

**BEFORE THE WASHINGTON
UTILITIES & TRANSPORTATION COMMISSION**

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION,

Complainant,

v.

QWEST CORPORATION D/B/A CENTURYLINK QC,

Respondent.

DOCKET UT-171082

SUSAN M. BALDWIN ON BEHALF OF PUBLIC COUNSEL

EXHIBIT SMB-2

Susan M. Baldwin Statement of Qualifications

June 1, 2018

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Susan M. Baldwin specializes in utility economics, regulation, and public policy, with a long-standing focus on telecommunications and with a more recent focus on consumer issues in electric and gas markets. Ms. Baldwin has been actively involved in public policy for forty years, more than thirty-four of which have been in telecommunications policy and regulation. Since 2001, she has been consulting to public sector agencies, consumer advocates, and others as an independent consultant. Ms. Baldwin received her Master of Economics from Boston University, her Master of Public Policy from Harvard University's John F. Kennedy School of Government, and her Bachelor of Arts degree in Mathematics and English from Wellesley College. Ms. Baldwin has extensive experience both in government and in the private sector.

Ms. Baldwin has testified before 23 public utility commissions, including: the Arkansas Public Service Commission, California Public Utilities Commission, Colorado Public Utilities Commission, Connecticut Department of Public Utility Control, District of Columbia Public Service Commission, Idaho Public Utilities Commission, Illinois Commerce Commission, Indiana Utility Regulatory Commission, Iowa Utilities Board, Maryland Public Service Commission, Massachusetts Department of Telecommunications and Cable, Nevada Public Service Commission, New Hampshire Public Utilities Commission, New Jersey Board of Public Utilities, New York Public Service Commission, Public Utilities Commission of Ohio, Pennsylvania Public Utility Commission, Rhode Island Public Utilities Commission, Tennessee Public Service Commission, Vermont Public Service Board, Washington Utilities and Transportation Commission, Public Service Commission of West Virginia and Wyoming Public Service Commission. Ms. Baldwin has also authored numerous comments and declarations submitted in various Federal Communications Commission proceedings.

Ms. Baldwin has also participated in projects in Delaware, Hawaii, Illinois, New York, South Dakota, and Canada on behalf of consumer advocates, public utility commissions, and competitive local exchange carriers. Ms. Baldwin has served in a direct advisory capacity to public utility commissions in the District of Columbia, Massachusetts, New Mexico, Utah and Vermont. Ms. Baldwin has also testified on behalf of public utility commission staff in Idaho and Rhode Island. Ms. Baldwin has testified before state legislative committees in Maryland, Massachusetts, Ohio, and Pennsylvania.

Ms. Baldwin has sponsored expert reports in state taxation proceedings. Also, in her capacity as an independent consultant, Ms. Baldwin has consulted to and testified on behalf of consumer advocates on diverse matters including the electric retail market, consumer protection and consumer services issues in telecommunications, electric, and gas proceedings, broadband deployment, numbering resources, unbundled network element (UNE) cost studies, incumbent local exchange carriers' requests for competitive classification of services, mergers and spin-

offs, rate cases, universal service, service quality, and state *Triennial Review Order* (TRO) proceedings. She prepared comprehensive testimony analyzing mass market impairment on behalf of the New Jersey Division of Rate Counsel, the Arkansas Office of the Attorney General, and the Utah Committee of Consumer Services.

In 2018, Ms. Baldwin conducted an in-depth analysis of the retail residential electric market in Massachusetts and was the lead author for the resulting report (“Analysis of the Individual Residential Electric Supply Market in Massachusetts: Are Consumers Benefiting from Competition?” released on March 29, 2018, prepared for the Massachusetts Office of the Attorney General). She co-sponsored testimony in 2014 on behalf of the Connecticut Office of Consumer Counsel regarding the electric retail market. In her testimony she summarized her detailed analysis in Connecticut of the prices that all retail customers of suppliers pay as well as her detailed review of consumer complaints regarding the retail electric market.

Ms. Baldwin has also assisted consumer advocate offices with various customer service issues in the electric and gas industries. During 2014, she also assisted the Massachusetts Office of the Attorney General with consumer education regarding the retail electric market. Ms. Baldwin has worked with local, state, and federal officials on energy and environmental issues. As a policy analyst for the New England Regional Commission (NERCOM) and Massachusetts Office of Energy Resources (MOER), she acquired extensive experience working with governors’ offices, state legislatures, congressional offices, and industry and advocacy groups. As an energy analyst for NERCOM, Ms. Baldwin coordinated New England’s first regional seminar on low-level radioactive waste, analyzed federal and state energy policies, and wrote several reports on regional energy issues. While working with the MOER, Ms. Baldwin conducted a statewide survey of the solar industry and analyzed federal solar legislation. While attending the Kennedy School of Government, Ms. Baldwin served as a research assistant for the school’s Energy and Environmental Policy Center.

Ms. Baldwin has contributed to numerous comments submitted to the FCC on diverse aspects of broadband in various proceedings on topics such as data collection, mapping, deployment, universal service, affordability, consumer protection, and network management. Also, in state regulatory proceedings that have examined carriers’ proposals for spin-offs and for mergers, she has recommended conditions concerning broadband deployment.

Ms. Baldwin served as a direct advisor to the Massachusetts Department of Telecommunications and Energy (DTE) between August 2001 and July 2003, in Massachusetts DTE Docket 01-20, an investigation of Verizon’s total element long run incremental cost (TELRIC) studies for recurring and nonrecurring unbundled network elements (UNEs). She assisted with all aspects of this comprehensive case in Massachusetts. Ms. Baldwin analyzed recurring and nonrecurring cost studies; ran cost models; reviewed parties’ testimony, cross-examined witnesses, trained staff, met with the members of the Commission, assisted with substantial portions of the major orders issued by the DTE; and also assisted with the compliance phase of the proceeding.

Ms. Baldwin has also contributed to numerous comments and declarations submitted to the

Federal Communications Commission on issues such as broadband; intercarrier compensation reform; the Comcast-NBCU merger, price cap regulation; universal service; carriers' petitions for forbearance; separations reform; special access services, relay services; numbering optimization, and the Internet Protocol transition.

Ms. Baldwin worked with Economics and Technology, Inc. for twelve years (1984 to 1988 and 1992-2000), most recently as a Senior Vice President. Among her numerous projects were the responsibility of advising the Vermont Public Service Board in matters relating to a comprehensive investigation of NYNEX's revenue requirement and proposed alternative regulation plan. She participated in all phases of the docket, encompassing review of testimony, issuance of discovery, cross-examination of witnesses, drafting memoranda and decisions, and reviewing compliance filings. Another year-long project managed by Ms. Baldwin was the in-depth analysis and evaluation of the cost proxy models submitted in the FCC's universal service proceeding. Also, on behalf of the staff of the Idaho Public Utilities Commission, Ms. Baldwin testified on the proper allocation of US West's costs between regulated and non-regulated services. On behalf of AT&T Communications of California, Inc. and MCI Telecommunications Corporation, Ms. Baldwin comprehensively analyzed the non-recurring cost studies submitted by California's incumbent local exchange carriers. Ms. Baldwin has participated in more than twenty state and federal regulatory investigations of the impact of proposed transfers of control of wireline, wireless and cable companies.

Ms. Baldwin has contributed to the development of state and federal policy on numbering matters. On behalf of the Ad Hoc Telecommunications Users Committee, Ms. Baldwin participated in the Numbering Resource Optimization Working Group (NRO-WG), and in that capacity, served as a co-chair of the Analysis Task Force of the NRO-WG. She has also provided technical assistance to consumer advocates in the District of Columbia, Illinois, Iowa, Massachusetts, and Pennsylvania on area code relief and numbering optimization measures. Ms. Baldwin also co-authored comments on behalf of the National Association of State Utility Consumer Advocates in the FCC's proceeding on numbering resource optimization.

During her first years at ETI, Ms. Baldwin was the Director of Publications and Tariff Research, and, in that capacity, she trained and supervised staff in the analysis of telecommunications rate structures, services, and regulation.

Ms. Baldwin served four years (1988-1992) as the Director of the Telecommunications Division for the Massachusetts Department of Public Utilities (now the Department of Telecommunications & Cable), where she directed a staff of nine, and acted in a direct advisory capacity to the DPU Commissioners. (The Massachusetts DTC maintains a non-separated staff, which directly interacts with the Commission, rather than taking an advocacy role of its own in proceedings). Ms. Baldwin advised and drafted decisions for the Commission in numerous DPU proceedings including investigations of a comprehensive restructuring of New England Telephone Company's rates, an audit of NET's transactions with its NYNEX affiliates, collocation, ISDN, Caller ID, 900-type services, AT&T's request for a change in regulatory treatment, pay telephone and alternative operator services, increased accessibility to the network

by disabled persons, conduit rates charged by NET to cable companies, and quality of service. Under her supervision, staff analyzed all telecommunications matters relating to the regulation of the then \$1.7-billion telecommunications industry in Massachusetts, including the review of all telecommunications tariff filings; petitions; cost, revenue, and quality of service data; and certification applications. As a member of the Telecommunications Staff Committees of the New England Conference of Public Utility Commissioners (NECPUC) and the National Association of Regulatory Utility Commissioners (NARUC), she contributed to the development of telecommunications policy on state, regional, and national levels.

As a budget analyst for the Massachusetts Department of Public Welfare, Ms. Baldwin forecast expenditures, developed low-income policy, negotiated contracts, prepared and defended budget requests, and monitored expenditures of over \$100 million.

Ms. Baldwin received Boston University's Dean's Fellowship. While attending the Kennedy School of Government, Ms. Baldwin served as a teaching assistant for a graduate course in microeconomics and as a research assistant for the school's Energy and Environmental Policy Center, and at Wellesley College was a Rhodes Scholar nominee. She has also studied in Ghent, Belgium.

Record of Prior Testimony

In the matter of the Application of the New Jersey Bell Telephone Company for Approval of its Plan for an Alternative Form of Regulation, New Jersey Board of Regulatory Commissioners Docket No. T092030358, on behalf of the New Jersey Cable Television Association, filed September 21, 1992, cross-examined October 2, 1992.

DPUC review and management audit of construction programs of Connecticut's telecommunications local exchange carriers, Connecticut Department of Public Utility Control Docket No. 91-10-06, on behalf of the Connecticut Office of the Consumer Counsel, filed October 30, 1992, cross-examined November 4, 1992.

Joint petition of New England Telephone and Telegraph Company and Department of Public Service seeking a second extension of the Vermont Telecommunications Agreement, Vermont Public Service Board 5614, Public Contract Advocate, filed December 15, 1992, cross-examined December 21, 1992.

Application of the Southern New England Telephone Company to amend its rates and rate structure, Connecticut Department of Public Utility Control Docket No. 92-09-19, on behalf of the Connecticut Office of Consumer Counsel, filed March 26, 1993 and May 19, 1993, cross-examined May 25, 1993.

In the matter of the Application of Cincinnati Bell Telephone Company for Approval of an Alternative Form of Regulation and for a Threshold Increase in Rates, Public Utilities Commission of Ohio Case No. 93-432-TP-ALT, on behalf of Time Warner AxS, filed March 2, 1994.

Matters relating to IntraLATA Toll Competition and Access Rate Structure, Rhode Island Public Utilities Commission Docket 1995, on behalf of the Rhode Island Public Utilities Commission Staff, filed March 28, 1994 and June 9, 1994, cross-examined August 1, 1994.

In the Matter of the Application of The Ohio Bell Telephone Company for Approval of an Alternative Form of Regulation, Public Utilities Commission of Ohio Case No. 93-487-TP-ALT, on behalf of Time Warner AxS, filed May 5, 1994, cross-examined August 11, 1994.

In Re: Universal Service Proceeding: The Cost of Universal Service and Current Sources of Universal Service Support, Tennessee Public Service Commission Docket No. 95-02499, on behalf of Time Warner AxS of Tennessee, L.P., filed October 18, 1995 and October 25, 1995, cross-examined October 27, 1995.

In Re: Universal Service Proceeding: Alternative Universal Service Support Mechanisms, Tennessee Public Service Commission Docket No. 95-02499, on behalf of Time Warner AxS of Tennessee, L.P., filed October 30, 1995 and November 3, 1995, cross-examined November 7, 1995.

In the Matter of the Application of US West Communications, Inc. for Authority to Increase its Rates and Charge for Regulated Title 61 Services, Idaho Public Utilities Commission Case No. USW-S-96-5, on behalf of the Staff of the Idaho Public Utilities Commission, filed November 26, 1996 and February 25, 1997, cross-examined March 19, 1997.

A Petition by the Regulatory Operations Staff to Open an Investigation into the Procedures and Methodologies that Should Be Used to Develop Costs for Bundled or Unbundled Telephone Services or Service Elements in the State of Nevada, Nevada Public Service Commission Docket No. 96-9035, on behalf of AT&T Communications of Nevada, Inc., filed May 23, 1997, cross-examined June 6, 1997.

Rulemaking on the Commission's Own Motion to Govern Open Access to Bottleneck Services and Establish a Framework for Network Architecture; Investigation on the Commission's Own Motion into Open Access and Network Architecture Development of Dominant Carrier Networks, California Public Utilities Commission R.93-04-003 and I.93-04-002, co-authored a declaration on behalf of AT&T Communications of California, Inc., and MCI Telecommunications Corporation, filed on December 15, 1997 and on February 11, 1998.

Consolidated Petitions for Arbitration of Interconnection Agreements, Massachusetts Department of Telecommunications and Energy, DPU 96-73/74. 96-75, 96-80/81, 96-83, and 96-84, on behalf of AT&T Communications of New England, Inc. and MCI Telecommunications Corporation, filed February 3, 1998.

In the Matter of the Application of US West Communications, Inc. for Specific Forms of Price Regulation, Colorado Public Utilities Commission Docket No. 97-A-540T, on behalf of the Colorado Office of Consumer Counsel, filed on April 16, 1998, May 14, 1998 and May 27, 1998, cross-examined June 2, 1998.

Joint Application of SBC Communications and Southern New England Telecommunications Corporation for Approval of a Change of Control, Connecticut Department of Public Utility Control Docket No. 98-02-20, on behalf of the Connecticut Office of Consumer Counsel, filed May 7, 1998 and June 12, 1998, cross-examined June 15-16, 1998.

Fourth Annual Price Cap Filing of Bell Atlantic-Massachusetts, Massachusetts Department of Telecommunications and Energy Docket DTE 98-67, on behalf of MCI Telecommunications Corporation, filed September 11, 1998 and September 25, 1998, cross-examined October 22, 1998.

Applications of Ameritech Corp., Transferor, and SBC Communications, Inc., Transferee, For Consent to Transfer Control, Federal Communications Commission CC Docket No. 98-141, co-sponsored affidavit on behalf of Indiana Utility Consumer Counselor, Michigan Attorney General, Missouri Public Counsel, Ohio Consumers' Counsel, Texas Public Utility Counsel and Utility Reform Network, filed on October 13, 1998.

In the Matter of the Joint Application of SBC Communications Inc., SBC Delaware, Inc., Ameritech Corporation and Ameritech Ohio for Consent and Approval of a Change of Control, Public Utilities Commission of Ohio Case No.98-1082-TP-AMT, on behalf of Ohio Consumers' Counsel, filed on December 10, 1998, cross-examined on January 22, 1999.

GTE Corporation, Transferor, and Bell Atlantic Corporation, Transferee, For Consent to Transfer Control, Federal Communications Commission CC Docket No. 98-184, co-sponsored an affidavit on behalf of a coalition of consumer advocates from Delaware, Hawaii, Maine, Maryland, Missouri, Ohio, Oregon, West Virginia, and Michigan, filed on December 18, 1998.

In the Matter of the Joint Application of GTE and Bell Atlantic to Transfer Control of GTE's California Utility Subsidiaries to Bell Atlantic, Which Will Occur Indirectly as a Result of GTE's Merger with Bell Atlantic, California Public Utilities Commission A. 98-12-005, on behalf of the California Office of Ratepayer Advocate, filed on June 7, 1999.

In the Matter of the Investigation on the Commission's Own Motion Into All Matters Relating to the Merger of Ameritech Corporation and SBC Communications Inc., Indiana Utility Regulatory Commission Cause No. 41255, on behalf of the Indiana Office of Utility Consumer Counselor, filed on June 22, 1999 and July 12, 1999, cross-examined July 20, 1999.

In re Application of Bell Atlantic Corporation and GTE Corporation for Approval of the GTE Corporation - Bell Atlantic Corporation Merger, Washington Utilities and Transportation Commission UT-981367, on behalf of the Washington Attorney General Public Counsel Section, filed on August 2, 1999.

Application of New York Telephone Company for Alternative Rate Regulation, Connecticut Department of Public Utility Control Docket No. 99-03-06, on behalf of the Connecticut Office of Consumer Counsel, filed October 22, 1999.

In re: Area Code 515 Relief Plan, Iowa Utilities Board Docket No. SPU-99-22, on behalf of Iowa Office of Consumer Advocate, filed November 8, 1999, and December 3, 1999, cross-examined December 14, 1999.

In re Application of MCI WorldCom, Inc. and Central Telephone Company - Nevada, d/b/a Sprint of Nevada, and other Sprint entities for Approval of Transfer of Control pursuant to NRS 704.329, Nevada Public Utilities Commission Application No. 99-12029, on behalf of the Nevada Office of the Attorney General, Bureau of Consumer Protection, filed April 20, 2000.

In re: Area Code 319 Relief Plan, Iowa Utilities Board Docket No. SPU-99-30, on behalf of Iowa Office of Consumer Advocate, filed June 26, 2000 and July 24, 2000.

In re: Sprint Communications Company, L.P. & Level 3 Communications, L.L.C., Iowa Utilities Board Docket Nos. SPU-02-11 & SPU-02-13, on behalf of Iowa Office of Consumer Advocate, filed October 14, 2002 and January 6, 2003, cross-examined February 5, 2003.

Illinois Bell Telephone Company filing to increase unbundled loop and nonrecurring rates (tariffs filed December 24, 2002), Illinois Commerce Commission Docket No. 02-0864, on behalf of Citizens Utility Board, filed May 6, 2003 and February 20, 2004.

Qwest Petition for Competitive Classification of Business Services, Washington Utilities and Transportation Commission Docket No. 030614, on behalf of Public Counsel, filed August 13, 2003 and August 29, 2003, cross-examined September 18, 2003.

In the Matter of the Application of CenturyTel of Northwest Arkansas, LLC for Approval of a General Change in Rates and Tariffs, Arkansas Public Service Commission Docket No. 03-041-U, on behalf of the Attorney General, filed October 9, 2003 and November 20, 2003.

In the Matter of the Board's Review of Unbundled Network Elements, Rates, Terms and Conditions of Bell Atlantic New Jersey, Inc., New Jersey Board of Public Utilities Docket No. TO00060356, on behalf of the New Jersey Division of the Ratepayer Advocate, filed January 23, 2004.

In the Matter of the Implementation of the Federal Communications Commission's Triennial Review Order, New Jersey Board of Public Utilities Docket No. TO03090705, on behalf of the New Jersey Division of the Ratepayer Advocate, filed February 2, 2004.

Unbundled Access to Network Elements, Review of the Section 251 Unbundling Obligations of Local Exchange Carriers, Federal Communications Commission WC Docket No. 04-313, CC Docket No. 01-338, sponsored affidavit on behalf of the New Jersey Division of the Ratepayer Advocate, filed October 4, 2004.

Unbundled Access to Network Elements, Review of the Section 251 Unbundling Obligations of Local Exchange Carriers, Federal Communications Commission WC Docket No. 04-313, CC Docket No. 01-338, sponsored affidavit on behalf of the Utah Committee of Consumer Services, filed October 4, 2004.

In the Matter of Verizon New Jersey, Inc. For a Revision of Tariff B.P.U.-N.J. – No. 2 Providing for a Revenue Neutral Rate Restructure Including a Restructure of Residence and Business Basic Exchange Service and Elimination of \$.65 Credit, New Jersey Board of Public Utilities Docket No. TT04060442, on behalf of the New Jersey Division of the Ratepayer Advocate, filed December 22, 2004 and January 18, 2005.

In the Matter of the Application of Verizon New Jersey, Inc. for Approval (I) of a New Plan for an Alternative Form of Regulation and (II) to Reclassify Multi-Line Rate Regulated Business Services as Competitive Services, and Compliance Filing, New Jersey Board of Public Utilities Docket No. TO01020095, on behalf of the New Jersey Division of the Ratepayer Advocate, filed January 10, 2005 and February 4, 2005.

Joint Petition of SBC Communications Inc. and AT&T Corp., Together with its Certificated Subsidiaries for Approval of Merger, New Jersey Board of Public Utilities Docket No. TM05020168, on behalf of the New Jersey Division of the Ratepayer Advocate, filed May 4, 2005 and June 1, 2005.

In the Matter of Verizon Communications Inc. and MCI, Inc., Applications for Approval of Transfer of Control, Federal Communications Commission WC Docket No. 05-75, co-sponsored affidavit on behalf of the New Jersey Division of the Ratepayer Advocate, filed on May 9, 2005.

In the Matter of the Application of Southwestern Bell Telephone, L.P., d/b/a SBC Arkansas to Set Rates for Unbundled Network Elements, Arkansas Public Service Commission Docket No. 04-109-U, on behalf of the Attorney General, filed May 27, 2005.

Joint Petition of Verizon Communications Inc. and MCI, Inc. for Approval of Merger, New Jersey Board of Public Utilities Docket No. TM05030189, on behalf of the New Jersey Division of the Ratepayer Advocate, filed July 8, 2005 and August 19, 2005.

In the Matter of Joint Petition of United Telephone Company of New Jersey, Inc. d/b/a Sprint and LTD Holding Company for Approval Pursuant to *N.J.S.A. 48:2-51* and *N.J.S.A. 48:3-10* of a change in Ownership and Control, New Jersey Board of Public Utilities Docket No. TM05080739, on behalf of the New Jersey Division of the Ratepayer Advocate, filed November 29, 2005.

In the Matter of the Board's Review of the Classification of Verizon New Jersey's Directory Assistance Services ("DAS") as Competitive and Associated Service Quality, Docket No. TX06010057, In the Matter of the Filing by Verizon New Jersey Inc. for the Reclassification of Existing Rate Regulated Services – Directory Assistance Services as Competitive, New Jersey Board of Public Utilities, Docket No. TT97120889, on behalf of the New Jersey Division of the Ratepayer Advocate, filed May 12, 2006.

In the Matter of AT&T Inc. and BellSouth Corporation Applications for Approval of Transfer of Control, Federal Communications Commission WC Docket No. 06-74, sponsored declaration with Sarah M.

Bosley on behalf of the New Jersey Division of the Ratepayer Advocate, filed June 5, 2006; sponsored declaration with Sarah M. Bosley and Timothy E. Howington on behalf of the New Jersey Division of Rate Counsel, October 3, 2006.

In the Matter of Jurisdictional Separations and Referral to the Federal-State Joint Board, CC Docket No. 80-286, sponsored affidavit on behalf of the National Association of State Utility Consumer Advocates and the New Jersey Division of Rate Counsel, filed August 22, 2006.

In the Matter of the Board Investigation Regarding the Reclassification of Competitive Local Exchange Carrier (CLEC) Services as Competitive, New Jersey Board of Public Utilities Docket No. TX06120841, on behalf of the New Jersey Division of Rate Counsel, filed January 7, 2007, January 30, 2007, and February 20, 2007.

Verizon New England Inc., Bell Atlantic Communications, Inc., NYNEX Long Distance Company, Verizon Select Services Inc. and FairPoint Communications, Inc. Joint Petition for Authority to Transfer Assets and Franchise to FairPoint Communications, Inc., New Hampshire Public Utilities Commission Docket No. DT-07-011, on behalf of the Office of Consumer Advocate, filed August 1, 2007, cross-examined November 1, 2007.

In the Matter of the Commission's Investigation into Verizon Maryland, Inc.'s Affiliate Relationships, Maryland Public Service Commission Case No. 9120, on behalf of the Office of People's Counsel, filed October 29, 2007 and November 19, 2007, cross-examined November 28, 2007.

In the Matter of the Board Investigation Regarding the Reclassification of Incumbent Local Exchange Carrier (ILEC) Services as Competitive, New Jersey Board of Public Utilities Docket No. TX07110873, on behalf of the New Jersey Division of Rate Counsel, filed December 14, 2007, January 10, 2008.

In the Matter of Verizon Washington, DC Inc.'s Price Cap Plan 2007 for the Provision of Local Telecommunications Services in the District of Columbia, Public Service Commission of the District of Columbia Formal Case No. 1057, on behalf of the District of Columbia Office of People's Counsel, filed December 20, 2007, January 31, 2008.

In re Possible Extension of Board Jurisdiction over Single Line Flat-Rated Residential and Business Rates for Local Exchange Carriers, Iowa Utilities Board Docket No. INU-08-1, on behalf of Iowa Office of Consumer Advocate, filed March 17, 2008, April 28, 2008, cross-examined May 22, 2008.

Petition of the Office of Consumer Counsel for Enforcement of Quality of Service Standards for the Southern New England Telephone Company d/b/a AT&T Connecticut, Connecticut Department of Public Utility Control Docket No. 08-07-15, on behalf of the Communications Workers of America, Local 1298, filed January 30, 2009, cross-examined February 25, 2009.

In the Matter of the Board's Investigation and Review of Local Exchange Carrier Intrastate Exchange Access Rates, New Jersey Board of Public Utilities Docket No. TX08090830, on behalf of the New Jersey Division of Rate Counsel, filed February 13, 2009, April 20, 2009, and June 22, 2009, cross-examined October 20, 2009.

In the Matter of Appropriate Forms Of Regulating Telephone Companies, Maryland Public Service Commission, Case No. 9133, on behalf of the Communications Workers of America, filed June 1, 2009, October 16, 2009, October 30, 2009, cross-examined November 4, 2009.

Petition of the Office of Consumer Counsel for Enforcement of Quality of Service Standards for the Southern New England Telephone Company d/b/a AT&T Connecticut, Connecticut Department of Public Utility Control Docket No. 08-07-15PH02, on behalf of the Communications Workers of America, Local 1298, filed September 21, 2009.

In the Matter of the Application of Frontier Communications Corporation, New Communications Holdings, Inc. and Verizon Communications Inc. for Consent and Approval of a Change in Control, Public Utilities Commission of Ohio Case No. 09-454-TP-ACO, on behalf of the Communications Workers of America and International Brotherhood of Electrical Workers, Local 986, filed October 14, 2009.

Frontier Communications Corporation, Verizon Communications, Inc., Verizon North Inc., Verizon South Inc., New Communications of the Carolinas, Inc. Joint Application for the approval of a Reorganization, Illinois Commerce Commission Docket No. 09-0268, on behalf of the International Brotherhood of Electrical Workers, Locals 21, 51, and 702, filed October 20, 2009.

In re Verizon Service Quality in Western Massachusetts, Massachusetts Department of Telecommunications and Cable D.T.C. 09-1, on behalf of the Office of the Attorney General, filed November 9, 2009, February 24, 2010, cross-examined March 31, 2010, April 1, 2010, May 21, 2010.

Joint Application of Frontier Communications Corporation and Verizon West Virginia Inc. and certain affiliates for approval of the transfer of Verizon's local exchange and long distance business in West Virginia to companies to be owned and controlled by Frontier Communications Corporation, Public Service Commission of West Virginia Case No. 09-0871-T-PC, on behalf of the Communications Workers of America, AFL-CIO, filed November 16, 2009.

In the Matter of Qwest Communications Company and CenturyTel, Inc. for Approval of Control of Qwest Communications Company LLC, New Jersey Board of Public Utilities Docket No. TM10050343, on behalf of the New Jersey Division of Rate Counsel, filed September 23, 2010.

Petition of the North American Numbering Plan Administrator on behalf of the Pennsylvania Telecommunications Industry for Approval of Numbering Plan Area Relief Planning for the 814 NPA, Pennsylvania Public Utility Commission Docket No. P-2009-2112925, on behalf of the Pennsylvania Office of Consumer Advocate, filed May 23, 2011, cross-examined May 24, 2011.

In re Applications of AT&T, Inc. and Deutsche Telekom AG for Consent to the Transfer of Control of the Licenses and Authorizations Held by T-Mobile USA, Inc. and its Subsidiaries to AT&T Inc., WT Docket No. 11-65, File Nos. 0004669383, *et al.*, sponsored declarations on behalf of the New Jersey Division of Rate Counsel, May 31, 2011, and June 20, 2011.

In the Matter of Application of Cellco Partnership d/b/a Verizon Wireless and SpectrumCo LLC For Consent To Assign Licenses and Application of Cellco Partnership d/b/a Verizon Wireless and Cox TMI Wireless, LLC For Consent To Assign Licenses, WT Docket No. 12-4, sponsored declarations on behalf of the New Jersey Division of Rate Counsel, filed February 17, 2012, and March 26, 2012.

In the Matter of the Board's Investigation Regarding the Reclassification of Incumbent Local Exchange Carrier (ILEC) Services as Competitive – Phase II, New Jersey Board of Public Utilities Docket No. TX11090570, on behalf of the New Jersey Division of Rate Counsel, filed February 24, 2012, April 27, 2012, and June 11, 2012, cross-examined July 17, 2012.

Petition of David K. Ebersole, Jr. and the Office of Consumer Advocate for a Declaratory Order that Verizon Pennsylvania Inc. Has Not Met Its Legal Obligation to the Greensburg Bona Fide Retail Request Group Pursuant to Its Chapter 30 Plan, Pennsylvania Public Utility Commission Docket No. P-2012-2323362, affidavit on behalf of the Pennsylvania Office of Consumer Advocate, September 6, 2012.

In the Matter of Commission Consideration Of Effective Competition Areas and the Classification of Basic Local Exchange Service, Colorado Public Utilities Commission Proceeding Number 13M-0422T, Pursuant to 4 CCR 723-2-2213, answer testimony on behalf of AARP, December 6, 2013, cross-examined January 7, 2014.

PURA Establishment of Rules for Electric Suppliers and EDCs Concerning Operations and Marketing in the Electric Retail Market, Connecticut Public Utilities Regulatory Authority Docket No. 13-07-18, testimony and supplemental testimony on behalf of the Connecticut Office of Consumer Counsel, March 10, 2014 and March 17, 2014, cross-examined March 27, 2014.

Joint Application of Frontier Communications Corporation and AT&T Inc. for Approval of a Change in Control, Connecticut Public Utilities Regulatory Authority Docket No. 14-01-46, testimony on behalf of the Connecticut Office of Consumer Counsel, May 23, 2014, cross-examined June 30, 2014.

The Utility Reform Network, Complainant vs. Pacific Bell Telephone Company D/B/A AT&T California (U1001C); AT&T Communications of California, Inc. (U5002C), Defendants, California Public Utilities Commission Case No. 13-12-005, Complaint of the Utility Reform Network Regarding Basic Service Rates of AT&T California (Public Utilities Code Section 1702; Commission Rule of Practice and Procedure 4.1(b)), December 6, 2013, initial and rebuttal testimony on behalf of the Utility Reform Network (TURN), August 22, 2014 and October 3, 2014.

Joint Petition of Verizon Pennsylvania LLC and Verizon North LLC for Competitive Classification of all Retail Services in Certain Geographic Areas, and for a Waiver of Regulation for Competitive Services, Pennsylvania PUC Docket Nos. P-2014-2446303 and P-2014-2446304, direct and surrebuttal testimony on behalf of Communications Workers of America and the International Brotherhood of Electrical Workers, November 14, 2014, and December 12, 2014, cross-examined December 16, 2014.

Joint Application of Comcast Corporation, Time Warner Cable Inc., Time Warner Cable Information Services (California), LLC, and Bright House Networks Information Services (California), LLC for Expedited Approval of Indirect Transfer of Control of Time Warner Cable Information Services (California), LLC, (U-68740-C); and The Pro Forma Transfer of Control of Bright House Networks Information Services (California), LLC (U-6955-C) to Comcast Corporation, Pursuant to Public Utilities Code Section 854(A), Application No. 14-04-013 (filed April 11, 2014), initial and reply testimony on behalf of the Utility Reform Network (TURN), December 3, 2014 and December 10, 2014.

In the Matter of the Joint Application of Frontier Communications Corporation, Frontier Communications of America, Inc. (U 5429 C), Verizon California Inc. (U 1002 C), Verizon Long Distance, LLC (U 5732), and Newco West Holdings LLC for Approval of Transfer of Control Over Verizon California Inc. and Related Approval of Transfer of Assets and Certifications (Filed March 18, 2015), Application 15-03-005, reply and supplemental testimony on behalf of the Utility Reform Network (TURN), July 28, 2015 and September 11, 2015.

Order Instituting Investigation to Assess the State of Competition Among Telecommunications Providers in California, and to Consider and Resolve Limited Rehearing of Decision (D.) 08-09-042, California Public Utilities Commission Investigation 15-11-007 (November 5, 2015), testimony on behalf of the Utility Reform Network (TURN), March 15, 2016, June 1, 2016 and July 15, 2016; participated in Expert Panel, July 20, 2016.

Petition of Communications Workers of America for a Public, On-the-Record Commission Investigation of the Safety, Adequacy, and Reasonableness of Service Provided by Verizon Pennsylvania, LLC, Pennsylvania PUC Docket No. P-2015-2509336, direct testimony on behalf of Communications Workers of America, September 29, 2016.

Petition of the Maryland Office of People's Counsel for an Investigation into Verizon Maryland's Provision of Basic Local Phone Service Over Copper or Fiber Networks, affidavit on behalf of the Maryland Office of People's Counsel, January 13, 2017.

In re: Deregulation of Local Exchange Service, Iowa Utilities Board Docket No. INU-2016-0001,

testimony on behalf of Office of Consumer Advocate, February 17, 2017 and April 21, 2017, cross-examined May 23, 2017.

Proceeding on Motion of the Commission to Consider the Adequacy of Verizon New York Inc.'s Retail Service Quality Processes and Programs, New York Public Service Commission Case 16-C-0122, testimony on behalf of the Communications Workers of America, March 24, 2017.

In the Matter of Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment, WC Docket No. 17-84, Notice of Proposed Rulemaking, Notice of Inquiry, and Request for Comment, FCC Rcd 3266, (rel. Apr. 21, 2017), declaration on behalf of the National Association of State Utility Consumer Advocates, Maine Office of the Public Advocate, Maryland Office of People's Counsel ("OPC"), New Jersey Division of Rate Counsel, Office of the Ohio Consumers' Counsel, Pennsylvania Office of Consumer Advocate and The Utility Reform Network, June 15, 2017.

In the Matter of the Petition of Atlantic City Electric Company for Approval of Amendments to its Tariff to Provide For an Increase in Rates and Charges for Electric Service Pursuant to N.J.S.A. 48:2-21 and N.J.S.A. 48:2-21.1, and for Other Appropriate Relief (2017), New Jersey Board of Public Utilities Docket No. ER 17030308, testimony on behalf of New Jersey Division of Rate Counsel, August 1, 2017.

In the Matter of the Application of Qwest Corporation d/b/a CenturyLink QC for Determination that Basic Residential and Business Services Are Competitive Throughout All of CenturyLink QC's Zone 2 and Zone 3 Service Areas, Wyoming Public Service Commission Docket No. 700000-1644-TA-17, testimony on behalf of AARP, November 15, 2017.

Testimony before State Legislatures:

Testified on September 24, 1997, before the Massachusetts State Legislature Joint Committee on Government Regulations regarding House Bill 4937 (concerning area codes).

Testified on March 2, 2010, before the Maryland State Legislature Senate Finance Committee regarding Senate Bill 677 (concerning Telephone Landline Sale Bill).

Testified on March 11, 2010, before the Maryland State Legislature House Economic Matters Committee regarding House Bill 937 (concerning Telephone Landline Sale Bill).

Testified on June 25, 2013, on behalf of AARP, before the Ohio Select Committee on Telecommunications Regulatory Reform (regarding SB 162).

Testified on December 12, 2013, on behalf of AARP, before the Pennsylvania House Consumer Affairs Committee (regarding House Bill 1608).

Reports/Publications/Presentations

Expert reports in tax matters, reports and publications on telecommunications and energy policy in trade journals, and presentations at industry associations and conferences include the following:

Expert reports in tax matters:

Iowa Department of Inspections and Appeals, In the Matter of Cable One, Inc. v. Iowa Department of Revenue, DIA 10DORFC014, SBTR Nos. 899 and 903, Property Tax Assessment, Expert Report, January 21, 2011 (on behalf of the Iowa Department of Revenue), deposited February 9, 2011.

Level 3 Communications, LLC. v. Arizona Department of Revenue; Coshise County; Graham County; Greenlee County; La Paz County; Maricopa County; Mohave County; Pima Count, Pinal County and Yuma County, Superior Court of the State of Arizona in the Arizona Tax Court, No. TX-2007-000594, Expert Report, May 20, 2011 (on behalf of the Arizona Department of Revenue), deposited July 14, 2011; cross-examined August 24, 2012.

Bresnan Communications, LLC, Plaintiff, v. State of Montana Department of Revenue, Defendant, Cause No. DV-10-1312, July 5, 2011(on behalf of the Montana Department of Revenue), deposited July 29, 2011.

Verizon California Inc., Plaintiff, v. California Board of Equalization, Defendants, December 18, 2015 (on behalf of the California Board of Equalization), deposited January 20, 2016.

Reports and Publications:

“Analysis of the Individual Residential Electric Supply Market in Massachusetts: Are Consumers Benefiting from Competition?” (with Sarah M. Bosley), prepared for the Massachusetts Office of the Attorney General, March 29, 2018.

“The Cable-Telco Duopoly’s Deployment of New Jersey’s Information Infrastructure: Establishing Accountability” (with Sarah M. Bosley and Timothy E. Howington). Prepared for the Public Advocate of New Jersey, January 19, 2007.

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“Where Have All the Numbers Gone? (Second Edition): Rescuing the North American Numbering Plan from Mismanagement and Premature Exhaust” (with Dr. Lee L. Selwyn). Prepared for the Ad Hoc Telecommunications Users Committee, June 2000.

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“Telephone Numbering: Establishing a Policy for the District of Columbia to Promote Economic Development” (with Douglas S. Williams and Sarah C. Bosley). Prepared for the District of Columbia Office of People’s Counsel, February 2000 (submitted to Eric W. Price, Deputy Mayor, April 6, 2000).

“The Use of Cost Proxy Models to Make Implicit Support Explicit, Assessing the BCPM and the Hatfield Model 3.1” (with Dr. Lee L. Selwyn). Prepared for the National Cable Television Association, submitted in FCC CC Docket No. 96-45, March 1997.

“The Use of Forward-Looking Economic Cost Proxy Models” (with Dr. Lee L. Selwyn). Prepared for the

National Cable Television Association, submitted in FCC Docket No. CCB/CPB 97-2, February 1997.

“Continuing Evaluation of Cost Proxy Models for Sizing the Universal Service Fund, Analysis of the Similarities and Differences between the Hatfield Model and the BCM2” (with Dr. Lee L. Selwyn). Prepared for the National Cable Television Association, submitted in FCC CC Docket No. 96-45, October 1996.

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“The Phone Wars and How to Win Them” (with Helen E. Golding). *Planning*, July 1996 (Volume 62, Number 7).

“The BCM Debate, A Further Discussion” (with Dr. Lee L. Selwyn and Helen E. Golding). Prepared for the National Cable Television Association, submitted in FCC CC Docket No. 96-45, May 1996.

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“Funding Universal Service: Maximizing Penetration and Efficiency in a Competitive Local Service Environment” (with Dr. Lee L. Selwyn). Prepared for Time Warner Communications, Inc., October 1995.

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“ISDN Rate-Setting in Massachusetts.” *Business Communications Review*, June 1992 (Volume 22, No. 6).

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“Evaluation of Economic Development and Energy Program in Lawrence, Massachusetts.” (with Richard Innes). Prepared for U.S. Department of Energy, August, 1982.

“Energy Efficiency in New England’s Rental Housing.” New England Regional Commission, 1981.

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Presentations:

“The Battle for Net Neutrality,” lecture in “Methods of Policy Analysis,” MIT Department of Urban Studies & Planning, May 7, 2018.

“Discussion of Massachusetts Report,” Presentation to Nevada Governor’s Committee on Energy Choice, Technical Working Group on Consumer Protection, April 20, 2018.

“Back to Basics: What Specific Consumer Protections Are Still Needed in Telecommunications Regulation?,” Presentation at the Mid-Atlantic Conference of Regulatory Utilities Commissioners 21st Annual Education Conference, Williamsburg, Virginia, June 23, 2016.

“The Three Rs: The Need for Reliable, Redundant and Resilient Telecommunications in the New Age,” 2015 National Association of State Utility Consumer Advocates Annual Meeting, Austin, Texas, November 9, 2015.

“Telecommunications in Transition: Advocating for 50+ Consumers in the Brave New World,” Presentation at AARP’s State Advocacy and Strategy Integration conference on “State Regulatory and Legislative Landscapes,” Portland, Oregon, September 16, 2014.

“What the IP Transition Means for Consumers and a Ubiquitous, Affordable, Reliable National Communications System,” 2014 National Association of State Utility Consumer Advocates Mid-Year Meeting, Santa Fe, New Mexico, June 2, 2014.

“For Sale - The National Wireline Communications System,” 2014 National Association of State Utility Consumer Advocates Mid-Year Meeting, Santa Fe, New Mexico, June 3, 2014.

“FCC Review of Verizon’s Section 214 Application and Its Implications for the IP Transition,” NASUCA Annual Meeting, Orlando, Florida, November 19, 2013.

“What gets lost in the IP Transition?” NASUCA Annual Meeting, Orlando, Florida, November 18, 2013.

“Service Outage and Restoration,” NARUC Staff panel, NARUC 125th Annual Meeting, Orlando, Florida, November 16, 2013.

“You Don’t Know What You’ve Got Til It’s Gone – Utilities Consumer Protections,” Presentation at AARP’s State Advocacy and Strategy Integration conference on “Fighting for Consumers,” Minneapolis, Minnesota, September 19, 2013.

“Protecting Consumers’ Assets and Income,” Presentation at the National Association of Latino Elected and Appointed Officials Policy Institute on “The Changing Dynamics of the Latino 50+ Population,” Albuquerque, New Mexico, August 25, 2013.

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“Trials for the Transition from TDM to IP,” Presentation at the New England Conference of Public Utilities Commissioners 66th Annual Symposium, Groton, Connecticut, June 11, 2013.

“The 1996 Telecom Act Today: Universal, affordable, reliable access to telecommunications for all. Does the federal-state partnership still exist?” AARP Telecommunications Summit, Pew Center for Charitable Trusts, Washington, DC, July 18, 2012.

“Issues and Ramifications Arising From the FCC’s Connect America Fund Order Affecting High Cost Universal Service and Intercarrier Compensation,” 2012 National Association of State Utility Consumer Advocates Mid-Year Meeting, Charleston, South Carolina, June 24, 2012.

“FCC Lifeline/Link Up Reform Order – What will it mean for regulators, consumers, and companies?” Presentation at the Mid-America Regulatory Conference, Des Moines, Iowa, June 11, 2012.

“Improving the Separations Process: Consumer Impact,” panelist for Federal-State Joint Board on Separations on behalf of the National Association of State Utility Consumer Advocates and the New Jersey Division of Rate Counsel, September 24, 2010, CC Docket No. 80-286, Washington, DC.

“The Evolving Role of State Regulation in a Changing Industry,” Presentation at the New England Conference of Public Utilities Commissioners 63th Annual Symposium, Brewster, Massachusetts, May 17, 2010.

“Broadband: Where it is, where it ain’t, and where it oughta be,” June 29, 2009, National Association of State Utility Consumer Advocates Mid-Year Meeting, Boston, Massachusetts.

“Deregulation and Price Increases: The Hallmarks of a Competitive Market?” November 18, 2008; 2008

National Association of State Utility Consumer Advocates Annual Meeting, New Orleans, Louisiana.

“Forbearance: What is it? What’s wrong with it? How to fix it,” November 12, 2007; “Net Neutrality – Not Dead Yet!,” November 13, 2007; 2007 National Association of State Utility Consumer Advocates Annual Meeting, Anaheim, California.

“FCC’s Regulatory Stance – Consumer Advocates’ Role More Important Than Ever,” 2005 National Association of State Utility Consumer Advocates Winter Meeting, March 2, 2005, Washington, D.C.

“Impact of Federal Regulatory Developments on Consumers and Consumers’ Impact on Regulatory Developments,” Presentation for the Washington Attorney General’s Office, Seattle, Washington, May 27, 2003.

“The Finances of Local Competition” Presentation at the New England Conference of Public Utilities Commissioners 54th Annual Symposium, Mystic, Connecticut, May 21, 2001.

“Facilities-Based Competition” Presentation at the New England Conference of Public Utilities Commissioners 52nd Annual Symposium, Bretton Woods, New Hampshire, May 24, 1999.

“Exploring Solutions for Number Exhaust on the State Level” and “A Forum for Clarification and Dialogue on Numbering Ideas,” ICM Conference on Number Resource Optimization, New Orleans, Louisiana, December 10-11, 1998.

“Telecommunications Mergers: Impact on Consumers,” AARP Legislative Council 1998 Roundtable Meeting, Washington, D.C., November 18, 1998.

“Consumer Perspectives on Incumbent Local Exchange Carrier Mergers,” National Association of Regulatory Utility Commissioners 110th Annual Convention, Orlando, Florida, November 11, 1998.

Federal Communications Commission En Banc Hearing on “Proposals to Revised the Methodology for Determining Universal Service Support,” CC Docket Nos. 96-45 and 97-160,” June 8, 1998, panelist.

“Universal Service: Real World Applications,” 1997 National Association of State Utility Consumer Advocates Mid-Year Meeting, Charleston, South Carolina, June 9, 1997.

“Modeling operating and support expenses” and “Modeling capital expenses,” panelist for Federal-State Joint Board on Universal Service Staff Workshops on Proxy Cost Models, January 14-15, 1997, CC Docket 96-45.

“Evaluating the BCM2: An Assessment of Its Strengths and Weaknesses,” presentation to the AT&T Cost Team (with Michael J. DeWinter), December 4, 1996.

“Interpreting the Telecommunications Act of 1996 Mandate for the Deployment of Advanced Telecommunications Services in a Fiscally Responsible and Fully Informed Manner” (with Helen E. Golding), *Proceedings of the Tenth NARUC Biennial Regulatory Information Conference*, Volume 3, September 11-13, 1996.

“Making Adjustments to the BCM2.” Presentation to the Staff of the Federal-State Joint Board on Universal Service, September 16, 1996.

“Converging on a Model: An Examination of Updated Benchmark Cost Models and their Use in Support of Universal Service Funding.” Presentation to the National Association of Regulatory Utility Commissioners Summer Committee Meetings, July 22, 1996.

“ETI's Corrections to and Sensitivity Analyses of the Benchmark Cost Model.” Presentation to the Staff of the Federal-State Joint Board on Universal Service,” May 30, 1996.

“Redefining Universal Service.” Presentation at the *Telecommunications Reports* conference on “Redefining Universal Service for a Future Competitive Environment,” Washington, D.C., January 18, 1996.

“Funding Universal Service: Maximizing Penetration and Efficiency in a Competitive Local Service Environment,” (with Lee L. Selwyn, under the direction of Donald Shephard), a Time Warner Communications Policy White Paper, September 1995.

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“New Frontiers in Regulation.” Presentation to the New England Women Economists Association, December 12, 1995.

“Local Cable and Telco Markets.” Presentation at the New England Conference of Public Utilities Commissioners 46th Annual Symposium, Dixville Notch, New Hampshire, June 29, 1993.

“Relationship of Depreciation to State Infrastructure Modernization.” Presentation at the *Telecommunications Reports* conference on “Telecommunications Depreciation,” Washington, D.C., May 6, 1993.

“Crafting a Rational Path to the Information Age.” Presentation at the State of New Hampshire's conference on the “Twenty-First Century Telecommunications Infrastructure,” Durham, New Hampshire, April 1993.

“The Political Economics of ISDN,” presentation at the John F. Kennedy School of Government seminar on “Getting from Here to There: Building an Information Infrastructure in Massachusetts,” March 1993.

“The New Competitive Landscape: Collocation in Massachusetts.” Presentation at TeleStrategies Conference on Local Exchange Competition, Washington, D.C., November 1991.

“Telecommunications Policy Developments in Massachusetts.” Presentations to the Boston Area Telecommunications Association, October 1989; March 1990; November 1990; June 1992. Presentation to the New England Telecommunications Association, March 1990.

“How to Capitalize on the New Tariffs.” Presentation at Communications Managers Association conference, 1988.

Advisor to:

United States General Accounting Office Report to the Subcommittee on Antitrust, Business Rights and Competition, Committee on the Judiciary, U.S. Senate, *Characteristics and Competitiveness of the Internet Backbone Market*, GAO-02-16, October 2001.