Bandow in Re: EB-01-1H-0352, Supplemental Response to Questions Posed by the Commission in its May 21, 2002 Letter re Verizon's Provisioning of Special Access Services, submitted to the Federal Communications Commission, July 31, 2002.

Affidavit, Expert Report and Deposition of Gustavo E. Bamberger in Re: National Association for the Advancement of Colored People (NAACP) and National Spinal Cord Injury Association (NSCIA) v. Acusport Corporation; Ellet Brothers, Inc., RSR Management Company, and RSR Group, Inc., individually and on behalf of similarly situated entities; and National Association for the Advancement of Colored People (NAACP) et al., v. American Arms, Inc., et al.: In the U.S. District Court for the Eastern District of New York, CV 99-7037 and CV 99-3999, August 20, 2002 (Affidavit); February 19, 2003 (Report); and March 6, 2003 (Deposition).

Report of Gustavo E. Bamberger in Re: Nevada Power Company v. Lexington Insurance Company et al.: In the U.S. District Court for the Southern District of Nevada, CV-S-01-0045-PMP-PAL, October 23, 2002.

Deposition of Gustavo E. Bamberger in Re: Firearm Cases: In Superior Court of the State of California, County of San Diego, Judicial Council Coordination Proceeding No. 4095, November 6, 2002.

Expert Rebuttal Report, Expert Report and Deposition of Gustavo E. Bamberger in Re: Baum Research and Development, Inc. and Steve Baum v. Hillerich & Bradsby Co., Inc.; Easton Sports, Inc.; Worth, Inc.; National Collegiate Athletic Association; and Sporting Goods Manufacturers Association: In the U.S. District Court for the Eastern District of Michigan, 98-72946, January 13, 2003 (Expert Rebuttal Report and Expert Report); and May 28-29, 2003 (Deposition).

Declaration of Gustavo E. Bamberger and Michael P. Bandow in Re: EB-01-1H-0352, Supplemental Response to Questions Posed by the Commission in its January 24, 2003 Letter re: Verizon's Provisioning of Special Access Services, submitted to the Federal Communications Commission, March 14, 2003.

Dennis W. Carlton, Janice H. Halpern and Gustavo E. Bamberger, "Economic Analysis of the News Corporation/DIRECTV Transaction," and "Response to William P. Rogerson and Daniel L. Rubinfeld and Duncan Cameron," submitted to the Federal Communications Commission, MB Docket No. 03-124, July 1, 2003; and September 8, 2003.

Expert Report, Deposition, Declaration and Testimony of Gustavo Bamberger in Re: Western Asbestos Company; Western MacArthur Company; and Mac Arthur Company, Debtors: In United States Bankruptcy Court, Northern District of California, Oakland Division, Nos. 02-46284, 02-46285, 02-46286, September 15, 2003 (Expert Report); October 21, 2003 (Deposition); November 17, 2003 (Declaration); and November 21, 2003 (Testimony).

Expert Report, Deposition and Testimony of Gustavo E. Bamberger in Re: In the Matter of the Arbitration Between: Rangemark Insurance Services, Inc., Petitioner vs. Claremont Liability Insurance Company, Respondent, October 24, 2003 (Expert Report); November 14, 2003 (Deposition); and February 12, 2004 (Testimony).

Joint Declaration and Joint Reply Declaration of Gustavo E. Bamberger and Bradley N. Reiff, Deposition of Gustavo E. Bamberger and Joint Expert Report of Gustavo E. Bamberger and Bradley N. Reiff in Re: Currency Conversion Fee Antitrust Litigation: In the U.S. District Court for the Southern District of New York, MDL Docket No. 1409, November 11, 2003 (Joint Declaration); December 18, 2003 (Deposition); April 2, 2004 (Joint Reply Declaration); and December 22, 2004 (Joint Expert Report).

Expert Report, Deposition and Reply Expert Report of Gustavo E. Bamberger in Re: Marketing and Management Information, Inc. v. The United States: In the U.S. Court of Federal Claims, No. 99-194C, March 16, 2004 (Expert Report); April 20-21, 2004 (Deposition); and May 6, 2004 (Reply Expert Report).

Joint Expert Witness Statement of Gustavo Bamberger, David Gillen, Margaret Guerin-Calvert, Andrew Hanssen, Jerry Hausman, Timothy Hazledine, Janusz Ordover, Robert Willig and Kieran Murray; Affidavit of Gustavo Ernesto Bamberger and Dennis William Carlton in Reply; Second Affidavit of Gustavo Ernesto Bamberger and Dennis William Carlton; Affidavit of Gustavo Ernesto Bamberger; and Testimony of Gustavo Bamberger: In the Matter of an appeal from determinations of the Commerce Commission between Air New Zealand Limited, Qantas Airways Limited, Appellants and Commerce Commission, Respondents: In the High Court of New Zealand Auckland Registry, CIV 2003-404-6590, May 21, 2004 (Joint Expert Witness Statement); June 4, 2004 (Reply Affidavit); July 2, 2004 (Second Affidavit); July 12, 2004 (Affidavit of Gustavo Bamberger); and July 13-16, 2004 (Testimony).

Expert Report of Gustavo Bamberger in Re: Congoleum Corporation et al.: In United States Bankruptcy Court, District of New Jersey, Case 03-51524 (KCS), July 9, 2004.

Statement and Letter of Gustavo Bamberger In the matter of: A La Carte and Themed Tier Programming and Pricing Options for Programming Distribution on Cable Television and Direct Broadcast Satellite Systems: Before the Federal Communications Commission, MB Docket No. 04-207, July 15, 2004 (Statement); and November 4, 2004 (Letter with Michael G. Baumann, John M. Gale, Thomas W. Hazlett, Michael L. Katz, Kent W. Mikkelsen and Bruce M. Owen).

Expert Report, Supplemental Expert Report and Deposition of Gustavo Bamberger in Re: Braid Electric Company, Claimant vs. Square D Company / Schneider Electric, Respondent: Before the American Arbitration Association, Case No. 51 Y 181 01712 03, August 16, 2004 (Expert Report); October 8, 2004 (Supplemental Expert Report); and October 29, 2004 (Deposition).

Declaration of Gustavo Bamberger in Re: Issuer Plaintiff Initial Public Offering Antitrust Litigation and Public Offering Fee Antitrust Litigation: In the U.S. District Court for the Southern District of New York, 00 Civ. 7804 (LMM) (DFE) and 98 Civ. 7890 (LMM), September 16, 2004.

Expert Report of Gustavo Bamberger in Re: Congoleum Corporation v. Ace American Insurance Company, et al.: In the Superior Court of New Jersey, Law Division: Middlesex County, Docket No. MID-L-8908-01, December 17, 2004.

Exhibit 2

DENNIS WILLIAM CARLTON

Senior Managing Director

February 2005

Business Address: Lexecon Inc. (312) 322-0215
332 South Michigan Avenue
Chicago, Illinois 60604

Home Address: 21 Lakewood Drive (847) 835-8855
Glencoe, Illinois 60022

EDUCATION

Ph.D., MASSACHUSETTS INSTITUTE OF TECHNOLOGY, Cambridge, Massachusetts: Economics, 1975.

M.S., MASSACHUSETTS INSTITUTE OF TECHNOLOGY, Cambridge, Massachusetts: Operations Research, 1974.

A.B., HARVARD UNIVERSITY (Summa cum laude): Applied Math and Economics, 1972.

EMPLOYMENT

LEXECON INC., Chicago, Illinois (1977 - present): President, 1997 – 2001, Senior Managing Director, 2003 - present.

UNIVERSITY OF CHICAGO, Graduate School of Business (1984 - present): Professor of Economics.

UNIVERSITY OF CHICAGO, Law School (1980 - 1984): Professor of Economics.

UNIVERSITY OF CHICAGO, Department of Economics: Assistant Professor (1976 - 1979): Associate Professor (1979 - 1980).

MASSACHUSETTS INSTITUTE OF TECHNOLOGY, Cambridge, Massachusetts, Department of Economics (1975 - 1976): Instructor in Economics.

OTHER PROFESSIONAL EXPERIENCE

HARVARD UNIVERSITY, Public Policy Summer Course in Economics (1977): Professor.

BELL TELEPHONE LABORATORIES (Summers 1976, 1977).

JOINT CENTER FOR URBAN STUDIES OF M.I.T. AND HARVARD UNIVERSITY, Cambridge, Massachusetts (1974 - 1975).

CHARLES RIVER ASSOCIATES, Cambridge, Massachusetts (Summers 1971, 1972): Research Assistant.

FIELDS OF SPECIALIZATION

Theoretical and Applied Microeconomics

Industrial Organization

ACADEMIC HONORS AND FELLOWSHIPS

M.I.T., National Scholar Award, 1968
Edwards Whitacker Award, 1969
Detur Book Prize, 1969
John Harvard Award, 1970
Phi Beta Kappa, 1971
National Science Foundation Fellowship, 1972 - 1975
Recipient of Post-doctoral Grant from the Lincoln Foundation, 1975
National Science Foundation Grant, 1977 - 1985
Recipient of the 1977 P.W.S. Andrews Memorial Prize Essay, best essay in the field of Industrial Organization by a scholar under the age of thirty
Ph.D. Thesis chosen to appear in the Garland Series of Outstanding Dissertations in Economics
Alexander Brody Distinguished Lecture, Yeshiva University, 2000
Keynote Address to the International Competition Network, Mexico, 2004
Milton Handler Lecture, New York, 2004

PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Co-editor, Journal of Law and Economics, 1980 - present
Associate Editor, Regional Science and Urban Economics, 1987 - 1997
Associate Editor, The International Journal of Industrial Organization, 1991 - 1995
Member, American Economics Association, Econometrics Society
National Bureau of Economic Research, Research Associate
Member, Advisory Committee to the Bureau of the Census, 1987 - 1990
Editorial Board, Intellectual Property Fraud Reporter, 1990 - 1995
Consultant on Merger Guidelines to the U.S. Department of Justice, 1991 - 1992
Accreditation Committee, Graduate School of Business, Stanford University, 1995
Visiting Committee, MIT, Department of Economics, 1995 - present
Resident Scholar, Board of Governors of the Federal Reserve System, Summer, 1995
Member, Advisory Board, Economics Research Network, 1996 - present
Member, Steering Committee, Social Science Research Council, Program in Applied Economics, 1997 - 1999
Participant in meetings with Committee of the Federal Reserve on Payment Systems, June 5, 1997
Participant in roundtable discussions on "The Role of Classical Market Power in Joint Venture Analysis," before the Federal Trade Commission, November 19, 1997 and March 17, 1998.
Member, Advisory Board of Antitrust and Regulation Abstracts, Social Science Research Network, 1998 - present
Participant in the Round Table on the Economics of Mergers Between Large ILECS before the Federal Communications Commission, February 5, 1999
Advisory Board, Massachusetts Institute of Technology, Department of Economics, 1999 - present
Chairman, FTC Round Table on Empirical Industrial Organization (September 11, 2001)
Professor, George Mason Institute for Judges, October 2001
Presidential Appointment to the Antitrust Modernization Commission, March 17, 2004
Editorial Board, Competition Policy International (CPI), 2004

BOOKS

"Market Behavior Under Uncertainty," Ph.D. Thesis, Massachusetts Institute of Technology (September 1975); Garland Publishing (1984).

Modern Industrial Organization, Scott, Foresman & Co., co-authored with Jeffrey Perloff, first edition (1990), second edition (1994), translated into Chinese, French, Hungarian and Italian; Addison Wesley Longman, third edition (2000), fourth edition (2005).

RESEARCH PAPERS

"The Equilibrium Analysis of Alternative Housing Allowance Payments," (with Joseph Ferreira) Chapter 6 of Analysis of a Direct Housing Allowance Program, The Joint Center for Urban Studies of M.I.T. and Harvard University, (July 1975).

"Theories of Vertical Integration," presented at Fourth Annual Telecommunications Conference. Appears in a volume of Proceedings of the Fourth Annual Telecommunications Conference, Office of Telecommunications Policy, (April 1976).

"Uncertainty, Production Lags, and Pricing," American Economic Review, (February 1977).

"Selecting Subsidy Strategies for Housing Allowance Programs," (with Joseph Ferreira) Journal of Urban Economics, (July 1977).

"Peak Load Pricing With Stochastic Demand," American Economic Review, (December 1977). (Reprinted in Economic Regulation edited by P.L. Joskow, Edward Elgar Publishing Limited, 1998.)

"The Distribution of Permanent Income," Income Distribution and Economic Inequality, edited by Zvi Griliches, et al. (Halsted Press, 1978).

"Market Behavior with Demand Uncertainty and Price Inflexibility," American Economic Review, (September 1978).

"Why New Firms Locate Where They Do: An Econometric Model," in Studies in Regional Economics, edited by W. Wheaton, (Urban Institute, 1980).

"Vertical Integration--An Overview," in Congressional Record Hearings on the Communications Act of 1978. Bill H.R. 13105, (August 3, 1978).

"Vertical Integration in Competitive Markets Under Uncertainty," Journal of Industrial Economics, (March 1979). Awarded the P.W.S. Memorial Prize for the best essay in the field of Industrial Organization by a scholar under the age of thirty.

"Valuing Market Benefits and Costs in Related Output and Input Markets," American Economic Review, (September 1979).

"Contracts, Price Rigidity and Market Equilibrium," Journal of Political Economy, (October 1979).

- "Benefits and Costs of Airline Mergers: A Case Study," (with W. Landes and R. Posner) Bell Journal of Economics, (Spring 1980). (Reprinted in "Air Transport" in Classics In Transport Analysis series, edited by Kenneth Button and Peter Nijkamp, 2001.)
- "The Limitations of Pigouvian Taxes as a Long Run Remedy for Externalities," (with G. Loury) Quarterly Journal of Economics, (November 1980).
- "The Law and Economics of Rights in Valuable Information: A Comment," Journal of Legal Studies, (December 1980).
- "Price Discrimination: Vertical Integration and Divestiture in Natural Resources Markets," (with J. Perloff) Resources and Energy, (March 1981).
- "The Spatial Effects of a Tax on Housing and Land," Regional Science and Urban Economics, (November 1981).
- "Comments on Weicher," Journal of Law and Economics, (December 1981).
- Comment, in Sherwin Rosen ed. Studies in Labor Markets, University of Chicago Press, (1981).
- "Planning and Market Structure," in The Economics of Information and Uncertainty, edited by J.J. McCall, University of Chicago Press, (1982).
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Affidavit, Reports, Reply Affidavit, Reply Report, Prepared Statements and Testimony of Dennis W. Carlton in Re: The Merger of SBC Communications Inc. with Ameritech Corporation: Before the Federal Communications Commission, CC Docket No. 98-141, July 20, 1998 (Affidavit and Report), November 12, 1998 (Reply Affidavit and Reply Report), February 5, 1999 (Prepared Statements and Testimony as a Participant in the Round Table on the Economics of Mergers Between Large ILECS), April 13, 1999 (Report to the FCC on Supplemental Analysis of the Katz/Salop Hypothesis).

Report and Supplemental Report of Dennis W. Carlton in Re: Riverside Pipeline Company v. Panhandle Eastern Pipeline Company: In the U.S. District Court for the Western District of Missouri, No. 97-0642-CV-W-4, September 20, 1998 (Report with H. Sider) and January 7, 1999 (Supplemental Report).

Statement of Dennis W. Carlton in Re: Enforcement Policy Regarding Unfair Exclusionary Conduct in the Air Transportation Industry: Before the Department of Transportation, Office of the Secretary, Washington, D.C., Docket No. OST-98-3713, September 24, 1998 (with G. Bamberger).

Report and Deposition of Dennis W. Carlton in Re: The Procter & Gamble Company, et al. vs. Amway Corporation, et al.: In the U.S. District Court for the Southern District of Texas, Houston Division, January 8, 1999 (Report) and February 9, 1999 (Deposition).

Responsive Direct Testimony and Prepared Answering Testimony of Dennis W. Carlton for Intervenor Oklahoma Gas and Electric Company in Re: Joint Application of American Electric Power Company, Inc., Public Service Company of Oklahoma and Central and South West Corporation Regarding Proposed Merger: Before the Corporation Commission of the State of Oklahoma, Cause No. PUD 980000444, March 29, 1999 (with G. Bamberger).

Report and Declaration of Dennis W. Carlton in Re: Telnet Communications, Inc., et al. v. WorldCom, Inc., et al.: In the United States District Court for the Southern District of Texas, Houston Division, No. H-98-2020, March 30, 1999 (Report) and April 28, 1999 (Declaration).

Prepared Answering Testimony and Exhibits of Dennis W. Carlton on Behalf of Oklahoma Gas and Electric Company in Re: American Electric Power Company, Inc. and Central and South West Corporation: United States of America Before the Federal Energy Regulatory Commission, FERC Docket Nos. ER98-40-000, ER98-2770-000, ER98-2786-000, April 27, 1999 (with G. Bamberger).

Expert Report , Deposition and Supplemental Report of Dennis W. Carlton in Re: United States of America vs. American Society of Composers, Authors and Publishers in the Matter of the Application of Turner Broadcasting Systems Inc. for the Determination of Reasonable License Fees: Before the United States District Court, Southern District of New York, Civ. 13-95 (WCC) (Referred to Magistrate Judge Dolinger), April 15, 1999 (Expert Report), July 28-29 and August 5, 1999 (Deposition), and December 16, 1999 (Supplemental Report).

Declaration, Deposition and Reply Declaration of Dennis W. Carlton in Re: Visa Check/MasterMoney Antitrust Litigation: Before the United States District Court, Eastern District of New York, No. CV 96-5238 (JB) RLM), April 15, 1999 (Declaration), May 25, 1999 and June 1, 1999 (Deposition), and August 1, 1999 (Reply Declaration).

Report and Deposition of Dennis W. Carlton in Re: Zeneca Limited, Zeneca Holdings Inc., and Zeneca Inc. v. Rhone-Poulenc Inc. and Rhone-Poulenc AG Company: In the United States District Court for the District of Delaware, No. 97-652-GMS, May 17, 1999 (Report) and June 16, 1999 (Deposition).

Affidavit and Reply Affidavit of Dennis W. Carlton in Re: Andersen Consulting Business Unit Member Firms v. Arthur Andersen Business Unit Member Firms and Andersen Worldwide Societe Cooperative: Before the International Court of Arbitration of the International Chamber of Commerce, No. 9797/CK, June 2, 1999 (Affidavit) and September 13, 1999 (Reply Affidavit).

- Affidavit, Report, Rebuttal Report, Reply Report, Rebuttal Report and Testimony of Dennis W. Carlton in Re: The Commissioner of Competition and Superior Propane Inc. and ICG Propane Inc.: Before The Competition Tribunal, No. CT-98/2, August 17, 1999 (Affidavit and Report), September 14, 1999 (Rebuttal Report with G. Bamberger), September 19, 1999 (Reply Report with G. Bamberger), September 27, 1999 (Rebuttal Report to Professor Michael Ward with G. Bamberger), and December 13-14, 1999 (Testimony with G. Bamberger).
- Declaration of Dennis W. Carlton in Re: Merger of Qwest Communications International Inc. and U S WEST, Inc.: Before the Federal Communications Commission, CC Docket No. 99-272, October 18, 1999 (with Hal Sider).
- Prepared Direct Testimony, Deposition and Cross-Examination of Dr. Dennis W. Carlton on behalf of Sierra Pacific Power Company in Re: United States of America Before the Federal Energy Regulatory Commission: Docket Nos. ER99-28-001, ER99-28-003, EL99-38-002 and ER99-945-002, November 17, 1999 (Prepared Direct Testimony), January 10, 2000 (Deposition), and April 26 and May 1, 2000 (Cross-Examination).
- Expert Report and Deposition of Dennis W. Carlton in Re: United States of America v. Northwest Airlines Corporation and Continental Airlines, Inc.: In the United States District Court for the Eastern District of Michigan, Southern Division, Civil Action No. 98-74611, January 27, 2000 (Expert Report) and June 7, 2000 (Deposition).
- Declaration and Ex Parte Declaration of Dennis W. Carlton in Re: Joint Applications of MCI WorldCom, Inc., and Sprint Corporation for Consent to Transfer Control: Before the Federal Communications Commission, CC Docket No. 99-333, February 18, 2000 (Declaration with H. Sider), and May 10, 2000 (Ex Parte Declaration with H. Sider).
- Testimony, Rebuttal Testimony and Cross-Examination of Dennis W. Carlton on behalf of Sacramento Municipal Utility District in Re: Application of Pacific Gas and Electric Company to Market Value Hydroelectric Generating Plants and Related Assets Pursuant to Public Utilities Code Sections 367(b) and 851: Before the Public Utilities Commission of the State of California, application No. 99-09-053, March 2, 2000 (Testimony), March 16, 2000 (Rebuttal Testimony) and May 9, 2000 (Cross-Examination).
- Affidavit, Deposition and Reply Affidavit of Dennis W. Carlton in Re: Gregory F. Daniel, M.D., et al., v. American Board of Emergency Medicine, et al: In the United States District Court for the Western District of New York, Civil Action No. 90-CV-1086A, March 3, 2000 (Affidavit), April 17 and 18, 2000 (Deposition), and July 12, 2000 (Reply Affidavit).
- Expert Report, Reply Expert Report, Deposition and Supplemental Report of Dennis W. Carlton in Re: CSX Transportation, Inc. V. Qwest Communications International, Inc.: In the United States District Court for the Middle District of Florida, Jacksonville Division, Civil Action No. 99-412-CIV-J-21C, July 19, 2000 (Expert Report), October 11, 2000 (Reply Expert Report), January 10-11, 2001 (Deposition), and July 18, 2001 (Supplemental Report).
- Reply Declaration of Dennis W. Carlton in Re: Joint Application of Northpoint Communications and Verizon Communications for Authority to Transfer Control of Blanket Authorization to Provide Domestic Interstate Telecommunications Services as a Non-Dominant Carrier: Before the Federal Communications Commission, Washington DC, Docket No. 00-157, October 17, 2000 (Reply Declaration with H. Sider).

- Declaration and Reply Declaration of Dennis W. Carlton in Re: In the Matter of Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities: Before the Federal Communications Commission, Washington DC, Docket No. 00-195, December 1, 2000 (Declaration with K. Arrow and G. Becker), and January 10, 2001 (Reply Declaration with K. Arrow and G. Becker).
- Report, Rebuttal Report, Deposition, Testimony, and Supplemental Report of Dennis W. Carlton in Re: Rambus Inc. v. Infineon Technologies AG, Infineon Technologies North America Corp., Infineon Technologies, Inc., Infineon Technologies Holding North America Corp., and Infineon Technologies Corp.: In the United States District Court for the Eastern District of Virginia, Richmond Division, Civil Action No. 3:00CV524, December 20, 2000 (Report), January 19, 2001 (Rebuttal Report), February 6, 2001 (Deposition), May 3, 2001 (Testimony), and February 13, 2004 (Supplemental Report).
- Reports, Rebuttal Reports, Deposition and Declaration of Dennis W. Carlton in Re: Micron Technology, Inc. v. Rambus Inc.: In the United States District Court for the District of Delaware, Civil Action No. 00-792, March 28, 2001 (Report), April 13, 2001 (Rebuttal Report), April 18, 2001 (Deposition), and August 17, 2001 (Report), September 17, 2001 (Rebuttal Report), and Declaration (October 1, 2001).
- Expert Report, Deposition and Testimony of Dennis W. Carlton in Re: Amgen Inc. v. Ortho Pharmaceutical Corp.: Endispute Arbitration, Chicago, Illinois, August 31, 2001 (Expert Report), November 27-28, 2001 (Deposition), and May 9-10, 2002 (Testimony).
- Testimony of Dennis W. Carlton in Re: Empirical Industrial Organization Roundtable: Before the Federal Trade Commission, Matter No. P015602 (September 11, 2001).
- Expert Report of Dennis W. Carlton in Re: Artemio Del Serrone, et al. v. Philip Morris Companies, Inc., et al.: In the Circuit Court for the County of Wayne, State of Michigan, No. 00-004035 CZ, December 19, 2001.
- Expert Report and Deposition of Dennis W. Carlton in Re: Cigarette Price-Fixing Litigation and related cases, Holiday Wholesale Grocery Company, et al. v. Philip Morris Incorporated, et al.: In the United States District Court for the Northern District of Georgia, Atlanta Division, No. 1:00-CV-0447-JOF, MDL No. 1342, December 19, 2001 (Expert Report) and January 23, 2002 (Deposition).
- Expert Report and Deposition of Dennis W. Carlton in Re: Flat Glass Antitrust Litigation: In the United States District Court for the Western District of Pennsylvania, No. 97-550, MDL NO. 1200, December 20, 2001 (Expert Report) and February 4-6, 2002 (Deposition).
- Expert Report, Supplemental Expert Report, and Deposition of Dennis W. Carlton in Re: Symbol Technologies et al v. Lemelson Medical et al and Cognex Corporation v. Lemelson Medical et al: In the United States District Court, District of Nevada, CV-S-01-701-PMP (RJJ) and CV-S-01-702-PMP (RJJ), December 14, 2001 (Expert Report), May 7, 2002 (Supplemental Expert Report), and October 3, 2002 (Deposition).
- Declaration and Reply Declaration of Dennis W. Carlton in Re: Review of Regulatory Requirements for Incumbent LEC Broadband Telecommunications Services: Before the Federal Communications Commission, Washington DC, CC Docket No. 01-337, FCC 01-360, March 1, 2002 (Declaration with H. Sider) and April 22, 2002 (Reply Declaration with H. Sider and G. Bamberger).

Declaration, Deposition, Reply Declaration, and Preliminary Injunction Hearing Testimony of Dennis W. Carlton in Re: Sun Microsystems Inc. v. Microsoft Corporation: In the United States District Court, Northern District of California, San Jose Division, Civil Action No. C 02-01150 RMW (PVT), March 8, 2002 (Declaration), June 27, 2002 (Deposition), August 9, 2002 (Reply Declaration), and December 4, 2002 (Preliminary Injunction Hearing Testimony - In the United States District Court for the District of Maryland, Northern Division, MDL No. 1332).

Declaration of Dennis W. Carlton in Re: In the Matter of Applications for Consent to the Transfer of Control of Licenses, Comcast Corporation and AT&T Corp., Transferors, to AT&T Comcast Corporation, Transferee: Before the Federal Communications Commission, Washington, D.C., MB Docket No. 02-70, April 26, 2002

Declaration of Dennis W. Carlton In Re Shirley Robinson, et al., v. Bell Atlantic Corporation d/b/a Verizon Communications, et al., United States District Court Eastern District of Kentucky, Lexington Division, Case No. 01-98. (08/30/02 with R. Gertner).

Expert Report and Deposition of Dennis W. Carlton in Re: Duramed Pharmaceuticals, Inc. v. Wyeth-Ayerst Laboratories, Inc.: In the United States District Court, Southern District of Ohio, Western Division at Cincinnati, Civil Action No. C-1-00-735, August 19, 2002 (Expert Report) and September 24, 2002 (Deposition).

Expert Report and Deposition of Dennis W. Carlton in Re: Philip Morris, Inc.: In the United States District Court for the District of Columbia, No. 99-CV-02496 (GK), May 10, 2002 (Expert Report) and September 10, 2002 (Deposition).

Affidavit of Dennis W. Carlton in Re: USG Corporation, a Delaware Corporation, et al. In the United States Bankruptcy Court for the District of Delaware, Case No. 01-2094 (RJN), August 20, 2002 (Affidavit).

Expert Report, Expert Rebuttal Report, and Deposition of Dennis W. Carlton in Re: Sarah Futch Hall, d/b/a Travel Specialist, et al., on behalf of themselves and all others similarly situated v. United Airlines, Inc., et al.: In the United States District Court for the Eastern District of North Carolina Southern Division, No. 7:00-CV-123-BR(1), October 4, 2002 (Expert Report), November 13, 2002 (Expert Rebuttal Report), and November 21, 2002 (Deposition).

Initial Report and Deposition of Dennis W. Carlton in Re: Sunrise International Leasing Corp., v. Sun Microsystems Inc., In the United States District Court for the District of Minnesota, Civil Action No. 01-CV-1057 (JMR/FLN), March 27, 2003 (Initial Report with H. Sider) and July 30, 2003 (Discovery Deposition).

Declaration and Reply Declaration of Dennis W. Carlton Before the Federal Communications Commission, Washington DC, in the Matter of Section 272(f) (1) Sunset of the BOC Separate Affiliate and Related Requirements, 2000 Biennial Regulatory Review Separate Affiliate Requirements of Section 64.1903 of the Commission's Rules, WC Docket No. 02-112, CC Docket No. 00-175, June 30, 2003 (Declaration with H. Sider and A. Shampine) and July 28, 2003 (Reply Declaration with H. Sider and A. Shampine).

- Dennis W. Carlton, "Economic Analysis of the News Corporation/DIRECTV Transaction." submitted to the Federal Communications Commission, MB Docket No. 03-124, (with J. Halpern and G. Bamberger), July 1, 2003 (Economic Analysis to FCC). "Response to William P. Rogerson and Daniel L. Rubinfeld and Duncan Cameron", with (J. Halpern and G. Bamberger), September 8, 2003. "Economic Analysis of News Corporation/DirecTV Transaction (Presentation to Department of Justice)", (J. Halpern and G. Bamberger) October 2, 2003 (Economic Analysis to DOJ).
- Supplemental Declarations of Dennis W. Carlton in Re: Review of Regulatory Requirements for Incumbent LEC Broadband Telecommunications Services: Before the Federal Communications Commission, Washington DC, CC Docket No. 01-337, FCC 01-360, July 11, 2003 (before FCC with H. Sider) and September 3, 2003 (with H. Sider).
- Expert Report and Deposition of Dennis W. Carlton In Re: D. Lamar DeLoach, et al. v. Philip Morris Companies, Inc., et al. (R.J. Reynolds Tobacco Co.), In the United States District Court for the Middle District of North Carolina, Greensboro Division, Case No. 00-CV-1235, October 2, 2003 (Expert Report) and October 30, 2003 (Deposition).
- Report of Dennis W. Carlton on behalf of Verizon, November 18, 2003 (with K. Arrow, G. Becker, and R. Solow).
- Report and Deposition of Dennis W. Carlton In Re: Francis Ferko and Russell Vaughn as Shareholders of Speedway Motorsports, Inc. v. (NASCAR) National Association for Stock Car Auto Racing, Inc., International Speedway Corporation, and Speedway Motorsports, Inc., In the United States District Court Eastern District of Texas Sherman Division, Case No. 4:02cv50, Honorable Richard A. Schell, December 15, 2003 (Report) and January 21-22, 2004 (Deposition).
- Declaration, Deposition, and Rebuttal Declaration of Dennis W. Carlton In Re: CSC Holdings, Inc. v. Yankees Entertainment and Sports Network, LLC., before the American Arbitration Association, Arbitration Proceeding, Case No 13 181 02839 03, January 23, 2004 (Declaration), February 5, 2004 (Deposition), and February 24, 2004 (Rebuttal Declaration).
- Expert Report, Discovery Deposition, Expert Report, and Discovery Deposition of Dennis W. Carlton In Re: Jamsports and Entertainment, LLC v. Paradama Productions, Inc., d/b/a AMA Pro Racing, Clear Channel Communications, Inc., SFX Entertainment, Inc., d/b/a Clear Channel Entertainment SFX Motor Sports, Inc., d/b/a Clear Channel Entertainment-Motor Sports, In the United States District Court for the Northern District of Illinois Eastern Division, Case No. 02 C 2298, March 8, 2004 (Expert Report), April 19 and 20, 2004 (Discovery Deposition), September 28, 2004 (Expert Report), and October 4, 2004 (Discovery Deposition).
- Affidavit in Reply, Second Affidavit, and Testimony of Dennis W. Carlton In Re: The Matter of an Appeal from Determinations of the Commerce Commission (Commission) Between Air New Zealand Limited Between Qantas Airways Limited and The Commerce Commission, In the High Court of New Zealand Auckland Registry Commercial List Under The Commerce Act 1986, CIV 2003 404 6590, June 7, 2004 (Affidavit), July 6, 2004 (Second Affidavit), and July 13-16, 2004 (Testimony).
- Expert Report and Sur-Reply Expert Report of Dennis W. Carlton in (PPG Glass) in Re: Jeld-Wen, et al., v. Asahi Glass Company Ltd., et al., No. CV 99-351 HA, July 6, 2004 (Expert Report) and September 9, 2004 (Sur-Reply Expert Report).

Expert Report and Deposition of Dennis W. Carlton in Re: J.B.D.L. Corp. d/b/a Beckett Apothecary, et al., v. Wyeth-Ayerst Laboratories, Inc., et al., Civil Action No. C-1-01-704. CVS Meridian, Inc., and Rite Aid Corp., v. Wyeth, Civil Action No. C-1-03-781, in the United States District Court for the Southern District of Ohio Western Division, July 7, 2004 (Expert Report) and September 3, 2004 (Deposition).

Declaration of Dennis W. Carlton on behalf of Bellsouth Telecommunications, Inc., in the matter of AT&T Corp., v. Bellsouth Telecommunications, Inc., before the Federal Communications Commission, Washington, DC 20554, July 20, 2004 (with H. Sider).

Deposition of Dennis W. Carlton in Re: Flat Glass Antitrust Litigation: In the United States District Court for the Western District of Pennsylvania, Master Docket MISC No. 97-550, relates to Jeld-Wen, Inc. Docket No. 2-99-875, November 1-2, 2004 (Deposition).

Expert Report and Declaration of Dennis W. Carlton (T-Mobile Report) in Re: Wireless Telephone Services Antitrust Litigation: In the United States District Court Southern District of New York, 02 Civ. 2637, December 20, 2004 (Expert Report and Declaration).

Expert Report and Declaration of Dennis W. Carlton (Sprint PCS Report) in Re: Wireless Telephone Services Antitrust Litigation: In the United States District Court Southern District of New York, 02 Civ. 2637, December 20, 2004 (Expert Report and Declaration).

Expert Report and Declaration of Dennis W. Carlton (AT&T Wireless Report) in Re: Wireless Telephone Services Antitrust Litigation: In the United States District Court Southern District of New York, 02 Civ. 2637, December 20, 2004 (Expert Report and Declaration).

Expert Report and Declaration of Dennis W. Carlton (Cingular Report) in Re: Wireless Telephone Services Antitrust Litigation: In the United States District Court Southern District of New York, 02 Civ. 2637, December 20, 2004 (Expert Report and Declaration).

Expert Report and Declaration of Dennis W. Carlton (Verizon Wireless Report) in Re: Wireless Telephone Services Antitrust Litigation: In the United States District Court Southern District of New York, 02 Civ. 2637, December 20, 2004 (Expert Report and Declaration).

Exhibit 3

ALLAN SHAMPINE

October 2004

Business Address: Lexecon Inc.
332 South Michigan Avenue
Suite 1300 (312) 322-0294
Chicago, Illinois 60604-4306 Email: ashampine@lexecon.com

Home Address: 5441 Arcadia
Skokie, IL 60077 (847) 663-1433

EDUCATION

- Ph.D. UNIVERSITY OF CHICAGO: Economics, 1996
(Full scholarship from the University)
- M.A. UNIVERSITY OF CHICAGO: Economics, 1993
(Full scholarship from the University)
- B.S. SOUTHERN METHODIST UNIVERSITY: Economics and Systems Analysis,
Mathematics Minor, 1991
(Summa Cum Laude, Honors, Departmental Distinction)

EMPLOYMENT

LEXECON, INC., Chicago, Illinois: Vice-President (2003 – present)

LEXECON, INC., Chicago, Illinois: Economist (1996 - 2003)

UNIVERSITY OF CHICAGO: Teaching Assistant (1994 – 1996)

DEGOLYER SPECIAL COLLECTIONS LIBRARY (May - July 1991)

BARNES & NOBLE (May - July 1989)

UNIVERSITY OF TEXAS, Research Assistant to Dr. Brian Berry (May - July 1987)

OTHER PROFESSIONAL EXPERIENCE

Member of the *American Economics Association*

Associate member of the *American Bar Association*

Referee for the *American Journal of Agricultural Economics* and *Journal of Business*.

Reviewer for *Agricultural and Resource Economics Review*.

Coordinated the *Conference on Valuing Non-Market Goods*, University of Chicago (July 21-22, 1995)

Assisted in coordinating the *Conference on Research in Health Economics*, University of Chicago (October 21-22, 1994)

Assisted in organizing the *Economic Policy and Public Finance Workshop*, University of Chicago (1993 - 1996)

Presented papers on information externalities and technology diffusion at the *Economics and Public Policy Workshop* (3) and *Price Theory Workshop* (1), University of Chicago (1995, 1996)

Presented *The Impact of Technology on the Modern Labor Market* at the 68th Annual Meeting of the Southwestern Social Science Association (March 29, 1990)

Independent research projects with Drs. Slottje and Hayes, Southern Methodist University (1987 - 1991)

ACADEMIC HONORS

Graduated Summa Cum Laude, Honors, Departmental Distinction

Phi Beta Kappa

Alpha Lambda Delta (Treasurer, honorary society recognizing academic achievement)

Phi Eta Sigma (honorary society recognizing academic achievement)

Omicron Delta Epsilon (international honor society in economics)

Kappa Mu Epsilon (honor society in mathematics)

Award for Excellence (given to the outstanding senior in the Economics Department as decided by the vote of the faculty)

Presidential Scholarship (full scholarship, Southern Methodist University)

National Merit Scholar (honorary)

Full Scholarship (University of Chicago)

Hyer Society (honorary society of Southern Methodist University)

Honor Roll (1987-1991)

AREAS OF SPECIALIZATION

Telecommunications

Technology Diffusion

Urban Economics

Agricultural Economics

Environmental Economics

PUBLICATIONS

BOOKS

Down to the Wire: Studies in the Diffusion and Regulation of Telecommunications Technologies, (Editor) Nova Science Press (2003).

ARTICLES

Handicapping Countries in the Race to Digital Switching, Progress in Economics, edited by Frank Columbus (forthcoming 2004).

“The Evolution of Telecommunications Switching in the Central Office,” in Down to the Wire: Studies in the Diffusion and Regulation of Telecommunications Technologies, Nova Science Press (2003).

The Welfare Implications of Advertising and Extension Under Uncertainty (with George Tolley) Technological Forecasting & Social Change, 70 (2003).

Determinants of the Diffusion of U.S. Digital Telecommunications, Journal of Evolutionary Economics, 11 (2001).

Compensating for Information Externalities in Technology Diffusion Models, 80 American Journal of Agricultural Economics, 2 (1998).

Contributed to two catalogs at DeGolyer Special Collections Library (1991).

The Impact of Technology on the Modern Labor Market, 11 Southwestern Journal of Economic Abstracts, 1 (1990).

RESEARCH PAPERS

An Evaluation of Technology Diffusion Models and Their Implications, Ph.D. Dissertation, University of Chicago (1996).

A New Direction in Mixed Income Housing, submitted to Chicago Housing Authority (1993).

UNPUBLISHED PAPERS

A Survey of the Economics of Information, Focussing on Water (1992).

Petroleum Price Shocks and Rationality, B.S. Honors Paper (1991).

EXPERT TESTIMONY

Reply Declaration to the Federal Communications Commission, In the Matter of Section 272(f)(1) Sunset of the BOC Separate Affiliate and Related Requirements (WC Docket No. 02-112) and 2000 Biennial Regulatory Review of Separate Affiliate Requirements of Section 64.1903 of the Commission's Rules (CC Docket 00-175), July 28, 2003 (with Dennis Carlton and Hal Sider).

Declaration to the Federal Communications Commission, In the Matter of Section 272(f)(1) Sunset of the BOC Separate Affiliate and Related Requirements (WC Docket No. 02-112) and 2000 Biennial Regulatory Review of Separate Affiliate Requirements of Section 64.1903 of the Commission's Rules (CC Docket 00-175), June 30, 2003, (with Dennis Carlton and Hal Sider).

Reply Declaration Re: 2000 Biennial Regulatory Review Spectrum Aggregation Limits for Commercial Mobile Radio Services, Before the Federal Communications Commission, Washington DC, WT Docket No. 01-14, May 14, 2001, Reply Declaration (with Robert Gertner).

Declaration Re: 2000 Biennial Regulatory Review Spectrum Aggregation Limits for Commercial Mobile Radio Services, Before the Federal Communications Commission, Washington DC, Docket No. 01-14, April 13, 2001, Declaration (with Robert Gertner).

Report to Directorate General IV of the European Commission: "Remedies in the United States," in *Remedies in the United States*, in *Remedies in EU Competition Law: The Policy and Practice of the European Commission, A Report for Directorate General IV of the European Commission*, July 1998, Report (with James Langenfeld).