

Coleman Bazelon

PRINCIPAL

Practice Co-Leader: Intellectual Property

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Dr. Bazelon is an economic expert with much of his practice focused in regulation, strategy, and valuation in the wireless, wireline, and video sectors. His practice encompasses the modern information infrastructure and the content that fills it. He has consulted and testified on behalf of clients in numerous telecommunications matters, including wireless license auctions and spectrum management; internet matters, including the broadband and applications markets; media matters, including in the programming and copyright markets; entertainment, including analyses of gaming markets; and sports, advising on economic matters related to baseball, Australian rules football, and the Olympics.

In addition to regulatory, policy, and valuation analyses, Dr. Bazelon's engagements have also focused on a range of issues within the intellectual property, including serving as an expert in patent and ITC matters, and competition areas. Throughout his career, Dr. Bazelon has had extensive experience with spectrum license auctions as well. He advises on and evaluates auction designs and regularly serves as an auction advisor for bidders in spectrum license auctions. Dr. Bazelon frequently advises regulatory and legislative bodies, including the US Federal Communications Commission (FCC) and the US Congress.

Prior to joining Brattle, Dr. Bazelon was a Vice President at an international economic and strategy-consulting firm. During that time, he expanded the firm's telecommunications practice area. He also served as a Principal Analyst in the Microeconomic and Financial Studies Division of the Congressional Budget Office (CBO) where he researched reforms of radio spectrum management; estimated the budgetary and private sector impacts of spectrum-related legislative proposals; and advised on auction design and privatization issues for all research at the CBO.

EDUCATION

- **University of California, Berkeley**
PhD and MS in Agricultural and Resource Economics

- **London School of Economics**
Diploma in Economics
 - **Wesleyan University**
College of Social Studies; BA
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PROFESSIONAL EXPERIENCE

- **The Brattle Group (2007–Present)**
Principal
 - **Analysis Group (2001–2007)**
Vice President
 - **Congressional Budget Office (1995–2001)**
Principal Analyst
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EXPERT DESIGNATIONS

- Finesse Wireless LLC, Plaintiffs, vs. AT&T Mobility LLC, Defendant, and Nokia of America Corporation, Intervenor, United States District Court, Eastern District of Texas, Marshall Division, Case No. 2:21-CV-00316-JRG
 - Report (August 23, 2022)
 - Deposition (October 6, 2022)
 - Supplemental Report (December 12, 2022)
 - Testified (January 10, 2023)
- *In the Matter of Certain Knitted Footwear*, United States International Trade Commission, Investigation No. 337-TA-1289 (Judge Monica Bhattacharyya)
 - Report (July 11, 2022)
 - Report (July 28, 2022)

- VTX COMMUNICATIONS, LLC. et al., Plaintiffs, vs. AT&T Inc. et al., Defendants, United States District Court, Southern District of Texas, McAllen Division, Civil Action No.: 7:19-CV-00269
 - Report (May 11, 2022)
 - Reply Report (August 17, 2022)
 - Deposition (October 20, 2022)
- *In the Matter of Certain Replacement Automotive Lamps II*, United States International Trade Commission, Investigation No. 337-TA-1292 (Chief Judge Clark S. Cheney)
 - Report (March 18, 2022)
 - Deposition (March 31, 2022)
 - Testified (April 20, 2022)
 - Report (June 7, 2022)
 - Deposition (June 19, 2022)
 - Testified (August 22, 2022)
- *In the Matter of Certain Replacement Automotive Lamps*, United States International Trade Commission, Investigation No. 337-TA-1291 (Chief Judge Clark S. Cheney)
 - Report (March 18, 2022)
 - Deposition (March 31, 2022)
 - Testified (April 20, 2022)
 - Report (June 7, 2022)
 - Deposition (June 19, 2022)
 - Testified (August 22, 2022)
- *In the Matter of Certain Silicon Photovoltaic Cells and Modules with Nanostructures, and Products Containing the Same*, United States International Trade Commission, Investigation No. 337-TA-1271 (Judge David P. Shaw)
 - Report (January 5, 2022)

- Deposition (February 11, 2022)
 - Testified (April 7, 2022)
- *United States of America v. Daryl Bank, et al., Defendants*, United States District Court for the Eastern District of Virginia, Criminal Case No. 2:19-CR-47
 - Report (November 1, 2021)
 - Testified (February 14, 2022)
- *In Re: Marriott International Customer Data Security Breach Litigation*, United States District Court for the District of Maryland, Southern Division, Case No. 8:19-CV-0654
 - Report (August 27, 2021)
 - Reply Report (November 1, 2021)
 - Deposition (November 15, 2021)
- *In the Matter of Certain Routers, Access Points, Controllers, Network Management Devices, Other Networking Products, and Hardware and Software Components Thereof*, United States International Trade Commission, Investigation No. 337-TA-1227 (Judge David P. Shaw)
 - Rebuttal Report (June 2, 2021)
 - Deposition (June 9, 2021)
 - Testified (July 29, 2021)
- *In the Matter of Certain Automated Storage and Retrieval Systems, Robots, and Components Thereof*, United States International Trade Commission, Investigation No. 337-TA-1228 (Chief Judge Charles E. Bullock)
 - Rebuttal Report (May 24, 2021)
 - Deposition (June 4, 2021)
 - Testified (August 6, 2021)
- *United States of America v. Daryl Bank, et al., Defendants*, United States District Court for the Eastern District of Virginia, Criminal Case No. 2:17-CR-126

- Report (March 16, 2021)
 - Testified (April 14, 2021)
- *Schraft's 2.0, LLC, Claimant v. Progyny, Inc., Respondent*, AAA Case No. 01-19-0000-1248
 - Report (April 20, 2020)
 - Deposition (June 8, 2020)
 - Testified (August 23, 2020)
- *Rovi Guides, Inc. and TiVo Solutions, Inc. v. BCE Inc., Bell Aliant Regional Communications Inc., Bell Canada, Bell MTS Inc. and NorthernTel L.P. and Rovi Guides, Inc. and TiVo Solutions, Inc. v. Telus Communications Company, Telus Communications Inc. and Telus Corporation*, Federal Court of Canada, Court File Nos. T-113-18 and T-206-18
 - Report (January 29, 2020)
 - Reply Report (May 12, 2020)
 - Affidavit (June 12, 2020)
 - Revised Reply Report (June 26, 2020)
 - Testified (July 22, 2020)
- *Rovi Guides, Inc. and TiVo Solutions Inc. v. Videotron Ltd.*, Federal Court of Canada, Court File No. T-921-17
 - Report (November 11, 2019)
 - Updated Report (January 10, 2020)
 - Reply Report (February 21, 2020)
 - Testified (May 27-28, 2020)
- *In the Matter of Kellie Pearson and The Law Offices of Mark Booker, on behalf of themselves and those similarly situated, v. Thomas M. Hodgson, In His Official Capacity as Sheriff Of Bristol County and Securus Technologies, Inc.*, United States District Court, District of Massachusetts, Case No. 1:18-cv-11130
 - Declaration (November 7, 2019)

- *In the Matter of Vertical Ventures II, LLC, et al., v. Smartcomm LLC, et al., and Smartcomm License Services, LLC, et al., v. Carla Marshall, an individual*, Superior Court of Arizona County of Maricopa, No. CV2015-009078.
 - Declaration (December 6, 2018)
- *In the matter of Premera Blue Cross Customer Data Security Breach Litigation*, United States District Court For the Region of Oregon, Case No. 3:15-md-2633-SI.
 - Declaration (August 3, 2018)
 - Deposition (September 10, 2018)
- *In the Matter of Certain Solid State Storage Drives, Stacked Electronics Components, and Products Containing Same*, United States International Trade Commission, Investigation No. 337-TA-1097 (Judge Dee Lord)
 - Deposition (March 2, 2018)
 - Testified (March 22, 2018)
- *In the Matter of ATK Space Systems, Inc., et al., vs. U.S. Space LLC*, Circuit Court of Loudon County, Virginia, Case No. CL-101847
 - Expert Report (September 8, 2017)
 - Rebuttal Report (October 20, 2017)
 - Second Rebuttal Report (November 10, 2017)
 - Deposition (December 7, 2017)
 - Testified (February 16, 2018)
- *In the Matter of Vertical Ventures II, LLC; Vertical Ventures V, LLC; LWH Network, LLC; L, W & C Network, LLC; and Spectrum Family 800, GP vs. Smartcomm, LLC; Smartcomm License Services, LLC; Smartcomm Management, LLC; Smartcomm Acquisitions, LLC; License Acquisitions, LLC; Big Wave Ventures, LLC; Spectrum Networks Group, LLC; M2M Spectrum Networks, LLC; Spectrum Acquisitions Group, LLC; Carlson Investment Group, LLC; Carole L. Downs; Barclay Knapp; and Joe Doe Transferees*, Superior Court of Arizona Maricopa County
 - Expert Report (March 24, 2017)
- *In the Matter of CC/Devas (Mauritius) Ltd., Devas Employees Mauritius Private Limited, and Telcom Devas Mauritius Limited*, Case No. PCA2013-09

- Expert Report (January 16, 2017)
- Second Expert Report (July 31, 2017)
- Third Expert Report (November 29, 2017)
- Fourth Expert Report (April 26, 2018)
- Testified (July 19-20, 2018)
- *In the Matter of Certain Beverage Brewing Capsules, Components Thereof, and Products Containing the Same*, United States International Trade Commission, Washington, DC, Investigation No. 337-TA-929 (Judge Theodore Essex)
 - Expert Enforcement Proceeding Report (November 2, 2016)
 - Deposition (November 18, 2016)
 - Testified (January 11, 2017)
- *In the Matter of Commonwealth of Virginia, ex rel. State Corporation Commission v. Daryl Gene Bank and Raeann Ann Gibson*, Commonwealth of Virginia State Corporation Commission Hearing Examiner, Case No. SEC-2015-00020
 - Expert Report (November 4, 2016)
- *In the Matter of Securities and Exchange Commission v. Janus Spectrum LLC; David Alcorn; David Alcorn Professional Corporation; Kent Maerki; Dominion Private Client Group, LLC; Janus Spectrum Group, LLC; Spectrum Management, LLC; Spectrum 100, LLC; Prime Spectrum, LLC; Prime Spectrum Management, LLC; Daryl G. Bank; Premier Spectrum Group, PMA; Bobby D. Jones; Innovative Group, PMA; Premier Group, PMA; Prosperity Group, PMA; Terry W. Johnson; and Raymon G. Chadwick, Jr.*, United States District Court, District of Arizona, Docket No. CV- 15-609-PHX-SMM
 - Expert Report (May 13, 2016)
 - Deposition (August 12, 2016)
 - Declaration (October 6, 2016)
- *In the Matter of ACP Master, Ltd., Aurelius Capital Mater, Ltd., and Aurelius Opportunities Fund II, LLC, v. Sprint Corporation, Sprint Communications, Inc., Erik Prusch, John W. Stanton, William R. Blessing, Bruce A. Chatterley, Mufit Cinali, Jose A. Collazo, Hossein Eslambolchi, Dennis S. Hersch, Brian P. McAndrews, Kathleen H. Rae, Theodore H. Schell, Jennifer L. Vogel, Slade Gorton, Starburst I, Inc., and Softbank Corp.*, Court of Chancery, State of Delaware, C.A. No. 8508-VCL and ACP Master, Ltd., Aurelius

Capital Mater, Ltd., and Aurelius Opportunities Fund II, LLC, v. Clearwire Corporation,
Court of Chancery, State of Delaware, C.A. No. 9042-VCL

- Expert Report (September 25, 2015)
- Rebuttal Report (October 23, 2015)
- Amended Expert Report (November 2, 2015)
- Deposition (November 10, 2015)
- Testified (November 14, 2016)
- *In the Matter of Certain Footwear Products*, United States International Trade Commission, Washington, DC, Investigation No. 337-TA-936 (Judge Bullock)
 - Designated as an expert (March 6, 2015)
- *In the Matter of Certain Non-Volatile Memory Chips and Products Containing the Same*, United States International Trade Commission, Washington, DC, Investigation No. 337 TA-922 (Judge Pender)
 - Designated as an expert (December 19, 2014)
- *In the Matter of Certain Non-Volatile Memory Chips and Products Containing the Same*, United States International Trade Commission, Washington, D.C., Investigation No. 337 TA-916 (Judge Lord and Judge Essex)
 - Expert Report on Public Interest (November 24, 2014)
 - Expert Rebuttal Report on Domestic Industry (December 15, 2014)
 - Expert Report on Remedy and Bonding (December 15, 2014)
 - Deposition (January 9, 2015)
- *Wynnchurch Capital Ltd.*, In the Court of Chancery of the State of Delaware, C.A. No. 10077-VCL
 - Expert Report (November 7, 2014)
 - Deposition (November 17, 2014)
- *In the Matter of Certain Wireless Devices, Including Mobile Phones And Tablets II*, United States International Trade Commission, Investigation No. 337-TA-905 (Judge Pender)
 - Designated as an expert (April 16, 2014)

- *State of Texas v. Eric H. Holder, Jr., in his Official Capacity as Attorney General of the United States*, United States District Court for the District of Columbia, Case No. 1:12-CV-00128
 - Expert Report (June 27, 2014)
 - Reply Report (August 15, 2014)
 - Deposition (August 20, 2014)
 - Testified (September 9, 2014)
 - Third Amended Reply Report (September 22, 2014)

- *In the Matter of the Companies' Creditors Arrangement Act, R.S.C. 1985, c. C-36, As Amended, and in the Matter of a Plan of Compromise or Arrangement of Nortel Networks Corporation, Nortel Networks Limited, Nortel Networks Global Corporation, Nortel Networks International Corporation and Nortel Networks Technology Corporation*, United States Bankruptcy Court for the District of Delaware, Case No. 09-10138 (KG)
 - Expert Report (January 24, 2014)
 - Rebuttal Expert Report (February 28, 2014)
 - Deposition (April 3, 2014; May 30, 2014)
 - Testified (June 2, 2014; June 5, 2014)

- *In the Matter of Sky Angel U.S., LLC, against Discovery Communications, LLC, Animal Planet, LLC*, United States District Court for the District of Maryland, Case No. 8:13-cv-00031-DKC
 - Expert Report (December 6, 2013)
 - Supplemental Report (January 31, 2014)
 - Deposition (February 14, 2014)
 - Testified (November 23, 2015)

- *In the matter of LT Game International Ltd., against Shuffle Master, Inc.*, United States District Court for the District of Nevada, Case No. 2:12-cv-01216-JAD-GWF
 - Expert Report (October 4, 2013)
 - Deposition (November 12, 2013)

- *In the Matter of Certain Electronic Devices, Including Wireless Communications Devices, Tablet Computers, Media Players, and Televisions, and Components Thereof*, United States International Trade Commission, Investigation No. 337-TA-862 (Judge Shaw)
 - Rebuttal Patent Infringement Testimony (July 5, 2013)
- *In the Matter of PTA-FLA, Inc., Daredevil, Inc., NTCH-WEST TENN., Inc., NTCH-WA, Inc., and Eric Steinmann against ZTE Corporation, and ZTE USA, Inc. Florida Arbitration*, Case No.: 50-494-T-00665-11
 - Expert Report (February 26, 2013)
 - Deposition (March 15, 2013)
 - Testified (August 30, 2013)
- *In re Petition for Suspension or Modification of Application of the Requirements of 47 U.S.C. § 251(b) and (c), pursuant to 47 U.S.C. § 251(f)(2) regarding Time Warner Cable Information Services (Maine) LLC's Request*, State of Maine Public Utilities Commission, Docket No. 2012-198, Docket No. 2012-218, Docket No. 2012-219, Docket No. 2012-220, Docket No. 2012-221
 - Direct Testimony (August 20, 2012)
 - Rebuttal Testimony (October 12, 2012)
 - Testified (October 23, 2012)
- *In the Matter of Certain Products Containing Interactive Program Guide and Parental Control Technology*, United States International Trade Commission, Investigation No. 337-TA-820 (Judge Bullock)
 - Designated as an expert (June 8, 2012)
- *Salsgiver Communications, Inc., Salsgiver Telecom, Inc., and Salsgiver Inc. v. Consolidated Communications Holdings, Inc., North Pittsburgh Systems, Inc., and North Pittsburgh Telephone Company, Inc.*, Court of Common Pleas, Allegheny County, Pennsylvania, Civil Division, No. GD 08-7616
 - Damages Analysis (February 27, 2009)
 - Deposition (April 3, 2012)
 - Expert Report (May 10, 2012)
 - Testified (May 6, 2015; May 12, 2015)
- *Gemalto PTE LTD and Gemplus S.A. v. Telecommunications Industry Association*, United States District Court for the Eastern District of Virginia, Alexandria Division, Case 1:08-cv-00776- LMB-TRJ

- Expert Report (November 6, 2008)
- Deposition (December 2, 2008)
- Supplemental Expert Report (December 16, 2008)
- *In re Complaint and request for emergency relief against Verizon Florida LLC for anticompetitive behavior in violation of Sections 364.01(4), 364.3381, and 364.10, F.S., and for failure to facilitate transfer of customers' numbers to Bright House Networks Information Services (Florida) LLC, and its affiliate, Bright House Networks, LLC, Florida Public Service Commission, Docket No. 070691-TP*
 - Direct Testimony (May 30, 2008)
 - Rebuttal Testimony (July 25, 2008)
 - Deposition (August 13, 2008)
- *Kenneth Stickrath, et al v. Globalstar, Inc.*, United States District Court for the Northern District of California, San Francisco Division, Case No. 07-CV-01941 THE
 - Declaration (April 25, 2008)
 - Deposition (June 11, 2008)
- *The Massachusetts Turnpike Authority v. Level 3 Communications, LLC, et al.*, The United States District Court for the District of Massachusetts, Civ. Act. No. 06-11816
 - Expert Report (November 12, 2007)
 - Rebuttal Report (December 17, 2007)
 - Deposition (January 21, 2008)
- *American Towers, Inc. v. Jackson & Campbell, P.C., et al.*, DC Superior Court, No. 003277-06
 - Deposition (March 19, 2009)
 - Affidavit (May 22, 2009)
- *Motorola, Inc. v. State of Mississippi Department of Information Technology Services and M/ACom, Inc.*, Chancery Court of Hinds County, Mississippi, Case No. G2006-2179 S/2
 - Testified (May 23, 2007)
- *Gulfside Casino Partnership v. Mississippi Riverboat Council, et al.*, United States District Court for the Southern District of Mississippi, Southern Division, Cause No. 1:07-CV-110-LG-JMR
 - Affidavit (May 4, 2007)

- Cable Merger before the FTC
 - Presented analysis to FTC staff (March 20, 2007)
- *Level 3 Communications, LLC v. City of St. Louis, Missouri*, United States District Court for the Eastern District of Missouri, Eastern Division, Consolidated Case No. 4:04-CV-871 CAS
 - Rebuttal Report (June 17, 2005)
 - Deposition (July 14, 2005)
- *Informed Communications Systems, Inc. v. Intelogistics Corp., d/b/a Prosodie Interactive*, United States District Court, Southern District of Florida, Miami Division, Case No.: 04-61245 CIV Huck/Turnoff
 - Affidavit (October 12, 2004)
- *Touch America, Inc. v. Qwest Communications International, Inc.*
 - Designated as an expert in Arbitration (June 2003)

EXPERT TESTIMONY & DECLARATIONS

- “Supplemental Expert Report of Dr. Coleman Bazelon on behalf of Finesse Wireless LLC,” Finesse Wireless LLC, Plaintiffs, vs. AT&T Mobility LLC, Defendant, and Nokia of America Corporation, Intervenor, United States District Court, Eastern District of Texas, Marshall Division, Case No. 2:21-CV-00316-JRG, December 12, 2022.
- “Expert Report of Dr. Coleman Bazelon on behalf of Finesse Wireless LLC,” Finesse Wireless LLC, Plaintiffs, vs. AT&T Mobility LLC, Defendant, and Nokia of America Corporation, Intervenor, United States District Court, Eastern District of Texas, Marshall Division, Case No. 2:21-CV-00316-JRG, August 23, 2022.
- “Reply Report of Dr. Coleman Bazelon,” VTX COMMUNICATIONS, LLC. et al., vs. AT&T Inc. et al., United States District Court, Southern District of Texas, McAllen Division, Civil Action No.: 7:19-CV-00269, August 17, 2022.
- Testimony of Coleman Bazelon before the United States Senate Committee on Commerce, Science and Transportation's Subcommittee on Communications, Media, and Broadband entitled “Future of Spectrum” August 2, 2022.

- “Expert Rebuttal Report of Coleman Bazelon, Ph.D. Regarding Domestic Industry,” *In the Matter of Certain Knitted Footwear*, United States International Trade Commission, Investigation No. 337-TA-1289, July 28, 2022.
- “Expert Report of Coleman Bazelon, Ph.D. Regarding Commercial Success,” *In the Matter of Certain Knitted Footwear*, United States International Trade Commission, Investigation No. 337-TA-1289, July 11, 2022.
- “Expert Report of Coleman Bazelon, Ph.D. Regarding Commercial Success,” *In the Matter of Certain Replacement Automotive Lamps II*, United States International Trade Commission, Investigation No. 337-TA-1292, June 7, 2022.
- “Expert Report of Coleman Bazelon, Ph.D. Regarding Commercial Success,” *In the Matter of Certain Replacement Automotive Lamps*, United States International Trade Commission, Investigation No. 337-TA-1291, June 7, 2022.
- “Expert Report of Dr. Coleman Bazelon,” *VTX COMMUNICATIONS, LLC. et al., vs. AT&T Inc. et al.*, United States District Court, Southern District of Texas, McAllen Division, Civil Action No.: 7:19-CV-00269, May 11, 2022.
- “Expert Report of Coleman Bazelon, Ph.D.,” *In the Matter of Certain Replacement Automotive Lamps II*, United States International Trade Commission, Investigation No. 337-TA-1292, March 18, 2022.
- “Expert Report of Coleman Bazelon, Ph.D.,” *In the Matter of Certain Replacement Automotive Lamps*, United States International Trade Commission, Investigation No. 337-TA-1291, March 18, 2022.
- “Expert Report of Coleman Bazelon, Ph.D.,” *In the Matter of Certain Silicon Photovoltaic Cells and Modules with Nanostructures, and Products Containing the Same*, United States International Trade Commission, Investigation No. 337-TA-1271, January 5, 2022.
- “Fixed IP-Based Networks and Service Quality,” with Paroma Sanyal, Prepared for the California Cable and Telecommunications Association, Reply of the California Cable and Telecommunications Association to Responses to Petition of the Public Advocates Office Rulemaking to Amend General Order 133-D to Establish Minimum Service Quality Standards for All Essential Communications Services, California Public Utility Commission, November 15, 2021.

- “Expert Report of Coleman Bazelon, Ph.D.,” *United States of America v. Daryl Bank, et al., Defendants*, United States District Court for the Eastern District of Virginia, Criminal Case No. 2:19-CR-47, November 1, 2021.
- “Reply Expert Report of Coleman Bazelon, Ph.D.,” *In Re: Marriott International Customer Data Security Breach Litigation*, United States District Court for the District of Maryland, Southern Division, Case No. 8:19-CV-0654, November 1, 2021.
- “Expert Report of Coleman Bazelon, Ph.D.,” *In Re: Marriott International Customer Data Security Breach Litigation*, United States District Court for the District of Maryland, Southern Division, Case No. 8:19-CV-0654, August 27, 2021.
- “Declaration of Coleman Bazelon and Paroma Sanyal,” Public Utilities Commission of the State of California, Order Instituting Rulemaking Regarding Broadband Infrastructure Deployment and to Support Service Providers in the State of California, Rulemaking 20-09-001, July 26, 2021.
- “Rebuttal Witness Statement of Dr. Coleman Bazelon,” In the Matter of Certain Routers, Access Points, Controllers, Network Management Devices, Other Networking Products, and Hardware and Software Components Thereof, United States International Trade Commission, Investigation No. 337-TA-1227, July 16, 2021.
- “Rebuttal Witness Statement of Dr. Coleman Bazelon,” In the Matter of *Certain Automated Storage and Retrieval Systems, Robots, and Components Thereof*, United States International Trade Commission, Investigation No. 337-TA-1228, July 1, 2021.
- “Expert Report of Coleman Bazelon, PhD,” *United States of America v. Daryl Bank, et al., Defendants*, United States District Court for the Eastern District of Virginia, Criminal Case No. 2:17-CR-126, March 16, 2021.
- “Revised Reply Expert Report of Coleman Bazelon,” *Rovi Guides, Inc. v. BCE Inc.* Federal Court, Canada, Court File No. T-113-18, June 26, 2020 and *Rovi Guides Inc. v. TELUS*, Federal Court, Canada, Court File No. T-206-18, June 26, 2020.
- “Affidavit of Coleman Bazelon,” *Rovi Guides, Inc. v. BCE Inc.* Federal Court, Canada, Court File No. T-113-18, June 12, 2020 and *Rovi Guides Inc. v. TELUS*, Federal Court, Canada, Court File No. T-206-18, June 12, 2020.

- “Reply Expert Report of Coleman Bazelon,” *Rovi Guides, Inc. v. BCE Inc.* Federal Court, Canada, Court File No. T-113-18, May 12, 2020 and *Rovi Guides Inc. v. TELUS*, Federal Court, Canada, Court File No. T-206-18, May 12, 2020.
- “Expert Rebuttal Report of Coleman Bazelon Submitted on Behalf of Progyny, Inc.,” *Schraft’s 2.0, LLC, Claimant v. Progyny, Inc., Respondent*, AAA Case No. 01-19-0000-1248, April 20, 2020.
- “Highly Confidential Reply Expert Report of Coleman Bazelon,” *Rovi Guides, Inc. v. Videotron Ltd.*, Federal Court, Canada, Court File No. T-921-17, February 21, 2020.
- “Expert Report of Coleman Bazelon,” *Rovi Guides, Inc. v. BCE Inc.*, Federal Court, Canada, Court File No. T-113-18, January 29, 2020 and *Rovi Guides Inc. v. TELUS*, Federal Court, Canada, Court File No. T-206-18, January 29, 2020.
- “Highly Confidential Expert Report of Coleman Bazelon,” *Rovi Guides, Inc. v. Videotron Ltd.*, Federal Court, Canada, Court File No. T-921-17, November 11, 2019, revised on January 10, 2020.
- “Declaration of Coleman Bazelon,” In the matter of Kellie Pearson and The Law Offices of Mark Booker, on behalf of themselves and those similarly situated, v. Thomas M. Hodgson, In His Official Capacity as Sheriff Of Bristol County and Securus Technologies, Inc., United States District Court, District of Massachusetts, Case No. 1:18-cv-11130, November 7, 2019.
- “Declaration of Coleman Bazelon, Ph.D.,” In the Matter of Vertical Ventures II, LLC, et al., v. Smartcomm LLC, et al., and Smartcomm License Services, LLC, et al., v. Carla Marshall, an individual, Superior Court of Arizona County of Maricopa, No. CV2015-009078, December 6, 2018.
- “Declaration of Dr. Coleman Bazelon in Support of Plaintiff’s Motion for Class Certification,” In the matter of *Premiera Blue Cross Customer Data Security Breach Litigation*, Case No. 3:15-md-2633-SI, August 3, 2018.
- “Fourth Expert Report of Dr. Coleman Bazelon,” In the Matter of CC/Devas (Mauritius) Ltd., Devas Employees Mauritius Private Limited, and Telcom Devas Mauritius Limited, Case No. PCA2013-09, April 26, 2018.
- “Witness Statement of Dr. Coleman Bazelon,” In the Matter of *Certain Solid State Storage Drives, Stacked Electronics Components, and Products Containing Same*, United States

International Trade Commission, Washington, DC, Investigation No. 337-TA-1097, March 2, 2018.

- “Third Expert Report of Dr. Coleman Bazelon,” In the Matter of *CC/Devas (Mauritius) Ltd., Devas Employees Mauritius Private Limited, and Telcom Devas Mauritius Limited*, Case No. PCA2013-09, November 29, 2017.
- “Testimony of Coleman Bazelon before the U.S. House of Representatives, Committee on Energy and Commerce, Subcommittee on Communications and Technology,” November 16, 2017. (5G Spectrum)
- “Second Rebuttal Report – Reply to the Expert Report of J. Armand Musey in Opposition of Coleman Bazelon,” In the Matter of *ATK Space Systems, Inc., et al., vs. U.S. Space LLC*, Circuit Court of Loudon County, Virginia, Case No. CL-101847, November 10, 2017.
- “Rebuttal Report of Coleman Bazelon, Ph.D.,” In the Matter of *ATK Space Systems, Inc., et al., vs. U.S. Space LLC*, Circuit Court of Loudon County, Virginia, Case No. CL-101847, October 20, 2017.
- “Expert Report of Coleman Bazelon, Ph.D.,” In the Matter of *ATK Space Systems, Inc., et al., vs. U.S. Space LLC*, Circuit Court of Loudon County, Virginia, Case No. CL-101847, September 8, 2017.
- “Second Expert Report of Dr. Coleman Bazelon,” In the Matter of *CC/Devas (Mauritius) Ltd., Devas Employees Mauritius Private Limited, and Telcom Devas Mauritius Limited*, Case No. PCA2013-09, July 31, 2017.
- “Expert Report of Coleman Bazelon, Ph.D.,” In the Matter of Vertical Ventures II, LLC; Vertical Ventures V, LLC; LWH Network, LLC; L, W & C Network, LLC; and Spectrum Family 800, GP vs. Smartcomm, LLC; Smartcomm License Services, LLC; Smartcomm Management, LLC; Smartcomm Acquisitions, LLC; License Acquisitions, LLC; Big Wave Ventures, LLC; Spectrum Networks Group, LLC; M2M Spectrum Networks, LLC; Spectrum Acquisitions Group, LLC; Carlson Investment Group, LLC; Carole L. Downs; Barclay Knapp; and Joe Doe Transferees, Superior Court of Arizona Maricopa County, March 24, 2017.
- “Expert Report of Dr. Coleman Bazelon,” In the Matter of *CC/Devas (Mauritius) Ltd., Devas Employees Mauritius Private Limited, and Telcom Devas Mauritius Limited*, Case No. PCA2013-09, January 16, 2017.

- “Expert Report of Coleman Bazelon, Ph.D.,” In the Matter of Commonwealth of Virginia, ex rel. State Corporation Commission v. Darryl Gene Bank and Raeann Ann Gibson, Commonwealth of Virginia State Corporation Commission Hearing Examiner, Case No. SEC-2015-00020, November 4, 2016.
- “Expert Report of Coleman Bazelon, Ph.D.,” In the Matter of *Certain Beverage Brewing Capsules, Components Thereof, and Products Containing the Same*, United States International Trade Commission, Washington, DC, Investigation No. 337-TA-929, November 2, 2016.
- “Expert Report of Coleman Bazelon, Ph.D.,” In the Matter of Securities and Exchange Commission v. Janus Spectrum LLC; David Alcorn; David Alcorn Professional Corporation; Kent Maerki; Dominion Private Client Group, LLC; Janus Spectrum Group, LLC; Spectrum Management, LLC; Spectrum 100, LLC; Prime Spectrum, LLC; Prime Spectrum Management, LLC; Daryl G. Bank; Premier Spectrum Group, PMA; Bobby D. Jones; Innovative Group, PMA; Premier Group, PMA; Prosperity Group, PMA; Terry W. Johnson; and Raymon G. Chadwick, Jr., United States District Court, District of Arizona, Docket No. CV- 15-609-PHX-SMM, May 13, 2016.
- “Amended Expert Report of Coleman Bazelon, Ph.D.,” In the Matter of ACP Master, Ltd., Aurelius Capital Master, Ltd., and Aurelius Opportunities Fund II, LLC, v. Sprint Corporation, Sprint Communications, Inc., Erik Prusch, John W. Stanton, William R. Blessing, Bruce A. Chatterley, Mufit Cinali, Jose A. Collazo, Hossein Eslambolchi, Dennis S. Hersch, Brian P. McAndrews, Kathleen H. Rae, Theodore H. Schell, Jennifer L. Vogel, Slade Gorton, Starburst I, Inc., and Softbank Corp., Court of Chancery, State of Delaware, C.A. No. 8508-VCL and ACP Master, Ltd., Aurelius Capital Mater, Ltd., and Aurelius Opportunities Fund II, LLC, v. Clearwire Corporation, Court of Chancery, State of Delaware, C.A. No. 9042-VCL, November 2, 2015.
- “Rebuttal Report of Coleman Bazelon, Ph.D.,” In the Matter of ACP Master, Ltd., Aurelius Capital Mater, Ltd., and Aurelius Opportunities Fund II, LLC, v. Sprint Corporation, Sprint Communications, Inc., Erik Prusch, John W. Stanton, William R. Blessing, Bruce A. Chatterley, Mufit Cinali, Jose A. Collazo, Hossein Eslambolchi, Dennis S. Hersch, Brian P. McAndrews, Kathleen H. Rae, Theodore H. Schell, Jennifer L. Vogel, Slade Gorton, Starburst I, Inc., and Softbank Corp., Court of Chancery, State of Delaware, C.A. No. 8508-VCL and ACP Master, Ltd., Aurelius Capital Mater, Ltd., and Aurelius Opportunities Fund II, LLC, v.

Clearwire Corporation, Court of Chancery, State of Delaware, C.A. No. 9042-VCL, October 23, 2015.

- “Expert Report of Coleman Bazelon, Ph.D.,” In the Matter of ACP Master, Ltd., Aurelius Capital Mater, Ltd., and Aurelius Opportunities Fund II, LLC, v. Sprint Corporation, Sprint Communications, Inc., Erik Prusch, John W. Stanton, William R. Blessing, Bruce A. Chatterley, Mufit Cinali, Jose A. Collazo, Hossein Eslambolchi, Dennis S. Hersch, Brian P. McAndrews, Kathleen H. Rae, Theodore H. Schell, Jennifer L. Vogel, Slade Gorton, Starburst I, Inc., and Softbank Corp., Court of Chancery, State of Delaware, C.A. No. 8508-VCL and ACP Master, Ltd., Aurelius Capital Mater, Ltd., and Aurelius Opportunities Fund II, LLC, v. Clearwire Corporation, Court of Chancery, State of Delaware, C.A. No. 9042-VCL, September 25, 2015.
- “Expert Rebuttal Report on Domestic Industry of Coleman Bazelon, Ph.D.,” In the Matter regarding *Certain Non-Volatile Memory Chips and Products Containing the Same*, Investigation No. 337-TA-916, December 15, 2014.
- “Expert Report on Remedy and Bonding of Coleman Bazelon, Ph.D.,” In the Matter regarding *Certain Non-Volatile Memory Chips and Products Containing the Same*, Investigation No. 337-TA-916, December 15, 2014.
- “Expert Report on Public Interest of Coleman Bazelon, Ph.D.,” In the Matter regarding *Certain Non-Volatile Memory Chips and Products Containing the Same*, Investigation No. 337-TA-916, November 24, 2014.
- “Expert Report of Coleman Bazelon, Ph.D.,” In the Matter regarding *Wynnchurch Capital Ltd.*, In the Court of Chancery of the State of Delaware, C.A. No. 10077-VCL, November 7, 2014.
- “Third Amended Reply Report of Coleman Bazelon, Ph.D.,” On Behalf of Plaintiff-Intervenors *Texas League of Young Voters Education Fund and Imani Clark*, United States District Court for the Southern District of Texas Corpus Christi Division, Civ. No. 2:13-cv-00263, September 22, 2014.
- “Reply Report of Coleman Bazelon, Ph.D.,” On Behalf of Plaintiff-Intervenors *Texas League of Young Voters Education Fund and Imani Clark*, United States District Court for the Southern District of Texas Corpus Christi Division, Civ. No. 2:13-cv-193 (NGR), August 15, 2014.

- “Expert Report of Coleman Bazelon, Ph.D.,” In the Matter of the *Texas League of Young Voters Education Fund and Imani Clark v. State of Texas*, Nandita Berry, in her official capacity as Texas Secretary of State; and Steve McGraw, in his official capacity as Director of the Texas Department of Public Safety, United States District Court for the Southern District of Texas Corpus Christi Division, Civ. No. 2:13-cv-00263, June 27, 2014.
- “Rebuttal Expert Report of Coleman Bazelon, Ph.D.,” In the Matter of the Companies’ Creditors Arrangement Act, R.S.C. 1985, c. C-36, As Amended, and in the Matter of a Plan of Compromise or Arrangement of Nortel Networks Corporation, Nortel Networks Limited, Nortel Networks Global Corporation, Nortel Networks International Corporation and Nortel Networks Technology Corporation, United States Bankruptcy Court for the District of Delaware, Case No. 09-10138 (KG), February 28, 2014.
- “Supplemental Expert Report of Coleman Bazelon, Ph.D.,” In the Matter of *Sky Angel U.S., LLC, against Discovery Communications, LLC, Animal Planet, LLC*, United States District Court for the District of Maryland, Case No. 8:13-cv-00031-DKC, January 31, 2014.
- “Expert Report of Coleman Bazelon, Ph.D.,” In the Matter of the Companies’ Creditors Arrangement Act, R.S.C. 1985, c. C-36, As Amended, and in the Matter of a Plan of Compromise or Arrangement of Nortel Networks Corporation, Nortel Networks Limited, Nortel Networks Global Corporation, Nortel Networks International Corporation and Nortel Networks Technology Corporation, United States Bankruptcy Court for the District of Delaware, Case No. 09-10138 (KG), January 24, 2014.
- “Expert Report of Coleman Bazelon, Ph.D.,” In the Matter of *Sky Angel U.S., LLC, against Discovery Communications, LLC, Animal Planet, LLC*, United States District Court for the District of Maryland, Case No. 8:13-cv-00031-DKC, December 6, 2013.
- “Expert Report of Coleman Bazelon, Ph.D. and Armando Levy, Ph.D.,” In the Matter of *LT Game International Ltd., against Shuffle Master, Inc.*, United States District Court for the District of Nevada, Case No. 2:12-cv-01216-JAD-GWF, October 4, 2013.
- “Expert Report of Coleman Bazelon, Ph.D.,” In the Matter of Certain Electronic Devices, Including Wireless Communications Devices, Tablet Computers, Media Players, and Televisions, and Components Thereof, United States International Trade Commission, Investigation No. 337-TA-862 (Judge Shaw), July 5, 2013.

- “Declaration of Coleman Bazelon” In the Matter of PTA-FLA, Inc., Daredevil, Inc., NTCH-WEST TENN., Inc., NTCH-WA, Inc., and Eric Steinmann against ZTE Corporation, and ZTE USA, Inc. Florida Arbitration, Case No.: 50-494-T-00665-11, February 26, 2013.
- “Rebuttal Testimony of Coleman Bazelon,” In re: Petition for Suspension or Modification of Application of the Requirements of 47 U.S.C. § 251(b) and (c), pursuant to 47 U.S.C. § 251(f)(2) regarding Time Warner Cable Information Services (Maine) LLC’s Request, State of Maine Public Utilities Commission, Docket No. 2012-198, Docket No. 2012-218, Docket No. 2012-219, Docket No. 2012-220, Docket No. 2012-221, October 12, 2012.
- “Testimony of Coleman Bazelon, Ph.D.,” In re: Petition for Suspension or Modification of Application of the Requirements of 47 U.S.C. § 251(b) and (c), pursuant to 47 U.S.C. § 251(f)(2) regarding Time Warner Cable Information Services (Maine) LLC’s Request, State of Maine Public Utilities Commission, Docket No. 2012-198, Docket No. 2012-218, Docket No. 2012-219, Docket No. 2012-220, Docket No. 2012-221, August 20, 2012.
- “Expert Report of Dr. Coleman Bazelon,” Salsgiver Communications, Inc., Salsgiver Telecom, Inc., and Salsgiver Inc. v. Consolidated Communications Holdings, Inc., North Pittsburgh Systems, Inc., and North Pittsburgh Telephone Company, Inc., Court of Common Pleas, Allegheny County, Pennsylvania, Civil Division, No. GD 08-7616, May 10, 2012.
- “Effect of the Proposed Merger on Service Quality, Consumer Services, Employment, and California’s Economy,” Panelist on behalf of AT&T before the Public Utilities Commission of the State of California, Order Instituting Investigation on the Commissioner’s Own Motion into the Planned Purchase and Acquisition by AT&T Inc. of T-Mobile USA, Inc., and Its Effect on California Ratepayers and the California Economy. Case No. I.11-06-009, July 22, 2011.
- “Oral Testimony of Coleman Bazelon, The Brattle Group, Inc. before the U.S. House of Representatives, Committee on Energy and Commerce Subcommittee on Communication and Technology,” April 12, 2011. (Spectrum)
- “Testimony of Coleman Bazelon, Principal, The Brattle Group, before the U.S. House of Representatives, Committee on Energy and Commerce, Subcommittee on Communications, Technology, and the Internet,” June 17, 2010 (spectrum valuation).
- “Supplemental Expert Report of Coleman Bazelon,” *Gemalto PTE LTD and Gemplus S.A. v. Telecommunications Industry Association*, United States District Court for the Eastern District of Virginia, Alexandria Division, Case 1:08-cv-00776-LMB-TRJ, December 16, 2008.

- “Expert Report of Coleman Bazelon,” *Gemalto PTE LTD and Gemplus S.A. v. Telecommunications Industry Association*, United States District Court for the Eastern District of Virginia, Alexandria Division, Case 1:08-cv-00776-LMB-TRJ, November 6, 2008.
- “Prefiled Rebuttal Testimony of Coleman D. Bazelon,” In re: Complaint and Request for Emergency Relief Against Verizon Florida LLC for anticompetitive behavior in violation of Sections 364.01(4), 364.3381, and 364.10, F.S., and for failure to facilitate transfer of customers’ numbers to Bright House Networks Information Services (Florida) LLC, and its affiliate, Bright House Networks, LLC, Florida Public Service Commission, Docket No. 070691-TP, July 25, 2008.
- “Prefiled Direct Testimony of Coleman D. Bazelon,” In re: Complaint and Request for Emergency Relief Against Verizon Florida LLC for anticompetitive behavior in violation of Sections 364.01(4), 364.3381, and 364.10, F.S., and for failure to facilitate transfer of customers’ numbers to Bright House Networks Information Services (Florida) LLC, and its affiliate, Bright House Networks, LLC, Florida Public Service Commission, Docket No. 070691-TP, May 30, 2008.
- “Declaration of Coleman Bazelon in Support of Plaintiffs’ Motion for Class Certification,” *Kenneth Stickrath, et al v. Globalstar, Inc.*, United States District Court for the Northern District of California, San Francisco Division, Case No. 07-CV-01941 TEH, April 25, 2008.
- “Testimony of Coleman Bazelon, Principal, The Brattle Group, before the U.S. House of Representatives, Committee on Energy and Commerce, Subcommittee on Telecommunications and the Internet,” April 15, 2008 (reviewing the 700 MHz auction).
- “Concerning the Meaning of ‘Fair and Reasonable Compensation’ in Section 253(c) of the Telecommunications Act of 1996 and the Comparability of the Rights-of-Way Fees Paid by Level 3 in Massachusetts and Elsewhere,” *The Massachusetts Turnpike Authority v. Level 3 Communications, LLC, et al.*, The United States District Court for the District of Massachusetts, Civ. Act. No. 06-11816, December 17, 2007.
- “Concerning the Effects of the Fixed Rent Charged for Access to the Massachusetts Turnpike,” *The Massachusetts Turnpike Authority v. Level 3 Communications, LLC, et al.*, The United States District Court for the District of Massachusetts, Civ. Act. No. 06-11816, November 12, 2007.

- “Affidavit of Dr. Coleman Bazelon,” *Gulfside Casino Partnership v. Mississippi Riverboat Council, et al.*, United States District Court for the Southern District of Mississippi, Southern Division, Case No. 1:07-CV-110-LG-JMR, May 4, 2007.
- “Rebuttal Report of Dr. Coleman Bazelon,” *Level 3 Communications, LLC, v. City of St. Louis, Missouri*, United States District Court for the Eastern District of Missouri, Eastern Division, Consolidated Case No. 4:04-CV-871 CAS, June 17, 2005.
- “Affidavit of Dr. Coleman Bazelon,” *Informed Communications Systems, Inc. v. Intelogistics Corp., d/b/a Prosodie Interactive*, United States District Court, Southern District of Florida, Miami Division, Case No.: 04-61245 CIV Huck/Turnoff, October 12, 2004.

SELECTED CONSULTING EXPERIENCE

LITIGATION

- Testified on the value of wireless related patents.
- Provided Commercial Success and Domestic Industry testimony in ITC 337 case involving athletic shoes.
- Provided Domestic Industry and Commercial Success testimony in ITC 337 case involving automotive headlamps and tail lamps.
- Provided Domestic Industry and Cease and Desist Order testimony in ITC 337 case involving silicon photovoltaic cells.
- Provided written testimony on harm from a data breach.
- Provided Domestic Industry, Cease and Desist Order, and Bond testimony in ITC 337 case involving automated storage and retrieval systems.
- Provided Domestic Industry, Cease and Desist Order, and Bond testimony in ITC 337 case involving wireless routers and controllers.
- Testified in criminal trials about value of spectrum licenses.
- Testified on damages and injunctive relief for Canadian patents.
- Provided written testimony on lost profits of a pharmacy in the fertility industry.
- Provided written testimony on the ability to estimate refunds of prison phone commissions.
- Estimated value of stadium naming rights, in International Arbitration.
- Provided written testimony on the ability to estimate damages for a data breach class.
- Provided written testimony on the actual value of spectrum for a fraud matter.
- Estimated damages related to spectrum value in North America, in International Arbitration.

- Provided Domestic Industry testimony in ITC 337 case involving solid-state storage devices.
- Provided written testimony of the value of a satellite joint venture.
- Estimated damages related to spectrum value in India, in International Arbitration.
- Provided declaration on spectrum valuation for potential US Securities and Exchange Commission (SEC) fraud matter.
- Provided written testimony in private fraud case involving 700 MHz Guard and Expansion Band licenses.
- Provided testimony in ITC 337 enforcement case involving reusable coffee brewing cup patents.
- Provided written testimony in Virginia State Corporation Commission fraud case involving 700 MHz Guard and Expansion Band licenses.
- Provided testimony in SEC fraud case involving 700 MHz Guard and Expansion Band licenses.
- Estimated value of a spectrum portfolio.
- Developed auction format for sale of private equity management firm.
- Estimated racial impact of voter ID law in Texas.
- Assessed Domestic Industry requirement in ITC 337 case involving mobile location patents.
- Evaluated damages in the applications market.
- Assessed allocation theories in an international bankruptcy.
- Evaluated damages from a programming contract termination.
- Evaluated damages from allegations of reputational harm in gaming equipment market.
- Evaluated damages from non-working wireless network equipment.
- Assessed Domestic Industry requirement in ITC 337 case involving wireless equipment patents.
- Assessed commercial viability of full text searching of books business model.
- Assessed Domestic Industry requirement in ITC 337 case involving portable storage device patents.
- Estimated value of satellite assets in bankruptcy.
- Estimated damages from denial of pole attachments.
- Provided written testimony evaluating the performance of a numbering resource administrator.
- Provided written testimony on the ability to estimate damages for a class of satellite phone users.
- Provided written testimony on the economic value of rights-of-way in Massachusetts.

- Estimated damages for a broadcast tower permit revocation.
- Provided oral testimony on the proprietary nature of specific information contained in a statewide public safety network bid.
- Provided written testimony on economic value associated with items provided in a labor neutrality agreement.
- Estimated damages associated with Universal Service Fund (USF) and other telephone taxes paid by a calling card reseller.
- Assessed the damages associated with the infringement of patents related to Voice over Internet Protocol (VoIP) technology and the likely impact of a permanent injunction.
- Estimated recoverable data costs for two pesticides.
- Estimated cost of delay in granting local cable franchise.
- Analyzed the economic underpinnings of an exclusivity clause of a mobile phone affiliation agreement.
- Assessed commonality issues of physicians for class certification of Racketeer Influenced and Corrupt Organization (RICO) action against a set of health insurance companies.
- Estimated “loss of use” damages for a severed fibre optic cable.
- Provided written testimony estimating the value of a surety bond in a contract dispute involving toll free phone numbers used in an enhanced service application.
- Assessed damages associated with infringement of patents used to provide VoIP.
- Assessed basis for guidance of a large telecommunications firm in a 10-b securities litigation.
- Valued digital television radio spectrum in St. Louis in the pre-litigation phase of a breach of contract dispute.
- Estimated damages in a breach of contract case involving the sale of a fibre optic network.
- Researched the basis for generally optimistic forecasts of broadband deployment in the later 1990s and early 2000s in an antitrust litigation.
- Researched the basis for generally optimistic beliefs about the telecommunications sector in the late 1990s in a 10-b securities litigation.
- Assessed the market for Competitive Local Exchange Carriers in an SEC fraud case.
- Assessed a bankruptcy sale proposal for a national tier 1 broadband backbone provider.
- Examined the business case asserted for a small wireless reseller in a breach of contract litigation.
- Assessed damages associated with infringement of patents used in DNA fingerprinting applications.
- Assessed changes in contributions to the Cable Royalty Fund on behalf of Sports Claimants in a Copyright Arbitration Royalty Panel (CARP) proceeding.

- Assessed the capital adequacy of the US branch of a foreign bank.

REGULATORY PROCEEDINGS

- Provided comments on VOIP service quality reporting.
- Assessed cost allocation issues for pole replacement.
- Assessed the service quality standards for fixed IP-based networks.
- Assessed discriminatory practices in broadband provision.
- Estimated value of 12 GHz spectrum.
- Assessed competitive issues in the broadband market for a Section 253 petition.
- Analyzed broadband speed claims.
- Provided comments on repurposing C-Band spectrum in Canada.
- Provided written testimony on prison phone rates.
- Reviewed and assessed comments on the costs and benefits of repurposing 5.9 GHz spectrum.
- Assessed the public interest benefits of a market-based solution for the C-Band spectrum.
- Assessed benefits of fibre-based broadband in rural areas.
- Analyzed impact of Canadian resale obligations.
- Analyzed approaches to repurposing C-Band spectrum.
- Analyzed competitive effects of proposed Sprint/T-Mobile merger.
- Provided written testimony on the costs and benefits of reallocating 900 MHz spectrum.
- Analyzed impact of forbearance on unbundling, resale, facilities access, and non-discrimination obligations.
- Provided written testimony on rates for TRS service.
- Assessed basis for mechanical royalties in copyright proceeding.
- Provided declaration on minority incentives in spectrum secondary market transactions.
- Evaluated proposed pole attachment rate.
- Analyzed costs of USPS.
- Assessed impact on incentive auction of unlicensed operations in guard bands.
- Assessed market power in Canadian wireless market.
- Provided testimony in prison phone rate proceeding.
- Estimated economic impact of local number portability (LNP) on rural local exchange carriers (RLECs).
- Assessed relevance of US UNE-L experience for New Zealand benchmarking proceeding.
- Authored analysis of harm from revoking LightSquared's Ancillary Terrestrial Component (ATC) authorization.

- Estimated value of pairing Upper 700 MHz A Block with public safety.
- Estimated impact of increased regulatory uncertainty on spectrum value.
- Estimated value of government provision of GPS service to private industry.
- Coauthored analysis of feasibility of reallocating broadcast television with incentive auctions.
- Analyzed impact on spectrum value of pairing AWS III spectrum.
- Coauthored analysis of the merits of licensed versus unlicensed allocation of the TV white spaces.
- Estimated the value of TV white spaces.
- Provided written testimony on the economic harm of using proprietary information in retention marketing.
- Provided written testimony on the economics of pole attachment rates.
- Estimated the value of the PCS H-Block spectrum band.
- Estimated the economic impact of an ITC Exclusion Order on cell phone handsets.
- Authored several reports on the 700 MHz auction rules.
- Analyzed the relationship between the size of cable systems and the economics of the programming market.
- Presented analysis on pricing differentials in overlapping cable markets.
- Assessed proposed regulation of mobile phone roaming rates.
- Analyzed impact of local franchise requirements on competition in the video marketplace.
- Developed and assessed Indian spectrum management proposals.
- Analyzed economic ramifications of à la carte cable channel pricing on consumers and the cable and television programming industries.
- Examined the relative merits of licensed versus unlicensed radio spectrum and the effects of “underlay” licenses on existing commercial licensees.
- Examined federalism issues related to mobile telephone regulation.
- Examined and refuted arguments suggesting that the California Telecommunications Consumer Bill of Rights was an appropriate response to market failures.
- Assessed the impact on consumers of California’s Telecommunications Consumer Bill of Rights proposal.
- Provided written testimony refuting analysis purporting to show a positive relationship between UNE-P and telecom network investment.
- Provided written testimony examining the effects of unbundling regulations on capital spending in the telecommunications sector.

- Estimated the adjustment to the total element long-run incremental cost (TELRIC) pricing formula to account for irreversible investment in the local telephone network.
- Examined the impact of irreversible investments in the local telephone network on the TELRIC pricing methodology.
- Assessed the degree of market overlap of two food service firms for purposes of merger review.
- Provided written testimony that assessed the validity of an analysis of the costs of a DTV tuner mandate.
- Provided written testimony of a forecast of toll free number demand for the toll free number administrator, SMS/800, in a rate case proceeding.

OTHER

- Estimated reparations for transatlantic chattel slavery.
- Estimated FRAND rates for 4G and 5G use in automobiles.
- Estimated value of 1.3 GHz spectrum.
- Advised bidder in FCC 3.45 GHz auction.
- Estimated economic impacts from a bankruptcy restructuring.
- Advised broadband provider on Federal Trade Commission (FTC) consumer protection/false-advertising investigation.
- Advised bidder in FCC RDOF auction.
- Advised bidder in FCC CBRS spectrum license auction.
- Advising bidder in FCC C-Band spectrum license auction.
- Estimated value of 900 MHz spectrum licenses for several clients.
- Estimated Value of 600 MHz, 900 MHz, 2.4 GHz, and 3.5 GHz licenses.
- Estimated the value created from an accelerated clearing of the C-Band spectrum.
- Analyzed value of repurposing lower mid-band spectrum.
- Analyzed impact of 5G on mobile spectrum values.
- Advised Afghanistan Telecom Regulatory Authority on spectrum licensing.
- Estimated value of spectrum portfolio.
- Auction planning and support for CAF II auction.
- Estimated value of spectrum pipeline.
- Provided support for Australian Rules Football collective bargaining negotiations.
- Provided support for Major League Baseball (MLB)/Major League Baseball Players Association (MLBPA) Collective Bargaining Agreement negotiations.
- Estimated value of new spectrum technology.
- Analyzed market for video relay services (VRS).

- Coauthored analysis of wireless technology on agricultural water use.
- Evaluated impacts of Boston 2024's Olympic bid.
- Estimated value of licensed mobile broadband spectrum.
- Estimated future needs for licensed mobile broadband spectrum.
- Advised bidder in Canadian 700 MHz auction.
- Evaluated performance of TV stations when repacked in an incentive auction.
- Analyzed differences in US and European wireless markets.
- Assessed business case and value of HF license holder.
- Analyzed likely auction outcomes for TV broadcaster participating in an incentive auction.
- Assessed value of commercial mobile spectrum bands.
- Analyzed economic impacts of the commercial casino industry.
- Evaluated impact of digitization on copyright industries.
- Analyzed economic and employment effects of Dutch gas hub.
- Advised bidder in Indian 3G spectrum license auction.
- Estimated economic and employment effects of network neutrality regulation.
- Analyzed relative costs of wireless and wireline deployments in rural areas.
- Analyzed potential harms from Internet gambling.
- Estimated economic value of reallocating TV spectrum for wireless broadband.
- Estimated economic and employment effects of electric power transmission construction in support of new wind generation facilities.
- Estimated economic and employment effects of broadband stimulus grant applications.
- Estimated employment effects of an ATC-mobile satellite network deployment.
- Analyzed the impact of reducing international mobile phone roaming charges.
- Developed an auction platform for an electricity procurement auction.
- Analyzed the economic impacts of reduced mobile phone taxes in Africa and the Middle East.
- Evaluated the impact of reducing ethanol requirements on gasoline prices.
- Analyzed fair, reasonable, and non-discriminatory (FRAND) licensing requirements for intellectual property in the DTV standard.
- Advised bidder in Canadian AWS spectrum license auction.
- Advised bidder in FCC 700 MHz spectrum license auction.
- Evaluated a business plan for proposed dam removals.
- Assessed a business plan involving the WiMAX market.
- Estimated the value of a portfolio of spectrum licenses.

- Assessed the budgetary impacts of legislation to license TV white spaces.
- Analyzed the economics of the military's build versus buy decision for broadband satellite communications capacity.
- Advised bidder in FCC AWS spectrum license auction.
- Provided framework to estimate impact of the effect of designation of TV white spaces as unlicensed on 700 MHz auction receipts.
- Analyzed Universal Service Fund expenditures.
- Analyzed cable-franchising requirements.
- Valued proposals to re-band the Upper 700 MHz Band of radio spectrum.
- Analyzed proposed accelerated digital television transition impacts on society and the federal budget.
- Coauthored a report on the value of a portfolio of patents used to provide VoIP.
- Coauthored a report to the US Chamber of Commerce on the economic effects of telecommunications deregulation.
- Assessed the business cases for indefeasible right of use (IRU) swaps of a large international fibre optic network owner.
- Examined the effects of unbundling regulations on broadband penetration internationally.

ARTICLES & PUBLICATIONS

ARTICLES & BOOK CHAPTERS

- "Spectrum Value," with Giulia McHenry, *Telecommunications Policy*, Volume 37, Issue 9, pp. 737–747 (October 2013)
- "Patent Auctions: How Far Have We Come?" with John Jarosz, Robin Heider, Christine Bieri, and Peter Hess, *les Nouvelles*, pp. 11–30 (March 2010)
- "Too Many Goals: Problems with the 700 MHz Auction," *Information Economics and Policy*, pp. 115–127 (June 2009)
- "Licensed or Unlicensed: The Economic Considerations in Incremental Spectrum Allocations," *IEEE Communications Magazine*, pp. 110–116 (March 2009)

- “Interlicense Competition: Spectrum Deregulation Without Confiscation or Giveaways,” with Michael H. Rothkopf, *Obtaining the Best from Regulation and Competition*, Michael A. Crew and Menahem Spiegel, eds., Kluwer Academic Publishers (2005), pp. 135–159
- “Next Generation Frequency Coordinator,” *Telecommunications Policy* 27, pp. 517–525 (2003)
- “Discounting in the Long Term,” with Kent Smetters, *Loyola of Los Angeles Law Review*, Vol. 35, Issue 1 (November 2002)
- “Discounting Inside the Washington DC Beltway,” with Kent Smetters, *Journal of Economic Perspectives* (Fall 1999)
- “The Movement of Markets,” *Wesleyan Economic Journal* (Spring 1986)
- “Is the Psychogenic Theory of History Scientific?” *Journal of Psychohistory* (Fall 1985)

WHITE PAPERS, REPORTS, STUDIES, REVIEWS & BLOGS

- “Quantification of Reparations for Transatlantic Chattel Slavery,” with Alberto Vargas, Rohan Janakiraman, and Mary Olson, The Second Symposium on Reparations Under International Law, American Society of International Law (February 9, 2023)
- “Out of Sync: Outdated Financial and Operational Reporting for Competitive VoIP Providers,” with Paroma Sanyal, prepared for the California Cable and Telecommunications Association, Reply of the California Cable and Telecommunications Association to Responses to California Public Utility Commission’s Rulemaking 22-03-006 (December 21, 2022).
- “Good Enough?” Telecommunications Policy Research Conference (2022).
- “What’s In a Label?” with Paroma Sanyal and Divya Goel, Telecommunications Policy Research Conference (2022).
- “The Anticompetitive Impacts of Exclusive Rights-of-Way and Unequal Subsidies in the Wireline Broadband Market,” with Paroma Sanyal, Yong Paek and Rui Yu, Telecommunications Policy Research Conference (2022).
- “Understanding Spectrum Prices in Recent Upper Mid-Band FCC Auctions,” with Paroma Sanyal, Yong Paek, Ryan Taylor and Austin Lajoie, Telecommunications Policy Research Conference (2022).
- “Assessing The Pros And Cons Of Broadband Product Labels,” with Paroma Sanyal, Law360, (July 15, 2022)
- “An Analysis of Licensing Rates for Wireless Technology in Automobiles,” with Paroma Sanyal, Douglas H. Frank, and Yong Paek, prepared for Unified Patents, LLC, (May 13, 2022).
- “Fixed IP-Based Networks and Service Quality,” with Paroma Sanyal, prepared for the California Cable and Telecommunications Association, Reply of the California Cable and Telecommunications Association to Responses to Petition of the Public Advocates Office Rulemaking to Amend General Order 133-D to Establish Minimum Service Quality Standards for All Essential Communications Services, California Public Utility Commission (November 15, 2021).

- ““Someday We’ll Find It: The Rainbow Connection” Broadband Connectivity and the Proposed Infrastructure Bill,” with Paroma Sanyal and Divya Goel for the Brattle Group (October 2021).
- “Understanding Broadband Deployment: A Case Study of Los Angeles County,” with Paroma Sanyal, Public Utilities Commission of the State of California, Rulemaking 20-09-001 (July 2, 2021)
- “Captive Audiences: A Case Study of Phone Rates for Incarcerated Persons,” with Paroma Sanyal, Consumer Policy International (April 26, 2021)
- “Network Value Drivers in a 5G World,” with Paroma Sanyal, Jonathan Lee, Ezra Frankel, and Ryan Taylor, Telecommunications Policy Research Conference 48 (February 17, 2021)
- “Novel-Infrastructure Bidders’ Impact on Cost-Based Subsidy Auctions,” with Paroma Sanyal and Johnathan Lee Telecommunications Policy Research Conference 48, Conference Presentation (February 17, 2021)
- “Spectrum Assignment for Advanced Mobile Broadband Services,” with Paroma Sanyal, Policy/Consultation Paper for the Afghanistan Telecommunications Regulatory Authority (ATRA), Selected Chapters on Auctions (September 2019)
- “Mobile Broadband Spectrum: A Revaluation in a 5G World,” with Paroma Sanyal, Prepared for CTIA, May 29, 2019.
- “Analysis of BDU Contributions, ISP Taxes and Regulations in the Canadian Broadcasting & Telecommunications Industries: Economic Efficiency, Investment and Innovation,” with Renee Duplantis and Agustin Ros, Shaw Communications (January 11, 2019)
- “An Analysis of Broadband Services in Canada,” with Renee Duplantis, and Agustin Ros, Shaw Communications (August 30, 2018)
- “The Next Wave of Spectrum Reallocation: The Value of Additional Mid-Band Spectrum Reallocations,” CTIA (November 14, 2017)
- Coleman Bazelon and Pallavi Seth, “REIT Supported Wireless Infrastructure: Foundation of the Mobile Economy,” The Wireless Infrastructure Association (May 23, 2017)

- “The Economic Costs and Benefits of a Federal mandate that All Light Vehicles Employ 5.9 GHz DSRC Technology,” with Lucrezio Figurelli, National Cable & Telecommunications Association (May 2, 2016)
- “The Farmer and the Data: How Wireless Technology is Transforming Water Use in Agriculture,” with David Sunding and Martha Rogers, CTIA Wireless Foundation (April 22, 2016)
- “A Lifeline to High-Speed Internet Access: An Economic Analysis of Administrative Costs and the Impact on Consumers,” with Nicol E. Turner-Lee, Olga Ukhaneva, and DeVan Hankerson, Multicultural Media, Telecom and Internet Council (March 2016)
- “Analysis of the Boston 2024 Proposed Summer Olympic Plans,” with Pallavi Seth, Steven Herscovici, Mark Berkman, Allen Sanderson, Brad Humphreys, Joseph Floyd, and Michael Abasciano; Prepared for the Commonwealth of Massachusetts Office of the Governor, President of the Senate, and Speaker of the House (August 17, 2015)
- “Substantial Licensed Spectrum Deficit (2015–2019): Updating the FCC’s Mobile Data Demand Projections,” with Giulia McHenry, Prepared for CTIA – The Wireless Association (June 23, 2015)
- Coleman Bazelon and Giulia McHenry, “Mobile Broadband Spectrum: A Vital Resource for the U.S. Economy,” with Giulia McHenry, Prepared for CTIA – The Wireless Association (May 11, 2015)
- “Vertical Foreclosure in Canadian Wholesale Services Markets,” with Kevin Hearle, Giulia McHenry, James Reitzes, and Jeremy Verlinda; Supplemental Filing, Prepared for the Canadian Competition Bureau (August 18, 2014)
- “Canadian Wireless Market Performance and the Potential Effect of an Additional Nationwide Carrier,” with Kevin Hearle, Giulia McHenry, James Reitzes, and Jeremy Verlinda; Prepared for the Canadian Competition Bureau (May 12, 2014)
- “Spectrum Sharing: Taxonomy and Economics,” with Giulia McHenry, Office of Science and Technology Policy (filed comment March 18, 2014)
- “Spectrum Sharing: Taxonomy and Economics,” with Giulia McHenry, sponsored by Verizon (February 6, 2014)

- “The Economics of Spectrum Sharing,” with Giulia McHenry, Telecommunications Policy Research Conference (2013)
- “Violating Your Privacy: An Economic Perspective,” with Giulia McHenry, Telecommunications Policy Research Conference (September 24, 2013)
- “The Economics of Spectrum Sharing,” with Giulia McHenry, *Global Media and Communications Quarterly*, Hogan Lovells, pp. 47–51 (Autumn 2013)
- “The Economic Implications of Restricting Spectrum Purchases in the Incentive Auctions,” with Robert Shapiro and Douglas Holtz-Eakin, Georgetown University Center for Business & Public Policy (April 2013)
- “The Impact of Digitization on Business Models in Copyright-Driven Industries: A Review of the Economic Issues,” with Lisa Cameron, National Research Council (NRC) Committee on the Impact of Copyright Policy on Innovation in the Digital Era (February 26, 2013)
- “An Economic View of ITC 337 Cases and the Public Interest,” with Robert A. Rogowsky and Pallavi Seth, *Law360* (November 21, 2012)
- “Spectrum Value,” with Giulia McHenry, Telecommunications Policy Research Conference (2012)
- “An Economic View of the ITC's Domestic Industry,” with Robert A. Rogowsky and Pallavi Seth, *Law360* (June 18, 2012)
- “The Status of UNE-L in the United States,” with Greg Duncan, Prepared for the Commerce Commission of New Zealand (April 12, 2012)
- “Implications of Regulatory Inefficiency for Innovative Wireless Investments,” Sponsored by LightSquared (March 15, 2012)
- “Beyond the Casino Floor: Economic Impacts of the Commercial Casino Industry,” with Kevin Neels and Pallavi Seth, sponsored by the American Gaming Association (2012)
- “An Engineering and Economic Analysis of the Prospects of Reallocating Radio Spectrum from the Broadcast Band through the Use of Voluntary Incentive Auctions,” with Charles Jackson and Giulia McHenry, Telecommunications Policy Research Conference, (2011)

- “Cost of Regulatory Risk for Wireless Spectrum Values,” sponsored by LightSquared (August 23, 2011)
- “Expected Receipts from Proposed Spectrum Auctions,” sponsored by the Wireless Broadband Coalition (July 28, 2011)
- “GPS Interference: Implicit Subsidy to the GPS Industry and Cost to LightSquared of Accommodation,” sponsored by LightSquared (June 22, 2011)
- “The Impact of Digitization on Business Models in Copyright-Driven Industries: A Review of the Economic Issues,” with Lisa Cameron, National Research Council (NRC) Committee on the Impact of Copyright Policy on Innovation in the Digital Era (June 7, 2011)
- “The Economic Basis of Spectrum Value: Pairing AWS-3 with the 1755 MHz Band is More Valuable than Pairing it with Frequencies from the 1690 MHz Band,” sponsored by T-Mobile and CTIA (April 11, 2011)
- “Economists Letter to Obama Regarding Incentive Auctions,” (April 6, 2011)
- “The Indian 3G and BWA Auctions,” Telecommunications Policy Research Conference (2010)
- “Economic Impact of the Dutch Gas Hub Strategy on the Netherlands,” by Dan Harris, Coleman D. Bazelon, Brad Humphreys, and Penelope Dickson, *Netherlands Ministry of Economic Affairs, Agriculture and Innovation* (September 2010)
- “The Employment and Economic Impacts of Network Neutrality Regulation: An Empirical Analysis,” sponsored by Mobile Future (2010)
- “The Benefits of Wireless Broadband for Rural Deployments,” sponsored by Qualcomm, Inc. (2010)
- “Comments of 71 Concerned Economists – Using Procurement Auctions to Allocate Broadband Stimulus Grants,” Submitted to the National Telecommunications Information Agency (NTIA) and Rural Utilities Service (RUS) (April 13, 2009)
- “Can Internet Gambling Be Effectively Regulated? Managing the Risks,” with Malcolm K. Sparrow and Charles Jackson, sponsored by Wired Safety (2009)
- “The Need for Additional Spectrum for Wireless Broadband: The Economic Benefits and Costs of Reallocations,” sponsored by Consumer Electronics Association (2009)

- “Measuring Concentration in Radio Spectrum License Holdings,” with William Zarakas, Telecommunications Policy Research Conference (2009)
- “Licensed or Unlicensed: The Economic Considerations in Incremental Spectrum Allocations,” in *New Frontiers in Dynamic Spectrum Access Networks, 2008*, DySPAN (2008)
- “Overreaching: The Policy Failures of the 700 MHz Auction,” Telecommunications Policy Research Conference (2008)
- “Cream Skimming,” Telecommunications Policy Research Conference (2007)
- “Market Allocation for Radio Spectrum,” with Thomas W. Hazlett, prepared for the International Telecommunications Union Workshop on Market Mechanisms for Spectrum Management, Geneva, Switzerland (January 2007)
- “Licensed or Unlicensed: The Economics of Incremental Spectrum Allocations,” Telecommunications Policy Research Conference (2006)
- “Analysis of an Accelerated Digital Television Transition,” sponsored by Intel Corporation, (2005)
- “Regulated Unbundling of Telecommunications Networks: A Stepping Stone to Facilities-Based Competition?” with Thomas W. Hazlett, Telecommunications Policy Research Conference (2005)
- “Sending the Right Signals: Promoting Competition Through Telecommunications Reform: A Report to the U.S. Chamber of Commerce,” with Thomas W. Hazlett, John Rutledge, and Deborah Allen Hewitt (September 22, 2004)
- “Regulation and Investment in Local Telecommunications Networks,” with Thomas W. Hazlett and Arthur M. Havenner, Working Paper (January 2004)
- “Interlicense Competition: Spectrum Deregulation Without Confiscation or Giveaways,” with Michael H. Rothkopf, New America Foundation, Spectrum Series Working Paper #8 (August 2003)
- “Review of Discounting and Intergenerational Equity,” with Paul Portney and John Weyant, Resources for the Future (1999), in the Society of Government Economists Newsletter, Volume 34, No. 10 (November 2002)

- “Completing the Transition to Digital Television,” Congressional Budget Office (September 1999)*
- “Two Approaches for Increasing Spectrum Fees,” with David Moore, Congressional Budget Office (November 1998)*
- “Where Do We Go From Here? The FCC Auctions and the Future of Radio Spectrum Management,” with Perry Beider and David Moore, Congressional Budget Office (April 1997)

* CBO publications do not cite authors’ names.

FEDERAL COMMUNICATIONS COMMISSION (FCC) FILINGS

- “The Economics of Pole Replacement and Efficient Cost Allocation,” with Paroma Sanyal and Yong Paek, WC Docket No. 17-84, (June 27, 2022).
- “Comments on the Federal Communications Commission’s ‘Upcoming Mandatory Data Collection for Inmate Calling Services,’” with Paroma Sanyal and Divya Goel, WC Docket No. 12-375 (November 4, 2021)
- “IP CTS Costs and Reimbursement Rates,” with Brent Lutes, GC Docket Nos. 13-24, 03-123 (July 30, 2021)
- “Exclusive Use of Public Rights of Way, Unfair Competitive Practices, and Fair and Reasonable Compensation,” with Paroma Sanyal, Section 253 Petition Filed by MCC Iowa, LLC (May 12, 2021)
- “Valuing the 12 GHz Spectrum Band with Flexible Use Rights,” with Paroma Sanyal, WT Docket No. 20-443, GN Docket No. 17-183 (May 7, 2021)
- “Further Comments on ‘Rates for Interstate Inmate Calling Services,’ Report and Order on Remand and Fourth Further Notice of Proposed Rulemaking,” with Paroma Sanyal and Andrea Helfant, WC Docket No. 12-375 (March 25, 2021)
- Comments on “Rates for Interstate Inmate Calling Services,” Report and Order on Remand and Fourth Further Notice of Proposed Rulemaking, with Paroma Sanyal and Andrea Helfant, WC Docket No. 12-375 (November 23, 2020)

- “IP CTS Costs and Reimbursement Rates,” with Brent Lutes, CG Docket Nos. 13-24, 03-123 (July 14, 2020)
- “Benefits and Costs of Greater Connectedness,” with Paroma Sanyal, IB Docket No. 11-109, 12-340 (June 1, 2020)
- “The Economics of Unlicensed and Dedicated Use Spectrum in the 5.9 GHz Band,” with Paroma Sanyal, ET Docket No. 19-138 (April 27, 2020)
- “Value Creation from an Accelerated Clearing of the C-Band Spectrum,” with Paroma Sanyal, WTB 18-122 (January 16, 2020)
- “Public Interest Benefits of Expanding Fiber Networks,” WC Docket Nos. 19-126, WC Docket Nos. 10-90, WC Docket Nos. 19-195 (October 21, 2019)
- “Advancing 5G Deployment: Shared Flexible Use of the 1675 – 1680 MHz Band,” WTB Docket Nos. 19-116, ETRN Docket Nos. 11-681 (July 22, 2019)
- “Choosing an Appropriate Geographic Licensing Size,” WTB Docket No. 19-116, ETRN Docket No. 11-681 (June 21, 2019)
- “Response to Israel, Katz, and Keating April 12, 2019 Declaration,” Confidential, with Jeremy Verlinda and William Zarakas, Attachment A, WT Docket Nos. 18-197 (May 1, 2019)
- “Response to Compass Lexecon February 20, 2019 Declaration and Mark McDiarmid March 6, 2019 Declaration,” Confidential, with Jeremy Verlinda and William Zarakas, Attachment A, WT Docket Nos. 18-197 (March 28, 2019)
- “Economic Considerations of IP CTS Rate Structure and Methodology,” with Brent Lutes, CG Docket Nos. 13-24, 10-51, and 03-123 (March 27, 2019)
- “Response to Applicants’ February 7 Filings on Diversion Ratios,” Confidential, with Jeremy Verlinda and William Zarakas, Attachment A, WT Docket Nos. 18-197 (March 25, 2019)
- “Reply to Cornerstone’s ‘Response to Dish’s February 19 and 25 Submissions,’” Confidential, with Jeremy Verlinda and William Zarakas, Attachment A, WT Docket Nos. 18-197 (March 18, 2019)
- “Reply to Cornerstone’s ‘Response to Dish and CWA Comments,’” Confidential, with Jeremy Verlinda and William Zarakas, Attachment A, WT Docket Nos. 18-197 (February 19, 2019)

- “Network Engineering Model’s Sensitivity to Millimeter Wave Adjustments,” Confidential, with Jeremy Verlinda and William Zarakas, Attachment A, WT Docket Nos. 18-197 (February 4, 2019)
- “Response to Applicant Filings on Diversion Ratios,” Confidential, with Jeremy Verlinda and William Zarakas, Attachment A, WT Docket Nos. 18-197 (January 28, 2019)
- “Further Reply Declaration,” Confidential, with Jeremy Verlinda and William Zarakas, WT Docket Nos. 18-197 (December 4, 2018)
- “Reply Declaration of Joseph Harrington, Coleman Bazelon, Jeremy Verlinda, and William Zarakas,” Confidential, Exhibit 1, WT Docket Nos. 18-197 (October 31, 2018)
- “Comments on the FCC’s NPRM to Transition C-Band Spectrum to Terrestrial Uses,” Prepared by Coleman Bazelon, GN Docket No. 18-122 (October 29, 2018)
- “Declaration of Joseph Harrington, Coleman Bazelon, Jeremy Verlinda, and William Zarakas,” Confidential, Exhibit B, WT Docket Nos. 18-197 (August 27, 2018)
- “Economic Analysis of Subcontractor Fees Paid by Hamilton Relay,” Confidential, CG Docket Nos. 13-24, 03-123 (November 10, 2017)
- “Economic Analysis of IP CTS Provision Costs and Rate Setting,” CG Docket Nos. 13-24, 03-123 (November 8, 2017)
- “Telecommunications Relay Services for Individuals who are Deaf or Hard of Hearing – Market and Policy Analyses,” CG Docket Nos. 13-24, 03-123 (August 30, 2017)
- “Putting Mid-Band Spectrum to Work: Sharing between Ligado Networks and its GPS Neighbors,” FCC IB Docket No. 11-109 (May 23, 2016)
- Erratum to the October 15, 2015 Ex Parte notice, “Rates for Interstate Inmate Calling Services,” WC Docket No. 12-375 (October 16, 2015)
- “Memorandum in Response to Securus Filing,” Ex Parte Written Presentation, Rates for Interstate Inmate Calling Services, WC Docket No. 12-375 (August 28, 2015)
- “Memorandum to provide an analysis of the Cost Study submissions by the ICS providers,” Ex Parte Written Presentation, Rates for Interstate Inmate Calling Services, WC Docket No. 12-375 (August 14, 2015)

- “Unlicensed Operations in the 600 MHz Band: Fatally Flawed Twice Over,” with Charles Jackson and Dorothy Robyn, ET Docket No. 14-165, GN Docket No. 12-268 (February 25, 2015)
- “Staying on Track: Realizing the Benefits from the FCC’s Incentive Auction without Delay,” with Giulia McHenry, Comments of LocusPoint Networks, LLC, Attachment A, AU Docket No. 14-252, GN Docket No. 12-268 (February 20, 2015)
- “Reply Declaration of Coleman Bazelon,” Reply Comments of Martha Wright, Et Al., The D.C. Prisoners’ Legal Services Project, Inc., and Citizens United for Rehabilitation of Errants, WC Docket No. 12-375 (January 27, 2015)
- “Reply Declaration of Coleman Bazelon,” Comments of Martha Wright, et al., Exhibit A, WC Docket No. 12-375 (April 22, 2013) (prison payphone rates)
- “Declaration of Coleman Bazelon,” Comments of Martha Wright, et al., Exhibit C, WC Docket No. 12-375 (March 25, 2013) (prison payphone rates)
- “Declaration of Coleman Bazelon,” Verizon Telephone Companies and Verizon Services Corp., v. Madison Square Garden, L.P., and Cablevision Systems Corp., FCC Filing, File No. CSR-8185-P (October 22, 2010) (program access complaint)
- “Unlicensed Use of the TV White Spaces: Wasteful and Harmful,” FCC Filing, with Charles L. Jackson and Dorothy Robyn, *Ex Parte* Comments, ET Docket No. 04-186, ET Docket No. 02-380 (August 20, 2008) (benefits of licensed over unlicensed allocation of the TV White Spaces)
- “Comments of Charles L. Jackson, Dorothy Robyn and Coleman Bazelon,” Comments, WC Docket No. 06-150, PS Docket No. 06-229 (June 20, 2008) (value of TV White Spaces).
- “Comments of Coleman Bazelon,” Comments, WC Docket No. 06-150, PS Docket No. 06-229, WT Docket No. 96-86 (June 20, 2008) (700 MHz D Block).
- “Declaration of Coleman Bazelon,” Reply Comments, WC Docket No. 07-245 (April 22, 2008) (economics of pole attachment rates)
- “Why the Exclusive Use of Large Licenses in the Upper or Lower 700 MHz Bands Would Reduce the Efficiency of the 700 MHz Auction,” Comments, WT Docket No. 06-150 (April 20, 2007)

- “Principles for Choosing 700 MHz Block License Sizes,” *Ex Parte* Comments, WT Docket No. 06-150 (March 6, 2007)
- “The Economics of License Sizes in the FCC’s 700 MHz Band Auction,” *Ex Parte* Comments, WT Docket No. 06-150 (January 2007)
- “Declaration of Thomas W. Hazlett, Ph.D., Prof. Arthur M. Havenner, and Coleman Bazelon, Ph.D.,” Comments, WC Docket No. 03-173 (December 16, 2003) (Wireline investment, UNE-P)
- “Declaration of Thomas W. Hazlett, Ph.D., Arthur M. Havenner, Ph.D., and Coleman Bazelon, Ph.D.,” Comments, WC Docket No. 03-157 (September 2, 2003) (Wireline investment, UNE-P)
- “Spectrum Deregulation Without Confiscation or Giveaways,” with Michael Rothkopf, Comment, ET Docket No. 02-135 (January 9, 2003)
- “Forecast of Toll Free Number Demand: 2002–2004,” with Thomas W. Hazlett and Arthur Havenner, Attachment A, SMS/800 Transmittal No. 22, F.C.C. Tariff No. 1 (November 15, 2002)
- “Comments of Coleman D. Bazelon and T. Christopher Borek Relating to Arthur D. Little, Inc.’s Assessment of the Impact of DTV on the Cost of Consumer Television Receivers,” *Ex Parte* Comments MM Docket 00-39 (August 1, 2002)
- “Use Administrative Law Judges to Adjudicate Interference Disputes Between Licensees,” Comment ET Docket No. 02-135 (July 8, 2002)

PRESENTATIONS & SPEAKING ENGAGEMENTS

- Quantification of Reparations for Transatlantic Chattel Slavery: An Estimation by the Brattle Group, with Alberto Vargas, American Society of International Law’s Second Symposium on Reparations Under International Law (February 9, 2023)
- “Good Enough?” 50th Annual Telecommunications Policy Research Conference (TPRC), Washington, D.C. (September 17, 2022).

- Addressing Challenges Around Standard Essential Patents and FRAND Licensing Disputes – 14th Annual Practitioners' Think Tank on ITC Litigation and Enforcement, Washington, DC (June 8, 2022)
- The New Antitrust Agenda – Steptoe's Regulatory Symposium, Washington, DC (December 9, 2021)
- ABA Antitrust Section Consumer Protection Committee Dark Web Webinar (November 12, 2021)
- Frontier Justice – Governance and Incentives for Spectrum Sharing, Silicon Flatirons, (September 10, 2021)
- *5G Spectrum: Building Blocks Of Communications Infrastructure*, Cowen and Company Communications Infrastructure Summit, Boulder, Colorado (August 10, 2021)
- "How to Satisfy Domestic Industry Requirements: Addressing New Intricacies," ACI's 13th Annual Practitioners' Think Tank on ITC Litigation and Enforcement (July 27, 2021)
- "Evolving Public Interest Considerations in 337 Investigations and Litigation," ACI's ITC Litigation & Enforcement (August 25, 2020)
- "CBO Scoring: A Window into the Blackbox: A Brief primer on how the congressional budget office scores auctions," FCBA Brownbag (March 6, 2020)
- "CBO Scoring: A Window into the Blackbox: A Brief primer on how the congressional budget office scores auctions," CTIA Presentation (January 17, 2020)
- *A Fireside Chat with Coleman Bazelon*, Cowen and Company Communications Infrastructure Summit, Boulder, Colorado (August 7, 2018)
- *C-Band: A Market-Driven Spectrum Proposal for 5G*, Senator Visitors Center, Washington, DC (April 13, 2018)
- *Government Seizures of Property*, Ferrum College Forum, Ferrum, Virginia (March 14, 2016)
- *The \$100 Billion Question: Who Gets The Spectrum?*, NAB Content and Communications World, New York, New York (November 11, 2015)
- *Spectrum versus Infrastructure: Complimentary Assets*, Cowen and Company Communications Infrastructure Summit, Boulder, Colorado (August 12, 2015)

- *Moving Towards General Purpose Spectrum*, Aspen Institute Roundtable on Spectrum Policy (AIRS), Queenstown, Maryland (October 22–24, 2014)
- *Winnik International Telecoms & Internet Forum: The Internet of Things*, Washington, DC (October 22, 2014)
- *Spectrum Sharing: How Much Can It Contribute?*, Technology Policy Institute Aspen Forum, Aspen, Colorado (August 18, 2014)
- Internet Privacy, Civil Liberties, National Security, Law, and Economics: In Search of a Coherent Policy Path Forward, Ferrum College Forum, Ferrum, Virginia (March 19, 2014)
- Spectrum Auctions Are Back: What you need to know, Bloomberg BNA Webinar (February 19, 2014)
- *Violating Your Privacy: An Economic Perspective*, 41st Annual Telecommunications Policy Research Conference (TPRC), Arlington, VA (September 28, 2013)
- Other Recent and Planned Spectrum Auctions: What They Portend for the Future: Economic Perspectives on the Auctions, Law Seminars International, Washington, DC (July 22, 2013)
- *Spectrum Auction Policy: Potential Outcomes for Economic Growth and Public Safety*, Georgetown University McDonough School of Business, Rayburn House Office Building, Washington, DC (May 14, 2013)
- *Markets in Wireless Spectrum*, Towards Dynamic Markets in Electric Power, Water, and Wireless Spectrum Seminar, University of Colorado Law School, Boulder, CO (April 23, 2013)
- The Underwood Memorial Lecture and Hoggendorn lecture for the Economic Department, Wesleyan University, Middletown, CT (April 18, 2013)
- *Ethics and Intellectual Entrepreneurship*, Annual College of Social Studies Spring Banquet keynote speaker, Wesleyan University, Middletown, CT (April 17, 2013)
- *Food-Water-Energy The Right Balance*, Ferrum College Forum panel, Ferrum, Virginia (March 12, 2013)
- FCC Incentive Auction Rules: Estimating Clearing Prices and Policy Impacts, SNL Knowledge Center Webinar (February 27, 2013)

- *Reverse Auction Design: Dynamic or Sealed, Algorithmic Issues, Market Power, Reserves, Reference Prices*, Conference on the FCC Incentive Auction, Stanford Institute for Economic Policy Research, Stanford, CA (February 26, 2013)
- *Mobile Impact on Economic Growth and Job Creation*, Consumer Electronics Show, LIT Program Innovation Policy Summit, Las Vegas, NV (January 8, 2013)
- *Incentive Auctions: What Broadcasters Need to Know*, Crossfire Media Webinar (December 19, 2012)
- *Spectrum Value*, 40th Annual Telecommunications Policy Research Conference (TPRC), Arlington, VA (September 22, 2012)
- *FCBA Seminar: Getting from Here to There: The Road Ahead for Spectrum Auctions*, Washington, DC (June 6, 2012)
- *Incentive Auctions*, 39th Annual Telecommunications Policy Research Conference (TPRC), Arlington, VA (September 24, 2011)
- *Competition in the Wireless Environment: How to Get More Handsets or More Networks*, Broadband Breakfast Club, Washington, DC (February 15, 2011)
- *Introducing TV White Spaces*, Spectrum Bridge webinar (October 28, 2010)
- *The Indian 3G and BWA Auctions*, 38th Annual Telecommunications Policy Research Conference (TPRC), Arlington, VA (October 2, 2010)
- *How Smart Public Policies Can Drive the Mobile Broadband Transformation*, Information Technology and Innovation Foundation's The Emerging Mobile Broadband Economy and its New Business Models, Washington, DC (September 14, 2010)
- *Community Broadband-A Blessing or Curse?*, K&L Gates LLP Municipal Broadband Webcast (July 29, 2010)
- *Towards A Sustainable Spectrum Policy: Rethinking Federal Spectrum*, Public Knowledge, Washington, DC (June 3, 2010)
- *Unraveling Net Neutrality: Should the FCC Regulate Broadband*, Independence Institute, Denver, CO (May 26, 2010)
- *CQ-Roll Call Policy Breakfast on the Future of Wireless Broadband*, Washington, DC (May 20, 2010)

- Congressional Staff Briefings on “The Need for Additional Spectrum for Wireless Broadband: The Economic Benefit and Costs of Reallocations,” Washington, DC (December 8, 2009)
- The Progress and Freedom Foundation’s “Let’s Make a Deal: Broadcasters, Mobile Broadband, and a Market in Spectrum,” Washington, DC (December 1, 2009)
- FCBA’s Intellectual Property Practice Committee Brown Bag Lunch, Washington, DC (November 30, 2009)
- *Measuring Concentration in Radio Spectrum License Holdings*, 37th Annual Telecommunications Policy Research Conference (TPRC), Arlington, VA (September 26, 2009)
- *FCC Broadband Spectrum Workshop*, Washington, DC (September 17, 2009)
- *Broadband Stimulus Plan*, 2009 FLATOA-FCBA Conference, Tampa, FL (June 26, 2009)
- *Leveraging the Broadband Stimulus and Licensed Spectrum*, Webinar (April 29, 2009)
- *Keynote Address*, Enterprise Wireless08, Scottsdale, AZ (November 6, 2008)
- *Licensed or Unlicensed: The Economic Considerations in Incremental Spectrum Allocations*, DySPAN, Chicago, IL (October 16, 2008)
- *Overreaching: The Policy Failures of the 700 MHz Auction*, 36th Annual Telecommunications Policy Research Conference (TPRC), Arlington, VA (September 27, 2008)
- *Cream Skimming*, 35th Annual Telecommunications Policy Research Conference (TPRC), Arlington, VA (September 29, 2007)
- *Auction Revenues are not the Only Revenues that Should Drive Spectrum Policy*, Law Seminars International: Spectrum Management, Washington, DC (September 17, 2007)
- *Market Allocation for Radio Spectrum*, International Telecommunications Union Workshop on Market Mechanisms for Spectrum Management, Geneva, Switzerland (January 2007)
- *Licensed vs. Unlicensed Spectrum: A New Economic Model for Determining the Trade-offs*, 34th Annual Telecommunications Policy Research Conference (TPRC), Arlington, VA (September 30, 2006)
- *Decoding the Future of IP-TV*, Northern California Chapter of the Federal Communications Bar Association, San Francisco (February 2006)

- *Accelerating the Digital Television Transition*, COMPTEL Executive Business & Policy Summit, Washington, DC (December 2005)
- *Regulated Unbundling of Telecommunications Networks: A Stepping Stone to Facilities Based Competition?*, Telecommunications Policy Research Conference, Arlington, VA (September 2005)
- *Sending the Right Signals: Promoting Competition Through Telecommunications Reform: A Report to the U.S. Chamber of Commerce*, presentation of report to the US Chamber of Commerce (October 6, 2004)
- *Telecommunications Reform*, presentation to the US Chamber of Commerce's Technology Policy Committee (April 29, 2004)
- *Interlicense Competition*, Telecommunications Policy Research Conference, Arlington, VA (September 2003)
- *Marketing & Legal Strategies: Hope, Hype & Crash Landings*, WCAI 2003, Washington, DC (July 10, 2003)
- *Spectrum Policy Task Force Interference Recommendations*, Manhattan Institute Conference, Washington, DC (February 13, 2003)
- *FCC License Auctions*, Society of Government Economists Conference, Washington, DC (November 22, 2002)
- *Spectrum Management Panel*, CTIA Wireless 2002, Orlando, FL (March 18, 2002)
- *A Note on Correlation*, ASSA Annual Meetings, Atlanta, GA (January 6, 2002)
- *Regulatory Forbearance*, Powerline Communications Conference, Washington, DC (December 13, 2001)
- *Spectrum License Valuations*, CTIA Wireless Agenda 2001, Dallas, TX (May 2001)
- *Old Spectrum in the New Economy*, with David Moore, invited paper, Society of Government Economists Conference, "The New 'Economy': What Has Changed and Challenges for Economic Policy," Washington, DC (November 2000)
- *Discounting Inside the Washington DC Beltway*, Energy Information Agency Seminar Series, Washington, DC (March 2000)

- *Discounting Inside the Washington DC Beltway*, Congressional Budget Office Seminar Series, Washington, DC (November 1999)
- *Completing the Transition to Digital Television*, Telecommunications Policy Research Conference, Arlington, VA (September 1999)
- *Digital Television Transition*, Congressional Budget Office Seminar Series, Washington, DC (April 1999)
- *The Budgetary Treatment of Asset Sales*, briefing for the staff of the Senate Budget Committee, Washington, DC (February 1997)
- *The Value Added from Multilateral Bargaining Theory for Applied Research*, with Greg Adams, Selected Paper, AAEA Annual Meeting, Baltimore, MD (August 1992)
- The Importance of Political Markets in Formulating Economic Policy Recommendations, Selected Paper, AAEA Annual Meeting, Manhattan, KS (August 1991)
- *L.D.C. Debt and Policy Linkages in the Determination of World Commodity Prices*, with Gordon Rausser, Selected Paper, AAEA Annual Meeting, Vancouver, BC, Canada (August 1990)

PROFESSIONAL ASSOCIATIONS & MEMBERSHIPS

- American Bar Association
- American Economic Association
- Federal Communications Bar Association
- National Research Council, Committee on a Survey of the Active Scientific Use of the Radio Spectrum

February 10, 2023