BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

In the Matter of the	)	
	)	
Joint Petition of	)	
	)	
Verizon Communications Inc., and	)	Docket No. UT-050814
MCI, Inc.	)	
	)	
for a Declaratory Order Disclaiming	)	
Jurisdiction Over or, in the Alternative a Joint	)	
Application for Approval of, Agreement and	)	
Plan of Merger	)	

DIRECT TESTIMONY OF TREVOR R. ROYCROFT, PH.D.

ON BEHALF OF

THE PUBLIC COUNSEL SECTION
OF THE
WASHINGTON ATTORNEY GENERAL
(PUBLIC COUNSEL)

September 9, 2005

PUBLIC VERSION

Confidential information has been deleted.

Table of Contents

List of Exhibits

TESTIMONY OF TREVOR R. ROYCROFT, Ph.D.
ON BEHALF OF
PUBLIC COUNSEL

Docket No. UT-050814

September 9, 2005

I. Statement of Qualifications and Preparation

Q: PLEASE STATE YOUR NAME AND ADDRESS.

A: My name is Trevor R. Roycroft and my business address is 51 Sea Meadow Lane, Brewster, MA, 02631.

Q: WHAT IS YOUR OCCUPATION?

A: I am an independent consultant providing economic and policy analysis related to telecommunications and information technology industries.

Q: PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND.

A: In June 1984 I received the Bachelor of Arts degree in Economics with a minor in Statistics from California State University, Sacramento. The degree was awarded with honors. In September of 1986 I received the Master of Arts degree in Economics from the University of California, Davis. In December of 1989 I received the Doctor of Philosophy in Economics from the University of California, Davis. My Ph.D. fields of specialization are Economic Theory, Industrial Organization, Public Sector Economics, and Economic History.

Q: PLEASE DESCRIBE YOUR PROFESSIONAL BACKGROUND.

A: I have provided services as an independent consultant since 1994. Beginning in 1994 I was also a professor in the J. Warren McClure School of Communication Systems Management at Ohio University. I was granted tenure and promoted to Associate Professor in the Spring

of 2000. I left Ohio University to pursue consulting on a full-time basis at the end of 2004. My primary areas of teaching responsibility were graduate and undergraduate courses covering regulatory policy, the economics of the telecommunications industry, and telecommunications technology. Prior to my employment at Ohio University, I was employed by the Indiana Office of Utility Consumer Counselor (OUCC) from May of 1991 until July of 1994. For most of my tenure at the OUCC I was Chief Economist. Prior to my employment at the Indiana OUCC, I was a Visiting Assistant Professor of Economics at Kenyon College, Gambier, Ohio, during the 1989 and 1990 academic years. I have also been an Instructor of Economics at California State University, Sacramento, in the Fall of 1987 and during the 1988 academic year. Economics courses that I have conducted include: Principles of Economics, Intermediate Microeconomics, Industrial Organization, Economics of the Public Sector, and Economics of Developing Countries. Exhibit___(TRR-2) is a copy of my vita.

Q: HAVE YOU PREVIOUSLY PRESENTED TESTIMONY BEFORE THIS COMMISSION?

A: No. I have presented testimony in other jurisdictions. A complete listing of testimony is shown in my vita, which is provided as Exhibit___(TRR-2).

Q: WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS CASE?

A: I have been asked by the Public Counsel Section of the Washington Attorney General (Public Counsel) to evaluate competitive and public policy issues associated with the proposed merger of Verizon and MCI (Joint Petitioners). I will discuss how, based on the results of my analysis, competitive harm will arise as a result of the merger. In addition, Joint Petitioners provide few details regarding the transition associated with the merger and its potential impact on consumers. Thus, the Joint Petitioners' proposal, as presented, is not in the public interest. I recommend that the merger only be approved if the conditions which

I identify are imposed by the Commission or agreed to by Joint Petitioners. I will also respond to various arguments made by witnesses for the Joint Petitioners.

Q: WHAT HAVE YOU DONE TO PREPARE FOR YOUR TESTIMONY?

A: I have reviewed Joint Petitioners' filing. I have prepared discovery requests which were served on Joint Petitioners. I have reviewed the responses to those requests and have prepared follow-up discovery as appropriate. I have reviewed discovery requests served by other parties to this proceeding, and have reviewed responses to that discovery which were relevant to my analysis. I have reviewed the U.S. Department of Justice and Federal Trade Commission *Horizontal Merger Guidelines*.[1] I have reviewed the U.S. Department of Justice, Antitrust Division's *Antitrust Division Policy Guide to Merger Remedies.*[2] I have reviewed materials filed by Verizon regarding its merger with MCI at the FCC.

II. Summary of Testimony

Q: PLEASE SUMMARIZE YOUR TESTIMONY.

A: Verizon and MCI have made no secret of the fact that their proposed merger will provide ample benefits to the shareholders of the combined companies, identifying over $7 billion in merger synergies.[3] However, as presented to this Commission, the Joint Petitioners' merger proposal results in harm to Washington consumers, both inside and outside of Verizon Washington's

[1] *Horizontal Merger Guidelines.* U.S. Department of Justice and the Federal Trade Commission. Issued: April 2, 1992. Revised April 8, 1997. http://www.usdoj.gov/atr/public/guidelines/hmg.pdf

[2] *Antitrust Division Policy Guide to Merger Remedies.* U.S. Department of Justice Antitrust Division. October 2004. http://www.usdoj.gov/atr/public/guidelines/205108.pdf

[3] "Verizon-MCI Move to Close $7.65 Billion Merger," *Washington Post,* April 13, 2005, p. E05. See also,"Project Eli Synergy," provided by Verizon in response to Public Counsel's Data Request 119.

service area, without the possibility of offsetting benefits for Washington consumers. The primary source of the harm is the reduction in competition that will result from the merger.

For those consumers residing in Verizon Washington's service area, I have quantified the competitive impact of the merger, using an analytical approach consistent with that used by the Department of Justice. The results of my analysis point to a significant decrease in competitive activity in Verizon Washington's service area following the merger. However, the competitive harms are also likely to extend to mass market consumers in Qwest's service area. According to Joint Petitioners' witnesses, current plans for the post-merger period include MCI's exit from Qwest's service area.[4] If Joint Petitioners' plan is carried out, then competitive harm will occur in Qwest Washington's service area as well.

In addition to these uncompensated competitive harms, Joint Petitioners' merger proposal provides few details regarding important aspects of the post-merger transition, such as: how MCI's customers will be notified of the merger; whether MCI will continue to operate in Verizon Washington's service area; how and when the purported broadband benefits of the merger will be realized; how consumers will be protected from the potential for declining service quality; and how financial merger benefits will be shared.

To make the merger consistent with the public interest, I have developed merger conditions. I recommend that the Commission impose these conditions on Joint Petitioners. I have classified the conditions into four categories, (1) Pro-competitive Conditions, (2) Consumer

[4] Direct Testimony of Michael Beach, p. 15, lines 293-306; p. 17-18, lines 351-358.

Protection Conditions, (3) Sharing of Merger Benefits, and (4) Broadband Deployment Conditions. I present the conditions in summary format below, and will explain the rationale for the conditions with the balance of this testimony:

Pro-Competitive Conditions

- Verizon should be required to offer stand-alone ("naked") DSL service to existing and new customers in its service area.

- Verizon should be required to deploy in Washington the VoIP E911 platform which it currently has deployed in the New York City area.

Consumer Protection Conditions

- Verizon should be required to notify MCI customers that Verizon will be taking over the operations of MCI. Consumers should be clearly informed that they have the option to choose another service provider should they prefer not to take service from Verizon.

- Within Verizon Washington's service area, Verizon should be required to waive service establishment charges for current MCI subscribers who decide to take service from Verizon.

- Within Verizon Washington's service area, Verizon should be required to rebate service establishment charges for current MCI subscribers who decide to take service from another CLEC.

- Verizon should be prevented from operating its MCI subsidiary within Verizon Washington's service area in a manner which would allow Verizon to circumvent Verizon's Washington tariffs.

- Verizon should be required to maintain its retail service quality as merger-related cutbacks are implemented. Verizon should be required to enhanced service quality reporting. Verizon should be required to provide its customers an annual report of its service quality performance.

Sharing of Merger Benefits

- The merger savings identified by Public Counsel's witness Charles King should be shared with consumers in the manner described in his testimony.

Broadband Deployment

- Verizon should be required to deploy DSL, or other high-speed Internet access

services, in areas of Verizon Washington's service area which are currently unserved by Verizon's DSL service. Verizon should be required to identify how, when, and where advanced broadband services will be deployed, through the filing of broadband investment and deployment reports. Verizon should refrain from red-lining the availability of these services.

III. Overview of the Proposed Merger and Telecommunications Industry

Q: HOW ARE THE MERGERS OF VERIZON AND MCI, AND SBC AND AT&T CHANGING THE TELECOMMUNICATIONS INDUSTRY'S LANDSCAPE?

A: The mergers reflect industry consolidation which is reintroducing characteristics of the industry which were present prior to the divestiture of the Bell System. During the AT&T monopoly, which was terminated in 1984, telecommunications services were provided on a "one-stop-shopping" basis, with AT&T providing all telecommunications services used by consumers. The emerging industry trend is again toward "one-stop-shopping," with a larger set of services, such as wireless and Internet, as well as traditional and enhanced voice services, being provided to consumers by a single firm. While customer choice is not yet eliminated, industry consolidation raises the specter of lessened consumer choice and declining competitive forces.

Q: WHAT ROLE DID THE DIVESTITURE OF THE BELL SYSTEM PLAY IN SHAPING TODAY'S TELECOMMUNICATIONS LANDSCAPE?

A: The divestiture of the Bell System in 1984 established industry boundaries which prevented the RBOCs from carrying traffic across local access and transport area boundaries (LATAs). As a result, a thriving long distance market emerged. The telecommunications landscape, in general, was characterized by interexchange carriers ("IXCs," including AT&T, MCI, Sprint, and a host of smaller facilities-based and resale-based firms), and the Regional Bell Operating Companies ("RBOCs," including US West, Bell Atlantic, SBC, and Ameritech). Competition between the RBOCs and IXCs was limited. However, the IXCs purchased access services from the RBOCs, which allowed the IXCs to originate and terminate long distance traffic from end-

user customers, who purchased local services from the RBOCs. These access charges generally reflected the largest single cost of an IXC's business operations. As a result, the IXCs and the RBOCs exhibited a market attitude which reflected the healthy antagonism which is common to buyers and sellers in a marketplace, and the IXCs displayed a keen interest in keeping the regulated access charge rates as low as possible. To do this, IXCs maintained a strong presence in state and federal regulatory venues. The IXC industry thus presented a countervailing force to RBOC positions presented before regulatory agencies.

Q: HOW DID THE TELECOMMUNICATIONS ACT OF 1996 EFFECT THE RELATIONSHIP BETWEEN RBOCS AND IXCS?

A: The Telecommunications Act of 1996 presented a new regulatory model for the industry designed to open the local market to competition by requiring the RBOCs to share their monopoly network infrastructure with competitive carriers. A key provision of the Act was the simple *quid pro quo* contained in Section 271. If the RBOCs demonstrated that their local markets were open to competitive local exchange carriers (CLECs), the RBOCs could gain permission to move traffic across LATA boundaries. Given the persistent entry barriers in the local exchange market, the Act included provisions which were designed to mitigate technical entry barriers, by requiring that the RBOCs offer piece-parts of their networks at cost-based prices—network unbundling. CLECs, including IXCs, took advantage of this new opportunity, and gradually began to gain market share. The IXC CLECs, especially AT&T and MCI, took a very active role in state and federal venues to represent their interests, which generally sought to keep unbundled input prices low. Thus, both before and after the Act, the IXCs were a countervailing force to RBOC interests.

Q: HOW DID THE TELECOMMUNICATIONS ACT REGULATORY MODEL FARE?

A: While a detailed recounting of the history of the Telecom Act could fill volumes, it will suffice

to say that the Telecom Act's regulatory model was less than perfect. The FCC, which was charged with establishing the rules through which local markets would be opened, at first established rules that were generally viewed as favorable to new market entrants. These rules were challenged by the RBOCs and state commissions, with the dust only finally settling in early 2005 on some very important aspects of the FCC's local competition rules.[5] Notably, the FCC initially interpreted the Act as requiring RBOCs to combine network elements into a "platform," (UNE-P) which would be sold at TELRIC-based prices. Early this year, UNE-P was abolished, with a phase-out that will be complete in early 2006.

With regard to the RBOCs side of the *quid pro quo*, following the implementation of the Act, the RBOCs lost some local market share, with the most recent statistics showing approximately 18.5% of access lines nationwide being served by CLECs. Most CLEC customers continue to be served over RBOC and other incumbent local exchange carrier (ILEC) facilities, only about 4.8% of CLEC lines are facilities-based.[6] Thus, despite the loss of some retail lines to CLECs, the RBOCs have acquired new wholesale revenue streams. The local market experience has also varied widely on a state and service provider basis. For example, in Verizon's "East" region CLECs have established an average market share, using Verizon facilities, of about

[5] *In the Matter of Unbundled Access to Network Elements Review of the Section 251 Unbundling Obligation of Incumbent Local Exchange Carriers* WC Docket No. 04-313, CC Docket No. 01-338, Order on Remand, February 4, 2005.

[6] *Local Telephone Competition: Status as of December 31, 2004.* FCC's Industry Analysis and Wireline Competition Bureaus, July 5, 2005. http://www.fcc.gov/Bureaus/Common_Carrier/Reports/FCC-State_Link/IAD/lcom0705.pdf

15%.[7] In Verizon's "West" operations (which includes former GTE service areas, including Verizon Washington), average CLEC market share, using Verizon facilities, is about 3.6%. Thus, the loss of market share has been very uneven.

The RBOCs gained permission to provide interLATA services, with the last states gaining permission in late 2003. The RBOCs have been very successful in growing their long distance market share, Verizon identifies 18 million presubscribed long distance customers, and SBC identifies 22.8 million presubscribed long distance customers, both as of the first quarter of 2005.[8] Overall, the RBOCs have continued to growth their revenues in the face of declining local market shares.[9]

Q: HOW DID THE CLEC INDUSTRY FARE UNDER THE TELECOM ACT'S REGULATORY MODEL?

A: The CLEC industry rode the high-tech bubble of the late 1990s, and was hit hard when that bubble burst. As was noted in a *Wall Street Journal* article:

". . .a broad CLEC index, . . . reached a peak market cap of $242 billion in March of

---

[7] Verizon "East" includes Verizon's service areas in the former Bell Atlantic and NYNEX states. The market share statistic described identifies the number of CLEC lines served using resale, UNE-loops, and UNE-P, expressed as a percentage of all Verizon-supplied lines (i.e., Verizon retail and Verizon wholesale) in the state. Data available at:
http://www.fcc.gov/wcb/iatd/comp.html

in the file: "RBOC Local Telephone Dec 2004.xls".

[8] See Verizon and SBC investor reports for 2nd quarter 2005:

http://investor.vzmultimedia.com/financial/quarterly/VZ/2Q2005/2Q05Bulletin.pdf

http://www.sbc.com/Investor/Financial/Earning_Info/docs/2Q_05_IB_FINAL.pdf

[9] SBC and Verizon investor reports for 2nd quarter 2005, *op cit.*

> 2000. By last month (May, 2001), the market cap had dropped to $38 billion–an 83% decline. Of course, the stock market as a whole, and high-tech stocks in particular, also fell over that period, but the tech-heavy Nasdaq, with the CLECs in our index removed, declined 48%."[10]

The major IXCs, AT&T and MCI, were also adversely affected by the CLEC crash, with MCI ultimately filing for Chapter 11 bankruptcy protection. The regulatory reversal associated with the recent rewrite of the FCC's local competition rules has provided another setback. Chart 1 in Exhibit___(TRR-3) shows the semi-annual growth rates in CLEC lines from December 1999 and December 2004. It can be seen that growth rates have declined, indicating a leveling off of CLEC market share near the 18% mark mentioned earlier. The fact that CLECs will need to enter into commercial agreements, which are more expensive than the previous UNE-P arrangement, and may contain annual price escalator clauses,[11] it is possible that CLEC growth will continue to be flat for an extended period.

Q: HAVE THE RBOCS BEEN ABLE TO RESPOND TO CLEC ENTRY?

A: Yes. As the RBOCs gained regulatory momentum, winning interLATA relief and winning key court battles regarding the scope of the FCC's local competition rules, the CLECs, including AT&T and MCI have been stressed further by aggressive RBOC pricing plans. As was noted in a recent *Wall Street Journal* article:

> Taking advantage of their continuing control over phone lines into homes, the three top Bell telephone companies are ramping up discounts to attract customers, while seeking to ratchet up the rates they charge rivals using their networks.
>
> The upshot: Eight years after Congress mandated more open competition in the local phone business, rivals new and old say they are being financially squeezed and are

[10] "Broadband Failure has a Political Cause." James Glassman, June 21, 2001 *Wall Street Journal*.

[11] Direct Testimony of Michael Beach, p. 15, lines 293-306.

urging regulators to curb what they say is anticompetitive behavior by the Bells.[12]

This quote highlights one of the major issues facing the CLEC industry, the fact that the RBOCs have the ability to exercise unfavorable leverage over the prices of inputs on which the CLEC relies, while also exercising pricing flexibility in the retail market. Writing just nine months ago, MCI was careful to explain why Verizon's market power in the special access market was of grave concern to a CLEC like MCI, which competed against Verizon, but also relied on Verizon special access circuits:

> . . .Verizon's evidence shows that it has now figured out how to win even more of the bids against CLECs on a going forward basis. Verizon first says that large CLECs are today able to compete because Verizon given them 34-50% discounts off of the tariffed rates based on volume and term commitments. Thus, Verizon says, CLECs can compete by offering customers service anywhere between the price they pay Verizon for the services and the price Verizon would charge the customer at retail—the tariffed special access rate without discount. But this theory is based on the remarkable assumption that Verizon will continue to charge the tariffed special access rate to customers from whom it is seeking retail business, while giving CLECs a 35-40% discount to serve these same customers. *Yet Verizon has every incentive either to raise the special access rates (or lower the retail rate on the portion of the service that consists of the special access facilities) to diminish or eliminate the margins of its competitors and obtain all of the retail business.*[13]

Q: JOINT PETITIONERS' WITNESS DR. TAYLOR INDICATES THAT THE CLEC INDUSTRY IS EXPERIENCING "RAPID GROWTH,"[14] BUT THAT MCI'S MASS MARKET BUSINESS IS IN "IRREVERSIBLE DECLINE."[15] ARE THESE POSITIONS CONTRADICTORY?

---

[12] "Bells Mount Two-Way Assault on Local Market," *Wall Street Journal,* August 3, 2004.

[13] MCI Reply Comments, *In the Matter of Unbundled Access to Network Elements, Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers,* WC Docket No. 04-313, CC Docket No. 01-338, October 19, 2004, p. 114, emphasis added.

[14] Direct Testimony of William E. Taylor, p. 61.

[15] Direct Testimony of William E. Taylor, p. 59.

A: Yes. Dr. Taylor, and Joint Petitioners' other witnesses, argue that the negative impact of recent regulatory developments apply to MCI alone, which is not a reasonable interpretation of market conditions. There is no question that at this time CLECs' position in the market, in general, is less favorable than it was previously, especially for those CLECs which relied solely on UNE-P. This generally unfavorable market position makes it less likely that, in the near term, other CLECs will fill the void created by Verizon's acquisition of MCI.

Q: DO YOU BELIEVE THAT, ABSENT THE MERGER, MCI'S PLANNED EXIT FROM THE MASS MARKET WOULD HAVE BEEN "IRREVERSIBLE"?

A: No, economically rational firms do not make decisions which are "irreversible." Rather, economically rational management will respond to observed incentives when making its decisions. If the technological, market, or regulatory climate were to favor expanding mass market operations, I would expect that MCI's management would respond to those incentives by expanding its mass market operations, just as it did in the past. In fact, MCI appears to be "keeping its options open" with regard to the ability to serve mass-market customers. For example, as noted by MCI witness Mr. Beach, MCI has entered into a commercial agreements with Qwest, SBC, and BellSouth.[16] While the terms of these commercial agreements are less favorable than was the case with TELRIC-based UNE-P, the commercial agreements reflect MCI's decision to continue to operate in the mass market. If it was not engaged in the merger with Verizon, MCI would have likely pursued other strategies to cultivate and take advantage of mass market opportunities as they arose. For example, MCI was in the process of deploying an independent VoIP product, and MCI might have pursued other alternatives to improve its overall position in the market. As another example, MCI, either singly or jointly, might have

[16] Direct Testimony of Michael Beach, p. 15, line 289.

sought to establish an independent wireless presence, such as the opportunity which may be emerging as Deutsche Telekom considers whether to sell its T-Mobile operations.[17]

It is important to consider the impact of the merger in light of current conditions in the CLEC industry, which are generally less than favorable. The current status of the CLEC industry contributes to the likelihood that consumers will have fewer choices to replace MCI's independent presence in the marketplace. However, it is also important to not lose sight of the fact that given the incentives offered by the FCC's initial local competition rules, MCI expanded its business into the residential and small business mass market sector. It is entirely possible that technological or regulatory changes could result in future incentives which would have led MCI's management to reassert itself in the mass market. Once MCI has been absorbed by Verizon, this future possibility is eliminated.

Q: HOW WILL THE FACE OF THE INDUSTRY CHANGE SHOULD THE VERIZON/MCI AND SBC/AT&T MERGERS BE FINALIZED?

A: The combined companies will dwarf other firms in the industry. I have prepared charts which show the revenue profiles of industry-leading firms before and after the mergers. By comparing Chart 2 and Chart 3 in Exhibit___(TRR-3), it can be seen that the elimination of AT&T and MCI as free standing firms, and the acquisition of their business by SBC and Verizon, results in a market where SBC and Verizon tower over their potential rivals.

Q: THE FIRMS SHOWN IN YOUR CHARTS ARE "TELECOMMUNICATIONS" FIRMS, WHAT ABOUT OTHER FIRMS AGAINST WHICH THE MERGED COMPANIES MAY COMPETE?

A: I will discuss issues of "industry convergence" and "intermodal competition" in more detail

[17] "T-Mobile USA Could Go Up for Sale," *Wall Street Journal*, July 5, 2005.

below. Given that Verizon and SBC are the first and second largest wireless providers, the firms are very well positioned to benefit from wireless growth, and manage and benefit from any migration from wireline to wireless services. However, I have also prepared Chart 4 in Exhibit___(TRR-3) which compares the merged firms with cable companies. It can be seen that the addition of cable companies does not change the market relationship to any notable extent.[18] The combined Verizon/MCI and SBC/AT&T will be "super carriers," towering over cable rivals as well. Furthermore, the expansion of Verizon and SBC to include the delivery of IP television will place additional pressure on the cable CLECs, which currently face video rivalry from RBOC-affiliate and independent satellite-based television providers. Recent moves by some cable companies to take their companies private are viewed by industry analysts as driven in part by the expectation that the cable companies will be facing hard fights as the RBOCs begin to offer video services.[19]

Q: DOES THE CONSOLIDATION IN THE INDUSTRY BODE WELL FOR CONSUMERS?

A: I don't believe that it does. In the near future, it is unlikely that the CLEC industry will be able to produce firms which are capable of filling the holes in the industry skyline resulting from MCI and AT&T's departure. The RBOCs have a very poor record of competing against one another, and I don't believe that the mergers will result in any increased competitive activity by the RBOCs in one another's service areas. As I will discuss further below, the planned exit

[18] Revenues from Time Warner shown in Chart 4 include revenues from AOL, but exclude Time Warner's magazine publishing and video production. Cox publishing revenues could not be separated from Cox cable, and are thus included. Total Comcast revenues are shown.

[19] "Cable Systems' New Weapon In Phone Battle: Going Private," *Wall Street Journal,* June 21, 2005.

of MCI and AT&T from the mass-market fits nicely into the overall RBOC strategy of not straying from their home turf. Thus, the structure of the industry, even in the best case scenario where RBOCs and cable firms would vie for consumers' business in the overlapping portions of their service areas will present a duopoly market, a market structure which does not perform well. In such an environment, absent regulatory oversight, consumers may face unjustified price increases and deteriorating quality. Consumer choice for telephone service may go the way of consumer choice for cable TV programming, with the use of bundling crowding out *à la carte* options.

Q: DOESN'T THE INTERNET PROMISE TO PROVIDE AN ALTERNATIVE PATH FOR COMPETITION WITH THE RBOCS?

A: No, I don't believe that it does, and recent court rulings will likely result in diminished competition from, and increased RBOC influence over, the Internet. I will discuss intermodal alternatives below, such as VoIP over broadband. However, given the recent Supreme Court ruling in the *Brand X* case, it appears likely that any positive influence that the Internet Service Provider (ISP) industry might have exerted on voice communications, for example, through ISP VoIP offerings, will be hindered. The *Brand X* decision indicates that cable companies, and now, due to the FCC's imposition of regulatory parity, telephone companies, will not need to provide open access to their broadband networks, potentially excluding competition for broadband ISP services.[20]

Q: PLEASE SUMMARIZE THIS OVERVIEW.

A: The mergers of Verizon and MCI, and SBC and AT&T, are changing the face of the

[20] As will be discussed further below, *Brand X* decision applied only to cable companies. However, the FCC has now taken the additional step of removing telephone company broadband facilities from Title II regulation, and treating telephone company broadband as an information service.

telecommunications industry. The mergers are resulting in an immediate decrease in competitive forces, and remove two major nationwide CLECs from the marketplace. Joint Petitioners' efforts to paint the marketplace as one where the CLEC industry is rapidly expanding, while also arguing that MCI's mass-market operations are in "irreversible decline" is not supported by the evidence. For consumers in Washington, the impact of the Verizon/MCI merger does not bode well for competitive forces. Absent a reasonable set of merger conditions, the competitive harms caused by the merger will not be offset by any corresponding benefits.

IV. The Merger and the Public Interest

A. Policy Objectives

Q: DOES THE REVISED CODE OF WASHINGTON CONTAIN POLICY OBJECTIVES WHICH WILL BE AFFECTED BY THE MERGER?

A: Yes, § 80.36.300 of the Revised Code of Washington states, in part, that it is the policy of the state to "Promote diversity in the supply of telecommunications services and products in telecommunications markets throughout the state." The merger does not promote the diversity of supply. Following the merger, mass market consumers in both Verizon's and Qwest's territory will experience the elimination of a major alternative source of supply, resulting in a less diverse supply.

Q: WHAT CONSIDERATIONS SHOULD THE COMMISSION MAKE WITH REGARD TO THIS PROPOSED MERGER?

A: As the Commission has noted in another merger proceeding, "the approach for determining what is in the public interest varies with the form of the transaction and the attending

circumstances."[21] Market conditions in Verizon's Washington service area, especially in the residential sector of the market, have reflected relatively low levels of market entry since the market-opening provisions of the Telecommunications Act of 1996. This is likely due in part to the fact that Verizon Washington did not have to comply with §271 requirements. Thus, given the lack of regulatory incentives associated with the receipt of interLATA authority, consumers in Verizon Washington's service area have experienced lower levels of CLEC activity than other Verizon service areas around the country.

However, the merger will undo most of the current level of CLEC activity for residential customers. As will be discussed below, MCI serves nearly 40% of all residential consumers who had decided to switch to a supply alternative other than Verizon.

Q: WITH REGARD TO THE APPROVAL OF MERGERS, UPON WHAT STANDARD HAS THE COMMISSION RELIED IN THE PAST?

A: The Commission discussed its perceptions of what is needed for merger approval in the PacifiCorp/Scottish Power Merger:

> Whether Applicants must show that customers, or the public generally, must be made better off by a proposed transaction, or need only show customers and the public will be no worse off if the transaction goes forward, is our threshold question. The standard in our rule does not require the Applicants to show that customers, or the public generally, will be made better off if the transaction is approved and goes forward. In our view, Applicants' initial burden is satisfied if they at least demonstrate no harm to the public interest.[22]

I have utilized this standard in my evaluation of Joint Petitioners' presentation of its case.

[21] *In Re PacifiCorp and Scottish Power PLC,* Docket No. UE-981627, Third Supplemental Order on Prehearing Conference, April 2, 1999, p. 3.

[22] *In Re PacifiCorp and Scottish Power PLC,* Docket No. UE-981627, Third Supplemental Order on Prehearing Conference, April 2, 1999, p. 2.

Q: DO YOU BELIEVE THAT VERIZON HAS CARRIED ITS BURDEN WITH REGARD TO WHETHER THIS MERGER WILL DO NO HARM?

A: No. As the Commission has noted, "Applicant's initial burden requires them to produce sufficient evidence to demonstrate no harm will result as a result of the transaction."[23] As I discuss in detail below, the evidence offered by Verizon/MCI witnesses does not support the proposition that the merger will do no competitive harm. Rather, the merger will undo much of the limited progress toward competition in Verizon's residential market and negatively impact competition in Qwest territory as well. There is no evidence that the alleged intermodal alternatives discussed by Joint Petitioners' witnesses provide a competitive alternative to make up for the loss of MCI.

Q: IS COMPETITIVE HARM THE ONLY PROBLEM ASSOCIATED WITH THE MERGER?

A: No. Joint Petitioners have provided few details regarding how the merger will affect consumers in Washington from a practical standpoint. It is notable that none of the Joint Petitioners' witnesses are Verizon employees, and the witnesses designated by Joint Petitioners do not address fundamental questions regarding how the merger will affect consumers, and leaves the door open for additional harm to consumers. For example, how will consumers be notified of the merger? In response to discovery on this issue, Joint Petitioners respond:

> Verizon and MCI respond that this is a parent company transaction, which should have no effect on the local operating companies. After the transaction, Verizon and MCI operating companies will continue to provide service to their customers in

[23] *In Re Application of US West, Inc. and Qwest Communications International, Inc. For an Order Disclaiming Jurisdiction or in the Alternative, Approving the US West, Inc. — Qwest Communications International, Inc. Merger*. Docket No. UT-991358, Third Supplemental Order Outlining Scope of Review, October 11, 1999, p. 3.

> Washington. Verizon and MCI will follow all applicable customer notice requirements.[24]

However, Commission rules do not specify that merging companies must notify customers that a merger is affecting their choice of service provider.[25] Given that the consumer decision regarding their selection of a telephone service provider may be driven by prior experiences with other providers, it is critical that MCI customers are made aware of the fact that, following the merger, the company they will be doing business with is actually Verizon. Competition is about voting with one's pocketbook, and some MCI customers may have decided to switch to MCI because of dissatisfaction with Verizon. Informed customer choice following the merger will require proper customer notification.

Furthermore, Joint Petitioners are less than clear on just what companies will be operating following the merger. While the response cited above indicates that Verizon and MCI operating companies will continue to provide service to their customers, when asked whether MCI will continue to offer residential local exchange service under the MCI brand name in Verizon Washington's service area following the merger, Verizon and MCI respond:

> Verizon and MCI are unable to provide a response . . . because no post-transaction planning has been performed.[26]

The notification and treatment of MCI customers following the merger is of concern for the following reasons. First, this merger has competitive implications due to the fact that Verizon and MCI compete for customers today. If consumers are not promptly and properly

[24] Verizon response to Public Counsel Data Request 158.

[25] WAC 480-120-104 does not specifically identify merger as a trigger for customer notification.

[26] Verizon response to Public Counsel Data Request 148.

notified, then consumers could be deceived regarding the firm with which they have entered a business relationship. That MCI will become a wholly owned subsidiary of Verizon following the merger is a fact of which consumers must be made aware. Secondly, continuation of the MCI brand name, and marketing by MCI in Verzion's service area following the merger, raises competitive and consumer fraud issues. If MCI continues to market under the MCI brand name in Verizon's service area, then a consumer who might decide to switch to MCI, perhaps due to an unsatisfactory experience with Verizon, would be misled as to the ability to change sources of supply.

Q: WHAT IMPACT WILL THE MERGER HAVE ON WASHINGTON CONSUMERS OUTSIDE OF VERIZON'S SERVICE AREA?

A: When asked this question in discovery, Joint Petitioners responded as follows:

> Verizon and MCI have not yet engaged in post-transaction planning; however, Verizon present intention is to continue to provide service outside of Verizon's operating territory in a manner consistent with MCI's current business plan regarding such mass market customers. This approach will pose no threat to competition in Washington or elsewhere.[27]

The claim that the pursuit of MCI's "current business plan" will have no impact on competition emphasizes an important contradiction in Joint Petitioners' case. Joint Petitioners take special care to point out that MCI's business plan is to curtail the marketing and sale of its mass market services, as it claims that these services are in "irreversible decline." Witness Beach provides some of the detail regarding what consumers residing outside of Verizon's service area can expect, i.e., decreased marketing[28] and higher rates.[29] Thus, the reduction in supply diversity which will occur in Verizon's service territory

[27] Verizon response to Public Counsel Data Request 71(A).

[28] Testimony of Michael Beach, p. 15, line 308.

[29] Testimony of Michael Beach, p. 17, line 353.

following the merger will also extend to Qwest's service area.

Q: IS MCI'S BUSINESS PLAN OF A MANAGED EXIT FROM QWEST'S SERVICE AREA CONSISTENT WITH VERIZON'S OUT-OF-FRANCHISE ENTRY STRATEGY?

A: Yes. In general, the RBOCs have been reluctant to enter one-another's service areas. In Washington, Verizon has followed this pattern. Verizon currently provides no switched services to residential, small business, multiline business, or enterprise customers in Qwest Washington's service area through any means (resale, UNEs, or Verizon facilities).[30] Thus, while Verizon and MCI claim to have not engaged in post-transaction planning on a number of matters, the issue of whether Verizon's acquisition of MCI might "upset the apple cart" by introducing a new competitive threat in Qwest's service area is a matter which has been addressed—i.e., MCI indicates that it will continue the managed exit from the mass market in Qwest's market. As a result, less competition in Qwest's service area is an outcome which the Commission can expect.

B. Potential Offsetting Benefits

Q: YOU HAVE IDENTIFIED SEVERAL POTENTIAL HARMS WHICH MAY BE ASSOCIATED WITH THE MERGER. DO JOINT PETITIONERS POINT TO ANY POTENTIAL BENEFITS ASSOCIATED WITH THE MERGER?

A: Yes, the proposed merger has been presented as offering substantial benefits for Verizon:

> *Expected Benefits of the Merger.* Verizon believes that the merger will make it a more efficient competitor in providing a broad range of communications services and will result in several significant strategic benefits to Verizon, including the following:
>
> - *Strategic Position.* Following the merger, it is expected that Verizon's core strengths in communication services will be enhanced by MCI's strong business customer base, portfolio of advanced data and IP services and extensive network assets.

[30] Verizon response to Public Counsel's Data Request 136, 137, 138, and 139.

- *Growth Platform.* MCI's presence in the U.S. and international enterprise sector and its long haul fiber network infrastructure are expected to provide Verizon with a stronger platform from which it can market its products and services.

- *Financial Benefits.* Verizon believes that the potential annual pre-tax benefits and revenue enhancements following the closing of the merger will reach $500 million in year one, $750 million in year two, and will ramp up to $1 billion in year three and beyond. Verizon believes that these financial benefits and revenue enhancements can be achieved based upon its track record of combining the businesses of NYNEX Corporation and Bell Atlantic Corporation in 1997 and the businesses of GTE Corporation and Bell Atlantic Corporation in 2000. The financial benefits are expected to come from, among other things:

  - eliminating duplicative staff and information and operation systems and to a lesser extent overlapping network facilities;
  - reducing procurement costs;
  - rationalizing the companies' real estate assets;
  - using the existing networks more efficiently;
  - reducing line support functions;
  - reducing general and administrative expenses;
  - improving information systems;
  - optimizing traffic flow;
  - eliminating Verizon capital expenditures for new long-haul network capability; and
  - offering wireless capabilities to MCI's customers.[31]

Each of the benefits identified by Verizon in its filing with the Securities and Exchange Commission have the potential to contribute to merger synergies, which Verizon estimates will total $7 billion over the next nine years.[32]

Q: HAS THE COMPANY, THROUGH ITS PRESENTATION OF EVIDENCE IN WASHINGTON, IDENTIFIED HOW ANY OF THESE MERGER-SYNERGY BENEFITS WILL MANIFEST IN WASHINGTON?

---

[31] Form S-4 filed by Verizon at the Securities and Exchange Commission, April 12, 2005. http://www.sec.gov/Archives/edgar/data/732712/000119312505074187/ds4.htm

[32] "Verizon-MCI Move to Close $7.65 Billion Merger," *Washington Post*, April 13, 2005, p. E05. See also, "Project Eli Synergy," provided by Verizon in response to Public Counsel's Data Request 119.

A: No, the Application and supporting testimony Joint Petitioners have not adequately explained how benefits will accrue to consumers in Washington. Public Counsel witness Charles King discusses this issue in more detail.

Where Verizon does discuss alleged benefits of the merger before this Commission, these are associated with the national and international level enterprise market.[33] However, even for enterprise-level customers, the potential benefits that are described are either vague or not specifically associated with the state of Washington. For example, Joint Petitioners identify the following merger benefit for enterprise customers: "Verizon will be able to carry traffic over MCI's Internet backbone, improving efficiency and enhancing the ability to manage complex network assets and applications."[34] However, Verizon can enter into an agreement today with MCI, and purchase Internet transmission services from MCI, which would provide Verizon access to MCI's backbone network. Alternatively, Verizon could purchase "Internet-based virtual private networks ("IP VPN"), private Internet protocol ("PIP") networks, and web hosting services"[35] from MCI, which could be used to deliver services to enterprise-level customers. However, when Verizon gains control of the MCI assets which provide these services, consumers will witness the departure of MCI, an important provider in the market. Joint Petitioners do not provide sufficient evidence for this Commission to determine whether the potential benefits for Verizon offset the competitive harms which the merger will impose in Washington.

[33] *Joint Petition*, ¶44.

[34] Verizon/MCI *Joint Petition*, p. 15.

[35] MCI 10-Q, p. 30, May 9, 2005.

Q: DO VERIZON'S BROADBAND DEPLOYMENT PLANS ASSOCIATED WITH THE MERGER ACT TO PROVIDE PUBLIC INTEREST BENEFITS WHICH MIGHT OFFSET SOME OF THE COMPETITIVE HARM DONE BY THE MERGER?

A: No, while broadband benefits are mentioned in the Joint Petition, the benefits of the merger on broadband deployment are either vague or unstated. The *Joint Petition* states:

> The transaction continues Verizon's own transformation into a national broadband company and will greatly enhance its advanced broadband and wireless networks. Ultimately, MCI's Internet backbone network, together with Verizon's ongoing deployment of fiber directly to customers, will create a platform that can support a broad array of multimedia communications services and applications for all customers.
>
> American consumers and small businesses will benefit from the enhanced deployment of wireline and wireless broadband services that this transaction will promote.[36]

Similarly, Verizon witness Mr. Danner indicates that the merger makes sense for Verizon to acquire MCI to supplement "its investment strategy to bring enhanced broadband capabilities to mass-market customers."[37] However, when asked about specific plans regarding broadband deployment in Verizon Washington's service area, Joint Petitioners respond as follows:

> While the transaction will enhance the post-transaction firm's ability to deploy broadband services, post transaction planning has not yet begun, so it is not possible to specify timeframes, data speeds, prices and other details regarding the services that might be deployed after the transaction is completed.[38]

The lack of specifics regarding post-transaction plans limits the Commission's ability to assess the validity of the claims that Washington consumers will benefit from the deployment of broadband. Furthermore, on the issue of broadband deployment, Verizon

---

[36] *Joint Petition, ¶48, ¶49.*

[37] Testimony of Carl R. Danner, p. 3, lines 9-10.

[38] Verizon response to Public Counsel's Data Request 61.

indicates that it is "assessing its Washington service territory to determine *where it will offer* FTTP/FiOS,"[39] which indicates that Verizon is not planning an advanced broadband deployment that will reach all areas of Verizon Washington's service area. Verizon also indicates that it has not incurred investment associated with residential enhanced broadband capabilities in Washington.[40]

With regard to claims made by Mr. Danner that Verizon will provide $2 billion for "enhancing MCI's network and systems,"[41] Joint Petitioners cannot identify what portion of this investment, if any, would be made in Washington.[42]

The lack of specifics with the *Joint Petition* and Joint Petitioners' filing prevent the Commission from weighing broadband deployment as a potential merger benefit that would offset the competitive harm resulting from the merger.

Q: DOES VERIZON'S CURRENT BROADBAND DEPLOYMENT, THROUGH DSL, HAVE ROOM FOR IMPROVEMENT?

A: Yes. Currently about **(begin confidential) XXX% (end confidential)** of all Verizon in-service loops are not qualified to provide DSL service.[43] Verizon indicates that *all Verizon Washington wire centers* have loops which are not qualified to provide DSL service, either

[39] FTTP is Fiber to the Premises. FiOS is Verizon's brand name for the technology. Verizon response to Public Counsel's Data Request 70(B), emphasis added.

[40] Verizon response to Public Counsel's Data Request 70(D).

[41] Direct Testimony of Carl R. Danner, p. 5, lines 1-2.

[42] Verizon response to Public Counsel's Data Request 72.

[43] Verizon response to Public Counsel's Data Request 62.

because of distance limitations, or due to the lack of DSL deployment.[44] In addition, another **(begin confidential) XXX% (end confidential)** of in-service loops are only qualified up to 768 kbps. With regard to the DSL loops that are qualified only to 768 kbps, Verizon indicates that this limitation results from the use of frame relay technology to serve these lines.[45]

Q: DOES VERIZON HAVE ANY PLANS TO EXPAND DSL DEPLOYMENT TO SERVE THE AREAS WHERE SERVICE IS EITHER UNAVAILABLE OR OF LIMITED SPEED?

A: No, Verizon indicates that it has no new deployment plans in Washington.[46]

Q: REGARDLESS OF THE ISSUE OF COMPETITIVE HARMS AND WHETHER OFFSETTING BENEFITS WILL BE PROVIDED TO WASHINGTON CONSUMERS, ARE THERE OTHER MATTERS WITH WHICH THE COMMISSION SHOULD BE CONCERNED?

A: Yes. The presentation of information by Joint Petitioners is entirely silent on how consumers, especially mass-market consumers, will be treated in the merger process as Verizon takes over MCI's operations. The treatment of these consumers has direct bearing on the issue of harms that can arise from the merger. Consumers must be adequately notified regarding changes that are occurring in the marketplace, and should be given the opportunity to make informed and uncoerced choices regarding their provider of telephone services following the merger. Furthermore, consumers should not be required to incur out-of-pocket expenses due to Verizon's decision to purchase one of its largest competitors.

[44] Verizon response to Public Counsel's Data Request 193(b).

[45] Verizon response to Public Counsel's Data Request 193(c).

[46] Verizon response to Public Counsel's Data Request 193(e) and (f).

While I do not support the merger as presented, I believe that there are conditions which the Commission can place on the merger which will mitigate the competitive harms done by the merger. I will outline this conditions in the final section of this testimony. I will now turn to a detailed discussion of the testimony filed by Joint Petitioners' to support their application.

V. Verizon/MCI Witnesses' Arguments in Support of the Merger

Q: HAVE JOINT PETITIONERS PRESENTED EVIDENCE WHICH ASSUAGE YOUR CONCERNS REGARDING COMPETITIVE HARMS ARISING FROM THE MERGER?

A: No. The testimony presented by the Joint Petitioners fails to address harms arising from the merger. Furthermore, Joint Petitioners do not offer a Verizon witness to address matters of how the transition will take place, or how merger benefits might flow through to Verizon Washington customers.

Q: HOW HAS VERIZON/MCI ORGANIZED ITS WITNESSES' TESTIMONY?

A: Verizon/MCI has provided the testimony of three witnesses to support its application for merger approval. Verizon/MCI witness Dr. William E. Taylor addresses the economic effects of the merger, specifically on the issue of competitive harm associated with the merger.[47] MCI's witness, Michael A. Beach, addresses MCI's perspectives on the merger, while Verizon's policy witness, Carl R. Danner, discusses the policy implications of the merger from Verizon's perspective. There is considerable overlap on issues relating to competition raised by the three witnesses, however, Dr. Taylor is the lead witness for Joint Petitioners on the competition issue. In the testimony that follows, my analysis will primarily address Dr. Taylor's discussion of competitive issues,

[47] Testimony of Dr. William E. Taylor, p. 2, lines 8-14.

however, it should be understood that my criticism of Dr. Taylor's arguments applies equally to similar arguments offered by Mr. Danner and Mr. Beach.

Q: HOW DOES DR. TAYLOR SUGGEST THAT THE COMMISSION ANALYZE COMPETITIVE ISSUES ASSOCIATED WITH THE MERGER?

A: Dr. Taylor identifies three factors which he claims should be used to evaluate the merger: (1) the "convergence among technologies" which has stimulated "intermodal competition," (2) that "competition has been expanded well beyond traditional wireline boundaries," and (3) the claim that "MCI's mass market business is already in decline and will continue to decline regardless of the transaction."[48] Dr. Taylor encourages the Commission to define the relevant market "more broadly," and consider "all forms of communications and technologies and without limitation by geography, regulatory classification, or wireline service legacies."[49] Overall, Dr. Taylor urges the Commission to utilize a "forward-looking" comparison of market structure with and without the merger,[50] additionally, Dr. Taylor warns against use of "current market data . . . to evaluate the merger's impact on competition."[51]

Q: DO YOU AGREE WITH THE APPROACH DR. TAYLOR HAS ADVISED?

A: No. Dr. Taylor's approach fails to define a market, arguing that all forms of communications, and technologies which might be related to communications, should be considered by the Commission. If the Commission were to follow Dr. Taylor's advice with regard to market definition, then no meaningful analysis of market conditions could

[48] Testimony of Dr. William E. Taylor, p. 49, lines 19-22.

[49] Testimony of Dr. William E. Taylor, p. 50, lines 6-8.

[50] Testimony of Dr. William E. Taylor, p. 49, line 17.

[51] Testimony of William E. Taylor, p. 50, lines 1-3.

be developed. Dr. Taylor has recently offered an alternative discussion on the issue of market definition which I believe is more relevant to the issues before this Commission. In testimony filed before the California Public Utilities Commission on May 31, 2005 Dr. Taylor stated:

> In determining whether market power prevails in a particular industry, it is first necessary to define the economic markets in which firms compete. Relevant economic markets have two dimensions: product or service characteristics and geographic areas. The service market is defined as the set of offerings with which the service in question competes: *i.e.,* the service to which consumers would substitute if the price of the service in question were increased. The geographic market is the area in which providers of the service compete.
>
> . . . Because individual services (such as call-waiting or calling packages) are bought and sold together with basic exchange service, there is no justification for examining the service market for each service individually. Competition takes place for the end-user customer, and whatever set of services that customer requires *will generally be provided by the supplier of basic dialtone.*[52]

In his California testimony, therefore, Dr. Taylor offers a more conventional definition of "the market." Rather than encouraging the California Commission to consider "all forms of communications and technologies and without limitation by geography, regulatory classification, or wireline service legacy," he points to the supply of basic dialtone as being the distinguishing feature of the relevant market for determining whether SBC California possesses market power. This definition of the relevant market for the assessment of market power is more appropriate than the approach utilized by Dr. Taylor in this proceeding, which encourages the Commission to consider technologies which are not providing basic dialtone, such as Wi-Fi, WiMAX, broadband over powerline, and

[52] Comments of Dr. William E. Taylor on behalf of SBC California in CPUC Docket No. R.05-04-005, May 31, 2005, pp. 10-11.

Satellite Broadband.[53]

Q: DR. TAYLOR INDICATES THAT THE OVERLAP OF VERIZON AND MCI FACILITIES IS SMALL AND DOES NOT REPRESENT A NEGATIVE ASPECT OF THE MERGER, DO YOU AGREE?

A: No. Dr. Taylor identifies four (4) of Verizon's 104 wire centers as having overlapping facilities. While this is a small percentage of all Verizon Washington's wire centers, the wire centers have a disproportionate share of all customers. These four wire centers contain **(begin highly confidential) XXX% (end highly confidential)** of all residential lines, and **(begin highly confidential) XXX% (end highly confidential)** of all business lines in Verizon Washington's service area. As a result, the overlap of facilities has a much larger market influence than Dr. Taylor indicates. The presence of MCI facilities in these wire centers is important to consider as facilities-based competition offers a superior means of disciplining market forces. Following the merger, these MCI facilities will no longer compete with Verizon.

Q: DR. TAYLOR ARGUES THAT THE STATE OF MCI'S MASS MARKET BUSINESS HAS AN IMPACT ON THE COMMISSION'S APPROVAL OF THE MERGER. DO YOU AGREE WITH HIS ASSESSMENT?

A: No. Dr. Taylor argues that because "MCI's mass market business is already in decline and will continue to decline regardless of the transaction," that the Commission should effectively write MCI off as having the ability to have *any* future impact on the market. I don't believe that this is a valid argument. MCI's mass market operations, as of December 31, 2004, make up 25% of MCI's overall revenues.[54] That a company would simply abandon a market segment that provides such a significant portion of overall

[53] Testimony of William Taylor, pp. 36-45.

[54] MCI Form 10-K for December 31, 2004, p. F-75.

revenues does not seem likely, absent the need to make the case that the merger will not do competitive harm. There is no question that MCI's near-term ability to participate in the mass market has been undermined by the elimination of UNE-P, however, there is also evidence that MCI has been planning on continuing to operate in the mass market, by entering into commercial agreements,[55] and exploring alternative approaches, such as VoIP, to expand its efforts in the mass market.[56] MCI has already demonstrated that if incentives exist, it will expand into the mass market. If such incentives were to emerge in the future, either due to changing regulation or technology, the merger will foreclose MCI's ability to expand in the mass market.

Q: DOES THE MARKET SHARE EVIDENCE IN VERIZON WASHINGTON'S SERVICE AREA SUPPORT DR. TAYLOR'S CLAIM THAT MCI'S MASS MARKET BUSINESS IS IN A STATE OF IRREVERSIBLE DECLINE?

A: The evidence does not clearly point in this direction. With regard to long distance services, there has been a definite decline in MCI subscribers. However, with regard to local services, where MCI would be able to offer customers a bundle of local and toll services, the trend has been upward. According to data provided in the testimony of MCI witness Mr. Beach, MCI has increased the number of residential consumers who purchase local exchange service from MCI.[57] Most of these customers purchase a plan that bundles local and long distance services.[58] This is evidence that MCI is capable of attracting customers and competing with Verizon Washington. Thus, while it is certain

[55] Direct Testimony of Michael Beach, p. 15, line 289.

[56] For a discussion of MCI's VoIP offering, see: http://consumer.mci.com/VOIP/index.htm

[57] Testimony of Michael Beach, p. 23.

[58] MCI response to Public Counsel's Data Request 165.

that CLECs in general have been harmed by recent developments such as the elimination of UNE-P, the impact apparently has not been entirely uniform. In the case of MCI's Washington operations, it appears that growth in MCI's residential business is possible.

Q: DOES DR. TAYLOR EXTEND THE "MASS MARKET IN DECLINE" ARGUMENT TO OTHER CLECS?

A: No, Dr. Taylor indicates that he has not assessed the condition of other CLECs.[59] However, he argues that CLEC competition in the state has experienced "rapid growth."[60] As I indicated earlier, the CLEC industry has been dealt a blow by the elimination of UNE-P. MCI's witness Mr. Beach, argues that MCI's operations were harmed because "regulatory changes . . . eliminated the availability of UNE-P at TELRIC rates and adversely affected the economics of MCI's provision of integrated services."[61] This impact applies to all CLECs, not only MCI.

Similarly, Mr. Danner states that he does not believe that Verizon's mass market business is in irreversible decline, and he indicates the following as to why MCI's business is, while Verizon's is not:

> MCI's mass market business is compromised by the change in Federal policy regarding the availability of UNE-P at a regulated price, by the decline of long

[59] In response to discovery, Dr. Taylor states:

> "Dr. Taylor's discussion of MCI's decision to manage the decline of its mass market business is based in large part on information provided by MCI about its plans and trends in its data. Therefore, Dr. Taylor has not been able to make the same evaluation of other CLECs." Verizon/MCI response to Public Counsel's Data Request 103.

[60] Testimony of Dr. William E. Taylor, p. 61, line 5.

[61] Testimony of Michael Beach, p. 10.

> distance service as a stand-alone business, and by restrictions on marketing due to Do Not Call legislation. With regard to its own mass-market businesses, Verizon does not rely on regulated UNE-P as a basis for its offering, Verizon is not as threatened by the disappearance of the stand-alone long distance market because it can offer a full set of services to customers using its own facilities, and Verizon does not depend on telemarketing to the same extent as MCI has.[62]

Clearly, the disadvantages faced by MCI could apply equally to any CLEC. However, Dr. Taylor does not extend the logic of his argument regarding MCI's decline to other CLECs. It is notable that if a CLEC such as MCI has been harmed by the elimination of UNE-P, that other CLECs which did not have MCI's advantages in the market would be likely to experience even greater harm. MCI witness Mr. Beach describes some of MCI's advantages as follows:

> MCI's mass market operations are national in scope. While rates and other terms and condition of service may vary from state to state, in virtually every respect, MCI treats its mass market operations as one national operation. In particular, its cost structure is based on the scale and scope economies it achieves as a national carrier, virtually the same products are offered across the country, the marketing operation is national in scope, and other aspects of the business, such as ordering and provisioning activities, operate nationally and not at a state-specific level.[63]

In spite of these advantages, advantages which do not accrue to all CLECs, Dr. Taylor now considers MCI's business to be in "irreversible decline," while at the same time he considers the CLEC industry to be experiencing "rapid growth."[64]

Q: DOES THE STATE OF THE CLEC INDUSTRY HAVE A MATERIAL IMPACT ON WHETHER THE VERIZON/MCI MERGER DOES NO HARM?

A: Yes, I believe it does. If the CLEC industry is truly thriving, as Dr. Taylor indicates, then the departure of MCI would be less likely to cause competitive harm. We could expect

[62] Verizon response to Public Counsel's Data Request 71.

[63] Testimony of Michael Beach, p. 9, lines 175-181.

[64] Testimony of Dr. William E. Taylor, p. 61, line 5.

that other CLECs would, in the near term, expand to fill the gap left following MCI's departure. However, evidence does not support the proposition that the CLEC industry is thriving, and this makes it less likely that consumers will have the ability to choose another CLEC supplier. Customer willingness to switch local providers was encouraged by the established brand and reputation of MCI and AT&T. Consumers may be less willing to trust their business to an unknown brand, making it likely that Verizon will recapture the consumers who find the supply from these major brands eliminated.

Dr. Taylor simply can't have it both ways. The CLEC industry can't be experiencing "rapid growth" while one of the largest CLECs, MCI is in "irreversible decline," and while the other major CLEC, AT&T, has decided to withdraw from the consumer market.[65] Either the factors which have adversely affected MCI also have an adverse impact on other CLECs, leading Dr. Taylor's discussion on pages 61 to 63 which paints the CLEC industry as a robust competitive force to be overly optimistic, or MCI's business prospects on a going-forward basis in the mass market are not as grave as Dr. Taylor states.

Q: DR. TAYLOR OFFERS AN ASSESSMENT OF LINE LOSSES IN WASHINGTON, BASED ON FCC DATA. DOES HIS ASSESSMENT OVERLOOK ANYTHING?

A: Yes. Dr. Taylor focuses on ILEC switched access line counts in Washington, for both ILECs and CLECs, for the years 2000 and 2004. There is no question that total switched access lines have declined during that period. However, the period is also characterized

[65] Merger of SBC Communications Inc., and AT&T Corp. Description of the Transaction, Public Interest Showing, and Related Demonstrations. Filed with the Federal Communications Commission, February 21, 2005, p. 45.

by ILEC and CLEC efforts to get consumers to utilize broadband DSL services. Of course, the ILEC and CLEC efforts to entice customers to adopt broadband was also joined by cable companies, which began to offer cable modem service during that period. While Dr. Taylor elsewhere states that "cable companies' high-speed data services. . . compete directly with ILEC's DSL and other broadband services, as well as with dial-up connections and second lines,"[66] he ignores this when calculating switched access line losses. The result of Dr. Taylor's selective use of the fact that ILECs and CLECs have deliberately migrated consumers to non-switched lines, is to overstate the impact of switched line loss on ILECs and CLECs.

A. Cable CLEC Activity is Negligible in Verizon's Service Area

Q: COULD CABLE CLEC ACTIVITY MITIGATE THE LOSS OF MCI FROM THE MARKETPLACE?

A: It is theoretically possible, but cable CLEC activity has been negligible in Verizon Washington's service area. In addition, whether these firms will be offering telephony service to all customers is less than clear. My examination of cable pricing plans indicates that cable strategies discriminate against consumers who do not purchase cable video and high-speed Internet services. Furthermore, even if cable companies do expand their services, it is preferable to have more competitors in the marketplace. Thus, MCI's departure will have a negative impact on competitive forces regardless of cable company plans for telephony offerings.

Q: ARE CABLE CLEC OFFERINGS IDENTICAL TO TRADITIONAL TELEPHONE SERVICE?

A: Not always. In areas where cable CLECs do operate, the services that they offer are not

[66] Testimony of William E. Taylor, p. 64, lines 15-17.

always comparable to basic telephone service. For example, Time Warner tells its customers in a "frequently asked questions" discussion regarding their cable telephone service:

> Q: Will my home security system work with Digital Phone?
>
> A: Digital Phone will work with most home security systems. However, please note that Digital Phone has a rechargeable battery, and should there be a power outage, Digital Phone may not be available until the power is restored, as is the case with a cordless phone.
>
> *If this is a concern, you can connect a standard analog line from your previous telephone provider to your monitored security system. . . .*[67]

Similarly, with regard to the ability to use dial-up Internet services, Time Warner states:

> Q: Will my dial-up Internet Service Provider work with Digital Phone?
>
> A: Dial Up Internet can work with Digital Phone but not on a consistent basis. *It is recommended you retain a second analog line from your current or previous phone company for the purpose of dial-up. . . .*[68]

Comcast advises its customers in a "frequently asked question" discussion:

> How do I know that my Comcast Digital Voice service is unavailable?
>
> If you do not hear a dial tone when you lift the receiver, your Comcast Digital Voice™ service may be unavailable due to a service outage or malfunction of equipment in your home. You can also check the status lights on the front of your eMTA (embedded Multimedia Terminal Adapter). All of the lights, except the "Link" light should be on and steady. The link light may be on, off, or flashing depending on whether or not you have Comcast Hight-Speed Internet service, and the status of your computer. If Comcast is aware of an extended outage, we will attempt to place a pre-recorded message on our toll free number so that you can hear the latest updates, if you are able to call in. We also have call center

[67] http://www.timewarnercable.com/CustomerService/FAQ/TWCFaqs.ashx?faqID=1657&MarketID=23&CatID=958

[68] http://www.timewarnercable.com/CustomerService/FAQ/TWCFaqs.ashx?faqID=1662&MarketID=23&CatID=959

representatives standing by to provide this information.[69]

As is indicated in the information provided by Comcast, cable telephone service may be linked to the performance of the cable provider's broadband network, and customer premise equipment related to high-speed Internet access. Trouble-shooting problems with cable telephone may be more complicated than is the case for traditional telephone service.

Q: ARE CABLE CLEC OFFERINGS GENERALLY TARGETED TOWARD THE HIGHER END OF THE RESIDENTIAL MARKETPLACE?

A: Yes, most cable providers promote bundles, and may place restrictions on voice service offerings which are linked to the customer's purchase of either video or high-speed Internet access services. For example, Time Warner promotes its "Digital Phone" service. This plan bundles unlimited long distance calling with local exchange service and is priced "as low as $39.95 per month," excluding End User Common Line (EUCL) charges, taxes, and other fees. This provides a price point that is not likely to be attractive to consumers who are not heavy long-distance users. However, Time Warner's pricing is not what it initially appears. In some areas, the $39.95 price is available only to those who also chose to subscribe to both Time Warner's cable and broadband data services. If customers subscribe to either Time Warner's Standard Cable or high-speed Internet access will pay $44.95 per month for phone service. In some areas customers wanting Time Warner's Digital Phone, who do not subscribe to any other Time Warner services cannot receive Digital Phone, which presents a barrier to substitution.[70]

[69] http://www.comcast.com/Support/Corp1/FAQ/FaqDetail_3041.html

[70] http://www.twcdigitalphone.com/sandiego/faq_home.htm#Can%20I%20get%20

Similarly, Comcast offers potential customers a package of local and long distance service, starting at $39.95 per month. However, to take advantage of this price, the customer must subscribe to both Comcast video and high-speed Internet services. Customers who subscribe to either Comcast video or Comcast high-speed Internet service are charged $44.95 per month. If no other Comcast services are selected, the cost of the Comcast telephone service is $54.95 per month.[71]

Q: DR. TAYLOR RAISES THE ISSUES OF CABLE COMPANY COMPETITION WITH VERIZON. DOES MARKET EVIDENCE SUPPORT HIS CLAIM?

A: No. To bolster his overall claim that the merger will not do competitive harm, Dr. Taylor argues that a number of other service alternatives are available to consumers. With regard to cable telephony, market share evidence obtained from Verizon indicates that very few consumers are being served by cable telephony in Verizon's service area. Verizon provided limited information regarding the identity of its competitors. It did reveal information which allowed the determination of Comcast's residential market share in Verizon Washington's service area, which is **(begin highly confidential) XXXXXXXXXXXXXX (end highly confidential)**. While Dr. Taylor discusses cable in nationwide context, there is very little evidence that cable companies are providing much of a competitive alternative in Verizon Washington's service area. Verizon certainly did not provide this evidence with its filing.

Q: HAS MCI RECENTLY OFFERED ITS OPINIONS REGARDING THE PROSPECTS OF CABLE TELEPHONY?

[70](...continued)
Digital%20Phone

[71] http://www.comcast.com/Benefits/Voice_CMPage.ashx?CTMID=2204&SlotNumber=3

A: Yes. In comment filed before the Federal Communications Commission late last year MCI stated as follows:

> [C]able telephony, whether traditional circuit-switched or emerging packet-switched, has not yet been deployed in a manner that allows it to function as a broad replacement for incumbent LEC's local voice service in terms of cost, quality, and maturity. . . .[72]
>
> Cable telephony's lack of maturity is shown by its extremely limited deployment, especially for packet-switched cable telephony. As to cost, some cable operators require consumers to purchase cable telephony as part of a bundle that includes either cable modem or cable TV. Such bundling requirements render the cost of cable telephony significantly higher than the cost of incumbent LEC landline voice service, which can be purchased as a stand-alone product. Additionally, the quality of cable telephony is not equal to the quality of traditional voice service. . . .[73]
>
> Even if the Commission were to conclude that cable telephony is a viable substitute for incumbent LEC local service, it would at best result in a duopoly, not a competitive marketplace. . . . Economic theory and empirical evidence from the telecommunications industry indicate that a duopoly would not be sufficient to ensure competition for local telephone services. To take an example from the wireless arena, once PCS providers were finally allowed to compete with the incumbent cellular provider duopoly. . .prices declined over fifty percent.[74]

Thus, MCI also recognized limitations associated with cable-company provision of voice services which cause cable telephony to provide, at best, a market outcome which can be expected to perform poorly.

---

[72] MCI Comments, *In the Matter of Unbundled Access to Network Elements, Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers,* WC Docket No. 04-313, CC Docket No. 01-338, October 4, 2004, p. 93, footnotes deleted.

[73] MCI Comments, *In the Matter of Unbundled Access to Network Elements, Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers,* WC Docket No. 04-313, CC Docket No. 01-338, October 4, 2004, p. 94, footnotes deleted.

[74] MCI Comments, *In the Matter of Unbundled Access to Network Elements, Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers,* WC Docket No. 04-313, CC Docket No. 01-338, October 4, 2004, p. 96, footnotes deleted.

B. Wireless Services Are Not a Reasonable Competitive Alternative

Q: DO WIRELESS TELEPHONE SERVICES COMPETE WITH LOCAL WIRELINE SERVICES?

A: No. Dr. Taylor, in an effort to support his claim that competition in the mass market will not be harmed by the Verizon/MCI merger, argues that wireless services offer a competitive alternative.[75] While there is evidence that consumers use their wireless phones for long-distance calling in a manner which substitutes for wireline-based long distance usage, my examination of the local exchange market indicates that there is not sufficient evidence to conclude that wireless telephones are a competitive alternative to a wireline telephone for the vast majority of consumers. This contributes to the conclusion that wireless should not be considered as a countervailing factor with regard to the impact of the merger on local competition.[76]

As I will discuss below, wireless phones, while being reasonably good devices for mobile communications, have numerous shortfalls when compared to wireline local exchange services. A household which would forego wireline local exchange services would face inferior overall communications capabilities at a much higher price than if wireline and

[75] Testimony of William E. Taylor, pp. 72-75.

[76] While it is possible that certain demographic groups, for example, college students, may rely on a wireless phone most frequently, this demographic group was previously less likely to have a telephone in the first place, thus the widespread use of wireless by this demographic certainly does not necessarily represent a displacement of wireline telephones. Students residing in college dorms frequently receive telephone service from the college or university, not the telephone company. Off-campus housing arrangements, especially with "roommates" would not necessarily have each individual having their own phone line.

wireless were used together.

Q: WHAT DOES MARKET DATA INDICATE WITH REGARD TO THE RELATIONSHIP BETWEEN WIRELESS AND WIRELINE TELEPHONES?

A: Market data and empirical research on wireless and wireline subscription indicate that wireless telephones are viewed by the overwhelming majority of consumers as an economic complement, rather than as an economic substitute for wireline telephones.

One recent study, which examines data from the period 1999-2002, finds that for every one-hundred (100) new wireless lines, that ILEC lines have declined by five (5). However, the study did not find a statistically significant relationship between CLEC lines and new wireless lines, thus the results were not consistent across LECs.[77] This low and uncertain ratio of substitution does not indicate that most consumers view wireless and wireline as substitutes. Rather, the vast majority of consumers view the services as economic complements, continuing to use wireline in conjunction with wireless.

Q: WERE YOU ABLE TO IDENTIFY THE NUMBER OF WIRELINE CUSTOMERS WHO HAVE PORTED A WIRELINE NUMBER TO A WIRELESS PHONE IN VERIZON WASHINGTON'S SERVICE AREA?

A: Yes. Verizon identified a total of **(begin highly confidential) XXXX (end highly confidential)** wireline numbers which have been ported to wireless as of March 31,

[77] Loomis, D. G. and C. M. Swann. "Intermodal competition in local telecommunications markets," *Information Economics and Policy*, Vol. 17, 2005, pp. 97-113. This statistical analysis includes the impact of both primary and additional lines.

2005.[78] This is 0.18% of all wirelines in Verizon Washington's service area. This indicates a negligible amount of wireless substitution. Furthermore, of the total number of consumers who have ported wireline numbers to wireless phones, almost 50% have ported to Verizon Wireless,[79] which indicates that a large portion of documented wireless substitution is not a competitive loss to Verizon.

Q: IS THERE EVIDENCE THAT ANALYST CLAIMS REGARDING "CUTTING THE CORD" ARE BECOMING MORE MUTED AS CONSUMERS GAIN MORE EXPERIENCE WITH THE PROSPECTS OF WIRELESS SUBSTITUTION?

A: Yes. In the recent past, it has not been unusual to find industry analysts projecting a rapid displacement of wireline with wireless services. However, market evidence has not borne this out. A recent Forrester Research report, which followed a cohort of consumers found the following:

> **The Cord-Cutting Forecast: Actions Still Speak Louder than Words**
> Had consumers followed through on what they told us last year, the number of cord-cutters would have grown by 100%, not the 20% that we observed. Only the youngest group of consumers who said they planned to cut the cord behaved according to their stated intent. The remaining households now show less enthusiasm for cord-cutting than a year ago, and they cite many of the same factors as impediments as do those who have no intention of eschewing their fixed line.
>
> > **Future cord-cutters got cold feet, and they're getting colder.** Last year, 43% of those who said they intended to go all wireless planned to do so in the coming year—which would have doubled the ranks of the cord-cutters. The reality? Only one in four actually took the plunge. This year, while a slightly greater percentage of mobile users say they'll cut the cord *sometime* in the future, barely one in four plans to do so in the coming year, and the percentage who plan to wait at least two years has nearly doubled.
> >
> > **Reluctant cord cutters and landline diehards think alike.** Internet

[78] Verizon response to Public Counsel's Data Request 51.

[79] Verizon response to Public Counsel's Data Request 147.

> access, poor cellular quality, and security top the list of reasons not to cut the cord—today and in the future. . . .
>
> **Even the youngest segment can't be counted on.** Those in the 18- to-24-old segment were primarily responsible for the growth in cord-cutters in the past year—and only this group realized the growth predicted from last year. But this year, the percentage of this age group who plan to cut the cord has dropped in half—and every other segments' future cord-cutter group has declined by at least 20%.[80]

Q: WHAT ARE THE CULTURAL BARRIERS TO REPLACING A WIRELINE TELEPHONE WITH A WIRELESS TELEPHONE?

A: There are several. First, wireless telephone plans bill for usage for both incoming and outgoing calls. Wireless calling plans offer "buckets" of minutes that can be used at any time, however, exceeding one's limit may result in charges as much as $0.45 per minute.[81] Consumer aversion to measured local calling is one barrier to the outright replacement of a wireline telephone with a wireless phone. Second, wireless telephones do not provide a reasonable means for Internet access. This point is discussed in more detail below. Third, for a family to replace a wireline telephone with a wireless alternative, multiple wireless telephones will be required. This would replace the current single main number for reaching a residence with multiple numbers. Even with number portability, a main household number would require maintenance of a separate wireless phone for that purpose.

Use of a wireline phone is necessary for a variety of complementary technologies. For

[80] Charles S. Groven, "Cord Cutting Reaches One in Twenty Mobile Households," Forrester Research, May 5, 2005, p. 5.

[81] These plans may also require a term commitment, with substantial penalties for early termination.

example, home security companies frequently require a wireline phone to operate, as do satellite television systems, and digital video recorders. The ability to access banking and financial records without a wireline phone may be limited. Even the ability to order a pizza may be hindered by the absence of a wireline phone.[82] Finally, wireless telephones may not be E911 compatible, which may be a significant consideration when considering the prospect of abandoning a wireline phone for wireless.

Q: ARE WIRELESS TELEPHONES CAPABLE OF PROVIDING DIAL-UP INTERNET ACCESS OR SENDING A FAX?

A: While it is technically possible to use a wireless phone to provide dial-up Internet access or send a fax, there are significant impediments for these uses.

Absent the purchase of a wireless data plan, data transfer speeds are likely to be very limited, in the neighborhood of 14.4 kbps. Such a low data speed would have an unfavorable impact on the many Internet applications, such as World Wide Web applications—not to mention the use of costly wireless minutes. Wireless data plans that can provide higher data speeds will add cost to the wireless service offering, for example, Sprint Vision plans, which can enable dial-up access, add $15 to $25 per month to the cost of a wireless plan.

To utilize other wireless data services, a special card may be needed for the user's PC.[83]

[82] For further discussion, see "Choosing Cell Over Landline Can Bring Unexpected Pain," *The Wall Street Journal Online*, July 9, 2004. http://online.wsj.com/article_print/0,,SB108921367434057319,00.html

[83] See, for example, http://www.cingular.com/sbusiness/laptop_connect

Alternatively, a web-enhanced device, such as a Blackberry unit, may be needed. T-Mobil, Sprint, and Cingular market their wireless data product as a business service, with business-oriented price points of $40 to $80 per month.

Wireless companies are also offering telephones which are capable of providing some basic Internet-related functions, like e-mail and web browsing, however, the "Internet" that is provided through these plans is not the open Internet that is typically available from a dial-up ISP, and is likely a poor substitute for the Internet services available over a dial-up connection. Furthermore, these phone-based "wireless Internet" plans impose additional fees, including charges for downloads, based on the number of kilobytes transferred.[84] Thus, a major consideration in the choice calculus regarding abandoning a wireline phone is what to do about Internet access. Broadband is an alternative, but would likely add another $30 to $40 per month to the cost of replicating the services available over a wireline phone.

Sending a fax from a personal computer may also be possible, but sending a non-computer-generated fax would require several additional steps, and additional equipment. Receiving a fax with a wireless phone would be extremely cumbersome as fax transmission is asynchronous, which would require that the user dedicate a wireless connection (with the associated fax machine) for that purpose.

[84] See, for example: http://onlinestorez.cingular.com/cell-phone-service/wireless-phone-plans/cell-phone-plans.jsp?catid=2206800007?curTabName=Data%20Plans&storeId=11901&catalogId=11901&langId=-1&storeAlias=kanmwr&svcAreaId=SBC&isFamilyTalkFlow=false&subOrderId=1

Q: ARE THE ERGONOMICS OF WIRELESS PHONES CONDUCIVE TO VIABLE SUBSTITUTION FOR ALL SEGMENTS OF THE POPULATION?

A: No. Wireless telephones are difficult to hold compared to larger, more ergonomically designed telephone sets available for wireline networks. In addition, wireless handsets present keypads which are often more difficult to see and use. These factors may be highly significant for portions of the population, such as the elderly, or those with physical disabilities.

Q: DOES WIRELESS SERVICE QUALITY INHIBIT A WIRELESS TELEPHONE'S DESIRABILITY AS A REPLACEMENT FOR A WIRELINE TELEPHONE?

A: Yes. Wireless coverage areas do not provide uniform signal strength and may have "dead zones," where either no signal or a very weak signal can be received. If your home is in a dead zone, a wireless telephone may not be an alternative to wireline. Furthermore, receiving a wireless signal within a building may be difficult even when a signal is available out-of-doors. Thus, a wireless phone may not provide a very good alternative to a wireline phone when walking from room to room (or into the basement) in a home or apartment.

Even where signal strength is adequate to use the phone indoors, wireless telecommunications providers have incentives to oversubscribe their services as there are usually no checks on wireless service quality. The wireless industry practice of adding customers without expanding network capacity may improve revenues, but it places increased demands on wireless carrier infrastructure which negatively affects consumers. During peak calling periods overwhelmed wireless networks have difficulty meeting user demand, leading to blocked and dropped calls. During the August 2003 blackout that

affected the Eastern U.S., cellular systems did not perform well due to insufficient network capacity and battery backups at cell towers that only provided a few hours of auxiliary power.[85] A 2003 survey of wireless users conducted by *Consumer Reports* magazine indicates that in the week prior to the survey 10 percent of respondents experienced conditions where they could not get service, 14 percent experienced dropped calls, and 11 percent experienced poor call quality.[86] Another 2003 survey, conducted on behalf of the U.S. General Accounting Office (GAO), also indicates service quality problems. GAO estimates that 22 percent of wireless users were unable to successfully complete 10 percent or more of their calls.[87] A survey conducted by the National Regulatory Research Institute in 2003 reported that 26% of wireless users interviewed gave their service a grade of "D," 9% assigned a grade of "F," and only 19% assigned a grade above "C."[88] A 2004 J.D. Power and Associates survey identified static and interference, and the inability to connect on the first try as the top two problems facing wireless users.[89] These service quality issues make wireless telephones an inferior product when compared to wireline phones.

---

[85] "Blackout gives cell phones a black eye," *CNET News.com.* August 15, 2003. http://news.com.com/2100-1039-5064689.html

[86] "Three steps to better cellular," *Consumer Reports*, February 2003, p. 16.

[87] "FCC Should Include Call Quality in Its Annual Report on Competition in Mobile Phone Services." General Accounting Office April 2003, p. 3. Available at: http://www.gao.gov/new.items/d03501.pdf

[88] http://researchnews.osu.edu/archive/celsatis.htm

[89] http://www.jdpower.com/news/releases/pressrelease.asp?ID=2004085

Q: ARE WIRELINE AND WIRELESS TELEPHONE COMPANIES FINANCIALLY INTERTWINED?

A: Yes. The financial interdependency of wireless and wireline carriers is quite common, with major wireline carriers like SBC, BellSouth, Verizon, and Sprint all having major wireless operations. Verizon's parent has wireless operations which offer service in Washington. Some analysts are pointing to the necessity of combining wireless and wireline business strategies for success, placing a company like Verizon in a superior position to wireline providers without a wireless affiliation, and wireless providers without a wireline affiliation:

> In the longer term only service providers with business models that offer consumers a full range of both wireline and wireless services, and easy transition between the two technologies, will succeed," said Alex Winogradoff, research vice president for Gartner. "Unaffiliated wireless operators will find it difficult to compete against affiliated operators and will likely go out of business unless they adopt a more comprehensive business model or partner with, acquire or be acquired by a wireline operator."[90]

If this theory is correct, there may be a rough road ahead for wireline CLECs who don't have a wireless affiliate. It is notable that both AT&T and MCI lack wireless affiliates, and are now in mergers with the first and second largest wireless providers (SBC/BellSouth and Verizon).

Some recent examples of the type of revenue increasing wireline/wireless integration strategies available to wireline carriers which also have wireless operations include SBC-Cingular's "MinuteShare" offering, which provides a shared bucket of wireline long distance and wireless minutes. SBC-Cingular has also recently introduced a product designed to integrate their wireless customers' usage with their local telephone service.

[90] http://www.cellular-news.com/story/9606.shtml

The new service offering, called *Fast*Forward, is described by SBC as follows:

> This unique device — designed as a cradle to hold a wireless phone — simply plugs into an electrical outlet. When the Cingular Wireless phone is "cradled," calls to the wireless phone are forwarded to a designated landline phone, while the wireless phone's battery is automatically re-charged. Cingular customers with a *Fast*Forward device can get unlimited incoming wireless calls (minutes) forwarded to their landline phone in the local calling area — without the minutes counting against their monthly wireless calling plan for just $2.99 per month plus the cost of the device. The service is free to SBC residential local phone company customers who receive a single bill for Cingular wireless and landline services, and BellSouth customers who sign up for a combined bill and two other features.[91]

The *Fast*Forward device clearly illustrates the type of relationship firms like SBC are cultivating with their customers who use wireless, one in which their wireless phone is used in conjunction with the wireline phone—not as a substitute for a wireline phone.

Verizon also has the ability to market wireless and wireline service bundles through integrated ordering systems which allow customer representatives to jointly market wireline and wireless services.

Q: DO COMPANIES WITH COMBINED WIRELESS AND WIRELINE SERVICE OFFERINGS GENERALLY ENCOURAGE, THROUGH THEIR MARKETING EFFORTS, WIRELINE CUSTOMERS TO REPLACE THEIR WIRELINE SERVICES WITH WIRELESS SERVICES?

A: No, absolutely not. These companies have a vested interest in their subscribers' continued use of wireline services and are developing strategies to integrate their customers' use of wireline and wireless technologies. Thus, these companies are very careful to avoid marketing messages that might lead customers to think about abandoning their wireline connection.

[91] http://www.sbc.com/press_room/1,,1783,00.html

Q: HAS MCI RECENTLY OFFERED ITS OPINIONS REGARDING THE SUBSTITUTABILITY OF WIRELESS FOR WIRELINE LOCAL EXCHANGE SERVICES?

A: Yes. MCI recently presented the FCC a very different perspective of the impact of wireless on wireline markets than the one offered by Dr. Taylor:

> Although customers have shifted minutes (such as long-distance calls) to their wireless phones, only a small percentage of wireless customers have "cut the cord" by using their wireless phone as their only phone. In the *Triennial Review Order,* the Commission found that "only about three to five percent of CMRS subscribers use their service as a replacement for primary fixed voice wireline service, which indicates that wireless switches do not yet act broadly as an intermodal replacement for traditional wireline circuit switches." The most recent data from the Commission and other sources confirms this conclusion. . . .[92]

> A major reason for customers' reluctance to replace their wireline phones is that wireless service generally does not provide the quality of service that wireline customers have come to expect. . . .[93]

> In addition to the fact that the vast majority of wireless customers are not willing to give up their wireline service, there are questions as to whether incumbent LEC-affiliated wireless carriers are even interested in having customers view wireless service as a substitute for wireline service. The two largest wireless providers—Verizon Wireless and Cingular—are owned by three of the four BOCs, and Sprint PCS is an incumbent LEC affiliate. As observers have noted, it is unlikely that the incumbent LECs will permit their sizeable wireless operations to cannibalize their profitable local wireline monopolies. Instead, as confirmed by their statements, the incumbents have a strong financial incentive to perpetuate both the reality and the perception that wireless service is not a substitute for wireline voice service.[94]

---

[92] MCI Comments, *In the Matter of Unbundled Access to Network Elements, Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers,* WC Docket No. 04-313, CC Docket No. 01-338, October 4, 2004, p. 88, footnotes deleted.

[93] MCI Comments, *In the Matter of Unbundled Access to Network Elements, Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers,* WC Docket No. 04-313, CC Docket No. 01-338, October 4, 2004, p. 89, footnotes deleted.

[94] MCI Comments, *In the Matter of Unbundled Access to Network Elements, Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange*

(continued...)

Thus, MCI's perspective on the impact of wireless telephony contradicts Dr. Taylor's view that wireless is a competitive substitute for wireline.

C. VoIP is Not a Reasonable Competitive Alternative

Q: DR. TAYLOR POINTS TO THE PENETRATION RATES OF BROADBAND SERVICES IN WASHINGTON AS SUPPORTING THE PROPOSITION THAT "VOIP SERVICES ARE WIDELY AVAILABLE IN WASHINGTON." DO YOU AGREE?

A: The fact that some Washington households subscribe to broadband services, and that those households have the potential to subscribe to VoIP service, does not make VoIP a relevant consideration when assessing the impact of the merger on Verizon's market power. As I will discuss in detail below, there are significant limitations on VoIP as a technology, which make it a poor substitute for switched services. While cable television companies may be offering VoIP services which are more similar to switched services, VoIP from third-party vendors is not comparable to switched local exchange service.

Q: DOES THE ISSUE OF VOIP OVER IP RAISE ANOTHER IMPORTANT CONTRADICTION IN JOINT PETITIONERS OVERALL CASE THAT THE MERGER WILL HAVE NO COMPETITIVE HARM?

A: Yes. Dr. Taylor, as well as Mr. Beach and Mr. Danner all indicate that VoIP is a robust intermodal alternative, pointing to the alleged ease of entry and the potential for rapid growth by VoIP providers.[95] However, if it is so easy to grow a business using VoIP, then why does MCI view the mass market in "irreversible decline"? Couldn't MCI simply adopt the VoIP strategy and get on the VoIP "gravy train"? Here again, Joint

[94](...continued)
Carriers, WC Docket No. 04-313, CC Docket No. 01-338, October 4, 2004, p. 91, footnotes deleted.

[95] Testimony of Michael Beach, p. 3. Testimony of William E. Taylor, pp. 31 and 75. Testimony of Carl Danner, p. 8.

Petitioners can't have it both ways. Either competition will be harmed because MCI will not be an independent competitor in the VoIP market, or VoIP is not the competitive alternative that Joint Petitioners' witnesses make it out to be, and, as a result, VoIP does not contribute much to the competitive landscape. Either interpretation of VoIP can only lead to the conclusion that the merger is adversely affecting competition. As I will discuss further below, the latter interpretation is supported by substantial evidence.

Q: HOW HAS THE INTERNET AFFECTED TELEPHONY?

A: There is an evolving set of technologies which enable telephony over the Internet or other data communications networks. Some of these technologies are designed for computer-to-computer communication over the Internet, and include services such as the Free World Dial-Up Project (FWD), and Skype. These technologies provide voice communication between computers, and allow dialing out to the PSTN. However, they do not allow PSTN users to call FWD and Skype users, as FWD and Skype do not use conventional telephone numbers.

Other technologies, commonly referred to as Voice over Internet Protocol (VoIP), enable voice communication over any packet-based data network. The former of these technologies, computer-to-computer communication over the Internet, has led to several "free telephony" projects, which encourage use of the Internet to replace long distance calling, especially for international calls. The latter technologies have been pursued by business telecommunications users to integrate their voice and data communications networks to economize in the self-provision of voice services for internal business communications. (VoIP can replace a PBX). VoIP is an emerging service outside of the

business self-provision market. Vonage and other third-party vendors have stand-alone offerings, and cable television and telephone companies are starting to roll out VoIP over their high-speed data networks.

Q: VERIZON/MCI WITNESSES POINT TO INTERMODAL COMPETITION FROM VOICE OVER INTERNET PROTOCOL (VoIP). DOES VOIP OFFER A VIABLE ALTERNATIVE FOR RESIDENTIAL CUSTOMERS?

A: No. Once again, in an effort to broadly define the market so as to make the case that the Verizon/MCI merger will have no impact on competition, Dr. Taylor indicates that "VoIP services are widely available in Washington."[96] VoIP is beginning to be offered by some cable companies, but, as I discussed above, cable offerings appear to be available only on a bundled basis, and may have technical limitations. Cable company offerings are one part of the emerging VoIP picture. Other firms, which may be considered third-party vendors as they are not associated with the provision of the required broadband connection, are also operating.

Q: HOW DOES A RESIDENTIAL CUSTOMER UTILIZE A SERVICE FROM A THIRD-PARTY VOIP PROVIDER?

A: For residential users, VoIP can be provided over a DSL or cable modem connection by a third-party provider such as Vonage. Thus, the service requires a broadband connection, the cost of which must be factored in the analysis. Data from the FCC indicates that 62% of residential customers in Washington *do not* have a broadband connection,[97] thus VoIP

[96] Testimony of William E. Taylor, p. 75.

[97] Based on data from the FCC's July 7, 2005 report on broadband deployment (for year-end 2004), which reports 889,368 residential and small business "high-speed" lines. The U.S. Census Bureau reports 2,358,892 households in Washington as of 2002, the most recent household count available.

is far from the "widely available option" in Washington claimed by Dr. Taylor.[98]

Furthermore, use of Vonage or a similar service has distinct disadvantages, such as the lack of number portability, the inability to utilize E911 services, and the inability to have telephone service in the event of a power outage.[99] VoIP might be considered by some residential customers who already have a broadband connection, but to a customer without a broadband connection (or a computer) VoIP is not a reasonable alternative.

Q: FOR A VERIZON DSL CUSTOMER, DOES VOIP ALLOW THE REPLACEMENT OF VERIZON'S BASIC LOCAL EXCHANGE SERVICE?

A: No. In order to purchase DSL service from Verizon, Verizon's basic local exchange service must also be purchased.[100] This bundling of DSL with voice service does not allow the customer to replace basic local exchange service with VoIP. If a customer would be interested in VoIP, given their inability to replace local service, it would likely be for long distance. However, given that Verizon currently offers unlimited local and domestic long distance for $49.95 per month, VoIP would likely provide benefits only to someone who was interested in international calling. Given the many drawbacks of VoIP from stand-alone vendors, Verizon's unlimited circuit-switched option would appear to be a logical choice, more so given the inability to purchase DSL on a stand-alone basis.

Q: IS VOIP AN ESTABLISHED TECHNOLOGY IN THE RESIDENTIAL MARKETPLACE?

A: No, it is a technology which is emerging, and thus has problems and limitations, and I

[98] Testimony of Dr. William E. Taylor, p. 75.

[99] Vonage Web Site: http://www.vonage.com/features.php?feature=911

[100] Verizon response to Public Counsel's Data Requests 190, 191, and 192.

don't think VoIP providers, such as Vonage, represent a meaningful alternative for the vast majority of Verizon's residential customers. A recent survey by TNS Telecom found that awareness of VoIP among Internet users was low, with only 26% of households with Internet access having heard of VoIP.[101] TNS Telecom's survey also found virtually no increase in the awareness of VoIP from a study done one-year earlier.

Q: DO VOIP SERVICES FROM THIRD-PARTY VENDORS EXHIBIT THE SAME DEGREE OF RELIABILITY AS THE PSTN?

A: No. The Internet is an inherently unreliable network. Problems with VoIP network outages have emerged.[102] Vonage offers the following advice for some of these situations in the following Q&A:

> **Suddenly I am unable to receive any inbound calls. What is the cause?**
>
> The inability to receive inbound calls is directly related to the Phone Adapter's ability to register with our proxy server. If the Phone Adapter is not registered, the Vonage proxy server will be unable to route calls to the device. When a call is unable to reach the phone adapter, Vonage will route the call to your voicemail.
>
> There are a few reasons your phone adapter may not be able to register with the Vonage proxies:
>
> * Power outages
> * Loss of Internet connectivity
> * Router/firewall security options blocking Vonage traffic
>
> If this problem occurs, verify you have Internet connectivity and/or check your router/firewall security settings and reboot the Phone Adapter. To reboot the phone adapter, unplug the power cord from the back of the device, for 15 seconds, and then plug it back in. This will initiate a new registration request. Wait 5

[101] "VoIP Awareness Low Among Internet Users, Says New TNS Telecoms Study, April 20, 2005. http://www.tnstelecoms.com/press-4-20-05.html

[102] Charny, Ben. "VoIP provider Vonage suffers outage." News.Com, August 2, 2004. http://news.com.com/VoIP+provider+Vonage+suffers+outage/2100-7352_3-5293439.html

minutes for the device to completely boot up, before attempting to make a call.[103] This discussion also illustrates two related problems with VoIP—the lack of on-site service technicians and the need for the user to be technologically sophisticated. In addition to this type of problem, there are reports of VoIP call blocking problems arising where cable company networks may be accidently blocking VoIP calls as part of normal security screening practices.[104] Blocking of VoIP calls by other ISPs is also a problem reported by VoIP providers.[105]

Q: DO VOIP USERS NEED SPECIAL SKILLS?

A: Yes. VoIP from third-party vendors will be more attractive to the technologically savvy. Documents received from Verizon confirm that this is also Verizon's opinion.[106] Companies like Vonage have no service personnel to help users establish or repair service at a customer's premises. The user must be prepared to perform these services themselves, or to contract out for professional help. For example, if you want to use Vonage on multiple phones within your home, you must rewire your inside wiring.[107] Configuring equipment for use with Vonage's service requires that the subscriber possess

[103] http://www.vonage.com/help_knowledgeBase_article.php?article=265&category=166

[104] Charny, Ben. "Some VoIP calls being blocked." News.Com, August 12, 2004. http://zdnet.com.com/Some+VoIP+calls+being+blocked/2100-1105_2-5307232.html?part=rss&tag=feed&subj=zdnn

[105] "Vonage Complains to FCC of Calls Being Blocked," *Reuters,* February 14, 2005.

[106] Verizon identifies "gadget gurus" as a potential target for Verizon's VoIP product. (Verizon Response to Public Counsel's Data Request 95, Attachment 1).

[107] http://www.vonage.com/help_knowledgeBase_article.php?category=45&article=649

technical acumen which can safely be described as "above average." For Vonage to operate, the user's broadband connection must terminate on a router.[108] A router may be integrated in a cable broadband offering, but Vonage's need for a router would require a DSL user to purchase an additional piece of equipment.[109] To use a router with Vonage (in either the cable or DSL scenario), it must be configured. Vonage offers the following hint on how to get the router set up correctly so it can be used with Vonage's service:

> Your router typically should be configured for PPPoE if you are using a DSL Internet Service Provider. Some cable modem services require that the Mac address of the computer is spoofed in the router configurations. Check your router documentation for more information.[110]

Thus, for broadband users who are not sure whether they are "PPPoE compliant," or how to "spoof" their computer's "Mac address," setting up Vonage may present some problems. Of course, Vonage has a telephone help-line. However, most customers will not be willing or able to trouble-shoot VoIP problems in this fashion, especially if their VoIP phone service is malfunctioning.

Q: ARE THERE OTHER LIMITATIONS ON VOIP?

A: Yes. Use of a VoIP provider such as Vonage also means that telephone service is not available when the broadband connection is out or when electric power is out. Furthermore, to use *any* 911 services users must activate the service and manually enter

---

[108] A router is a device which provides an interface between two networks. In the home environment the router connects the cable or telephone companies' data network to the home network, which may be connected to multiple computers.

[109] DSL offerings are typically provided with a DSL modem and filters, but a router is typically not part of the CPE provided by the telephone company.

[110] http://www.vonage.com/help.php?article=188&category=48&nav=5

information into a Vonage database.[111] Vonage addresses the 911 issue as follows in its service agreement:

> **Non-Availability of Traditional 911 or E911 Dialing Service.** The Service does not support traditional 911 or E911 access to emergency services in all locations. Where we do not offer traditional 911 or E911 access, we offer a feature known as "911 Dialing" which is a limited emergency calling service available only on Vonage-certified Devices or Equipment. The 911 Dialing feature cannot be used in conjunction with a Vonage Soft Phone or Virtual Numbers. Our 911 Dialing feature is not automatic; you must separately take affirmative steps, as described in this Agreement and on our website, to register the address where you will use the Services in order to activate the 911 Dialing feature. You must do this for each Vonage phone number that you obtain. The 911 Dialing feature of the Service is different in a number of important ways from traditional 911 or E911 service as described on our website page for 911 Dialing under "Features," and below. You shall inform any household residents, guests and other third persons who may be present at the physical location where you utilize the Service of (i) the non-availability of traditional 911 or E911, and (ii) the important differences in and limitations of the Vonage 911 Dialing feature as compared with traditional 911 or E911 dialing. . . .[112]

On May 19th, 2005, the FCC ordered VoIP providers to be E911 compliant within 120 days. Whether this requirement will be met is uncertain at this time. However, given the experience in wireless markets, where E911 compatibility still has not been achieved *ten years* after the FCC began to require carriers to upgrade their networks, 120 days seems optimistic.[113] If this deadline is enforced by the FCC, the third-party VoIP business model may be in for tough times.

---

[111] http://www.vonage.com/features.php?feature=911&refer_id=27400178

[112] Vonage Customer Agreement, emphasis in original. http://www.vonage.com/features_terms_service.php

[113] For a recent assessment of wireless E911 problems, see: "Tests shows that many Cellphone Calls to 911 go Unlocated," *Wall Street Journal*, May 19, 2005. http://online.wsj.com/article_print/0,,SB111651479538138125,00.html

Q: DR. TAYLOR DISCUSSES THE IMPACT OF INTERNET SERVICE PROVIDERS LIKE AMERICA ONLINE IN THE PROVISION OF VOIP SERVICES. DOES THE RECENT SUPREME COURT RULING IN THE *BRAND X* CASE HAVE ANY IMPACT ON HIS CONCLUSIONS?

A: Yes. Dr. Taylor points to activities by AOL, Yahoo!, and MSN as another source of intermodal competition.[114] However, it is likely that the recent Supreme Court decision in the Brand X case will have an impact on this potential. In that decision, the Supreme Court ruled that cable television companies are not required to provide access for ISPs other than the cable company's affiliate.[115] While the Brand X decision applied only to cable broadband providers, the FCC has now extended the provisions of the Brand X case to LEC broadband facilities, thus allowing LECs to exclude broadband Internet service providers from their facilities.[116] To the extent that restricted broadband access limits consumer choice of ISPs, VoIP offerings associated with those ISPs are constrained as well.

Q: HAS MCI RECENTLY OFFERED A PERSPECTIVE ON VOIP WHICH IS FUNDAMENTALLY DIFFERENT THAN THAT OFFERED BY DR. TAYLOR AND MR. BEACH?

A: Yes. In comments filed before the Federal Communications Commission, MCI recently stated:

> [T]he BOCs fail to acknowledge adequately the multitude of limitations in ubiquity, quality, cost, and maturity that currently make VoIP service an inadequate substitute for incumbent LEC voice services in the mass market. . . .

---

[114] Direct Testimony of Dr. William E. Taylor, pp. 33-34.

[115] *National Cable & Telecommunications Association et al. v. Brand X Internet Services et al.* Supreme Court of the United States, No. 04-277, June 27, 2005.

[116] "FCC Eliminates Mandated Sharing Requirement on Incumbent's Wireline Broadband Internet Access Service." FCC News Release, August 5, 2005. http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-260433A1.pdf

> The BOCs fail to point out that VoIP is available only to those customers that first subscribe to broadband service, a luxury that many Americans cannot afford or choose not to purchase. The BOCs repeatedly claim that ninety percent of American homes have access to cable modem service, as if that claim were actually relevant. American have access to a lot of things, not all of which they can afford, and not all of which they desire. . . .A consumer should not be *required* to purchase broadband service in order to have competitive options for telephone service. . .[117]

> With respect to the cost of VoIP, the BOCs claim that prices are "up to 30% lower than wireline service." But the BOCs ignore the cost of the underlying broadband service. Although the cost of VoIP packages ranges from roughly $20 to $40 per month, the BOCs' own data shows that "[t]he average retail price of stand-alone broadband service . . . is approximately $46 per month." When the latter cost is factored in, VoIP service is more expensive than most local and long distance packages for traditional packages for traditional calling.[118]

Q: WHAT IS YOUR CONCLUSION REGARDING VOIP?

A: Given the limitations of current VoIP services, I don't believe that it is a service which is providing a competitive alternative for mass market customers at this time.

Q: DR. TAYLOR INDICATES THAT THE VERIZON/MCI MERGER WILL HAVE NO ADVERSE IMPACT ON COMPETITION IN THE LONG DISTANCE MARKET, DO YOU AGREE?

A: No. Dr. Taylor indicates that it is no longer appropriate to consider local and long distance markets separately. While it is certain that local and long distance services are commonly bundled, not all consumers purchase service in bundles. Furthermore, one would not expect competitive markets to force only bundled service offerings on consumers. Thus, the

---

[117] MCI Reply Comments, *In the Matter of Unbundled Access to Network Elements, Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers,* WC Docket No. 04-313, CC Docket No. 01-338, October 19, 2004, pp. 16-17, emphasis in original.

[118] MCI Reply Comments, *In the Matter of Unbundled Access to Network Elements, Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers,* WC Docket No. 04-313, CC Docket No. 01-338, October 19, 2004, pp. 18-19, footnotes deleted.

elimination of MCI from the market will remove a competitive choice from the marketplace. The combination of MCI and Verizon will increase Verizon Washington's overall share of presubscribed residential long distance users to **(begin confidential) XX% (end confidential)**.[119]

Q: CAN YOU SUMMARIZE YOUR CONCLUSIONS REGARDING VERIZON AND MCI WITNESSES' ARGUMENTS IN SUPPORT OF THE MERGER?

A: There is little evidence that the other factors cited by Joint Petitioners' witnesses will act as a countervailing force to the increase in market power (which I discuss in more detail in the following section of this testimony). Joint Petitioners' witnesses do not refute the strong evidence that the merger will result in competitive harm in Washington.

VI. Economic Issues with the Merger

Q: IN ECONOMIC TERMS, HOW ARE MERGERS CLASSIFIED?

A: Mergers are generally categorized by economists into three categories: "vertical" mergers, "horizontal" mergers, and "conglomerate" mergers.[120] Vertical mergers involve the combination of firms that separately produce two or more components of the same product. Horizontal mergers involve the combination of two firms that sell the same product. Conglomerate mergers combine firms which produce unrelated products, for example, Phillip Morris' acquisition of Kraft.

Q: WHAT TYPE OF MERGER WILL RESULT FROM THE COMBINATION OF VERIZON AND MCI?

A: The combination of Verizon and MCI has elements of both a horizontal and a vertical

[119] Based on responses to Staff's Data Requests 21 and 29.

[120] See, for example, *Managerial Economics and Business Strategy, 3rd Ed.* Michael R. Baye, Irwin McGraw-Hill, 2000, pp. 252-253.

merger. With regard to the vertical nature of the merger, Verizon will acquire critical assets controlled by MCI which serve as inputs in services offered, or planned to be offered, by Verizon. Most notably, Verizon will acquire facilities owned by MCI which are currently used by Verizon to provide interLATA long distance services, for both interstate and intrastate calls.[121] Likewise, Verizon will also secure "MCI's Internet Protocol ("IP")-based backbone,"[122] which will enable the provision of Verizon high-speed services, including video services. Another vertical aspect of the merger is the change in wholesale market relationships between MCI and Verizon that will result following the merger. Today, MCI acquires inputs that it needs to provide local exchange and long distance services from Verizon. These include unbundled network elements, obtained either at TELRIC-based rates, or through commercial agreements, special access service, and switched access services. Following the merger, these market relationships will be eliminated and inputs directly controlled by Verizon will used to serve these customers.

The merger also has notable horizontal characteristics, which are my main focus regarding the issue of competitive harm. Verizon and MCI each offer local and long-distance services to business and residential customers in the state of Washington. Verizon and MCI today compete for business in Verizon's service area, and it is this aspect of the merger which raises the most significant competitive concerns.

Q: ARE THE U.S. DEPARTMENT OF JUSTICE'S HORIZONTAL MERGER GUIDELINES RELEVANT TO ISSUES BEFORE THE COMMISSION IN THIS PROCEEDING?

[121] Verizon response to Public Counsel's Data Request 78.

[122] Direct Testimony of Carl R. Danner, p. 4, line 21.

A: The DOJ's approach to evaluating issues relating to horizontal mergers can contribute to this Commission's determination as to whether the proposed merger does competitive harm in Washington. A critical component of an evaluation of market conditions is an analysis of the number and relative size of firms. Economists have developed measures, such as concentration ratios and the Herfindahl-Hirschmann Index, which provide a systematic approach to such an evaluation. The U.S. Department of Justice (DOJ) utilizes the Herfindahl-Hirschmann Index (HHI) when evaluating mergers. The HHI provides a forward-looking tool for assessing market structure and should be used by the Commission as part of its overall market analysis for purposes of determining whether harm arises from the proposed merger. The HHI, as applied here, is inherently forward looking as it projects the impact of the merger on market concentration.

Q: IS THE DEPARTMENT OF JUSTICE CONCERNED WITH HARMS THAT MAY ARISE FROM A MERGER?

A: Yes. The DOJ's concern relates to the enhancement of market power. The enhancement of market power will result in economic harms. The DOJ's *Merger Guidelines* indicate that:

> The unifying theme of the Guidelines is that mergers should not be permitted to create or enhance market power or to facilitate its exercise. Market power to a seller is the ability profitably to maintain prices above competitive levels for a significant period of time. In some circumstances, a sole seller (a "monopolist") of a product with no good substitutes can maintain a selling price that is above the level that would prevail if the market were competitive. Similarly, in some circumstances, where only a few firms account for most of the sales of a product, those firms can exercise market power, perhaps even approximating the performance of a monopolist, by either explicitly or implicitly coordinating their actions. Circumstances also may permit a single firm, not a monopolist, to exercise market power through unilateral or non-coordinated conduct -- conduct the success of which does not rely on the concurrence of other firms in the market or on coordinated responses by those firms. In any case, the result of the exercise of market power is a transfer of wealth from buyers to sellers or a misallocation of

resources.[123]

If a merger enhances market power, the adverse impact of the unnecessary transfer of wealth from buyers to sellers is one type of harm. Market power is also associated with inefficient allocation of resources. Both of these harms should also be of concern to this Commission.

Q: WHAT ROLE DOES MARKET SHARE AND MARKET CONCENTRATION PLAY WHEN EVALUATING A HORIZONTAL MERGER?

A: Evaluation of market shares is critical for evaluating the likely impact of a merger on market conditions. Economic theory predicts that the number and relative size of firms will have an impact on firm behavior in a market, with smaller numbers of firms making coordination of action to the detriment of competition and consumers being the logical outcome of market consolidation. Economic theory has influenced legal analysis of mergers. As noted by the U.S. Supreme Court:

> The market share which companies may control by merging is one of the most important factors to be considered when determining the probable effects of the combination on effective competition in the relevant market.[124]

Q: THE SUPREME COURT MENTIONS THE "RELEVANT MARKET." WHAT IS THE RELEVANT MARKET FOR THIS PROCEEDING?

A: The market for local exchange service, categorized by customer class is relevant for this proceeding. Consumers may decide between alternative providers of basic dial-tone service. When the choice is made, the consumer will, if they desire, purchase vertical services, such as call waiting and caller ID from the same provider which offers basic local service. Consumers may also purchase bundles of services, including toll service

[123] *Merger Guidelines*, Section 0.1, footnote omitted.

[124] *Brown Shoe Co. V. United States*, 370 U.S. 294, 325 (1962).

from that provider. Analyzing the market by customer class is also important given that business and residence customers have different communications needs, which have been recognized by service providers in designing and marketing products.

Q: HOW DOES THE U.S. DEPARTMENT OF JUSTICE EVALUATE MARKET SHARES?

A: The U.S. Department of Justice (DOJ) utilizes market shares as a means to evaluate mergers.[125] There is more than one approach to evaluating market share. Market shares can be calculated based on sales or based on the number of units sold. The DOJ notes:

> Market shares will be calculated using the best indicator of firms' future competitive significance. Dollar sales or shipments generally will be used if firms are distinguished primarily by differentiation of their products. Unit sales generally will be used if firms are distinguished primarily on the basis of their relative advantages in serving different buyers or groups of buyers. Physical capacity or reserves generally will be used if it is these measures that most effectively distinguish firms.[126]

Q: WHAT METHOD HAVE YOU UTILIZED TO CALCULATE MARKET SHARES?

A: To calculate market shares I have utilized the number of units sold in the business and residential market segments. There are several reasons why the number of units sold provides a reasonable basis for analyzing market concentration in this proceeding. First, the number of units sold provides the best indicator of the future competitive significance of firms in the marketplace. Verizon is the dominant firm in its service area, no other firm comes close to Verizon's position within its service area. Second, Verizon has

---

[125] *Horizontal Merger Guidelines.* U.S. Department of Justice and the Federal Trade Commission. Issued: April 2, 1992. Revised April 8, 1997, pp. 13-14. http://www.usdoj.gov/atr/public/guidelines/hmg.pdf

[126] *Horizontal Merger Guidelines.* U.S. Department of Justice and the Federal Trade Commission. Issued: April 2, 1992. Revised April 8, 1997, p. 14. http://www.usdoj.gov/atr/public/guidelines/hmg.pdf

distinct advantages in serving various customer groups. Verizon's ubiquitous facilities and diverse product line allow it to take advantage of economies of scale and scope to provide service to customers who demand a variety of services, including wireless, data, and video services, as well as wireline voice services. Third, the quality of the data on the number of units sold is good. Estimates of dollar sales would be more difficult to generate, and if they were compiled would likely not result in differences in concentration which would be interpreted differently than those based on unit sales.

A. Issues with the Horizontal Aspect of the Merger

Q: CAN YOU EXPLAIN THE USE OF THE HERFINDAHL-HIRSCHMANN INDEX TO EVALUATE MARKET POWER?

A: In its assessment of mergers, the DOJ uses the HHI, which sums the square of market shares for each firm in the market to generate a single number.

$$HHI = \sum_{i=1,...,N} S_i^2$$

In the equation, S_i represents the market share of any one of the firms operating in the market.

The maximum HHI value of 10,000 occurs only in a market with a single firm having a 100% market share ($10{,}000 = 100^2$). If two equally-sized firms are in the market, the HHI value will be 5,000 ($50^2 + 50^2 = 5{,}000$). However, the HHI captures information regarding the relative size of firms, in addition to the number of firms. For example, a market with eleven firms consisting of a single dominant firm with a 90% market share and ten other firms, each of which has a 1% market share, would have an HHI of 8,110 ($90^2 + 10 * 1^2$). This HHI is substantially higher than the HHI of 5,000 for a market with

only two firms, each having an equal 50% share of the market.

Q: DO THE DOJ'S *MERGER GUIDELINES* OFFER ANY BENCHMARKS FOR INTERPRETATION OF HHI VALUES?

A: Yes. The DOJ *Merger Guidelines* identify three levels of market concentration, as measured by the HHI: (1) HHI below 1,000 – unconcentrated market; (2) HHI from 1,000-1,800 – moderately concentrated market; (3) HHI above 1,800 – highly concentrated market.[127] The *Merger Guidelines* call for mergers to be scrutinized in both highly concentrated and moderately concentrated markets, and establish especially stringent criteria for the acceptance of mergers in highly concentrated markets.[128]

Q: THE COMMISSION HAS HEARD EVIDENCE THAT THE MARKET SHOULD ALSO INCLUDE CONSIDERATION OF VOICE OVER INTERNET PROTOCOL. HAVE YOU INCLUDED VOIP IN YOUR MARKET DEFINITION?

A: Yes and no. If a cable TV provider is using VoIP, and provides E911 service to their customers (which is typically the case), then this VoIP provision is captured in my market share analysis. Stand-alone VoIP providers (e.g., Vonage), which currently do not provide E911 service, are not included in my analysis. I believe that this is reasonable as there is no evidence that consumers are using stand-alone VoIP services, to any meaningful extent, as substitutes for local exchange service, for the reasons discussed in the previous section of this testimony.

Q: THE COMMISSION HAS ALSO HEARD EVIDENCE THAT THE MARKET SHOULD INCLUDE WIRELESS SERVICE. WHY HAVE YOU NOT INCLUDED WIRELESS SERVICE IN YOUR MARKET SHARE ANALYSIS?

A: There are several reasons for excluding wireless lines: (1) The primary reason for excluding wireless is because it is not comparable to wireline service for the

[127] *Id.,* Section 1.51.

[128] *Id.*

overwhelming majority of consumers. (2) Second, the limited data available on the degree of wireless substitution that may be occurring in Verizon's service area indicates very little wireless substitution. (3) Third, if wireless substitution is occurring, Verizon's wireless affiliate would need to be considered as part of Verizon's overall local exchange market operations, as shifting lines to Verizon Wireless would not represent a competitive loss to Verizon. (4) Finally, given that any substitution that may have occurred in Verizon's service area is divided among multiple wireless carriers (other than Verizon Wireless), the very small market shares of the remaining individual wireless carriers, if they were to be calculated, will have very little impact on the calculation of the Herfindahl Hirschmann Index (HHI). For example, suppose that it was quantified that four wireless carriers other than Verizon Wireless each had a 1% market share of the overall local exchange market. The overall impact of considering these firms in an HHI calculation would contribute only 4 points to an HHI value [$(1)^2 + (1)^2 + (1)^2 + (1)^2 = 4$].

Q: HOW DID YOU OBTAIN THE INFORMATION REGARDING THE NUMBER OF UNITS SOLD?

A: Using information obtained from Verizon in response to discovery, I calculated market shares and the HHI for the local exchange market in Verizon's service area. Chart 5C, which appears in Confidential Exhibit___(TRR-4C), shows the market shares for the top ten LECs operating in Verizon's service area, sorted by residential market share. Chart 5C shows a market relationship where Verizon holds a dominant position in both the residential and business market segments. The highly concentrated nature of the market is also shown in Table 1 below, which reports a measure of concentration, the 4-Firm

Concentration Ratio (CR4).[129] Please note that the information shown in Table 1 is prior to the Verizon/MCI merger.

Table 1: Pre-Merger 4-Firm Concentration Ratios in Verizon's Service Area	
Residential CR4	Business CR4
99.50%	89.33%

It can be seen in Table 1 that the CR4 differs between residential and business customers by over 10%, indicating lower concentration in the business segment of the market. However, both CR4 values shown in Table 1 are extremely high. Knowing that there is a dominant firm present, Verizon, with a much higher market share than any other firm, the CR4s present a market structure which is consistent with the exercise of monopoly power.

I also calculated the pre-merger HHI for Verizon's service area. The HHI values shown in Table 2 indicate very high levels of market concentration.

Table 2: Pre-Merger HHI values in Verizon's Service Area	
Residential Segment	Business Segment
9,581	4,083

As was discussed earlier, the U.S. Department of Justice identifies an HHI value of 1,800 as being associated with a highly concentrated market. The values shown in Table 2 reveal an *extremely* concentrated market, especially in the residential segment. The high levels of concentration captured by the HHI are consistent with the exercise of monopoly

[129] The CR4 sums the market shares of the top four firms in a market.

power.

B. The Merger and Market Concentration

Q: WHAT IMPACT DOES THE VERIZON/MCI MERGER HAVE ON THE HHI VALUES IN VERIZON WASHINGTON'S SERVICE AREA?

A: The merger results in increases in concentration in both the business and residence segment of the market. The U.S. DOJ considers an HHI increase of more than 50 in a highly concentrated market to raise significant competitive concerns. Furthermore, if the HHI increases by more than 100 points, the DOJ notes that it will presume that the merger is likely to create or enhance market power or facilitate its exercise.[130] Table 3 shows that the increase in the HHI is significantly above this threshold in both the business and residence segment. The merger raises the prospect of increased market power in both market segments, with the impact on the residential segment showing a more substantial increase in a market which was more concentrated to begin with. Charts 6 and 7, which appear in Exhibit___(TRR-5), present the information shown in Table 3 in graphic format.

Table 3: Impact of Verizon/MCI Merger on HHI Values.

	HHI Before Merger	HHI After Merger	Increase in HHI
Residential Segment	9,581	9,743	163
Business Segment	4,083	4,197	114

Q: DO YOU BELIEVE THAT THE INCREASE IN THE HHI EVIDENT FROM THE MERGER WILL HAVE AN IMPACT ON VERIZON'S MARKET POWER?

A: Yes, I do. Given the increase in the HHI values and consideration of other factors, including the potential for alternative technologies to act as constraints on Verizon's market power, as well as entry conditions, I believe that the merger will result in an increase in

[130] *Merger Guidelines*, §1.51, page 16.

Verizon's market power, especially in the residential market. MCI is the CLEC which serves the most residential consumers in Verizon's service area. The merger effectively wipes out nearly 40% of all CLEC lines associated with residential customers, including cable CLECs. This erosion of the CLEC base enhances Verizon's monopoly position in its residential market in Washington.

Q: DID YOU CONSIDER FACTORS OTHER THAN THE INCREASE IN THE HHI TO REACH YOUR CONCLUSION?

A: Yes. While the DOJ uses the HHI as a means of assessing the impact of a merger on market power, it considers other factors which might offset the impact on increased concentration, and so did I. Other factors considered by the DOJ include: (1) whether coordination is likely in the post-merger market; (2) the ability of rivals to replace lost competition; (3) whether entry in the market is possible in a rapid and timely fashion which might constrain price increases; (4) whether there are efficiency gains which outweigh the negative impact of the merger on pricing; and (5) whether the merger involves a failing firm.[131]

Q: ABSENT REGULATORY CONTROL, DOES VERIZON HAVE THE ABILITY TO COORDINATE PRICING IN THE LOCAL EXCHANGE MARKET?

A: Yes, the ability of Verizon to coordinate activities in the marketplace is substantial, due to its unique position as incumbent, wholesale monopolist, and its dominant retail position. Unlike most markets, where competing firms obtain inputs in competitive input markets, Verizon serves as a source of inputs to its rivals, as well as to itself, for the provision of retail services. For example, if a CLEC is now interested in purchasing unbundled switching, it must do so through a commercially negotiated agreement with Verizon. Verizon thus has the ability to know the cost structure of its rivals, and, given its leverage,

[131] *Merger Guidelines*, §2, §3, §4, and §5.

to manage the prices that its rivals pay for this input. As a result, absent regulation, Verizon could engage in price squeezes, where it could raise its rivals costs about Verizon's retail prices or control its rivals price-cutting ability by raising its rivals' costs.

As is noted by Mr. Beach, commercial agreements negotiated by MCI with Qwest include annual price escalation clauses.[132] These escalations also provide an opportunity for Qwest to coordinate price increases with its rivals, unless regulatory oversight prevented such increases. Verizon has similar potential with CLECs operating in its service area.

Q: THE DOJ ALSO CONSIDERS WHETHER RIVAL SELLERS ARE ABLE TO REPOSITION THEIR PRODUCT LINE TO REPLACE LOST COMPETITION, DO YOU BELIEVE THAT THIS IS LIKELY FOR VERIZON WASHINGTON?

A: No. The CLEC industry is not well positioned to make up for MCI's exit from the residential and small-business markets. As I discussed above, wireless and stand-alone VoIP providers are outside of the relevant market. Stand-alone VoIP providers also have the disadvantage associated with Verizon refusing to sell consumers a DSL connection without voice service. That leaves cable television companies as potential rivals which might be able to make up for the decrease in competition resulting from the merger. At this time, market evidence does not point to much activity on the part of cable CLECs in Verizon's service area, I estimate of cable company market share in Verizon's Washington service area at about **(begin highly confidential) XXXXXXXXXXXXXXX (end highly confidential)**.[133] Furthermore, cable operators do not overlap uniformly with Verizon's service area, and thus do not provide the same potential for cable to reach all

[132] Direct Testimony of Michael Beach, p. 15, line 297.

[133] Verizon Response to Public Counsel Data Request 108.

customers in Verizon's service area as was the case with MCI. As a result, whether and when cable might expand to make up for MCI's exit from the market cannot be determined at this time.

Q: THE DOJ CONSIDERS EASE OF ENTRY IN THE MARKET. ARE ENTRY CONDITIONS LIKELY TO CONSTRAIN THE INCREASE IN MARKET POWER WHICH IS EVIDENT FROM THE HHI ANALYSIS?

A: No. Entry barriers continue to be present in the local exchange market. There is little evidence that potential rival firms which are currently not providing service could enter the market in a timely fashion. Sunk costs are still a major consideration for a potential entrant, which makes it much less likely that entry will occur. Furthermore, the experience of the past nine years under the provisions of the Telecommunications Act of 1996 provides evidence of the strength of entry barriers in the local exchange. The Telecommunications Act removed franchise barriers and attempted to share the ILEC's scale and scope economies through the provisions of the Act which required network unbundling at cost-based prices. It is clear now that but for the FCC's initially favorable pricing rules, CLEC competition would have made little headway, the elimination of UNE-P at TELRIC-based prices has caused a major contraction in the CLEC industry.

Q: IN CONSIDERING MARKET ENTRY, DOES THE DOJ EVALUATE THE INCUMBENT'S REACTION TO ENTRY?

A: Yes. The DOJ notes that factors that reduce the sales opportunities of entrants include "anticipated sales expansion by incumbents in reaction to entry, either generalized or targeted at customers approached by the entrant, that utilizes prior irreversible investment in excess production capacity." These conditions are definitely applicable to Verizon, which has the excess production capacity necessary to serve consumers which have switched, or may consider switching to, an alternative provider. Verizon's "Winback" programs are

targeted at consumers which Verizon has identified as purchasing from a rival, or which might be at risk to do so.[134] In response to discovery, Verizon identified 32 separate Winback programs, targeting business and residential local, broadband, and toll customers, which it has offered since 2003.[135]

Q: THE DOJ CONSIDERS POTENTIAL EFFICIENCY GAINS ASSOCIATED WITH A MERGER. DOES THE MERGER PROVIDE EFFICIENCY GAINS WHICH MIGHT OFFSET THE COMPETITIVE HARMS ASSOCIATED WITH THE MERGER?

A: Joint Petitioners failed to provide any quantification of efficiency gains in their filing with this Commission. However, in documents filed with the Securities and Exchange Commission, Verizon has identified more than $7 billion in synergies which it claims will result from the merger. The appropriate sharing of these efficiency gains can provide a partial offset to the harms caused by the merger. An appropriate sharing mechanism is discussed in the testimony of Public Counsel witness Charles King.

Q: THE DOJ ALSO CONSIDERS WHETHER A MERGING FIRM IS FAILING. IS MCI A FAILING FIRM?

A: No. There is no evidence that MCI would fail absent the merger, and Joint Petitioners do not make this claim. MCI results for its most recent quarter point to return to profitability, following difficult times resulting from mismanagement and its bankruptcy filing.[136]

Q: GIVEN THIS ASSESSMENT, WHAT DO YOU CONCLUDE?

A: There is substantial evidence that the merger will result in competitive harm, and there is no evidence that any countervailing influences to the merger harms will be emerging in

---

[134] Verizon response to Public Counsel's Data Request 42.

[135] *Id.*

[136] "MCI Returns to Profitability," *Wall Street Journal*, August 10, 2005.

Washington. As the Commission has determined that applications for merger must demonstrate that no harm will arise as a result of the merger, I don't believe that the Commission has a basis to approve the merger as it has been proposed in Washington.

Q: DR. TAYLOR DISCOURAGES THE COMMISSION FROM UTILIZING MARKET SHARE ANALYSIS TO ASSESS THE IMPACT OF THE MERGER ON LOCAL AND TOLL MARKETS.[137] HAS DR. TAYLOR PREVIOUSLY RELIED ON MARKET SHARE INFORMATION TO EVALUATE MARKETS?

A: Yes. In an analysis he conducted on conditions in the long distance market, he examined market shares and the segmented nature of the market and reached the conclusions that market forces were not disciplining pricing practices in the long distance market, noting that market forces were affecting different market segments in an uneven fashion:

> In this paper, we show that the overall reduction in interstate long-distance prices and expansion of interstate demand is *more than* explained by the reduction in the carrier access charges paid by the long-distance carriers to the local telephone companies. . . . The substantial price reductions and outward shifting of the toll demand curve that would be expected to arise from vigorous toll competition have yet to materialize.
>
> While AT&T's overall market share of switched access minutes of use fell from 84.2 percent in the third quarter of 1984 to 62.8 percent in the fourth quarter of 1991, its share of the large business market fell to about 50 percent. Moreover, AT&T consistently set prices for its business services below their applicable cap under price-cap regulation, and evidence amassed by the FCC suggests that AT&T faces a substantially more elastic (firm) demand curve in the business-services market. . . .Of course, it is not surprising to observe more lively competition in the market for large business customers: having higher usage, large business customers are more likely to change carriers in response to a given price difference. . . .
>
> Competitive entry into interstate long-distance service has undoubtedly resulted in vigorous competition in the large business market. . . . Nonetheless, competition since 1984 has not led to lower prices in the aggregate market or to

[137] Direct Testimony of Dr. William E. Taylor, p. 50.

lower prices for residential and small business customers.[138]

Thus, Dr. Taylor, in this analysis of the long distance market, evaluated market share, demand responses, and supply responses. After he performed this analysis, he reached conclusions about the differential market outcomes based on customer class and customer size. In other words, he applied a methodology similar to the approach which I apply in this testimony. Of course, Dr. Taylor's conclusions supported the argument that the RBOCs should be allowed into the long distance market, a position which, according to Dr. Taylor's vita, he supported on behalf of RBOCs in FCC §271 proceedings. Dr. Taylor's methodological variations call into question his conclusions in this case.

VII. The Merger and Retail Service Quality

Q: DO JOINT PETITIONERS' WITNESSES ADDRESS POST-MERGER RETAIL SERVICE QUALITY ISSUES?

A: Only in the most cursory fashion. Mr. Danner indicates that "the terms of the transaction require no change to the operations of the regulated subsidiaries of either MCI or Verizon; therefore, there should be no impact on rates, service quality or operations at the regulated company level."[139] However, for merger synergies to be achieved, there must be changes in company operations, and changes in operations have the potential to impact retail service quality. The process of achieving merger savings may put pressure on Verizon to cut corners in all areas of its operations. Significant service quality problems have emerged following mergers, notably Ameritech's service quality melt-down following its merger

[138] Taylor, William, E. and Lester D. Taylor. "Postdivestiture Long-Distance Competition in the United States," *American Economic Review,* Vol. 83, No. 2, May 1993, pp. 185-186, p. 189, emphasis in the original.

[139] Direct Testimony of Carl R. Danner, p. 22.

with SBC.[140] Thus, I believe that it is prudent for the Commission to pay close attention to Verizon's retail service quality, especially in light of declining competition associated with the merger.

Q: HAS VERIZON HAD RETAIL SERVICE QUALITY PROBLEMS IN WASHINGTON?

A: During 2004, the company's service quality performance has fallen below Commission standards in some key areas. For example, Verizon was not in compliance with the Commission's standard to install 90% of orders for basic service within five business days[141] for six months of 2004. This rule also requires that all orders (100%) be completed within six months of when they are taken. Verizon reported that during 2004 there were 63 instances where orders that had not been completed within the six month time frame. In addition, during four separate months in 2004, Verizon had over 100 out-of-service conditions that were not repaired within the 48-hour window.[142] These data are cause for concern.

Q: DOES THE DEPLOYMENT OF ADVANCED TECHNOLOGIES BY VERIZON RELATE TO THE ISSUE OF SERVICE QUALITY?

A: Yes. As I discussed earlier in this testimony, Verizon has not made DSL service available to all of its customers. Some customers do not have DSL available, others have DSL available only at 768 kbps speed. Verizon's current provisioning of DSL thus results in

---

[140] See, for example, "State Regulators Go After Ameritech," *PhonePlus Magazine*, November, 2000. http://www.phoneplusmag.com/articles/0b1rnew2.html

[141] WAC 480-120-105.

[142] WAC 480-120-440 requires that all out of service conditions (i.e. no dial tone) be repaired within 48 hours. The four months were June, July, September, and November. Service Quality Reports filed with the WUTC, provided in response to Public Counsel Data Request Nos. 177 and 222.

differential levels of service quality. It would be unfortunate for consumers, and the Washington state economy, if Verizon were to target higher-speed fiber-based broadband deployment to limited areas of the state, perhaps defined by consumer incomes, while non-trivial numbers of Verizon customers do not have DSL-grade service available, or only available at reduced speeds.

VIII. Recommendations

Q: WHAT RECOMMENDATIONS DO YOU HAVE WITH RESPECT TO THE MERGER?

A: As I have illustrated in the discussion above, there are competitive harms associated with the merger. In addition, unless consumers are fully notified of the changes in the marketplace that will result from the merger, additional harms may arise. I do not believe that the merger should be approved by this Commission without modifications designed to mitigate competitive harms caused by the merger. Other conditions designed to protect consumers, share merger benefits, and to hold the Joint Petitioners' to their claims regarding the benefits of the merger with regard to broadband deployment should also be imposed. I believe that the harms may be mitigated if conditions are imposed on the merger, which I summarize now, and discuss further below:

Pro-Competitive Conditions

- Verizon should be required to offer stand-alone ("naked") DSL service to existing and new customers in its service area.
- Verizon should be required to deploy in Washington the VoIP E911 platform which it currently has deployed in the New York City area.

Consumer Protection Conditions

- Verizon should be required to notify MCI customers that Verizon will be taking over the operations of MCI. Consumers should be clearly informed that they have the option to choose another service provider should they prefer not to take

service from Verizon.

- Within Verizon Washington's service area, Verizon should be required to waive service establishment charges for current MCI subscribers who decide to take service from Verizon.

- Within Verizon Washington's service area, Verizon should be required to rebate service establishment charges for current MCI subscribers who decide to take service from another CLEC.

- Verizon should be prevented from operating its MCI subsidiary within Verizon Washington's service area in a manner which would allow Verizon to circumvent Verizon's Washington tariffs.

- Verizon should be required to maintain its retail service quality as merger-related cutbacks are implemented. Verizon should be required to enhanced service quality reporting. Verizon should be required to provide its customers an annual report of its service quality performance for a five-year period.

Sharing of Merger Benefits

- The merger savings identified by Public Counsel's witness Charles King should be shared with consumers in the manner described in his testimony.

Broadband Deployment

- Verizon should be required to deploy DSL, or other high-speed Internet access services, in areas of Verizon Washington's service area which are currently unserved by Verizon's DSL service.

- Verizon should be required to identify how, when, and where advanced broadband services will be deployed, through the filing of broadband investment and deployment reports. Verizon should refrain from red-lining the availability of these services.

A. Pro-Competitive Conditions

Q: WHAT CONDITIONS CAN BE PLACED ON THE MERGER TO MITIGATE COMPETITIVE HARMS?

A: As I discussed above, MCI's departure from the residential marketplace reduces competition. About 40% of all residential CLEC lines in Verizon's service area are provided by MCI. Unfortunately, absent a corresponding growth in CLEC activity,

which seems unlikely at this time, pro-competitive conditions that can be required by the Commission are only indirect. One pro-competitive offset to the reduction in competition could include actions which would make VoIP a more viable competitive choice. As I discussed above, one major limitation to VoIP services today is their incompatibility with E911 services. Lack of E911 makes VoIP decidedly inferior to telephone service provided over conventional facilities. According to information provided by Verizon, the company has developed a platform which enables E911 capability for VoIP. Verizon describes the platform as follows:

> Verizon's VoiceWing VoIP product is capable of providing E911 service. Currently, VoiceWing is providing customers with E911 service only in New York City. However, VoiceWing plans to roll out E911 service across the country as soon as possible. The arrangement that allows VoiceWing to provide E911 service in New York City is similar to the arrangement that wireless carriers use to deliver caller phone number and address to PSAPs (public safety answering point). The way it works is as follows: The VoiceWing customer informs Verizon that his/her location is in New York City. When that customer dials 911, Verizon identifies the caller's location as NYC and routes the call to a gateway that converts the IP signal into a TDM signal. The call is then transported to a point within the same LATA as the selective router that serves New York City. From that point, the call is delivered over dedicated trunks to the NYC selective router. The call is delivered from the selective router to the appropriate PSAP using the existing E911 infrastructure. The PSAP will recognize that the call is from a VoiceWing customer (based on codes that are embedded in the call) and will query a VoiceWing database to retrieve the customer's phone number and address**.** In this way, the PSAP receives the customer's call back number and address.[143]

Verizon indicates that the technology platform will enable E911 capability for VoIP providers other than Verizon's VoiceWing product.[144] Verizon also indicates that introduction of such a product is possible in Washington:

[143] Verizon's corrected response to Public Counsel's Data Request 113.

[144] Verizon response to Public Counsel's Data Request 114.

> It is possible to deploy VoIP E911 services in Verizon's Washington service area in a fashion similar to the way it was deployed in NYC. Specifically, if a VoIP provider or a vendor has the infrastructure to deliver a VoIP 911 call to the appropriate selective router in TDM format (and with the appropriate information, e.g., query key and pseudo-ANI), Verizon could support VoIP E911 services. Verizon is willing to accept orders from VoIP providers and their vendors for access trunks from a point within a LATA to Verizon's selective router in that LATA or other termination point that is permitted or required by law. The selective router will route the VoIP 911 call to the appropriate public safety answering point (PSAP) or other termination point that is permitted or required by law. In order to provide public safety personnel with the VoIP caller's call back number and service address, the VoIP provider or its vendor would also have to negotiate with Verizon a "steering agreement" that would allow Verizon's address database to retrieve the VoIP end user's location information. It is important to bear in mind that Verizon alone cannot provide a VoIP provider with E911 services. Verizon can provide access to the selective router and the connectivity to the PSAPs in Verizon service areas, however, the VoIP provider or its vendor must have the ability to direct a VoIP 911 call to the appropriate selective router (and PSAP) in TDM format with appropriate information described above and maintain the customer databases that provide the PSAP with call back and address information.[145]

Introduction of this E911 platform in Verizon Washington's service area would provide benefits for consumers which would incrementally offset the competitive harms associated with the merger. The lack of E911 compatibility for VoIP services is a general problem with which this Commission should be concerned. The introduction of Verizon's platform in Washington could improve public safety.

Q: ARE THERE OTHER CONDITIONS WHICH COULD IMPROVE THE COMPETITIVE PROSPECTS FOR VOIP?

A: Yes. While Verizon has announced a general policy of providing stand-alone DSL,[146] consumers residing in Verizon Washington's service area can only purchase stand-alone or "naked" DSL services under a very limited set of circumstances. New customers

[145] Verizon response to Public Counsel's Data Request 189(a).

[146] "Verizon Offers DSL Straight Up," *Internetnews.com*, April 19, 2005. http://www.internetnews.com/infra/article.php/3498971

cannot order stand-alone DSL.[147] Existing customers also have limitations on their ability to establish stand-alone DSL :

> . . .if the customer currently has Verizon voice and DSL service and ports his telephone number to a facilities-based provider, Verizon will offer to keep the DSL service on the line. If the customer does not currently have Verizon DSL service, Verizon's systems and processes currently cannot accommodate a simultaneous disconnection of voice service and activation of Verizon DSL service. Nor can they currently accommodate an order to disconnect voice altogether and keep Verizon DSL Service.[148]

The fact that Verizon DSL service comes with switched voice service limits the consumers ability to consider VoIP alternatives. Furthermore, Verizon's stated policy with regard to stand-alone DSL will likely interfere generally with an existing consumer's ability limited ability to request stand-alone DSL. Verizon indicates that existing customers cannot request stand-alone DSL unless their number is ported to another carrier.[149] VoIP providers typically do not provide number portability for all areas. For example, Vonage indicates that it is unable to transfer numbers in the Pullman, Washington area.[150] Thus, Verizon would need to modify its policy to enable stand-alone DSL service where consumers cannot transfer their numbers to a VoIP provider.[151]

---

147 Verizon response to Public Counsel's Data Request 190.

148 Verizon response to Public Counsel's Data Requests 191.

149 *Id.*

150 Vonage number-portability-lookup feature, using area code 509, exchange NXX = 322.

http://www.vonage.com/features.php?LNPareaCode=509&LNPexchange=322&LNP_submit_btn=Submit&feature=lnp

151 The fact that a consumer would not be able to keep their number would present an (continued...)

The availability of naked DSL would free consumers who wanted to try VoIP from paying twice for voice services. The availability of naked DSL could provide another incremental improvement in competitive options given MCI's departure from the market. However, the provision of naked DSL should be at rates comparable to those paid by a Verizon customer who purchases DSL and Verizon voice services. Verizon should not be allowed to interfere with the potential benefits of stand-alone DSL by engaging in discriminatory practices.

Q: DO YOU BELIEVE THAT THESE TWO CONDITIONS WILL OVERCOME THE DEFICIENCIES ASSOCIATED WITH VoIP?

A: No. Even with these adjustments, VoIP remains a much more limited competitive option. To use VoIP consumers still need to acquire a broadband connection, and I don't believe that this is a reasonable precondition for a consumer to have a choice of telephone service providers. The conditions also do not overcome other limitations of VoIP services, including their inability to work during a power outage, lower levels of service quality, and requirements of considerable consumer efforts to install and operate the service. While the conditions regarding the E911 platform and consumer ability to purchase naked DSL are pro-competitive steps in the right direction, they do not undo the competitive harm resulting from the merger.

B. Consumer Protection Conditions

Q: SHOULD CUSTOMER NOTIFICATION CONDITIONS BE PLACED ON THE MERGER?

[151](...continued)
entry barrier, however, the inability to transfer numbers is a result of VoIP provider policy, and is beyond the scope of these merger conditions.

A: Yes. All Washington consumers who are currently purchasing service from MCI should be notified that Verizon is acquiring MCI. This notification should be accomplished through a customer billing insert, which clearly explains the facts to the consumer. In addition to the bill insert, a message should be printed directly on the customer bill which calls the customer's attention to the bill insert. For MCI customers residing in Verizon's Washington service area, the customer notice should indicate to consumers their rights, including the right to switch to a provider other than Verizon. In addition, the notice should clearly explain the consumer's right to not pay service activation charges, through either the waiver of Verizon's service activation fee, or through the rebate of another LEC's service activation fee.

Q: IS IT POSSIBLE THAT MCI CUSTOMERS WILL DIRECTLY BEAR COSTS AS A RESULT OF THE MERGER?

A: Yes. Within Verizon Washington's service area, MCI's mass market customers will face the prospect of either returning to Verizon, or selecting another CLEC. As a result of this switch, service activation fees may apply. Thus, to hold MCI mass market consumers harmless, if a consumer decides to return to Verizon, Verizon should waive the service-establishment fees associated with the initiation of a Verizon account. Alternatively, if a consumer decides to switch to an alternative provider, Verizon/MCI should issue a customer credit, based on the documented amount of the alternative provider's service-establishment fee.

Q: SHOULD VERIZON WASHINGTON BE ALLOWED TO OPERATE MCI'S MASS MARKET BUSINESS IN VERIZON'S SERVICE AREA IN A MANNER WHICH WOULD ALLOW VERIZON TO CIRCUMVENT VERIZON'S RETAIL TARIFFS?

A: No. If Verizon were allowed to operate MCI's operations without regard to Verizon's tariff in Verizon's service area, then Verizon would have the ability to run a "shell corporation" which would allow Verizon to avoid its tariff obligations. As a result, Verizon's operation of MCI following the merger should abide by Verizon's tariff in Verizon's service area.

Q: SHOULD VERIZON BE ALLOWED TO DEGRADE RETAIL SERVICE QUALITY AS A MEANS TO GENERATE MERGER COST SAVINGS?

A: No. As I discussed earlier, mergers introduce pressures to cut costs, and the reality of cost cutting has the potential to reduce service quality. To discourage the company from responding to these incentives which may harm consumers, I believe that service quality reporting should be enhanced for a period of five years following the merger. The first enhancement that I would recommend is quarterly reporting of investment, including investment in advanced technologies (FTTP/Fios), by wire center. The second enhancement that I would recommend is quarterly headcount reporting for installation and repair personnel, and business office and repair call centers. Service quality degradation may be associated with declining investment and headcount. For example, the post-merger service quality crisis in the Ameritech region was discussed as follows by SBC CEO Edward Whitacre:

> "Our service at Ameritech, as you all know, is not up to the standards SBC would like. It is a question of outside plant. It is not a question of switching mechanisms. It is not a question of trunking. It's strictly an outside plant problem, and *we don't have enough capacity in some places, and perhaps in previous years not enough maintenance was done on it*, . . . we had to divert some dollars there.".[152]

[152] Excerpt from SBC Analyst Teleconference, December 31, 2000, emphasis added. Transcript available at: http://www.icc.illinois.gov/div/docs/010116cmletter2.pdf

Reporting investment and headcount, as a condition of the merger, will allow the Commission to proactively monitor these important areas which can contribute to degraded service quality.

Q: HOW ELSE DO YOU RECOMMEND THAT SERVICE QUALITY REPORTING BE ENHANCED?

A: In addition to the introduction of quarterly reports regarding investment and headcount, I recommend that the Commission require Verizon to provide an annual service quality report to customers that outlines the company's performance in light of the Commission's standards referred to in WAC 480-120-439. This rule requires reports be filed with the Commission for the following areas:

- Missed appointment report;
- Installation or activation of basic service report (monthly, quarterly, and six-month reports);
- Major outages;
- Summary trouble reports;
- Switching report;
- Interoffice, intercompany and interexchange trunk blocking report;
- Service interruption repair report;
- Service impairment repair report;
- Business office and repair answering system reports.

Verizon's annual service quality report to customers, which should be provided as a bill insert for a period of five years, should address each of the areas identified above, indicating whether the company’s performance is in compliance with Commission rules. The report outlining the company’s performance during the prior year should be sent to customers by May 31st of the following year. The first report, sent to customers by May 31, 2006, will outline Verizon's performance during 2005. The company should provide these reports for a minimum of five years. In addition, I recommend that each year Verizon provide Commission Staff and Public Counsel with a draft annual report for their

review and comment, no later than thirty days prior to the Company's internal printing deadline.

Finally, I recommend that in the event that Verizon's service quality shows a trend of poor performance and failure to meet Commission standards, that the Company be required to provide an explanation of their performance at an open meeting. Specifically:

> Should Verizon violate four (4) or more of the nine (9) service quality performance standards outlined above for two consecutive months, or for any four months within a twelve-month period, the following is action is required: Within thirty days after filing the service quality report pursuant to WAC 480-120-439, the company is shall provide an explanation of their performance at the Commission's next regularly scheduled open meeting. The Commission may then consider whether any enforcement action or penalty is appropriate.

C. Sharing of Merger Savings

Q: SHOULD MERGER SAVINGS BE SHARED?

A: Yes. Public Counsel witness Charles King provides a discussion of an estimate and allocation of these merger synergies to Verizon and MCI customers, and a method for passing the benefits to ratepayers.

D. Broadband Deployment

Q: THE JOINT PETITIONERS ALLEGE THAT CONSUMERS WILL BENEFIT AS THE RESULT OF BROADBAND DEPLOYMENT. SHOULD BROADBAND DEPLOYMENT BE A CONDITION OF THE MERGER?

A: Broadband deployment could be weighed by the Commission as an offset to competitive harm resulting from the merger. Broadband platforms, if they are open to service providers, can introduce competitive benefits. As a condition to the merger, Verizon should be required to substantiate its claims regarding the alleged broadband benefits of the merger. In addition, Verizon's broadband deployment plans should identify how and

when high-speed Internet access services will become available to Verizon Washington customers who currently are unserved by DSL, and should also provide a reasonable timeline for making service available to these customers. Without knowledge of planned investment amounts, and network and service deployment plans, Verizon's claims regarding this aspect of the merger cannot be evaluated. The fact that **(begin confidential) XX % (end confidential)**[153] of Verizon's Washington lines are not qualified for DSL indicates that even absent FTTP, there is room for improvement in Verizon's network with regard to broadband deployment. The fact that Verizon can verify a commitment of $2 billion to upgrade MCI's facilities indicates that post-merger investment plans have been established for some aspects of the combined companies' operations.[154]

I believe that Verizon should be required to provide a quarterly broadband deployment report to the Commission and Public Counsel that identifies broadband availability by wire center. This report should document broadband deployment, including the nature of broadband services, expected in-service dates, and prices, terms and conditions of services as they are offered.

Q: DOES THIS CONCLUDE YOUR TESTIMONY?

A: Yes, it does.

[153] Verizon response to Public Counsel's Data Request 62.

[154] Testimony of Carl R. Danner, p. 5, lines 1-2.

WUTC Docket No. UT-050814
Direct Testimony of Trevor R. Roycroft, Ph.D.
Exhibit____(TRR-2)

Trevor R. Roycroft

51 Sea Meadow Lane
Brewster, MA 02631
508-896-0151
trevor@roycroftconsulting.org
www.roycroftconsulting.org

Education

Ph.D., Economics, University of California, Davis, 1989.
M.A., Economics, University of California, Davis, 1986.
B.A., Economics, with honors, California State University, Sacramento, 1984.

Fields of Specialization

Industrial Organization and Regulation
Public Finance
Economic History

Experience

Independent Consult, June 1994 to present. Provides economic and policy research and analysis for clients. Presents expert testimony in state and federal venues. Performs economic and statistical studies of market conditions. Matters addressed include pricing plans, market structure analysis and competition, alternative regulatory frameworks, productivity growth, service quality, cost calculations, cost allocation, cost modeling, network unbundling, capital costs, wireless markets, and broadband policy. Dr. Roycroft has also provided expert testimony on economic damages.

Associate Professor, J. Warren McClure School of Communication Systems Management, Ohio University, September 1994 to November 2004. Granted tenure, Spring 2000. Conducted graduate and undergraduate courses in regulatory policy and law, and the economics of the telecommunications industry, as well as general education courses covering telecommunications technology, markets, policy, and the social impact of communications technology. Conducted research with a focus on the telecommunications industry. Provided academic advising to graduate and undergraduate students within the school and across the university. Served on department, college, and university committees.

Interim Director, J. Warren McClure School of Communication Systems Management, Ohio University, July 2000 to June 2002. Responsibilities included: program planning, evaluation, and assessment; recruiting faculty and staff; managing fiscal resources; administering the School's curriculum; and establishing and maintaining relationships with internal and external constituencies of the school.

Chief Economist/Acting Chief Economist/Assistant Chief Economist/ Principal Economist, Indiana Office of Utility Consumer Counselor, May 1991 to June 1994. Conducted research and prepared testimony, cross examination, and legal briefs to be presented before the Indiana Utility Regulatory Commission in major cases involving gas, water, electric, and telecommunications utilities. Prepared analysis and comments to be presented before the Federal Communications Commission. Advised Director of Utility Analysis and the Utility Consumer Counselor on policy issues; assisted in formulation of policy. Coordinated technical analysis in major cases. Presented agency policy positions to outside groups. Supervised Economics and Finance Staff of eight professionals. Reviewed and provided extensive analysis of Economics and Finance Staff testimony.

Experience (continued)

Visiting Assistant Professor, Kenyon College, September, 1989 to May, 1991. Conducted courses in Introductory Economics (Macro and Micro), Economics of the Public Sector, Industrial Organization, and Economic Development in the Third World. Rendered college service on award and hiring committees.

Lecturer, California State University, Sacramento, Fall 1987, academic year 1988. Conducted courses in Intermediate Microeconomic Theory, Introductory Macroeconomic and Microeconomic Theory.

Teaching Assistant, University of California, Davis, 1985-1988. Assisted the professor in conducting courses in Introductory Macroeconomic Theory, Introductory Microeconomic Theory, and Public Finance.

Research in Progress

Open Access: The Internet and Other Policy Accidents

"Benchmarking the Costs of Competition: What the FCC's Synthesis Model Says About the Prospects for Facilities-Based Local Exchange Competition."

Working Paper

"RBOC Performance and the Telecommunications Act of 1996**."** Under review.

Publications

"Empirical Analysis of Entry in the Local Exchange Market: the Case of Pacific Bell." *Contemporary Economic Policy*, Vol. 23, No. 1, January 2005.

"Internet Access," in Johnson, D. ed. *Encyclopedia of International Media and Communications*, Academic Press, April 2003.

"Internet Subscription in Africa: Policy for a Dual Digital Divide." (With Siriwan Anantho.) *Telecommunications Policy*, Vol. 27, Nos. 1-2, February/March 2003.

"The Impact of State and Federal Alternative Regulation Plans on the RBOCs--a State Level Analysis." in *Telecommunications for the 21st Century*. Special issue of *The International Journal of Development Planning Literature*. William Baumol and Victor Beker eds. Vol. 16, Nos. 1 & 2, January and April 2001.

"Trouble Reports as an Indicator of Service Quality: The Influence of Competition, Technology, and Regulation." (With Martha Garcia-Murrilo.) *Telecommunications Policy*, Volume 24, No. 10, November, 2000.

"The Telecommunications Act--Law of Unintended Consequences?" *Public Utilities Fortnightly*, Volume 138, No. 3, February 1, 2000.

Publications, Continued

"Alternative Regulation and the Efficiency of Local Exchange Carriers--Evidence from the Ameritech States." *Telecommunications Policy*, Volume 23, No. 6, July, 1999.

"The Billy Goats Gruff. A Fairy Tale for the Third Anniversary of the Telecommunications Act of 1996." *Info: The Journal of Policy, Regulation and Strategy for Telecommunications, Information and Media*, Volume 1, No. 2, April, 1999.

"A Dynamic Model of Incumbent LEC Response to Entry Under the Terms of the Telecommunications Act of 1996." *Journal of Regulatory Economics*, Volume 14, November, 1998.

"Ma Bell's Legacy: Time for a Second Divestiture?" *Public Utilities Fortnightly*. Vol 136, No. 12, June 15, 1998.

"The Telecommunications Act of 1996: An Unfunded Mandate for the States." (With Phyllis Bernt.) *Central Business Review*, Volume XV, No. 2, Summer 1996.

Commissioned Reports

"Wireless Consumer Protection: A Model Bill for the States." AARP Research Center, September, 2003.

"The End of Telecommunications? An Epilogue to Tangled Web: The Internet and Broadband Open Access Policy." AARP Research Center, June, 2002.
Available at: http://research.aarp.org/consume/2002_10_tangled_1.html

"Tangled Web: The Internet and Broadband Open Access Policy." AARP Research Center, January, 2001.
Available at: http://research.aarp.org/consume/d17331_tangled_1.html

Conference Papers

"The Impact of State and Federal Alternative Regulation Plans on the RBOCs--a State Level Analysis," July 1999. Presented at the Western Economic Association International Annual Meeting, San Diego, California.

"The Billy Goats Gruff. A Fairy Tale for the Third Anniversary of the Telecommunications Act of 1996," June, 1999. Presented at the Academic Seminar at the 1999 National Cable Television Association Convention, Chicago, Illinois.

"Alternative Regulation and the Efficiency of Local Exchange Carriers--Evidence from the Ameritech States." November, 1998. Presented at the 68th Annual Conference of the Southern Economic Association, Baltimore, Maryland.

Conference Papers (continued)

"A Dynamic Model of Incumbent LEC Response to Entry Under the Terms of the Telecommunications Act of 1996." July 1998. Presented at the Western Economic Association International Annual Meeting, Lake Tahoe, Nevada.

"Do We have the Bugs Out of Telephone Deregulation?" April 1998. Presented at the Law and Policy Division of the Broadcast Education Association, Las Vegas, Nevada.

"The Telecommunications Act of 1996 and Imposed Costs in the Local Exchange Market: A Dynamic Model of Incumbent Behavior." September 1997. Presented at the *Telecommunications Policy Research Conference*, Arlington Virginia.

"Towards an Advanced Information Infrastructure," August 1995. Presented to the National Association of Regulatory Utility Commissions' Annual Regulatory Studies Program at Michigan State University.

"Sorting, Bonding, and Barriers to Entry: Strategies of the Entry Concerned Firm," July 1990. Presented at the Western Economic Association Meetings, San Diego, California.

Additional Presentations

"Broadband Open Access." Presented to AARP's National Legislative Council. October, 2000. Washington, D.C.

"Telecommunications Policy, Markets, and Regulation–Who's On First?" Presented to the Maryland Office of Peoples' Counsel and Maryland Public Service Commission. October, 2000. Baltimore, MD.

"Broadband Open Access–Implications for the Internet and Consumers." November 1999. Panelist at the National Association of Utility Consumer Advocates Annual Convention. San Antonio, Texas.

"Validation of Proxy Cost Models." January 1997. Panel discussant at the Federal Communications Commission workshops on proxy cost models (CC Docket 96-45).

"Impact of the Telecommunications Act of 1996 on Telecommunications Managers." December 1996. Presented to members of the *Association of Telecommunications Professionals*. Columbus Ohio.

"Caveat emptor! Local competition, possible effects on prices and the reality of choice." October 1995. Presented at the Public Information Session on Telephone Competition. Dayton, Ohio.

"Cost Allocation in Network Industries," August 1995. Presented to the National Association of Regulatory Utility Commissions' Annual Regulatory Studies Program at Michigan State University.

"Incremental Cost Methodology in Telecommunications," June 1995. Presented to the Ohio Office of Consumers' Counsel.

Additional Presentations (Continued)

"Regulatory Issues Connected with the Implementation of the Clean Air Act Amendments of 1990," August 1993. Presented at the Indiana Bar Association's Utility Law Section Summer Meetings.

"Consumer Perspectives on the Ameritech Customer's First Plan," August 1993. Presented at the Ameritech Regional Regulatory Committee Ad Hoc Working Group Meeting.

"Consumer Perspectives on Universal Telecommunications Service," December 1992. Presented at the Indiana Utility Regulatory Commission Workshops on Regulatory Flexibility in Telecommunications.

Honors

Competitive paper finalist. The Academic Seminar at the 1999 National Cable Television Association Convention, Chicago, Illinois. Paper title: "The Billy Goats Gruff. A Fairy Tale for the Third Anniversary of the Telecommunications Act of 1996."

Courses Taught

Competition and Market Structure in Network Industries, *Ohio University*
Communication Regulatory Policy, *Ohio University*
Applications of Common Carrier Regulation, *Ohio University*
Introduction to Common Carrier Regulation, *Ohio University*
Introduction to Communication Systems Management, *Ohio University*
Consumer Issues in Communication Systems Management, *Ohio University*
Topical Seminar (New Technologies and Telecommunication Policy), *Ohio University*
Topical Seminar (The Telecommunications Act of 1996), *Ohio University*
Special Studies in Communication Systems Management, *Ohio University*
Economics of the Public Sector, *Kenyon College*
Industrial Organization, *Kenyon College*
Economic Development in the Third World, *Kenyon College*
Intermediate Microeconomics, *California State University, Sacramento*
Microeconomic Principles, *Kenyon College; California State University, Sacramento*
Macroeconomic Principles, *Kenyon College; California State University, Sacramento*

Service

Faculty Advisor, University College, *Ohio University*, 1998-2004
Member, Baker Fund Committee, *Ohio University*, 2003-2004
Member, College of Communication Curriculum Committee, *Ohio University*, 2003-2004
Chair, College of Communication Dean's Evaluation Committee, *Ohio University*, 2003-2004
Faculty Advisor, Communication Week, *Ohio University*, 1994-2002
Faculty Advisor, Students in Communication Systems Management, *Ohio University*, 1994-1996
Member, University General Education Review Committee, *Ohio University*, 1998-1999

Service (continued)

Member, College of Communication Curriculum Committee, *Ohio University*, 1998-2000
Member, College of Communication Graduate Committee, *Ohio University*, 1997-2002
Member, University Calendar Review Task Force, *Ohio University*, 1996-1997
Member, Outstanding Civil Service Award Committee, *Ohio University*, 1995-1996
Member, Mathematics Department Search Committee, *Kenyon College*, 1990-1991
Member, Williams Memorial Award Committee, *Kenyon College*, 1989-1991

Professional Membership

American Economic Association

Ph.D. Dissertation Supervision

"The Examination of Strategic Interactions in One Local Access Telephone Market, the Effects on Expected Price for Access and Universal Access." Judith Ann Molka-Danielsen. School of Information Sciences, Telecommunications Program, University of Pittsburgh, 1998.

Referee Service

Telecommunications Policy
Utilities Policy
Journal of Economic Studies
Communications of the Association for Information Systems

Expert Testimony Presented

California (On behalf of The Utility Reform Network [TURN])

PUCC Cause No.	**Title**	**Topic**
Rulemaking 05-04-005 (May 31, 2005)	Order Instituting Rulemaking to Assess and Revise Regulation of Telecommunications Utilities	Local exchange Competition and Policy
Applications: 01-02-024 01-02-035 02-02-031 02-02-032 02-02-034 02-03-002 (February 7, 2003 [Reply Declaration]) (March 12, 2003 [Rebuttal Declaration])	Review of UNE Rates	TELRIC Compliance of UNE Rates. Progress of local exchange competition.
Rulemaking 93-04-003 Investigation 93-04-002 (Phase II) (July, 2001)	Permanent Line Sharing Phase II	Pricing and Cost Allocation for the High Frequency Portion of the Local Loop in the NGDLC Environment.
Rulemaking 93-04-003 Investigation 93-04-002 (Phase I) (June, 2001)	Permanent Line Sharing Phase I	Pricing and Cost Allocation for the High Frequency Portion of the Local Loop.

Canadian Radio-Television and Telecommunications Commission
(On Behalf of Action Réseau Consommateur, et al.)

CRTC Case No.	**Title**	**Topic**
Public Notice CRTC 2001-37 (August, 2001)	Price Cap Review and Related Issues	Price cap regulation and productivity growth. Accommodative entry policy.

Colorado (On behalf of AARP)

CPUC Docket No.	Title	Topic
04A-411T (February, 2005)	In the Matter of Qwest Corporation Application For Service Reclassification And Deregulation	Analysis of local exchange market.

Kansas (On behalf of the Citizens' Utility Ratepayer Board [CURB])

KCC Docket No.	Title	Topic
05-SWBT-997-PDR (May, 2005)	In the Matter of SWBT's Application for Price Deregulation of Certain Residential and Business Services	Analysis of local exchange market.

Indiana (On behalf of the AARP and Citizens Action Coalition of Indiana)

IURC Cause No.	Title	Topic
42405 (October, 2003)	SBC Indiana's Request for Alternative Regulation	Analysis of local competition, Price Cap Regulation and Productivity
41911 (July, 2001)	Commission's Investigation of Ameritech Indiana Service Quality	Service Quality Performance.
40785-S1, 40849,	Approval of Settlement	Service quality, Advanced Services
41058 (January, 2001)	Agreement between Ameritech And other Parties	Deployment, Alternative Regulation.
40785-S1, 40849, 41058 (August, 2000)	Approval of Settlement Agreement between Ameritech And other Parties	Service quality, Alternative Regulation, Cost of Service, Cost Modeling, Compliance with §254(k)of the Telecommunications Act of 1996.
40785-S1 (September, 1999)	Commission's Investigation Ameritech Indiana's Compliance With Section 254(k) of the Telecommunication Act	Economic Cost of Service/ Cost Allocation.

Indiana (On behalf of the AARP and Citizens Action Coalition of Indiana, continued)

IURC Cause No.	Title	Topic
40849 (November, 1997)	Commission's Own Motion On Ameritech Indiana's Request for Interim Relief	Interim and Permanent Alternative Regulation/Rate Design.
40849 (September, 1997)	Ameritech Indiana Request for Interim Relief	Interim Alternative Regulation/ Rate Design.

Ohio (On behalf of the Ohio Consumer's Counsel)

PUCO Case Nos.	Title	Topic
02-1280-TP-UNC (May, 2004)	SBC Ohio's TELRIC Costs for Unbundled Network Elements	TELRIC cost modeling, Local Competition.
98-1082-TP-AMT (December, 1998)	SBC/Ameritech Request for Approval of Merger	Sharing of cost saving. Total factor productivity growth.
96-899-TP-ALT (December, 1997)	Cincinnati Bell Alternative Regulation	Price Cap Regulation/ Rate Rebalancing/ Rate Design.
94-2019-TP-ACE (May, 1995)	MFS INTELENET	Financial, Managerial, and Technical Ability to Provide Local Exchange Service**.**
93-487-TP-ALT and 93-576-CSS (September, 1994)	Ohio Bell: Alternative Regulation	Incremental Costs/ Fully Distributed Costs/ Alternative Regulation.

Maryland (On behalf of the Maryland People's Counsel)

MPSC Docket No.	Title	Topic
8730 (Rebuttal Testimony) (November, 1996)	Bell Atlantic ISDN Tariff Proposal	ISDN pricing and cost of service.

Maryland (On behalf of the Maryland People's Counsel, continued)

MPSC Docket No.	Title	Topic
8730 (Direct Testimony) (October, 1996)	Bell Atlantic ISDN Tariff Proposal	ISDN pricing and cost of service.
8715 (Rebuttal Testimony) (April, 1996)	MCI Request for Alternative Regulation for Bell Atlantic Maryland	Price Cap Regulation, Cost Allocation and Loop Cost Recovery.
8715 (Direct Testimony) (March, 1996)	MCI Request for Alternative Regulation for Bell Atlantic Maryland	Price Cap Regulation, Cost Allocation and Loop Cost Recovery.

Indiana (On behalf of the Indiana Consumer Counselor)
***Testimony prepared, but not filed due to case settlement.**

IURC Cause No.	Title	Topic
40611 (June, 1997)	Ameritech Indiana Approval of Statement of Generally Available Terms	Analysis of TELRIC studies.
39853 (March, 1994)	Teleport Communications Group of Indiana, Inc.	Authority to provide intraLATA and interLATA Private Line Services.
39705 (January, 1994)	Indiana Bell Telephone	Alternative Regulation/ Competition/Infrastructure Deployment/Imputation.
39474 (May, 1994)	Indiana Payphone Association v. Indiana Bell Telephone	Imputation/separate subsidiary.
39755 (September, 1993)	GTE North Inc./GTE Intelligent Network Service Inc.	Divestiture of Assets/Policy.
39718 (August, 1993)	Ameritech Advanced Data Services	Affiliate Relationships.

Indiana (On behalf of the Indiana Consumer Counselor, continued)

IURC Cause No.	Title	Topic
39475 (March, 1993)	Indiana Payphone Association	Dial-Around Compensation.
38269-S4 (February, 1993)	IntraLATA Toll Compensation	Toll Rate Deaveraging.
39369 (February, 1993)	IURC Investigation into Access Charge Parity	Access Charge Parity/Recovery of Non-Traffic-Sensitive Costs/Policy.
39618 (January, 1993)	IURC Investigation into Special Access Collocation	Collocation Policy.
39385 (October, 1992)	Indiana Bell Telephone: Competition and Pricing Flexibility	Evaluation of Competition in Dedicated Communications Market/Policy.
39353*	Indiana Gas Company	Temperature Normalization Tracker/Demand Side Management/Reproduction Cost of Rate Base/Capital Costs.
39314 (September, 1992)	Indiana Michigan Power Co.	Clean Air Act Amendments /Demand Side Management.
39221 (January, 1992)	American Telecommunications Corporation	Financial Viability.
39215 (January, 1992)	Indiana American Water Co.	Reproduction Cost of Rate Base/Capital Costs.
39166 (November, 1991)	Indiana Cities Water Co.	Reproduction Cost of Rate Base/Capital Costs.
39164/39165 (October, 1991)	Ohio Valley Gas Corp.	Reproduction Cost of Rate Base/Capital Costs.
39017*	IURC Investigation into Indiana Bell Earning	Reproduction Cost of Rate Base/Capital Costs.

Comments Filed

Federal Communications Commission (On Behalf of National Association of Utility Consumer Advocates)

In the Matter of Federal-State Joint Board on Universal Service, CC Docket 96-45. Affidavit addressing application of forward-looking economic cost methodology to rural ILECs with 100,000 or more access lines. (December 14, 2004.)

Federal Communications Commission (On behalf of AARP)

In the Matter of Inquiry into High-Speed Access to the Internet Over Cable and Other Facilities. GN Docket No. 00-185, FCC No. 00-355. "Tangled Web: The Internet and Broadband Open Access Policy." (January 10, 2001).

Indiana Utility Regulatory Commission (On behalf of the Indiana Consumer Counselor)

A Comprehensive Approach to Local Exchange Competition in Indiana (October, 1995).

Indiana Utility Regulatory Commission (On behalf of the Indiana Consumer Counselor, continued)
Comments of the Office of the Office of Utility Consumer Counselor to the Telecommunications Regulatory Flexibility Committee (1993).

New York Public Service Commission (On behalf of Independent Telephone Companies [NYNEX and Rochester excluded])

Proceeding on Motion of the Commission to Examine Issues Related to the Continued Provision of Universal Service and to Develop a Regulatory Framework for the Transition to Competition in the Local Exchange Market: "Comments on Compensation Arrangements Related to Module 2" (April, 1995).

Maine Public Service Commission (On behalf of Independent Telephone Companies [NYNEX excluded])

Inquiry Into the Provision of Competitive Telecommunications Services (Chapter 280), Docket 94-114: "Reply Comments to the `Preliminary Proposal for a Revision and Restructuring of the Access Charge Provision of Chapter 280"' (June, 1995).

Federal Communications Commission (On behalf of the Indiana Consumer Counselor)

Comments of the Indiana Office of Utility Consumer Counselor on the Ameritech Customers First Plan (1993).

Reply Comments of the Indiana Office of Utility Consumer Counselor on the Ameritech Customers First Plan (1993).

WUTC Docket No. UT-050814
Direct Testimony of Trevor R. Roycroft, Ph.D.
Exhibit____(TRR-3)

Chart 1: Nationwide CLEC Market Share and Growth Rate In CLEC Lines
June 2000-December 2004

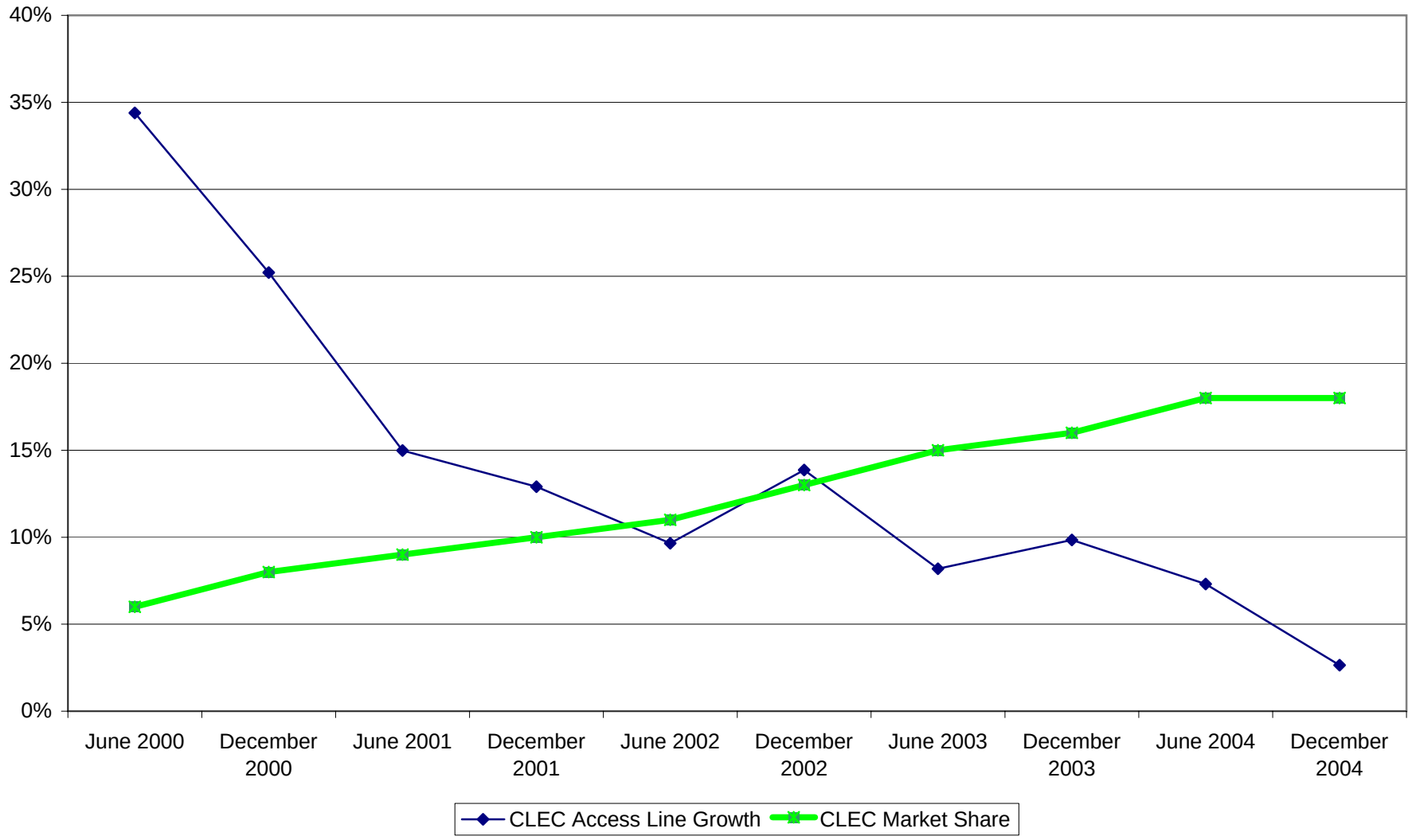


Chart 2: Industry Profile Pre-Verizon/MCI and AT&T/SBC Mergers
(Based on 2003 Revenues) Milllions of Dollars

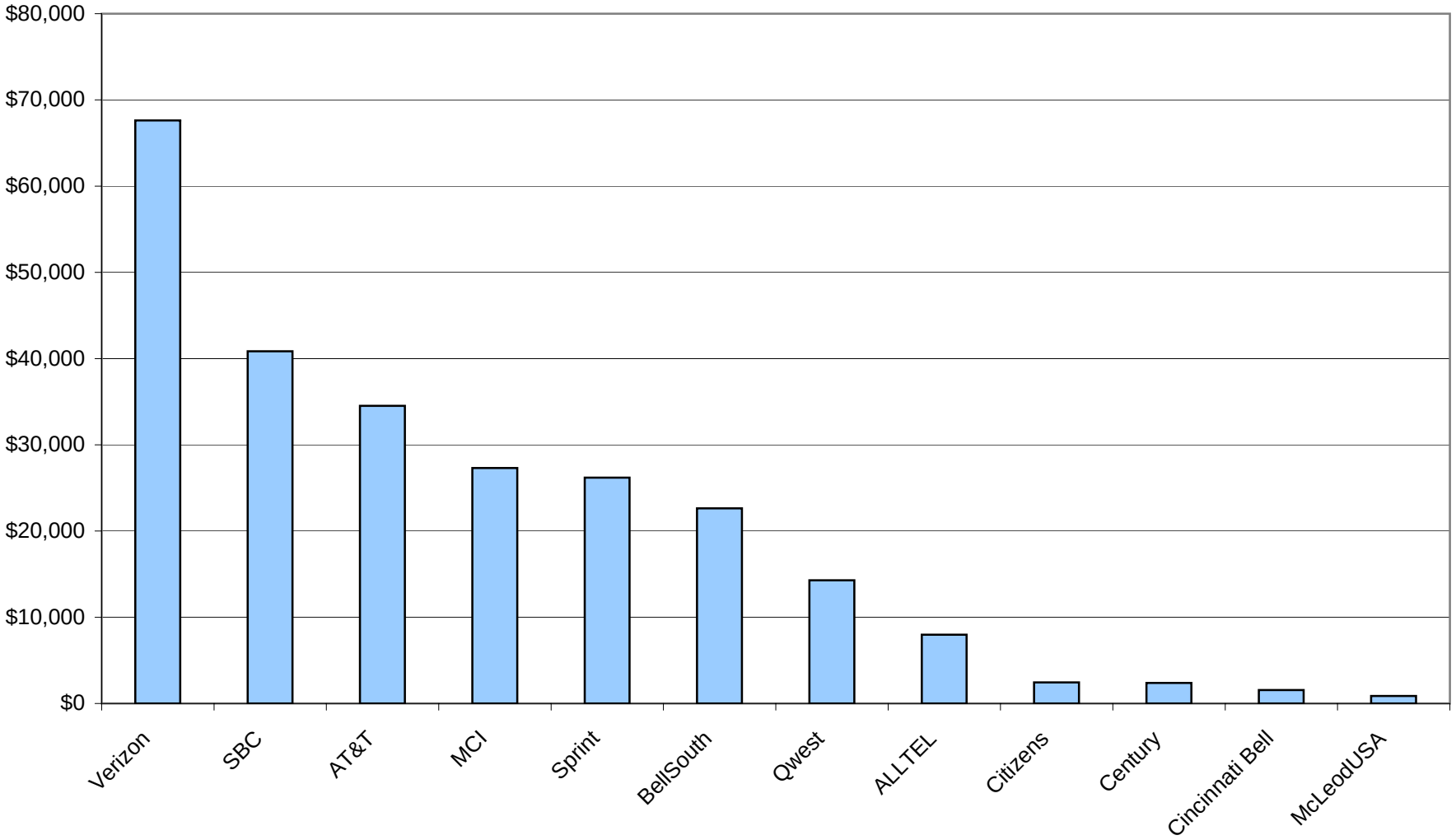


Chart 3: Industry Profile Post-Verizon/MCI and AT&T/SBC Mergers
(Based on 2003 Revenues) Milllions of Dollars

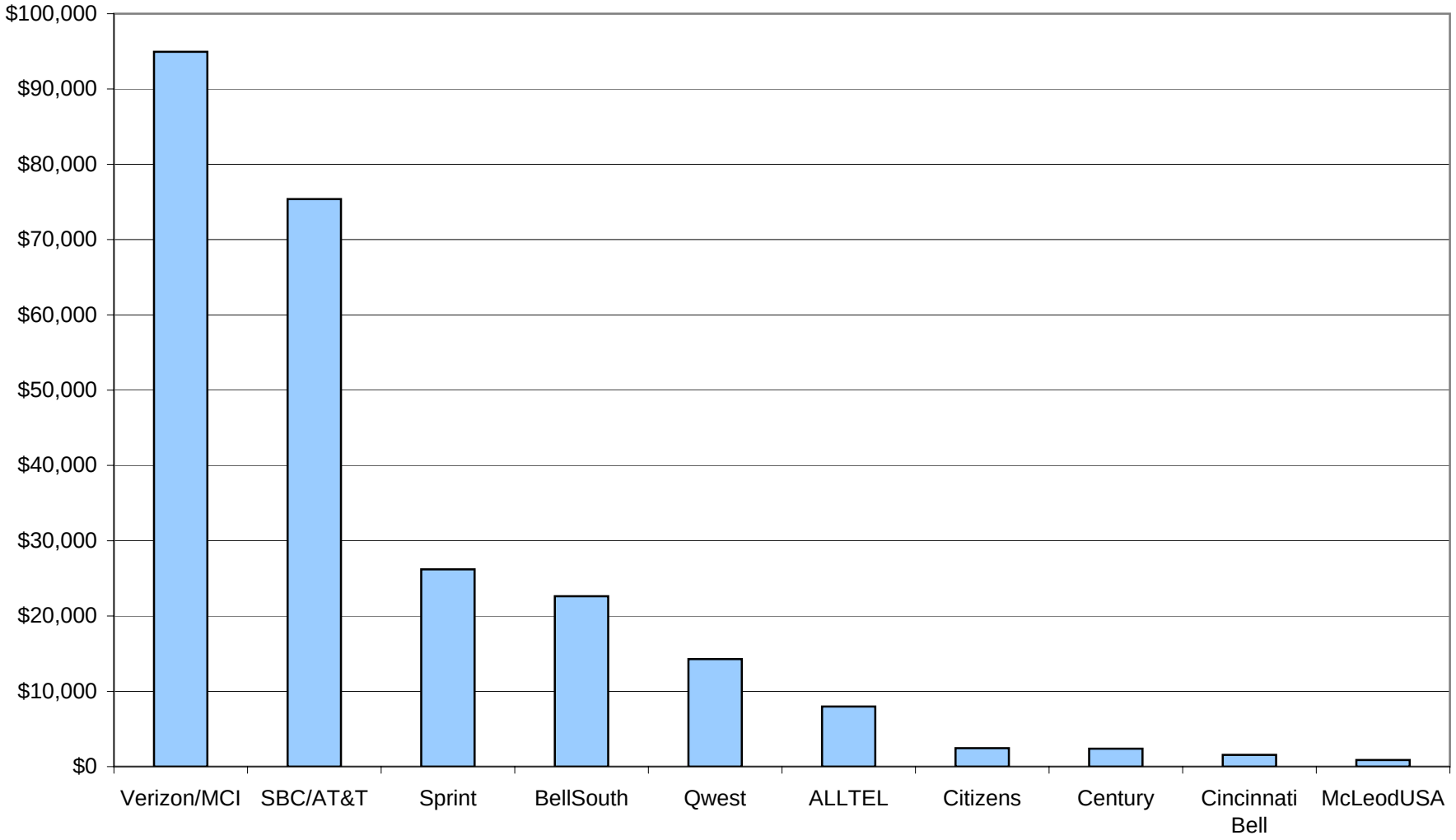
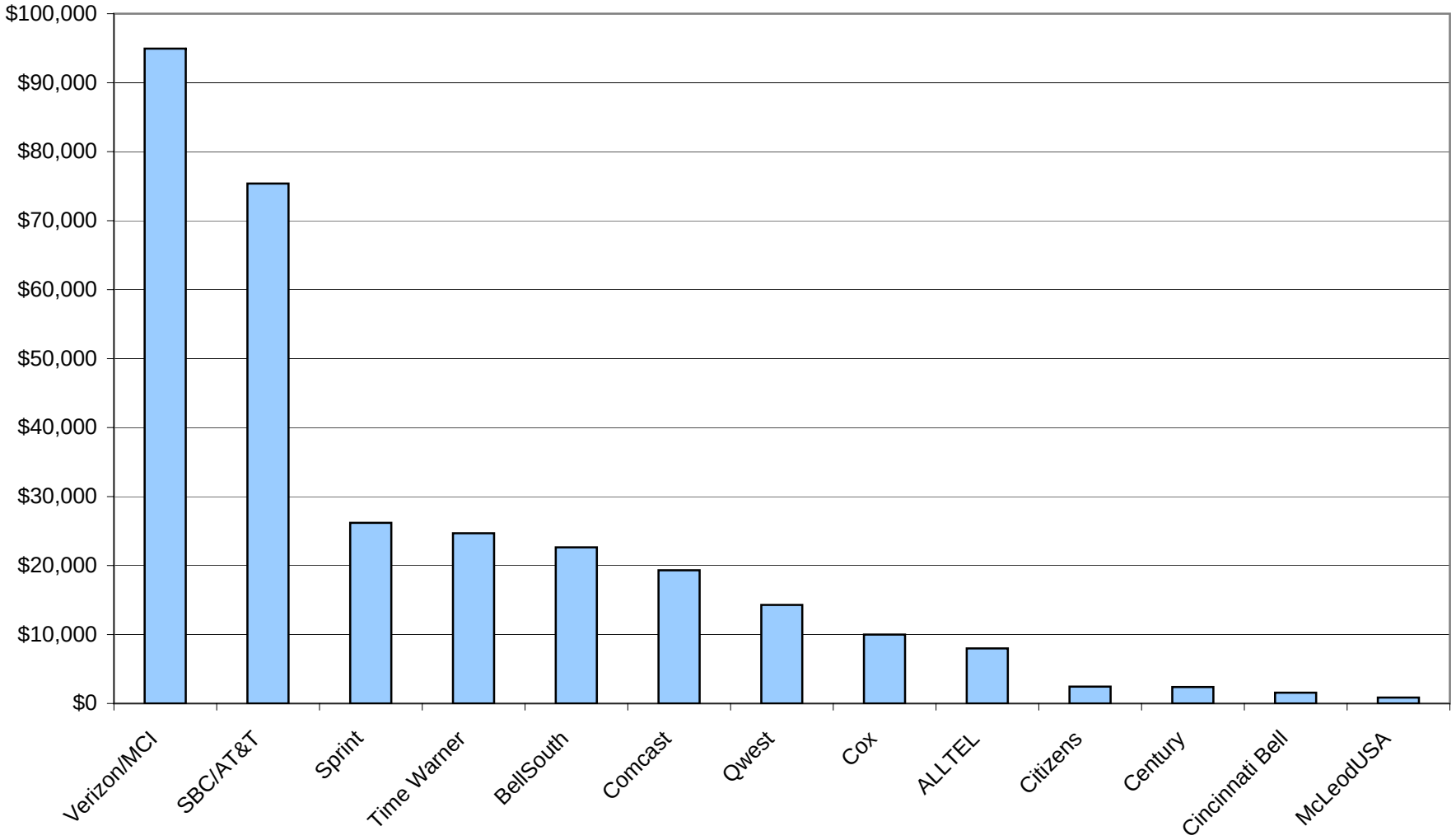


Chart 4: Industry Profile Post-Verizon/MCI and AT&T/SBC Mergers
(Including three largest cable providers) Milllions of Dollars



WUTC Docket No. UT-050814
Direct Testimony of Trevor R. Roycroft, Ph.D.
Exhibit____(TRR-4P)

Chart 5P: Market Share of Top-10 LECs in Verizon Washington's Service Area, Sorted by Residential Lines (Public)

WUTC Docket No. UT-050814
Direct Testimony of Trevor R. Roycroft, Ph.D.
Exhibit____(TRR-5)

Chart 6: HHI Before and After Merger

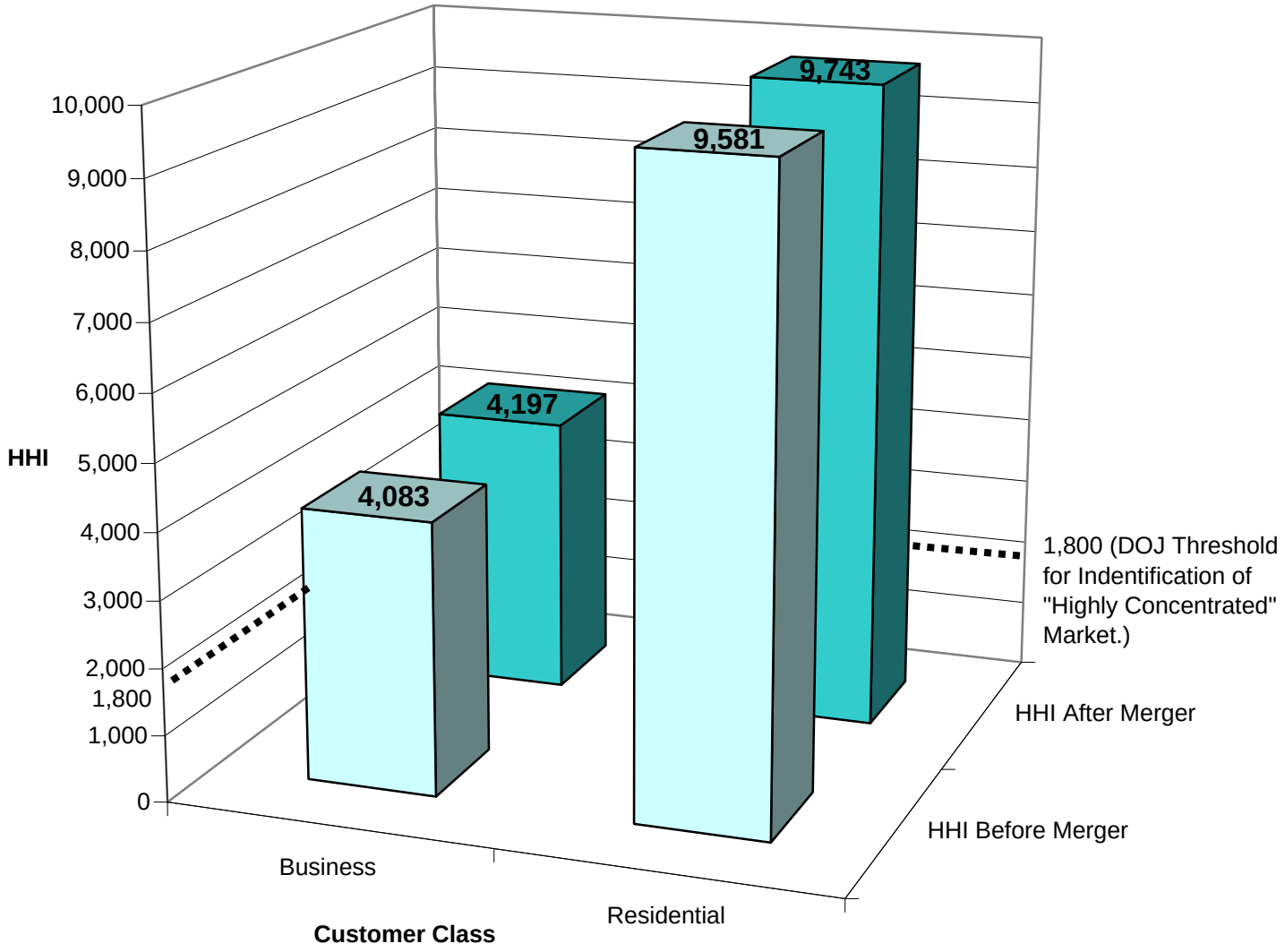


Chart 7: Increase in HHI