

## *Curriculum Vitae*

### **F. Mark Muro**

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#### **MAJOR FIELDS**

Metropolitan policy and research; economic development, regional economic policy; innovation policy, energy issues; federalism and governance; growth management; the American West

#### **PROFESSIONAL POSITIONS**

**2005-present *Senior Fellow and Policy Director. Metropolitan Policy Program, Brookings Institution***

*Policy Director.* Supervise the development and implementation of the Metro Program's policy agenda. Establish overall policy research agenda; conceptualize, develop, manage, author, and edit key policy research publications; coordinate multiple internal policy development and communication functions; communicate program's policy work to external audiences. Key research focuses include: regional economic policy; innovation policy, energy policy; federalism and governance issues, the Intermountain West

**2002-2005 *Senior Policy Analyst. Metropolitan Policy Program, Brookings Institution***

Managed the center's publication program and served as principle author of major state and regional development reports. Conceptualized, developed, and wrote numerous multi-dimensional research and policy documents, integrating internal and external research, partners, and advice.

**2000-2002 *Senior Policy Analyst. Morrison Institute for Public Policy, Arizona State University***

Prepared studies, briefing papers, and articles on growth issues, economic development, innovation, land use, and downtown redevelopment policy for university think tank

**1993–2000** *Editorial Writer. Arizona Daily Star*

**1982-1993** *Staff Writer. Boston Globe*

## **EDUCATION**

M.A., University of California at Berkeley, American Literature, 1990

B.A., *magna cum laude*; Harvard University, English and American Literature, 1982

## **PUBLICATIONS**

### **Policy Reports, Articles, and Similar Publications**

America’s Advanced Industries: New Trends.” Brookings Institution. August 4 2016. (with Sid Kulkarni and David Hart.”

“Rooftop Solar: Net Metering Is A Net Benefit.” Brookings Institution. May 23, 2016. (with Devashree Saha).

“Permanent Trust Funds: Funding Economic Change with Fracking Revenues.” Brookings Institution, April 19, 2016. (with Devashree Saha)

“Rhode Island Innovates: A Competitive Strategy for the Ocean State.” Battelle Technology Partnership, January 15, 2016.

”America’s Advanced Industries: What They Are, Where They Are, Why They Matter.” Brookings Institution, February 3, 2015. (with Jonathan Rothwell, Scott Andes, Kenan Fikri, Siddharth Kulkarni)

“Cracking the Code on STEM: A People Strategy for Nevada’s Economy.” Brookings Institution, November 2014. (with Jessica Lee, Jonathan Rothwell, Scott Andes, and Siddharth Kulkarni)

“Mountain Monitor: Tracking Economic Recession and Recovery in the Intermountain West’s Metropolitan Areas.” Brookings Institution, September 2014. (with Kenan Fikri)

“Going Local: Connecting the National Labs to their Regions to Maximize Innovation and Growth.” Brookings Institution, September 10, 2014. (with Scott Andes and Matthew Stepp)

“Clean Energy Finance Through the Bond Market: A New Option for Progress.” Brookings Institution, April 16, 2014. (with Lewis M. Milford, Devashree Saha, Robert Sanders and Toby Rittner)

“Powering Advanced Industries: State by State.” Brookings Institution, February 2014. (with Kenan Fikri and Scott Andes)

“Using Ballot Measures to Drive Economic Investment in States and Metropolitan Areas.” Brookings Institution, December 2013. (with Jessica Lee and Bruce Katz)

“Drive! Moving Tennessee’s Automotive Industry Up the Value Chain.” Brookings Institution, October 2013. (with Scott Andes, Jessica Lee, Kenan Fikri, Neil Ruiz, and Nick Marchio)

“Mountain Monitor: Tracking Economic Recession and Recovery in the Intermountain West’s Metropolitan Areas.” Brookings Institution, March 2013. (with Kenan Fikri)

“Launch! Taking Colorado’s Space Economy to the Next Level.” Brookings Institution, February 2013. (with Devashree Saha, Kenan Fikri, Jessica Lee, and Nick Marchio)

“Patenting Prosperity: Invention and Economic Performance in the United States and its Metropolitan Areas.” Brookings Institution, February 2013. (with Jonathan Rothwell, José Lobo, and Deborah Strumsky)

“Cut to Invest: Create a Nationwide Network of Advanced Industries Innovation Hubs.” Brookings Institution, January 2013. (with Devashree Saha)

“Cut to Invest: Make the Research and Experimentation Tax Credit Permanent.” Brookings Institution, December 2012. (with Jessica Lee)

“Cut to Invest: Institute a Modest Carbon Tax to Reduce Carbon Emissions, Finance Clean Energy Technology Development, Cut Taxes and Reduce the Deficit.” Brookings Institution, November 2012. (with Jonathan Rothwell)

“Remaking Federalism | Renewing the Economy: Resetting Federal Policy to Recharge the Economy, Stabilize the Budget, and Unleash State and Metropolitan Innovation.” Brookings Institution, November 2012. (with Bruce Katz)

“Mountain Monitor: Tracking Economic Recession and Recovery in the Intermountain West’s Metropolitan Areas.” Brookings Institution, September 2012. (with Kenan Fikri)

“State Clean Energy Finance Banks: New Investment Facilities for Clean Energy Deployment.” Brookings Institution, September 2012. (with Ken Berlin, Reed Hundt, and Devashree Saha)

“Mountain Monitor: Tracking Economic Recession and Recovery in the Intermountain West’s Metropolitan Areas.” Brookings Institution, June 2012. (with Kenan Fikri)

“Green Growth and the Sub-National Development Imperative” *Rio +20: Coalitions Driving Bottom-Up Change*. Brookings Institution, June 2012. (with Devashree Saha)

“Beyond Boom and Bust: Putting Clean Tech On a Path To Subsidy Independence.” Brookings Institution, The Breakthrough Institute and the World Resources Institute, April 2012. (with Jesse Jenkins, Ted Nordhaus, Michael Shellenberger, Letha Tawney and Alex Trembath)

“Mountain Monitor: Tracking Economic Recession and Recovery in the Intermountain West’s Metropolitan Areas.” Brookings Institution, March 2012. (with Kenan Fikri)

“Leveraging State Clean Energy Funds for Economic Development.” Brookings Institution, January 2012. (with Lewis Milford, Jessica Morey, Devashree Saha and Mark Sinclair)

“Mountain Monitor: Tracking Economic Recession and Recovery in the Intermountain West’s Metropolitan Areas.” Brookings Institution, December 2011. (with Kenan Fikri)

“Unify, Regionalize, Diversify: An Economic Development Agenda for Nevada.” Brookings Mountain West/ Brookings Institution and SRI International, November 2011.

“Mountain Monitor: Tracking Economic Recession and Recovery in the Intermountain West’s Metropolitan Areas.” Brookings Institution, September 2011. (with Kenan Fikri)

“Sizing the Clean Economy: A National and Regional Green Jobs Assessment.” Brookings Institution, July 2011. (with Jonathan Rothwell and Devashree Saha)

“Mountain Monitor: Tracking Economic Recession and Recovery in the Intermountain West’s Metropolitan Areas.” Brookings Institution, June 2011. (with Kenan Fikri and Jonathan Rothwell)

“Metropolitan Business Plans: A New Approach to Economic Growth.” Brookings Institution, April 2011. (with Bob Weissbourd)

“Structurally Unbalanced: Cyclical and Structural Deficits in Arizona.” Brookings Mountain West / Brookings Institution and Morrison Institute for Public Policy, January 2011. (with Matt Murray, Kristin Borns, Sue Clark-Johnson and Jenifer Vey)

“Structurally Unbalanced: Cyclical and Structural Deficits in California and the Intermountain West.” Brookings Mountain West/Brookings Institution and Morrison Institute for Public Policy, January 2011. (with Matt Murray, Sue Clark-Johnson and Jenifer Vey)

“Job Creation on a Budget: How Regional Innovation Clusters Can Add Jobs, Bolster Entrepreneurship, and Spark Innovation.” Brookings Institution. January 2011

“Metropolitan Business Plans: A new Approach to Economic growth.” Brookings Institution. December 2010.

“Post-Partisan Power: How a Limited and Direct Approach to Energy Innovation can Deliver Clean, Cheap Energy, Economic Productivity, and National Prosperity.” Breakthrough Institute. October 2010

“The New ‘Cluster Moment’: How Innovation Clusters Can Foster the Next Economy.” Brookings Institution. September 2010.

“Export West: How Mountain West Metros Can Lead National Export Growth and Boost Competitiveness.” Brookings Mountain West/Brookings Institution, July 2010. (with Jonathan Rothwell and Emilia Istrate)

“Mountain Monitor: Tracking Economic Recession and Recovery in the Intermountain West’s Metropolitan Areas.” Brookings Mountain West / Brookings Institution, June 2010. (with Jonathan Rothwell and Kenan Fikri)

“Strengthening Clean Energy Competitiveness: Opportunities for America Competes Reauthorization.” Brookings Institution, The Information Technology & Innovation Foundation, and Breakthrough Institute, June 2010. (with Rob Atkinson and others)

“Hubs of Transformation: Leveraging the Great Lakes Research Complex for Energy Sector Innovation.” Brookings Institution, June 2010. (with Jim Duderstadt and Sarah Rahman)

“Mountain Monitor: Tracking Economic Recession and Recovery in the Intermountain West’s Metropolitan Areas.” Brookings Mountain West / Brookings Institution, March 2010. (with Jonathan Rothwell)

“Growth through Innovation: It Will Be Metropolitan-Led.” Brookings Institution, November 2009. (with Robert Puentes)

“Mountain Monitor: Tracking Economic Recession and Recovery in the Intermountain West’s Metropolitan Areas.” Brookings Mountain West / Brookings Institution, 2009. (with Jonathan Rothwell and Robert Lang)

“Response to Policy Questions from Nov. 19th Brookings event on local fiscal crisis,” Memo to Jared Bernstein, December 7, 2009. (with Bruce Katz, Don Borut, and Chris Hoene).

“Fiscal Challenges Facing Cities: Implications for Recovery.” Brookings Institution, 2009. (with Chris Hoene)

“An Analysis of Air Traffic Patterns in the Intermountain West.” Brookings Institution, 2009. (with Adie Tomer, Robert Puentes, and Jonathan Rothwell)

“Why National Economic Policy Should Engage in Support of Regional Cluster Initiatives.” Unpublished memo to Ginger Lew, National Economic Council, July 2009. (With Jonathan Rothwell and Andrew Reamer)

“Miracle Mets: How U.S. Metros Propel America's Economy and Might Drive Its Recovery.” Democracy Journal, 2009. (with Bruce Katz and Jennifer Bradley)

“Implementing ARRA: Innovations in Design in Metropolitan America.” Brookings Institution, 2009. (with Sarah Rahman and Amy Liu)

“Metro Potential in ARRA: An Early Assessment of the American Recovery and Reinvestment Act.” Brookings Institution, 2009. (with Jennifer Bradley, Sarah Rahman, and others)

“Energy Discovery-Innovation Institutes: A Step toward America’s Energy Sustainability.” Brookings Institution, 2008. (with Jim Duderstadt and others)

“Mountain Megs: America’s Newest Metropolitan Places and a Federal Partnership to Help Them Prosper.” Brookings Institution, 2008. (With Robert Lang and Andrea Sarzinski)

“MetroPolicy: Shaping a New Federal Partnership for a Metropolitan Nation.” Brookings Institution, 2008. (with Bruce Katz, Sarah Rahman, and David Warren)

“Reconnecting Massachusetts Gateway Cities: Lessons Learned and an Agenda for Renewal.” Brookings Institution, 2007.

“Committing to Prosperity: Moving Forward on the Agenda to Renew Pennsylvania.” Brookings Institution, 2007.

“Charting Maine’s Future: An Action Plan for Promoting Sustainable Prosperity and Quality Places.” Brookings Institution, 2006.

“Investing in a Better Future: The Fiscal and Competitive Advantages of Smarter Growth Development Patterns.” Brookings Institution, 2004.

“Back to Prosperity: A Competitive Agenda for Renewing Pennsylvania.” Brookings Institution, 2003. (with Bruce Katz and Jennifer Vey)

“Growth in the Heartland: Challenges and Opportunities for Missouri.” Brookings Institution, 2002.

“Beyond Merger: A Competitive Vision for the Regional City of Louisville.” Brookings Institution, 2002.

“The Economics of Large-Scale Conservation: A Framework for Assessment in Pima County.” Morrison Institute for Public Policy (Arizona State University), 2002.

“Five Shoes Waiting to Drop on Arizona’s Future.” Morrison Institute for Public Policy (Arizona State University), 2001. (with Mary Jo Waits)

“Hits and Misses: Fast Growth in Metropolitan Phoenix.” Morrison Institute for Public Policy (Arizona State University), 2000. (with Mary Jo Waits)

### **Op-Eds**

“Why Rhode Islanders Are So Grumpy,” *Providence Journal*. February 21, 2016. (with Bruce Katz)

“‘Hacker’ Ethos Comes to the Factory Floor.” *San Francisco Chronicle*. February 18, 2016. (with Kelly Kline)

“What States Need to Do to Grow Their Advanced Industries.” *Governing*. December 12, 2014. (with Bruce Katz) Also published on The Avenue.

“Needed in Nevada: A Giga-Push on STEM Skills.” *Reno Gazette-Journal*. November 28, 2014. (with Jessica Lee)

“Follow these Guideposts to Shape Nevada’s Technology Future.” *Las Vegas Sun*. November 23, 2014.

“To Seize Future, State Must Seize Innovation.” *Las Vegas Review-Journal*. November 5, 2014. (with Kenan Fikri)

“Now Nevada Must Make the Most of the Tesla Giga-Opportunity.” *Las Vegas Sun*. September 5, 2014.

“Clean Energy Scores a Success with the Master Limited Partnership Parity Act.” Brookings Institution. December 19, 2013. (with Felix Mormann and Dan Reicher)

“Aerospace Challenges Go Way Beyond Sequester.” Brookings Institution. November 22, 2013.

“Washington Must Focus on Growth.” Global Public Square, *CNN*. January 23, 2013. (with Bruce Katz)

“What City Has at Stake in ‘Cliff’ Talks.” *Milwaukee Journal Sentinel*. December 8, 2012. (Bruce Katz)

“Cut to Invest to Restore Growth.” Brookings Institution. December 6, 2012. (with Bruce Katz)

“Establish a Cut-to-Invest Commission.” *The Hill*. November 29, 2012. (with Paul Weinstein)

“Remaking Federalism: Now is the Time.” *Huffington Post*. November 26, 2012.

“Carbon Tax Could Prove Way Past Impasse.” *National Journal*. November 19, 2012.

“The Case for a Federal Housecleaning.” *POLITICO*. November 19, 2012.

“Carbon Tax Dreams: What About Cleantech Deployment?.” Brookings Institution. October 31, 2012.

“Do We Need Subsidies for Solar and Wind Power?” *The Wall Street Journal*. October 8, 2012.

“Getting Real About Climate Optimism.” *National Journal*. July 30, 2012

“Washington’s roadblocks to clean energy.” *The Boston Globe*. May 28, 2012

“States, Regions Matter More Than Ever.” *National Journal Energy Experts Blog and The Brookings Institution*. May 14, 2012.

“Future of solar is bright - with subsidy reform.” *San Francisco Chronicle*. May 8, 2012. (with Letha Tawney and Alex Trembath)

“Beyond Boom and Bust: Getting Clean Energy Policy Right” Brookings Institution. April 18, 2012. (with Letha Tawney and Alex Trembath)

“Rationalize and Reform the Subsidy Mess: It’s Time.” *National Journal Energy Experts Blog and The Brookings Institution*. June 27, 2011.

“Lawmakers must reset Nevada's old revenue structure.” *Las Vegas Review-Journal*. February 2, 2011.

“California Governor Jerry Brown Must Fix State's Structural Deficits.” *San Francisco Chronicle*. January 9, 2011. (with Matthew Murray)

“Leveraging the Mountain West for Energy Systems Transformation.” *Techrockies*. September 1, 2010. (with Sarah Rahman)

“New Metro Formula: Helping Those Who Help Themselves.” *Citiwire.net*. June 6, 2010. (with Robert Puentes)

“Some Logical Steps for Emerging from the Great Recession.” *Arizona Republic*. January 3, 2010.

“Las Vegas’ Dilemma: America’s, Only More So.” Citiwire.net. October 23, 2009. Also published in: *Las Vegas Sun* and other papers.

“Educating the East about Vital Needs out West.” *Arizona Republic*. October 12, 2009.

“To Make Clean Energy Cheaper, U.S. Needs Bold Research Push.” *Yale Environment* 360. April 30, 2009. (with Teryn Norris)

“ARRA on the Ground.” Citiwire.net. April 2, 2009. (with Jennifer Bradley)

“What Happens in Vegas ... Stimulates the Economy.” *Las Vegas Sun*. February 25, 2009. (with Robert Lang)

“Can Metropolitan Leaders Make the Stimulus Package Work?” *Real Clear Politics*. February 17, 2009. (with Sarah Rahman)

“Arizona Needs to get in the Federal Game.” *Arizona Republic*. November 20, 2008. (with Robert Lang)

“Western Perspective: Mountain Megas.” *Headwater News*. October 14, 2008. (with Robert Lang)

“Painting the Mountain States Blue.” *Boston Globe*. August 25, 2008. (with William Frey)

“Look to Governors Races for Signs of Change.” *ABC News*. November 3, 2006. (with Amy Liu)

“Distinctive, Equitable, Competitive (Louisville).” *Courier-Journal*. January 23, 2005. (with Bruce Katz)

“Good Side of Health Costs.” *Denver Post*. December 21, 2004. (with Matthew Fellowes)

“One Year Later Change Is Happening in Pennsylvania.” *Patriot-News*. December 19, 2004. (with Bruce Katz)

“Details Will Determine If Mergers Help.” *Indianapolis Star*. December 12, 2004.

“One Year Later Scranton Epitomizes Change.” *Scranton Times*. December 12, 2004.

“Missouri Candidates Should Get Real.” *St. Louis-Post Dispatch*. October 19, 2004. (with Bruce Katz)

“Red and Blue States Not Black and White: Sharp Demarcations on Electoral Map Don’t Match Reality.” *San Francisco Chronicle*. August 15, 2004. (with Alan Berube)

“Selling the Rust Belt Short.” *Plain Dealer*. August 8, 2004. (with Bruce Katz)

“Debunking ‘Red–Blue America.’” *Dallas Morning News*. May 14, 2004 (with Alan Berube)

“Smart Growth Saves Money.” *Detroit News*. April 13, 2003. (with Bruce Katz)

“The Smart Money Is On Smart Growth.” *Hartford Courant*. June 8, 2003. (with Bruce Katz)

### **Blog Posts**

“Economic Inclusion Requires Robust Advanced Sector But Too Few of These Industries Are Growing.” *The Avenue*. August 4, 2016.

“Look to Advanced Industries to Help Drive Productivity Gains.” *The Avenue*. July 21, 2016.

“Massachusetts Should Limit Non-Compete Pacts to Spur Growth.” *The Avenue*. June 30, 2016.

“Can the Internet of Things Help Renew Rust Belt Cities?” *The Avenue*. June 14, 2016

“The Skills Supply Chain Must Change as Software Eats the World.” *The Avenue*. June 2, 2016.

“Why Non-Compete Pacts Are Bad for Workers—and the Economy.” *Wall Street Journal*. May 23, 2016.

“Hacking the Advanced Industries Skills System.” *The Avenue*. May 10, 2016.

“Funding Economic Change with Fracking Revenues.” *The Avenue*. April 25, 2016. (With Devashree Saha).

“Adjusting to Economic Shocks Tougher Than Thought.” *The Avenue*. April 18, 2016.

“Busted: State Budgets Feel Fracking Crisis.” *The Avenue*. April 14, 2016. (With Devashree Saha.)

“From Rust Belts to the ‘Smartest Places on Earth.’” *The Avenue*. April 4, 2016. (With Bruce Katz).

“Rigged: Declining Oil and Gas Rigs Forecast Job Pain.” *The Avenue*. March 16, 2016 (With Devashree Saha).

“Voter Anger Explained—In One Chart.” *The Avenue*. March 15, 2016. (With Siddharth Kulkarni)

- “Entrepreneurs Take on Manufacturing.” *Harvard Business Review*. February 22, 2016.
- “Building Manufacturing Communities for the Long Haul.” *The Avenue*. February 18, 2016.
- “Regulatory Reform Can Ease Access to Jobs.” *The Avenue*. February 11, 2016. (with Devashree Saha)
- “Obama’s Energy Budget Doubles Down on Innovation.” *The Avenue*. February 10, 2016.
- “Software Eats Manufacturing (and Manufacturing Gains).” *The Avenue*. February 5, 2016. (with Kelly Kline and Bruce Katz) Also posted at *Industry Week*
- “R.I. Needs to Exploit its Advantages.” *Providence Journal*. January 31, 2016. (with Bruce Katz) Also posted at the *Providence Journal*
- “Chicago Exchange Takes Innovation Outside the Lab.” *The Avenue*. December 16, 2015. (with Rachel Barker)
- “Climate Breakthrough: Tech Becomes Central.” *The Avenue*. December 14, 2015.
- “A Tale of Three (Renewables) Markets: A Q&A with Dan Reicher and Felix Mormann.” *The Avenue*. November 19, 2015.
- “Five Ways to Make Innovation ‘Sticky’.” *The Avenue*. September 23, 2015.
- “Making Innovation ‘Sticky’—Crucial to Regions.” *The Avenue*. September 14, 2015.
- “Green Banking Goes Local.” *The Avenue*. July 13, 2015. (with Devashree Saha)
- “Washington Should Help Capitalize Green Banks.” *The Avenue*. June 26, 2015. (with Reed Hundt)
- “Robots Seem to Be Improving Productivity, Not Costing Jobs.” *Harvard Business Review*. June 16, 2015. (with Scott Andes)
- “The Hottest 15 Metros for Advanced Industries.” *The Avenue*. June 8, 2015. (with Kenan Fikri)
- “Bootstrapping R&D: States, Metros Step into Washington’s Shoes.” *The Avenue*. June 2, 2015. (with Scott Andes)
- “U.S. R&D: A Troubled Enterprise.” *The Avenue*. May 28, 2015. (with Scott Andes)
- “Manufacturing Startups Head for the Cloud—and Your City.” *The Avenue*. May 19, 2015.

- “Advanced Industries Strong in Some States, Lagging in Others.” The Avenue. May 6, 2015. (with Devashree Saha)
- “Don’t Blame the Robots for Lost Manufacturing Jobs.” The Avenue. April 29, 2015. (with Scott Andes)
- “Robots Are Infiltrating the Growth Statistics.” The Avenue. April 27, 2015. (with Scott Andes)
- “From Advanced Industries, a Lesson about Wages.” The Avenue. March 10, 2015. (with Jonathan Rothwell)
- “Yes, Advanced Industries Are Providing Jobs to Americans.” The Avenue. February 25, 2015. (with Siddharth Kulkarni)
- “U.S. Advanced Industries: Not So Small After All.” The Avenue. February 19, 2015. (with Scott Andes)
- “Meet the Country’s Top Advanced Industry Hotspots.” The Avenue. February 12, 2015. (with Kenan Fikri)
- “Advanced Industries: Prerequisite for Shared Prosperity.” The Avenue. February 2, 2015. (with Scott Andes)
- “Introducing Advanced Industries in Four Minutes.” The Avenue. February 3, 2015. (with Siddharth Kulkarni)
- “Falling Oil Prices Won’t Hurt Clean Energy.” The Avenue. January 23, 2015. (with Devashree Saha)
- “When Will We Get Black Friday Deals for Health Care?” The Avenue. December 30, 2015. (with Scott Andes)
- “Rightsizing the Region: France Redraws its Map.” The Avenue. December 9, 2014. (with Kenan Fikri)
- “Talking Innovation in Munich: An Exchange.” The Avenue. December 2, 2014.
- “Obama’s Overshadowed Start-up Gambit.” The Avenue. November 26, 2014. (with Neil Ruiz)
- “How Does Innovation Support Lower Income Families? Look to the Price Index.” The Avenue. November 25, 2014. (with Scott Andes)
- “A STEM Workforce Strategy for Nevada and Beyond.” The Avenue. November 13, 2014. (with Jessica Lee)

- “Business Schools Should Teach the Benefits of Local ‘Ecosystems’.” *The Experts*, a blog of *The Wall Street Journal*. October 23, 2014.
- “A Crucial Measurement Too Many Executives Ignore.” *The Experts*, a blog of *The Wall Street Journal*. October 20, 2014.
- “Reshoring: Why It’s Not Easy.” *The Avenue*. October 3, 2014.
- “Reshoring: Strong Regions Will Determine Where, How.” *The Avenue*. October 2, 2014.
- “R&D Tax Credit Crucial for Regional Economies.” *The Avenue*. October 1, 2014. (with Scott Andes)
- “U.S.-India Business Ties Already a Strong Foundation for Relationship.” *The Avenue*. October 1, 2014. (with Kenan Fikri)
- “National Labs Should Head Downtown.” *The Avenue*. September 24, 2014. (with Bruce Katz)
- “‘Printed’ Car Shows How Energy Labs Can Work Regionally.” *The Avenue*. September 17, 2014. (with Scott Andes and Matthew Stepp)
- “Department of Energy’s National Labs Can Also Be Regional Hubs.” *The Avenue*. September 11, 2014. (with Scott Andes and Matthew Stepp)
- “Tesla’s Gigafactory is a Giga-Opportunity for Nevada.” *The Avenue*. September 5, 2014.
- “Foreign Director Investment a Learning Channel for U.S. Business.” *The Avenue*. September 4, 2014. (with Devashree Saha)
- “States and Cities Lead Climate Change Response.” *PlanetPolicy*. September 2, 2014. (with Devashree Saha)
- “Climate Response Goes Local.” *The Avenue*. August 28, 2014. (with Devashree Saha)
- “Did Software Create the Innovation Districts?” *The Avenue*. June 18, 2014.
- “The Silver Bullet to a U.S. Manufacturing Revival.” *The Experts*, a blog of *The Wall Street Journal*. June 6, 2014.
- “How Technology is Transforming U.S. Manufacturing.” *The Wall Street Journal*. June 4, 2014.
- “The EPA Goes ‘Bottom Up’ with New Carbon Regulations.” *PlanetPolicy*. June 3, 2014.
- “New EPA Carbon Rules Tackle CO<sub>2</sub> from the ‘Bottom up’.” *The Avenue*. June 2, 2014. Also published at *The Energy Collective*.

“Will a Robot Take Your Job? Or Provide a New One?” The Experts, a blog of *The Wall Street Journal*. June 2, 2014. (with Scott Andes)

“China: A Manufactured Chimera? Part Two.” The Avenue. May 22, 2014. (with Scott Andes)

“Green Bank Bill Would Provide Seed Capital to States for Clean Energy and Efficiency Projects.” PlanetPolicy. May 22, 2014. (with Devashree Saha)

“China: A Manufactured Chimera? Part One.” The Avenue. May 21, 2014. (with Scott Andes)

“Green Bank Bill Nods to States.” PlanetPolicy. May 20, 2014. (with Devashree Saha)

“Banking on Bottom-up in Climate Finance.” PlanetPolicy May 14, 2014. (with Devashree Saha)

“Climate Finance Arrives.” PlanetPolicy. May 7, 2014. (with Devashree Saha)

“Bonding for Clean Energy Progress.” The Avenue. April 16, 2014. (with Lewis M. Milford)

“Metropolitan Jobs Recovery? Not Yet.” The Avenue. April 7, 2014. (with Alec Friedhoff)

“Kludging Out Progress: The Case of Manufacturing Hubs.” The Avenue. March 6, 2014. (with Scott Andes)

“Software: America’s Hidden Manufacturing Advantage.” The Avenue. February 25, 2014. (with Scott Andes)

“States Engage to Power Advanced Industries.” The Avenue. February 4, 2014.

“Multiplying Innovation: A Green Bank ‘Academy’.” The Avenue. February 4, 2014. (with Reed Hundt)

“Obama Explores Power of Placeholders.” The Avenue. January 30, 2014.

“Foxconn Sends Manufacturing Message with New Pennsylvania Plant.” The Avenue. November 25, 2013. (with Scott Andes)

“State Governments Step Up R&D Investment.” The Avenue. November 20, 2013. (with Scott Andes)

“Auto Suppliers’ Return to Profitability Sends Signals About Innovation in U.S. Advanced Industries.” The Avenue. November 19, 2013. (with Kenan Fikri)

“From Satellites to Cars, Advanced Industries Matter.” The Avenue. October 24, 2013.

“Watch the Debt Ceiling! How Federal Default Could Hit Metro America.” *The Avenue*. October 15, 2013. (with Siddharth Kulkarni)

“Next for the U.S. Auto Sector: Beyond Wage Competitive.” *The Avenue*. October 9, 2013. (with Scott Andes)

“Keeping Tennessee Auto and Advanced Industries Competitive,” *The Avenue*. October 4, 2013.

“Gene Sperling on Manufacturing Renaissance: It’s More Than Cyclical!” *The Avenue*. July 31, 2013.

“Gene Sperling Says U.S. Manufacturing Must Go Local.” *Ideas Lab*. July 30, 2013.

“The 10 Traits of Globally Fluent Metro Areas: To ‘Go Global’ Metro Areas Need to Roll with Global Change.” *The Avenue*. July 22, 2013.

“Strengthening Employment Pathways to Prosperous Careers.” *The Avenue*. July 17, 2013. (with Jessica Lee)

“Economic Cluster Policy Begins to Work.” *The Avenue*. July 9, 2013.

“Location Inducements Are Going Out of Fashion.” *The Wall Street Journal*. June 17, 2013.

“Manufacturing Will Become a More Innovative Space.” *The Wall Street Journal*. June 11, 2013.

“Manufacturing Renaissance Heads to Fort Worth with Motorola Announcement.” *The Avenue*. June 10, 2013. (with Scott Andes)

“Cost Convergence with China: An Energizer for U.S. Manufacturing?” *The Avenue*. June 3, 2013.

“Strengthening U.S. Manufacturing, Region by Region.” *The Avenue*. May 13, 2013.

“DOE’s Clean Energy Manufacturing Initiative Leverages Regions.” *The Avenue*. May 6, 2013. (with Scott Andes)

“Revving Up Manufacturing, Region by Region.” *The Avenue*. April 11, 2013. (with Jessica Lee)

“Jobs Alone Do Not Explain the Importance of Manufacturing.” *The Avenue*. April 3, 2013. (with Scott Andes)

“Energy Security Trust Tests Congress.” *National Journal*. April 1, 2013.

“Let’s Enact a Carbon Tax and Spend the Revenue Wisely.” *The Wall Street Journal*. March 28, 2013.

“Early Funding Helps Clear Barriers to Entry.” *The Wall Street Journal*. March 27, 2013.

“Flow Oil and Gas Revenues to Cleantech R&D: Common Ground on Energy?” *The Avenue*. March 18, 2013.

“Sequestration Shock: Smart D.C. Metro Will Figure It Out.” *The Avenue*. March 12, 2013.

“Regional Innovation Clusters Begin to Add Up.” Brookings Up Front blog. February 27, 2013.

“Manufacturing Hubs: What and Why?” Brookings Up Front blog. February 13, 2013.

“Advancing Advanced Industries.” Brookings Up Front blog. February 5, 2013.

“Needed: Efforts to Manufacture a Recovery.” *The Avenue*, a blog of *The New Republic*. January 14, 2013. (with Jessica Lee)

“Time to Look Beyond D.C. for Economic Fixes.” *Orange County Register*. December 31, 2012. (with Bruce Katz)

“Amid Cuts, Invest in Innovation.” *The Avenue*, a blog of *The New Republic*. December 21, 2012. (with Jessica Lee)

“Wind Lobby Seeks Path Beyond Boom and Bust.” *The Breakthrough Institute*. December 20, 2012. (with Alex Trembath)

“Carbon Tax Revenue Could Fund Clean Energy Innovation.” *U.S. News & World Report*. December 10, 2012.

“Cut the Mortgage Tax Break, Invest in R&D.” *The Avenue*, a blog of *The New Republic*. December 6, 2012. (with Jessica Lee)

“Carbon Tax Could Prove Way Past Impasse.” *Energy Experts Blog, National Journal*. November 19, 2012.

“Remaking Federalism to Renew the Economy.” *The Avenue*, a blog of *The New Republic*. November 19, 2012. (with Bruce Katz)

“Remaking Federalism.” *The Avenue*, a blog of *The New Republic*. November 8, 2012. (with Jessica Lee)

“Banking on States for Clean Energy Innovation.” *The Avenue*, a blog of *The New Republic*. September 12, 2012. (with Ken Berlin) Also published at *The Energy Collective*, Brookings UpFront, *The New Republic*, and ThinkProgress.

“Multiplier Effects: Connecting the Innovation and Opportunity Agendas” The Avenue, a blog of *The New Republic* and Brookings UpFront blog. August 23, 2012.

“Hubs of Manufacturing: Let’s Get Started.” Brookings UpFront blog. August 20, 2012. (with Jessica Lee)

“Climate Optimism and Realism.” The Avenue, a blog of *The New Republic* and Brookings UpFront blog. July 23, 2012.

“New Monitor Reveals Mountain Region Outperforms Nation’s Recovery.” The Avenue, a blog of *The New Republic* and Brookings UpFront blog. June 28, 2012. (with Kenan Fikri)

“To Track the Nation’s Sluggish Recovery the MetroMonitor Goes Interactive.” The Avenue, a blog of *The New Republic* and Brookings UpFront blog. June 27, 2012. (with Alec Friedhoff)

“The Absurd Politics of Green Jobs Counting.” The Avenue, a blog of *The New Republic* and Brookings UpFront blog. June 8, 2012. (with Jonathan Rothwell)

“Web Chat: The Future of America’s Clean Tech Industry.” Brookings Upfront blog. April 25, 2012.

“Manufacturing an Issue.” The Avenue, a blog of *The New Republic* and Brookings UpFront blog. April 13, 2012. (with John Fairbanks)

“Election 2012: What the MetroMonitor Says.” The Avenue, a blog of *The New Republic* and Brookings UpFront blog. March 30, 2012. (with Kenan Fikri)

“Green Jobs’: Yes, We *Can* Count Them.” The Avenue, a blog of *The New Republic* and Brookings UpFront blog. March 26, 2012.

“Export Nation 2012’ Forum to Explore Metropolitan Export Resurgence.” The Avenue, a blog of *The New Republic* and Brookings UpFront blog. March 5, 2012.

“Advancing Advanced Manufacturing Region by Region.” The Avenue, a blog of *The New Republic* and Brookings UpFront blog. February 27, 2012.

“Nevada Gets a Plan For a Better Economy.” The Avenue, a blog of *The New Republic* and Brookings UpFront blog. February 9, 2012.

“The Missing Link in the State of the Union Energy Agenda.” The Avenue, a blog of *The New Republic* and Brookings UpFront blog. January 25, 2012. (with Kenan Fikri)

“Regional Empowerment: Britain’s ‘City Deals’.” The Avenue, a blog of *The New Republic*. January 24, 2011. (with Kenan Fikri)

- “State Clean Energy Funds Provide Economic Development Punch.” The Avenue, a blog of *The New Republic* and Brookings UpFront blog. January 11, 2012. (with Lew Milford)
- “Rep. Ed Markey: Why Is America Rushing to Export Natural Gas?” The Avenue, a blog of *The New Republic* and Brookings UpFront blog. January 5, 2012.
- “ARPA-E and New Energy Hubs Escape Budget Battle.” The Avenue, a blog of *The New Republic*. December 19, 2011. (with Devashree Saha)
- “High-Tech Industries Boost the Mountain West’s Recovery.” The Avenue, a blog of *The New Republic*. December 16, 2011. (with Kenan Fikri)
- “Energy Strong: How DoD Leads on Clean Energy Innovation and Deployment.” The Avenue, a blog of *The New Republic* and Brookings UpFront blog. December 14, 2011. (with Devashree Saha)
- “Natural Gas: Reconsidering Exports.” The Avenue, a blog of *The New Republic*. December 14, 2011.
- “Nevada Aims to Engage Globally to Grow Locally.” The Avenue, a blog of *The New Republic*. December 7, 2011. (with Neil Ruiz)
- “Export Natural Gas? Not So Fast.” The Avenue, a blog of *The New Republic* and Brookings UpFront blog. December 6, 2011.
- “Colorado Doubles Down on ‘Bottom Up’.” The Avenue, a blog of *The New Republic*. November 22, 2011. (with Devashree Saha)
- “‘Bottom Up’ Economic Development Gains Traction.” The Avenue, a blog of *The New Republic*. November 22, 2011.
- “At Recession’s Epicenter, Nevada Seeks Reinvention.” The Avenue, a blog of *The New Republic* and Brookings UpFront blog. November 15, 2011.
- “A Win for Metro Business Planning in the Puget Sound.” The Avenue, a blog of *The New Republic* and Brookings UpFront blog. September 30, 2011. (with Kenan Fikri)
- “Don’t Abandon Federal Clean Energy Leading.” The Avenue, a blog of *The New Republic* and Brookings UpFront blog. September 27, 2011. (with Jonathan Rothwell)
- “Beyond Solyndra: Partnerships in Clean Energy.” The Avenue, a blog of *The New Republic*. September 19, 2011. (with Lew Milford)
- “‘Green’ Jobs, the IT Analogy.” The Avenue, a blog of *The New Republic* and Brookings UpFront blog. September 13, 2011. (with Jonathan Rothwell)

- “Bring Residential PACE Program Back to Life.” The Avenue, a blog of *The New Republic* and Brookings UpFront blog. August 30, 2011. (with Devashree Saha)
- “Obama’s Bus Tour: Don’t Forget ‘Bottom-Up’ Job Creation.” The Avenue, a blog of The New Republic and Brookings UpFront blog. August 15, 2011. (with Kenan Fikri)
- “Green Jobs and the Allure of the Clean Economy.” The Avenue, a blog of *The New Republic*. July 12, 2011.
- “Advancing the Clean Economy: The View from Colorado.” The Avenue, a blog of The *New Republic* and Brookings UpFront blog. July 11, 2011. (with Devashree Saha)
- “Banking on Green Growth in Connecticut.” The Avenue, a blog of *The New Republic* and Brookings UpFront blog. June 28, 2011.
- “Rationalize and Reform the Subsidy Mess: It’s Time.” The Avenue, a blog of *The New Republic* and Brookings UpFront blog. June 27, 2011.
- “Getting the State Role Right on Regions.” The Avenue, a blog of *The New Republic*. June 16, 2011.
- “Clustering for Cleantech Innovation.” The Avenue, a blog of *The New Republic* and Brookings UpFront blog. June 13, 2011.
- “No More ‘Waiting for the Regs’.” The Avenue, a blog of *The New Republic*. April 14, 2011.
- “U.S. Metros: Open for Business Despite Everything.” The Avenue, a blog of *The New Republic* and Brookings UpFront blog. April 8, 2011.
- “Down the Energy Road Again.” The Avenue, a blog of *The New Republic*. April 8, 2011. (with Devashree Saha)
- “Top of the Class: The Role of Leading Academic Programs in Cleantech Innovation” The Avenue, a blog of *The New Republic*. February 24, 2011. (with Jonathan Rothwell)
- “Where the Cleantech Companies Are” The Avenue, a blog of *The New Republic*. February 23, 2011. (with Jonathan Rothwell)
- “Budget 2012: ‘Cut to Invest’ at DOE.” The Avenue, a blog of *The New Republic*. February 16, 2011.
- “Budget 2012: Innovation Despite Everything.” The Avenue, a blog of *The New Republic* and Brookings *UpFront* blog. February 14, 2011. (with Kenan Fikri)
- “White House Innovation Strategy: Welcome but Placeless.” The Avenue, a blog of *The New Republic*. February 14, 2011.

“ARPA-E’s Energy Innovation--What Would Thomas Edison Think?” The Avenue, a blog of *The New Republic*. February 8, 2011. (with Jonathan Rothwell)

“The New Push for a Federal Government Re-org.” The Avenue, a blog of *The New Republic*. January 28, 2011. (with Kenan Fikri)

“The State of the Union: Innovation's Star Turn.” The Avenue, a blog of *The New Republic*. January 26, 2011.

“Job Creation on a Budget: Regional Cluster Strategies.” The Avenue, a blog of *The New Republic*. January 25, 2011.

“Will States Default on Their Debt?” The Avenue, a blog of *The New Republic*. January 18, 2011.

“State Budgets’ Unsound Structures.” The Avenue, a blog of *The New Republic*. January 7, 2011.

“America COMPETES: Reauthorized and Regionalized.” The Avenue, a blog of *The New Republic*. January 3, 2011.

“America COMPETES: Pass It, Nevertheless.” The Avenue, a blog of *The New Republic*. December 21, 2010.

“Metro Business Plans: A New Approach to Regional Growth.” The Avenue, a blog of *The New Republic*. December 21, 2010.

“Regulated Utilities: Key to Clean Energy Adoption?” The Avenue, a blog of *The New Republic*. December 7, 2010.

“Hubs, Clusters, Regions: Invention Centers.” The Avenue, a blog of *The New Republic*. December 3, 2010.

“Expanded Energy R&D: How to Pay for It.” The Avenue, a blog of *The New Republic*. November 30, 2010.

“This is What a Cluster Looks Like.” The Avenue, a blog of *The New Republic*. November 29, 2010

“Getting Active on Clusters: Portland, Ore.” The Avenue, a blog of *The New Republic*. November 23, 2010.

“Steven Johnson: Genius of Place.” The Avenue, a blog of *The New Republic*. November 10, 2010.

“Making Regions Work--Lessons from Italy.” The Avenue, a blog of *The New Republic*. November 12, 2010.

“Energy/ Climate Policy: What Now?” The Avenue, a blog of *The New Republic*. November 6, 2010.

“Climate and Energy Policy: Reset!” The Avenue, a blog of *The New Republic*. October 20, 2010.

“What a Drag: Local Government Cuts Hit Home.” The Avenue, a blog of *The New Republic*. October 8, 2010.

“The Business Case for Clusters.” The Avenue, a blog of *The New Republic*. October 7, 2010. (with Sarah Rahman)

“A Commitment to Clusters.” The Avenue, a blog of *The New Republic*. September 27, 2010.

“The Cluster Moment: Getting Real About the Economy.” The Avenue, a blog of *The New Republic*. September 24, 2010. (with Bruce Katz)

“The National Clean Energy Potential of the Mountain West.” The Avenue, a blog of *The New Republic*. September 2, 2010. (with Sarah Rahman)

“Energy (and Economic) Transformation Come to the Philadelphia Navy Yard.” The Avenue, a blog of *The New Republic*. August 27, 2010. (with Sarah Rahman).

“Too Little Too Late?” The Avenue, a blog of *The New Republic*. August 11, 2010. (with Kenan Fikri).

“Exports: Next for the West?” The Avenue, a blog of *The New Republic*. August 2, 2010.

“Energy Innovation--Now What?” The Avenue, a blog of *The New Republic*. July 30, 2010.

“Building the Sun Corridor: I-11 Gains Traction.” The Avenue, a blog of *The New Republic*. July 23, 2010.

“Add Cleantech Innovation Consortiums to America COMPETES.” The Avenue, a blog of *The New Republic*. July 20, 2010.

“Regional Innovation Goes Rural.” The Avenue, a blog of *The New Republic*. July 12, 2010.

“The Great Lakes and Clean Energy--A National Win-Win.” The Avenue, a blog of *The New Republic*. June 30, 2010. (with Sarah Rahman).

“Climate Legislation--Narrow or Broad, It Will Still Slight Innovation.” The Avenue, a blog of *The New Republic*. June 29, 2010. Also published at *National Journal* and *Up Front*, a blog of the Brookings Institution.

“Job Creation Has Left the Building.” The Avenue, a blog of *The New Republic*. June 23, 2010. (with Kenan Fikri).

“Stimulus, Anti-Stimulus, and the Metropolitan Facts.” The Avenue, a blog of *The New Republic*. June 21, 2010.

“Clean Energy COMPETES: Strengthening Clean Energy Competitiveness through the America COMPETES Reauthorization.” The Avenue, a blog of *The New Republic*. June 4, 2010. (with Jesse Jenkins and Robert Atkinson). Also published at *The Huffington Post* and *Grist*.

“America (Begins To) COMPETE.” The Avenue, a blog of *The New Republic*. June 2, 2010. (with Sarah Rahman)

“Helping Those Who Help Themselves.” The Avenue, a blog of *The New Republic*. May 27, 2010. (with Robert Puentes)

“Bootstrapping Rail Transit: Progress in the Mountain Metros.” The Avenue, a blog of *The New Republic*. May 25, 2010.

“Room for Compromise?” *National Journal* Experts Blog. May 24, 2010.

“America DRIFTS: Fiddling While the Nation Stagnates on Innovation.” The Avenue, a blog of *The New Republic*. May 17, 2010.

“Kerry-Lieberman: Short On Innovation.” *National Journal* Experts Blog. May 17, 2010.

“Senate Climate Bill: Apply Big Revenue to Energy Innovation.” The Avenue, a blog of *The New Republic*. May 10, 2010.

“Prizing Innovation.” The Avenue, a blog of *The New Republic*. May 5, 2010. (with Sarah Rahman)

“Clusters COMPETE.” The Avenue, a blog of *The New Republic*. April 26, 2010.

“America COMPETES: Regionalize It” The Avenue, a blog of *The New Republic*. April 21, 2010.

“America COMPETES: Vehicle for Innovating at Innovation.” The Avenue, a blog of *The New Republic*. April 14, 2010.

- “A Global Toolkit For Cities.” The Avenue, A blog of *The New Republic*. March 31, 2010. (with Kenan Fikri)
- “Mark Pinto Goes to China: Another Parable of American Decline?” The Avenue, A blog of *The New Republic*. March 26, 2010.
- “Stimulus Creativity: Oversubscribed.” The Avenue, A blog of *The New Republic*. March 24, 2010. (with Bruce Katz)
- “Local Government Fiscal Woes Hit Home.” The Avenue, A blog of *The New Republic*. March 22, 2010. (with Kenan Fikri)
- “The Long-Term Policy Reforms Of the Stimulus Bill.” The Avenue, A blog of *The New Republic*. March 2, 2010.
- “The Mountain-Region Growth Machine: Has it Broken Down?” The Avenue, A blog of *The New Republic*. March 18, 2010.
- “Stimulus as Policy Lab.” The Avenue, A blog of *The New Republic*. March 2, 2010.
- “The Kindle: Symbol of American Decline?” The Avenue, A blog of *The New Republic*. February 24, 2010.
- “Self-Organizing the Sun Corridor.” The Avenue, A blog of *The New Republic*. February 19, 2010.
- “No Respect: The Stimulus' Unfair Rodney Moment.” The Avenue, A blog of *The New Republic*. February 16, 2010. (with David Jackson)
- “Department of Energy Funds May Provide New Vision for Jobs.” *Up Front*, Brookings Institution blog. February 16, 2010.
- “Energy Hubs + Regionalism = A New Vision for Innovation.” The Avenue, A blog of *The New Republic*. February 16, 2010.
- “Budget 2011: Driving Innovation Despite the Budget Cap.” The Avenue, A blog of *The New Republic*. February 5, 2010. Also published at *Up Front*, Brookings Institution blog. February 4, 2010.
- “Budget 2011: Industry Clusters as a Paradigm for Job Growth.” *Up Front*, Brookings Institution blog. February 3, 2010. (with Sarah Rahman)
- “Economic Cold Comfort?” The Avenue, A blog of *The New Republic*. February 1, 2010.
- “Look Who’s Not Getting High-Speed Rail.” The Avenue, A blog of *The New Republic*. January 29, 2010. (with Adie Tomer)

“Bill Gates, Not Congress, Has the Solution to Global Warming.” The Avenue, A blog of *The New Republic*. January 25, 2010.

“\$10.5 Trillion for Energy Innovation: It’s a Good Deal!” The Avenue, A blog of *The New Republic*. January 13, 2010.

“Global Climate Stabilization: \$10.5 Trillion by 2030?” The Avenue, A blog of *The New Republic*. January 7, 2010. Also published at Up Front, Brookings Institution blog. January 7, 2010.

“After Copenhagen: Now a New Start?” *National Journal Experts Blog*. December 30, 2009.

“After Copenhagen: Now a New Start?” *Brookings Web Exclusive*. December 30, 2009.

“Boise’s Crack Up: Say What?” The Avenue, A blog of *The New Republic*. December 29, 2009.

“Congress Directs EDA to Act on Clusters.” The Avenue, A blog of *The New Republic*. December 17, 2009. (with Andrew Reamer)

“Mapping the Mountain Recovery.” The Avenue, A blog of *The New Republic*. December 16, 2009.

“Back to the Future: Revenue Sharing for Recession Relief.” The Avenue, A blog of *The New Republic*. December 7, 2009.

“Innovation Nation: Israel.” The Avenue, A blog of *The New Republic*. December 4, 2009.

“Industry Clusters: A Rural Boon?” The Avenue, A blog of *The New Republic*. December 2, 2009.

“CDBG: New Tricks for an Old Dog?” The Avenue, A blog of *The New Republic*. November 24, 2009. (with Bruce Katz)

“Drifting Toward More Direct Stimulus?” The Avenue, A blog of *The New Republic*. November 23, 2009.

“Mission (Not) Accomplished.” The Avenue, A blog of *The New Republic*. November 20, 2009. (with Kenan Finkri)

“Local Government Finances: The Next Casualty?” The Avenue, A blog of *The New Republic*. November 18, 2009.

“Innovation’s Conference Committee Hurdle.” *The Avenue*, A blog of *The New Republic*. November 16, 2009. (with Andrew Reamer)

“America’s Stealth Industrial Policy.” *The Avenue*, A blog of *The New Republic*. November 9, 2009. (with Jonathan Rothwell)

“Cap-And-Trade Politics: Carbon (Like Place) Matters!” *The Avenue*, A blog of *The New Republic*. November 6, 2009. (with Jonathan Rothwell)

“Cap-and-Trade Costs: Place Matters.” *The Avenue*, A blog of *The New Republic*. November 3, 2009. (with Jonathan Rothwell)

“\$15 billion: The New Energy Target.” *The Avenue*, A blog of *The New Republic*. November 2, 2009. (with Sarah Rahman)

“Energy Innovation: The Senate Starting Point.” *The Avenue*, A blog of *The New Republic*. October 27, 2009.

“Metros in the Middle.” *The Avenue*, A blog of *The New Republic*. October 21, 2009.

“Energy Pork: Why the Green Future May Take a While.” *The Avenue*, A blog of *The New Republic*. October 19, 2009.

“Stimulus Report Card: Grade N/A.” *The Avenue*, A blog of *The New Republic*. October 15, 2009. (with Sarah Rahman)

“The Rise of Rail in Phoenix.” *The Avenue*, A blog of *The New Republic*. October 15, 2009.

“Nobels, Labs, Hubs, and Breakthroughs.” *The Avenue*, A blog of *The New Republic*. October 13, 2009. (with Sarah Rahman)

“The Senate Climate Wrangle Begins.” *The Avenue*, A blog of *The New Republic*. October 1, 2009. (with Sarah Rahman)

“China as Consumer?” *The Avenue*, A blog of *The New Republic*. September 29, 2009.

“Climate Calculus: Price + Innovation = Transformation.” *The Avenue*, A blog of *The New Republic*. September 29, 2009.

“The Case for Clusters.” *The Avenue*, A blog of *The New Republic*. September 22, 2009. (with Jonathan Rothwell)

“Obama’s Innovation Speech.” *The Avenue*, A blog of *The New Republic*. September 21, 2009.

“Housebound.” *The Avenue*, A blog of *The New Republic*. September 17, 2009.

“Making Sense with David Byrne.” *The Avenue*, A blog of *The New Republic*. September 16, 2009. (with Robert Puentes)

“Innovation: The Way Forward?” *The Avenue*, A blog of *The New Republic*. September 14, 2009.

“Taking the Fun Out of Las Vegas.” *The Avenue*, A blog of *The New Republic*. September 8, 2009.

“Biden Gets Real.” *The Avenue*, A blog of *The New Republic*. September 3, 2009.

“Implementing ARRA—Another Way to Gauge Stimulus Success.” *The Avenue*, A blog of *The New Republic*. August 31, 2009.

“[Untitled Blog Post].” *National Journal Experts Blog*. July 6, 2009.

“Energy Efficiency: Better Lightbulbs and Beyond,” *The Vine*, A blog of *The New Republic*. July 6, 2009. (with Jonathan Rothwell)

“[Untitled Blog Post].” *National Journal Experts Blog*. June 29, 2009.

“[Untitled Blog Post].” *National Journal Experts Blog*. June 3, 2009.

“Waxman-Markey: What About Innovation?” *The Vine*, A blog of *The New Republic*. May 26, 2009.

“Budget 2010: A New Embrace of Regional Innovation.” *The Brookings Institution Web Exclusive*. May 13, 2009.

“Federal Energy R&D: Do It All - But Differently.” *The Vine*, A blog of *The New Republic*. March 10, 2009.

“Commercial Innovation Gets Nod in Obama’s Budget.” *The Brookings Institution Web Exclusive*. March 2, 2009.

“Delivering Metropolitan Stimulus.” *The Brookings Institution Web Exclusive*. February 13, 2009. (with Alan Berube and Robert Puentes)

## **SELECTED PRESENTATIONS**

“Building on Success.” Presentation at an event announcing New York Governor Andrew Cuomo’s Upstate Revitalization Competition. Rochester, NY. January 15, 2015.

“Cracking the Code on STEM: A People Strategy for Nevada’s Economy.” Report release event at The Innevation Center. Las Vegas, NV. November 12, 2014.

“Powering America’s—and Nevada’s—Advanced Industries.” Brookings Mountain West Scholar Lecture at UNLV. Las Vegas, NV. October 22, 2014.

“‘Off the Dole’ and ‘Out of the Box:’ Colorado’s New Space Strategy and Takeaways for Other States.” Aerospace States Association Annual Meeting. Colorado Spring, CO. April 12, 2013.

“Manufacturing: A Tool to Recapture America’s Innovation Edge.” Remarks during a panel at U.S. Manufacturing: Policies for a New Economic Reality. Washington, DC: Brookings Institution Governance Studies program. July 12, 2012.

“Brookings Advanced Industries Project.” Colorado Space Coalition Meeting. Denver, CO. May 11, 2012.

“Unify, Regionalize, Diversify: An Economic Agenda for Nevada.” Nevada Board of Regents Meeting. Las Vegas, NV. March 1, 2012

“Economic Recovery in the Rocky Mountain West: Metro Trends and Bottom-up Responses.” Rocky Mountain West Urban Leadership Symposium. Denver, CO. February 15, 2012.

“Unify, Regionalize, Diversify: Remarks From Mark Muro on Nevada's Economy.” Carson City, NV. November 14, 2011.

“Sizing the Clean Economy: A National and Regional Jobs Assessment.” Washington, DC. July 13, 2011.

“Metropolitan Business Plans: A New Approach to Economic Growth.” Washington, DC. April 14, 2011.

“State of Our State.” ASU, Morrison Institute for Public Policy. Phoenix, AZ. January 7, 2011.

“Enhancing Global Business in Arizona.” Global Arizona 100. ASU. Phoenix, AZ. December 1, 2010.

“Clean Innovation Policy: How Do We Drive It?” Washington, DC. December 15, 2010.

“Mapping Out the Legislative and Regulatory Agendas” Climate Policy: Resetting Expectations. IHS CERA. Washington. November 17, 2010.

“Developing State Policies for Energy Innovation.” Southwest Energy Innovation Forum. Scottsdale, ARPA-E, ASU, and the Kauffman Foundation. October 17-18, 2010.

“Washington Fly-in.” Lecture to the Albuquerque Regional Chamber of Commerce. Washington, DC: Brookings. June 16, 2010.

“Reclaiming Prosperity in Boise: Designing a Sustainable Future in the New West.” Planning in the West Conference. Boise, ID. June 4, 2010.

“Innovation and Entrepreneurship: The New Federal Drift.” Untitled Presentation to the International Economic Development Council Federal Economic Development Forum. Washington. April 19, 2010.

“The New Normal: Leading into the New Future.” National League of Cities Congressional City Conference. Washington. March 16, 2010.

“Infrastructure Investments in Metropolitan Las Vegas and the West.” Nevada Vision Stakeholders Group. Las Vegas, NV. February 11, 2010.

“Brookings Mountain West Partners Workshop.” University of Nevada at Las Vegas. February 10, 2010.

“Fiscal Challenges Facing Cities.” National League of Cities. Washington. January 22, 2010. (with Chris Hoene)

“Federal Energy Innovation Efforts: The Need for Paradigm Experiments.” Hill briefing sponsored by Clean Energy Innovation Consortia. Washington, DC January 26, 2010.

“ARRA and the State-Metro Relationship.” Brookings Metropolitan Policy Program Met Partners. Washington, DC. October 29, 2009. (with Jennifer Bradley)

“Pre-release Briefing on Forthcoming Intermountain West Aviation Report and Brookings Mountain West.” Intermountain MPOs Conference working lunch. Phoenix, AZ. October 4, 2009.

“Metros and ARRA: Initial Perspective.” National Society of Engineers. Brookings Institution, Washington, DC. September 24, 2009.

“Metropolitan Las Vegas: Challenges, Opportunities, and a Vision.” University of Nevada. Las Vegas, NV. September 8, 2009.

“Brookings Mountain West and Air Traffic Patterns in the Intermountain West.” Intermountain West Metropolitan Planning Organizations Group. Phoenix, AZ. October 4, 2009.

“Stimulus and Recovery: Current and Future Impact.” Governing Managing Performance Conference. Atlanta, GA. September 30, 2009.

“ARRA and Local Innovators.” Federal Deposit Insurance Corporation. Washington, DC. August 26, 2009.

“Identifying Challenges to Innovative Implementation and their Possible Resolutions.” ARRA Community Impact: Urban Innovators in Economic Recovery. Brookings Institution, Washington, DC. July 27, 2009.

“Federal Energy-Innovation Efforts: Where We Are; Where We Need to Get.” Hill briefing sponsored by Information Technology and Innovation Foundation and the Breakthrough Institute. Washington, DC. June 10, 2009.

“Getting into the Game: Developing a Mountain Mega Stance on the Transportation Bill Reauthorization.” Intermountain West MPOs working group. Boise, ID. April 23, 2009. (with Robert Lang)

“Pikes Peak as Megapolitan Space: A Federal Agenda for Prosperity in the Colorado Springs Metro Area.” Colorado College State of the Rockies Symposium. Colorado Springs, CO. April 7, 2009. (with Amy Liu and Robert Lang)

“Metros and ARRA: A Preliminary Assessment.” Metro Program Metropolitan Partners. Washington, DC. March 18, 2009.

“New Paradigms in Energy Innovation.” Hill briefing in U.S. House of Representatives sponsored by Brookings Institution, ITIF, and the Breakthrough Institute. May 14, 2009.

“The Sun Corridor as a Mountain Mega, One of America’s Newest Metropolitan Places and a Federal Partnership to Help It Prosper.” Arizona State University. Tempe, AZ. November 21, 2008. (with Robert Lang)

“Megapolitan Las Vegas, One of America’s Newest Metropolitan Places and a Federal Partnership to Help It Prosper.” University of Nevada. Las Vegas, NV. October 28, 2008. (with Robert Lang)

“Mountain Megs, America’s Newest Metropolitan Places and a Federal Partnership to Help Them Prosper.” Greater Albuquerque Chamber of Commerce 2008 Regional Policy Forum. Albuquerque, NM. October 27, 2008. (with Robert Lang)

“Massachusetts, Its Gateway Cities, and the New Equation.” Massachusetts Gateway Cities Conference UMass-Dartmouth Urban Initiative. Fall River, MA. October 3, 2008.

“Mountain Megs, America’s Newest Metropolitan Places and a Federal Partnership to Help Them Prosper.” Greater Albuquerque Chamber DC “fly-In.” Washington, DC. September 29, 2008. (with Robert Lang)

“The Current Moment: Opportunities—An Update for the Renewing Prosperity Initiative.” Third Annual Funder Convening on Restoring Prosperity in Older Industrial Cities. Newark, NJ. September 11, 2008.

“Getting into the Game: Progress and Opportunities on a Mountain Mega Federal Agenda.” Greater Albuquerque Chamber DC “fly-in.” Washington, DC. April 28, 2008.

“Trends in Pennsylvania: Another Look.” Service Employees International Union Leadership Retreat. Harrisburg, PA. March 6, 2008.

“The Intermountain West: America’s (Mega-Urban) Future.” Multi-State Listening Session. Denver, CO. December 12, 2007.

“Reconnecting Massachusetts Gateway Cities: Lessons Learned and an Agenda for Renewal.” Pioneer Valley Planning Commission Annual Meeting. Springfield, MA. July 7, 2008.

“The Intermountain West: America’s Urban Future.” Listening Session. University of Nevada, Las Vegas. Las Vegas, NV. June 21, 2007.

“Reconnecting Massachusetts Gateway Cities: Lessons Learned and an Agenda for Renewal.” Pioneer Valley Planning Commission Annual Meeting. Springfield MA. July 7, 2007.

“Quality of Place and Maine’s Economy: Making the Link.” Initial Meeting, Governor’s Council on Maine’s Quality of Place. Augusta, ME. April 13, 2007.

“Committing to Prosperity: Moving Forward on the Agenda to Renew Pennsylvania.” 1000 Friends Board Meeting. Philadelphia, PA. March 15, 2007.

“Back to Prosperity: Informing the Creation of a Lasting Network for Change in Pennsylvania.” Staff Meeting, Brookings Metropolitan Policy Program. Washington, DC. November 22, 2004.

“Back to Prosperity: A Competitive Agenda for Renewing Pennsylvania.” Basic Economic Development Course, Pennsylvania State University. Harrisburg, PA. November 8, 2004.

“Back to Prosperity: A Competitive Agenda for Renewing Pennsylvania.” Pennsylvania State Association of Boroughs Fall Conference. Pittsburgh, PA. November 6, 2004.

“Back to Prosperity: A Competitive Agenda for Renewing Pennsylvania.” The Plan for a New Pennsylvania Conference. Scranton, PA. October 13, 2004.

“Back to Prosperity: A Competitive Agenda for Renewing Pennsylvania.” PEL Panel on “Engaging the Public in Public Policy Research.” Philadelphia, PA. July 21, 2004.

“Back to Prosperity: A Competitive Agenda for Renewing Pennsylvania.” Pitt Institute of Politics Elected Officials Retreat. Wolf Run, PA. July 15, 2004.

“Back to Prosperity: A Competitive Agenda for Renewing Pennsylvania.” Smart Growth Awards Dinner, Smart Growth Partnership of Westmoreland County. Greenburg, PA. May 13, 2004.

“Back to Prosperity: A Competitive Agenda for Renewing Pennsylvania.” “We Must Act” Conference. Meadville, PA. March 18, 2004.

“Back to Prosperity: A Competitive Agenda for Renewing Pennsylvania.” Erie Regional Economic Development Association. Erie, PA. March 12, 2004.

## **MEDIA**

Interviews and citations in newspapers including: *New York Times*, *Wall Street Journal*, *Washington Post*, *Los Angeles Times*, *USA Today*, *Christian Science Monitor*, *Albuquerque Journal*, *Atlanta Journal-Constitution*, *Arizona Republic*, *Baltimore Sun*, *Bond Buyer*, *Boston Globe*, *Chicago Tribune*, *Cleveland Plain Dealer*, *Columbus Dispatch*, *Dallas Morning News*, *Denver Post*, *Detroit Free Press*, *E&E Publishing*, *Financial Times*, *Fort Worth Star-Telegram*, *Hartford Courant*, *Idaho Statesman*, *Houston Chronicle*, *Idaho Statesman*, *Indianapolis Star*, *Kansas City Star*, *Las Vegas Review-Journal*, *Las Vegas Sun*, *Louisville Courier-Journal*, *Minneapolis Star-Tribune*, *The New York Times*, *Philadelphia Inquirer*, *Pittsburgh Post-Gazette*, *Providence Journal*, *Salt Lake Tribune*, *San Francisco Chronicle*, *Seattle Times*, *Wall Street Journal*, *Washington Post*, and many other regional outlets

Interviews and citations in magazines including, *The Atlantic*, *Business Week*, *The Economist*, *New Republic*, *The New Yorker*, *TIME*, and the *Weekly Standard*

Television and radio interviews including *ABC Nightly News*, CNN’s *Situation Room with Wolf Blitzer*, NPR’s *Marketplace*, CNBC; *Platts Energy Week* numerous local public radio and network affiliate programs

## **ADDITIONAL ACTIVITIES**

Board Member, New England Clean Energy Council, 2012- present

Board Member, Morrison Institute for Public Policy, Arizona State University, 2009–present

Member, Citistates Group, 2008–present

Member, Manufacturing Foresight Commission, 2016–present