Gregory L. Rosston

Director, Public Policy Program

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Employment

Stanford University, Stanford, CA 1997-present

Public Policy Program

Director, 2014 - present Co-Director, 2013-2014

Deputy Director, 2006-2013

Stanford Institute for Economic Policy Research

Senior Fellow, 2012-present

Deputy Director, 1999-2016 Senior Research Scholar, 2004-2012,

Research Scholar, 1997-2004

Professor of Economics, by courtesy, 2012-present

Lecturer in Economics and Public Policy, 1997-2012

Federal Communications Commission, Washington, DC

Senior Economist for Transactions, 2011 (part-time while at Stanford)

Deputy Chief Economist, 1995-1997

Acting Chief Economist, Common Carrier Bureau, 1996

Senior Economist, Office of Plans and Policy, 1994-1995

Law and Economics Consulting Group, Berkeley, CA

Senior Economist, 1990-1994

Economists Incorporated, Washington, DC

Economist/Research Associate, 1986-1988

Education

Stanford University, M.A., Ph.D., in Economics, 1986, 1994. University of California, Berkeley, A.B. in Economics with Honors. 1984.

Papers and Publications

"An Economic Analysis of the Effects of FCC Regulation on Land Mobile Radio," unpublished Ph.D. dissertation, Stanford University. 1994.

"Competition in Local Telecommunications: Implications of Unbundling for Antitrust Policy" in Brock, G., (ed.) <u>Toward a Competitive Telecommunication Industry:</u>
<u>Selected Papers from the 1994 Telecommunications Policy Research Conference,</u> LEA Associates, Mahwah, NJ. 1995 (with Harris, R. and Teece, D.).

"Competition and 'Local' Communications: Innovation, Entry and Integration," *Journal of Industrial and Corporate Change*. 1995 (with Teece, D.).

"Spectrum Flexibility will Promote Competition and the Public Interest," *IEEE Communications Magazine*, December, 1995 pp 2-5. (with Hundt, R.).

"Interconnecting Interoperable Systems: The Regulators' Perspective." *Information, Infrastructure and Policy.* 1995 (with Katz, M., and Anspacher, J.).

"Everything You Need To Know About Spectrum Auctions, But Didn't Think To Ask," *Washington Telecom News*, Vol. 4, No. 5. February 5, 1996 p-5. (with Hundt, R.).

<u>The Internet and Telecommunications Policy: Selected Papers from the 1995</u>
<u>Telecommunications Policy Research Conference</u>, LEA Associates, Mahwah, NJ. 1996 (ed. with Brock, G.).

"Introduction," in Brock, G., and Rosston, G., (ed.s) (1996) The Internet and Telecommunications Policy: Selected Papers from the 1995 Telecommunications Policy Research Conference, LEA Associates, Mahwah, NJ. 1996 (with Brock, G.).

"Competition and 'Local' Communications: Innovation, Entry and Integration," in Noam, E., (ed.) <u>The End of Territoriality in Communications: Globalism and Localism</u>, Elsevier. 1997 (with Teece, D.).

"<u>Using Market-Based Spectrum Policy to Promote the Public Interest</u>," FCC Staff Paper, 1997. Also published in *Federal Communications Law Journal*, Vol. 50, No. 1. 1997 (with Steinberg, J.).

"A New Spectrum Policy: Letting the Market Work" *Radio Communication Reports*, March 3, 1997, pp 59-64.

"The Telecommunications Act Trilogy," *Media Law and Policy*. Vol V, No. 2, Winter 1997, pp 1-12.

"Interconnection and Competition Policy," *Cable TV and New Media*. Vol XV, No. 3 May, 1997, pp 1-4.

"Pricing Principles to Advance Telephone Competition," *Cable TV and New Media*. Vol XV, No. 4 June, 1997, pp 1-3.

<u>Interconnection and The Internet: Selected Papers from the 1996 Telecommunications Policy Research Conference</u>, LEA Assoc., Mahwah, NJ. 1997 (ed. w/ Waterman, D.).

"Introduction," in Waterman, D., and Rosston, G., (ed.s) (1997) <u>Interconnection and The Internet: Selected Papers from the 1996 Telecommunications Policy Research Conference</u>, LEA Assoc., Mahwah, NJ. 1997 (with Waterman, D.).

- "Comment on the Value of New Services in Telecommunications" *Brookings Papers on Microeconomic Activity--Microeconomics*, 1997.
- "Universal Service Reform: An Economist's Perspective," *Cable TV and New Media*. Vol XV No. 11, January, 1998, pp 1-4.
- "Alternative Paths to Broadband Deployment," *IEEE Communications Magazine*, July, 1998 pp 2-4. (with Hundt, R.).
- "The High Cost of Universal Service," *CCH Power and Telecom Law*, January-February 1999 (with Wimmer, B.).
- "Effects of Unbundling Proposals on Cable Investment Incentives," *The Party Line, Newsletter of the Communications Industry Committee, American Bar Association Section of Antitrust Law, March 1999* (with Owen. B.)
- "The ABC's of Universal Service: Arbitrage, Big Bucks and Competition," *Hastings Law Journal*, Vol. 50, No. 6, August 1999 (with Wimmer, B.).
- "An Insiders' View of FCC Spectrum Auctions," *Journal of Regulatory Economics*, Vol 17, No. 3, 253-289, 2000 (with Kwerel, E.).
- "Winners and Losers from the Universal Service Subsidy Battle," in Vogelsang, I. and Compaine, B. (ed.s) <u>The Internet Upheaval: Raising Questions, Seeking Answers in</u> Communications Policy, Cambridge, MA: MIT Press, 2000 (with Wimmer, B.).
- "The Telecommunications Sector" in Kessides, I. (ed.) <u>Hungary: A Regulatory and Structural Review of Selected Infrastructure Sectors</u>, World Bank Technical Paper No. 474, Washington, DC, June 2000.
- "The 'State' of Universal Service," *Information, Economics and Policy,* Vol. 12, No. 3. 261-283, September 2000 (with Wimmer, B.).
- "From C to Shining C: Competition and Cross-Subsidy in Communications," in Compaine, B. and Greenstein, S. (ed.s) Communications Policy in Transition: The Internet and Beyond. Selected Papers from the 2000 Telecommunications Policy Research Conference, Cambridge, MA: MIT Press, 2001 (with Wimmer, B.).
- "Universal Service, Competition and Economic Growth: The Case of the Hidden Subsidy," April 2001 in Dossani, R. (ed.) <u>Reforms in the Telecommunications Sector in India</u>, Greenwood Press (with Wimmer, B.).

"The Digital Divide: Definitions, Measurement, and Policy Issues," in Bridging the Digital Divide, California Council on Science and Technology, May 2001 (with Noll, R., Older-Aguilar, D. and Ross, R.).

"The Long and Winding Road: The FCC Paves the Path with Good Intentions," *Telecommunications Policy*, Vol. 27, No. 7, 501-515, August 2003.

"Spectrum Allocation and the Internet," Cyber Policy and Economics in an Internet Age, Lehr W. and Pupillo, L. (ed.s), Kluwer Academic Publishers, New York, 2002. (with Owen. B.).

"The Economics of the Supreme Court's Decision On Forward Looking Costs," *Review of Network Economics*, September, 2002 Vol. 1, No. 2, September 2002 (with Noll, R.)

"Local Broadband Access: Primum Non Nocere or Primum Processi? A Property Rights Approach," in Net Neutrality or Net Neutering: Should Broadband Internet Services be Regulated, Lenard, T. and May, R. (ed.s) Springer: New York, 2006 (with Owen, B.)

"A Losing Battle for All Sides: The Sad State of Spectrum Management" *Federal Communications Law Journal*, Vol. 56 No. 2, March 2004.

Review of *The Second Information Revolution*. by Gerald W. Brock, *Journal of Economic Literature*, Vol. XLII, June, 2004 pp 1157-1158

"Local Telephone Rate Structures Before and After the Act," *Information, Economics and Policy*, Vol. 17, No. 1, pp 13-34, January 2005 (with Wimmer, B.).

"Communications Policy for 2006 and Beyond" *Federal Communications Law Journal*, Vol. 58 No. 1, 2006 (with Hundt, R.).

"The Effect of Private Interests on Regulated Retail and Wholesale Prices," *Journal of Law and Economics*, Vol. 51, No 3. August 2008 (with Savage, S. and Wimmer, B).

"The Rise and Fall of Third-party High-speed Access," *Information, Economics and Policy* Vol. 21 No. 1 February 2009 pp 21-33.

"Low-Income Demand for Local Telephone Service: Effects of Lifeline and Linkup," Stanford Institute for Economic Policy Research Discussion Paper No. 07-32 (with Ackerberg, D., Riordan, M. and Wimmer, B.)

"An Antitrust Analysis of the Case for Wireless Net Neutrality," (with Topper, M.) *Information, Economics and Policy* Vol. 22 No. 1, March 2010 pp 103-119.

- "Household Demand for Broadband Internet Service in 2010," *B. E. Journal of Economic Analysis & Policy: Advances*, Vol 10, No 1. August 2010. (with Savage, S. and Waldman, D.).
- "The Path to Universal Broadband: Why We Should Grant Low-Income Subsidies and Use Experiments and Auctions to Determine the Specifics," *The Economists' Voice*, Vol 8, Iss. 1. 2011. (with Wallsten, S.).
- "Using Spectrum Auctions to Enhance Competition in Wireless Services" *Journal of Law and Economics*, November 2011. (with Cramton, P., Kwerel, E. and Skrzypacz, A.).
- "Economic Principles for Ex Ante Rules for Radio" Journal on Telecommunications and High Technology Law Vol 9. No 2. Spring 2011. (with Wallsten, S.).
- "Economic and Business Dimensions: Incentive Auctions," *Communications of the ACM*, 2012, Vol. 55, No. 2.
- "The Effect of Network Unbundling on Retail Prices: Evidence from the Telecommunications Act of 1996," *Journal of Law and Economics*, Vol 56, No. 2. May 2013. (with Savage, S. and Wimmer, B).
- "Articulating A Modern Approach to FCC Competition Policy," *Federal Communications Law Journal*, Vol 66, No. 1. December 2013. (with Hundt, R.).
- "The Proposed Merger of AT&T and T-Mobile: Rethinking Possible (2011)," in Kwoka, J. and White, L (eds.) <u>The Antitrust Revolution</u>, Sixth Edition, Oxford University Press. 2014. (with DeGraba, P.)
- "Increasing Wireless Value: Technology, Spectrum, and Incentives," *Journal on Telecommunications and High Technology Law*, Vol 12, No. 1, 2014.
- "The Broadband Stimulus: A Rural Boondoggle and Missed Opportunity," *I/S Journal: A Journal of Law and Policy for the Information Society.* Vol 9, No. 3 Winter 2014. (with Wallsten, S.).
- "Technological and Regulatory Change in the Communications Industry," in Payson, S. (ed.) <u>Public Economics in the United States: How the Federal Government Analyzes and Influences the Economy</u>, ABC-LIO Press 2014.
- "Estimating the Impact of Low-income Universal Service Programs," *International Journal of Industrial Organization* 37 (2014) 84–98. (with Ackerberg, D., DeRemer, D. Riordan, M. and Wimmer, B.).

- "Increasing the Efficiency of Spectrum Allocation," *Review of Industrial Organization*, Volume 45, Issue 3 (2014) 221-243, August 2014.
- "Reviewing wireless mergers: providing clarity on how to evaluate competition, efficiency and the 'public interest'," *The Antitrust Bulletin*, September 2015, *Vol. 60*, *No 3 pp. 250-267* (with DeGraba, P.)
- "Reflecting on the 1996 Act," *Federal Communications Law Journal*, Vol 68, No. 1. January 2016. (with Wimmer, B.).

Policy Briefs and Opinion Pieces

- "On the Record: Former FCC Economist Backs Universal Service Alternative," *Telecommunications Reports*, Vol. 63, No. 51. December 22, 1997, pp 51-53.
- "The Future of Wireless," Stanford Institute for Economic Policy Research *Policy Brief*, May 2001.
- "Politics Lands Bush in High Price Lane," Los Angeles Times, June 15, 2001.
- "Antitrust Implications of EchoStar-DirecTV Proposed Merger," Stanford Institute for Economic Policy Research *Policy Brief*, November 2001.
- "Supreme Court Decision Regarding the FCC Implementation of the Telecommunications Act of 1996," Stanford Institute for Economic Policy Research *Policy Brief*, May 2002 (with Noll, R.).
- "The FCC Spectrum Policy Task Force Report: A Very Small Step,"
- "The FCC and Local Competition," Stanford Institute for Economic Policy Research *Policy Brief*, April 2003.
- "Why Airwaves Should be Deregulated," CNET.com, February 11, 2004 (w/ T. Hazlett).
- "Broadband Users, Watch your Wallets," CNET.com, April 27, 2004.
- "The Next Phase of the Electronic Highway: Universal Broadband -- Big bucks beyond the vision" San Francisco Chronicle, April 30, 2004.
- "Cheap Net Phones Face the Threat of a Tax Hangup," San Jose Mercury News, June 17, 2004. (with Hahn, R. and Wallsten, S.)
- "Judging the Google IPO," CNET.com August 17, 2004.
- "For Whom the Bridge Tolls" San Francisco Chronicle, August 27, 2004.

"Writing the Right Ending to the MCI Saga," CNET.com April 5, 2005.

"Traffic Congestion, Congestion Pricing and the Price of Using California's Freeways," SIEPR *Policy Brief*, April 2005 (with Flamm, B.).

"<u>Humpty-Dumpty? Competitive Effects of the AT&T – BellSouth Merger</u>," Stanford Institute for Economic Policy Research *Policy Brief*, March 2006.

"Free Internet access in S.F. not the best deal for consumers," San Jose Mercury News, March 12, 2006.

"The FCC's 700 MHz Auction," SIEPR *Policy Brief*, December 2007 (with Andrzej Skrzypacz)

"Quit fooling with wireless-spectrum auction," CNET.com, January 23, 2008

"Testimony of Gregory L. Rosston" at the FCC En Banc Hearing on Broadband Network Management Practices, Stanford University, April 17, 2008

"Saving the digital transition," CNET.com, January 24, 2009 (with Scott Wallsten).

"<u>Using Procurement Auctions to Allocate Broadband Stimulus Grants</u>," SIEPR *Policy Brief*, May 2009 (with Milgrom, P. and Skrzypacz, A.)

"Fixing Detroit's Bailout Blues" CBSNews.com, May 29, 2009

"The National Broadband Plan," SIEPR *Policy Brief*, February, 2010.

"Household Demand for Broadband Internet Service," *Communications of the ACM*, February, 2011 Vol. 54, No. 2. (with Scott Savage and Donald Waldman).

"Competitive Implications of the Proposed Acquisition of T-Mobile by AT&T Mobility" SIEPR *Policy Brief*, March 2011 (with Roger Noll).

"Free markets and rural universal service," *The Hill*, July 6, 2015. (with Scott Wallsten)

"Moving from Broadcast Television to Mobile Broadband: The FCC's 2016 Incentive Auction," SIEPR *Policy Brief*, January 2016 (with Skrzypacz, A.)

"Ten Important Economic Policy Areas for President-elect Trump," SIEPR *Policy Brief*, November 2016.

Book Review of "The Political Spectrum," by Thomas Hazlett, *The Wall Street Journal*, July 16, 2017

"Digital Analogs: Computing, Internet, and Spectrum Lessons for New Space Policy," Report for the Federal Aviation Administration, Office of Commercial Space, Sponsored by Grant 15-C-CST-SU-01, Phase II. (with Ward Hanson) July 19, 2017.

Other Activities

Editorial/Committees

President's Council of Advisors on Science and Technology Working Group on Spectrum, 2011-2012.

Department of Commerce Spectrum Management Advisory Committee, Co-Chair, 2011-2014, Member, 2010-2014

Telecommunications Policy Research Conference Board, 2009-2012

Member, Obama Presidential Transition Team, 2008

Co-chair, Obama for President, Economy, Globalization, and Trade Committee, 2008 Associate Editor, *Information, Economics and Policy*, 2008-2010

Referee for various academic journals.

Telecommunications Policy Research Conference, Program Committee 2002-2004.

Bay Area Economic Profile Academic Review Panel, 2003-2004.

National Research Council Committee on *Wireless Technology Prospects and Policy*, 2003-2011

Testimony and Submissions

FCC Economist Panel on the Economics of Interconnection, May, 1996.

FCC Economist Panel on the Economics of RBOC Entry under §271, July, 1996.

FCC Economist Panel on Competitive Bidding for USF, March, 1997.

Consultant for the World Bank on Telecommunications Policy in Hungary, 1998.

FCC Academic Expert Panel on "A New FCC for the 21st Century," June 1999.

FCC Academic Expert Panel on AT&T—MediaOne Merger, February, 2000.

Principal co-author of 37 Concerned Economists submission on "Promoting Efficient use of Spectrum Through Elimination of Barriers to the Development of Secondary Markets," February 2001

FCC Panel on Wireless Competition, February 2002.

FCC Workshop on Spectrum Policy, July 2002.

San Francisco Telecom Commission on Cable Competition, January 2003.

U.S. Senate Commerce Committee on Spectrum Policy, March 2003.

California State Senate Committee on Banking, Commerce and International Trade on the Economic Effects of Media Consolidation, March 2003.

San Francisco City Board of Supervisors Land Use Committee on Cable Competition, July 2004.

GAO Panel on Spectrum Allocation and Assignment, August, 2005.

Comments and Reply Comments (with Paul Milgrom) on Auction Rules for Advanced Wireless Services, February 2006

FTC Panel on Network Neutrality, February 2007.

FCC En Banc Hearing on Network Management, April 2008.

Principal co-author of 71 Concerned Economists submission on "Using Procurement

Auctions to Allocate Broadband Stimulus Grants" Submitted to the National

Telecommunications Information Agency (NTIA) and Rural Utilities Service (RUS), April, 2009

FCC Broadband Task Force, Workshop on "Benchmarks" September 2009

U.S. House Commerce Subcommittee on Communications, Technology and the Internet, Universal Service hearings, November 2009

FCC Video Relay Service Reform Workshop, December, 2009

FCC Roundtable on Experiments for Universal Service, 2010

Principal co-author of Letter from 112 Economists to President Obama on Spectrum Auctions and Repurposing Spectrum, April, 2011

FCC Universal Service Reform Workshop, April, 2011

Other

Stanford University

Stanford in Washington Faculty Advisory Committee 2017 – present

Haas Center for Public Service Faculty Steering Committee, 2014 – present

Writing and Rhetoric Review Board, 2014 – 2017

Committee on Review of Undergraduate Majors, 2017 - present

Stanford Federal Credit Union

Chairman, 2016 – present

Board, 2014 – present

Advisory Board, 2012 – 2014

Sustainable Conservation, Advisory Board, 2007 – present

Nepalese Youth Opportunity Fund

Treasurer, 2016 – present

Board, 2012 – present

Advisory Board, 2007-2012

Boards and Advisory Boards for private companies

Awards

Chairman's Distinguished Service Award, FCC, 1997

University of California, Brad King Award for Young Alumni Service, 1994

National Performance Review Hammer Award for Reinventing Government, 1994