

MICHAEL JOSEPH ORLANDO

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**Executive Director and Lecturer, J.P. Morgan Center for Commodities & Energy Management
Consultant to the Firm, Econ One Research, Inc.**

Michael J. Orlando is Executive Director and Lecturer with the J.P. Morgan Center for Commodities & Energy Management at the University of Colorado Denver Business School. He lectures on corporate and project finance, political risk analysis for business strategy and stakeholder relations, and fundamentals of commodity and energy businesses. Dr. Orlando is also Consultant to the Firm at Econ One Research, where his practice provides advising and expert testimony on matters in energy, resources, and infrastructure in a variety of dispute resolution forums, including regulatory hearings, state and Federal court proceedings, and international arbitration tribunals.

Dr. Orlando has over 30 years of experience in energy and resource sectors, spanning business, government, and education. He began his career with Shell Oil Company, working as a reservoir and environmental engineer and conducting profitability analyses for exploration and development projects in the Gulf of Mexico. He later served as a Research Economist in the Federal Reserve System, and then as Vice President and Branch Executive of the Fed's Denver Branch, where he was responsible for regional economic research, energy commodity markets analysis, policy advising, and public communication. Previous instructional affiliations include those with the Department of Economics at Washington University in St. Louis, the Energy Business and Finance program at The Pennsylvania State University, and the Masters of Finance program at Tulane University.

Dr. Orlando's research spans a range of topics in applied microeconomics. He has published on economic geography and industrial demography, network economics, energy and environmental policy, financial regulatory policy, and corporate governance. He has also co-authored a textbook on money and banking. An award-winning instructor and frequently invited speaker, he has taught courses on macro and microeconomics, corporate finance, economics and strategy for ESG issues, energy business management, and commodity markets.

EDUCATION

- Ph.D., Economics, Washington University in St. Louis, 2000
- M.A., Economics, Washington University in St. Louis, 1995
- M.B.A., Business Administration, Tulane University, 1993
- B.S., Petroleum & Natural Gas Engineering, The Pennsylvania State University, 1988

PROFESSIONAL EXPERIENCE

- University of Colorado Denver:
 - Executive Director, J.P. Morgan Center for Commodities & Energy Management, 2023 – present
 - Lecturer, Global Energy Management, 2012 – present
 - Instructor, Coursera.org, 2014 – present
- Econ One Research, Inc., Denver:
 - Consultant to the Firm, 2023 – present
 - Managing Director, 2018 – 2023
- Economic Advisors, Inc., Denver: Principal and Owner, 2008 – 2018
- The George W. Bush Institute, Dallas: The 4% Growth Project, Research Fellow, 2013
- Tulane University, New Orleans: Adjunct Professor of Finance, 2009 – 2011
- Evolve24, LLC, St. Louis: Vice President for Research, 2007 – 2008
- Federal Reserve Bank of Kansas City:
 - Denver Branch, Vice President, Branch Executive and Economist, 2006 – 2007
 - Economic Research Department, Economist, Senior Economist, 2000 – 2005

- Washington University in St. Louis: Instructor, 1996 – 1999
- Private Consultancy, St. Louis: Economist, 1997
- Shell Offshore, Inc., New Orleans: Engineer, 1988 – 1994

PROCEEDINGS and ADVISORY PARTICIPATION

<u>Venue</u>	<u>Proceeding</u>	<u>Sector: Role</u>	<u>Date</u>
Commercial Arbitration Act, R.S.C., 1985	Hibernia Development Project	Oil & Gas: analysis and testimony for respondent (matter ongoing)	10/17/2023 to present
India Space Research Organization	report and presentation	Aerospace: economic impact analysis	1/9/2025
Colorado Public Utility Commission	Rate Case – 21AL-0317E	Electric Utility: required rate-of-return analysis, testimony for respondent PUC Staff	01/17 to 21/2022
US District Court – Colorado	Ferraro v. Convercent	Professional Services: valuation analysis, deposition, testimony for plaintiff	02/20/2020; 04/12/2018
Colorado Air Quality Control Commission	Regulatory Hearing	Oil & Gas: regulatory economic impact analysis, testimony for respondent national industry association	12/18/2019
Colorado General Assembly – House Finance Committee	Legislative Hearing	Oil & Gas: industry economic impact analysis, testimony for state industry association	03/25/2019
Wyoming Oil and Gas Conservation Commission	Regulatory Hearing	Oil & Gas: regulatory economic impact analysis, testimony for state industry association	02/09/2015
Mediation / Arbitration	Private Mediation	Cannabis: valuation analysis, negotiations advising for respondent founder	02/24/2014
Colorado Oil and Gas Conservation Commission	Regulatory Hearing	Oil & Gas: regulatory economic impact analysis, testimony for respondent firms coalition	01/09/2013
US Forest Service	Pre-hearing meeting	Minerals Mining (cobalt): environmental financial assurance trust design, presentation	02/16/2012

PUBLICATIONS:

Refereed Articles:

Universities, Agglomeration, and Regional Innovation. (with Michael Verba and Stephan Weiler). 2019. *The Review of Regional Studies* 49(3):407-27.

An Information Market Proposal for Regulating Systemic Risk. (with Matthew Beville and Dino Falaschetti). 2010. *University of Pennsylvania Journal of Business Law* 12(3):849-98.

Auditor Independence and the Quality of Information in Financial Disclosures: Evidence for Market Discipline vs. Sarbanes-Oxley Proscriptions. (with James R. Brown and Dino Falaschetti). 2010. *American Law and Economics Review* 12(1):39-68.

Payments networks in a search model of money. (with Antoine Martin and David Skeie). 2008. *Review of Economic Dynamics* 11(1):104-132.

Barriers to network-specific investment. (with Antoine Martin). 2007. *Review of Economic Dynamics* 10(4):705-728.

Measuring R&D Spillovers: On the Importance of Geographic and Technological Proximity. 2004. *The RAND Journal of Economics* 35(4):777-786.

Neither Lucky Nor Good: The Case of Electricity Deregulation in California. (with Jason P. Martinek). 2002. *The Economic and Social Review* 33(1):75-82.

How to Achieve a Healthier Environment and a Stronger Economy. (with Murray Weidenbaum and Christopher Douglass). 1997. *Business Horizons* 40(1):9-16.

A New Social Contract for the American Worker. (with Kenneth Chilton). 1996. *Business and Society Review* 96:23-26.

Edited and / or Reviewed Publications:

Enhancing Management Insight into Mergers & Acquisitions Using Probabilistic Financial Analysis. (with Lachlan Hughson and Brooks J. Kimley). 2024. *SPE Journal* DRAFT UNDER REVIEW.

Cutting the dividends tax ... and corporate governance too? (with Dino Falaschetti). 2005. *Corporate Ownership and Control* 3(2):31-34.

Do only big cities innovate? Technological maturity and the location of innovation. (with Michael Verba). 2005. *Economic Review* (Federal Reserve Bank of Kansas City) 90(2):31-57.

Innovation on networks: coordination, governance, and the case of VISA. (with Matthew Cardillo and Antoine Martin). 2004. *Journal of Financial Transformation* 12:104-106.

Optimization in the Production of Governance Services: Lessons for the Regulation of Auditor Independence. (with Dino Falaschetti). 2004. *Financiële Studievereniging Rotterdam (FSR) Forum* 6(2):16-22.

Do Primary Energy Resources Influence Industry Location? (with Jason P. Martinek). 2002. *Economic Review* (Federal Reserve Bank of Kansas City) 87(3):27-44.

On the Importance of Geographic and Technological Proximity for R&D Spillovers: An Empirical Investigation. 2000. Ph.D. dissertation (Washington University in St. Louis). Committee: Bruce Petersen (chair), Steven Fazzari, Douglass C. North.

Popular and/or Non-academic Publications:

Why Covid-19 Won't Kill Cities: The power of cities – sharing, matching, and learning. 25 January 2021. *The Conversation* <<https://theconversation.com/why-covid-19-wont-kill-cities-144342>>.

Opportunity Costs of State Regulation: Accounting for the Economic Impact of a Shale Gas Well. October 2013, *The George W. Bush Institute*, <http://www.bushcenter.org/sites/default/files/Opportunity_Costs_Orlando_10%2029%2013.PDF>

Rocking the Fed's Boat. (with Dino Falaschetti). 2008. *Hoover Digest* (4):47-52.

Let form follow function: In defence of central bank independence. 24 May, 2008. *Vox* <<http://voxeu.com/index.php?q=node/1164>>.

Money, financial intermediation, and governance. (with Dino Falaschetti, with foreword by Antoine Martin). 2008. Northampton, MA: Edward Elgar.

Review of Zoltan J. Acs' *Innovation and the growth of cities*. 2006. *Regional Science and Urban Economics* 36(1):158-162.

The Environment and the Economy: Seeking a Common Ground. (with Murray Weidenbaum and Christopher Douglass). 1998. *USA Today* January:26-28.

Regulatory Changes and Trends: An Analysis of the 1998 Budget of the U.S. Government. (with Christopher Douglass and Melinda Warren). 1997. *Center for the Study of American Business, Policy Brief 182* July.

Help Environment While Cutting Deficit. (with Murray Weidenbaum and Christopher Douglass). 1997. *St. Louis Post Dispatch* January 16:B-7.

Toward a Healthier Environment and a Stronger Economy: How to Achieve Common Ground. (with Murray Weidenbaum and Christopher Douglass). 1997. *Center for the Study of American Business, Policy Study 137* January.

SELECTED SEMINARS, SPEECHES, and PANEL and MEDIA APPEARANCES:

on Energy Markets & Business:

Carbon Capture & Other Renewable Solutions From the Inflation Reduction Act. *The Haynes Boone Energy Series*, World Affairs Council: Dallas / Fort Worth, Dallas, TX, December 12, 2023.

Economic and Political Factors Driving the Energy Transition. *Americas Meeting*, World Services Group, Houston, TX, April 20, 2023.

Commentary on "impacts of the Suncor [refinery] shutdown". *9News*, Denver, January 12, 2023.

Oil & Gas Prices: Economic, Financial, and Political Determinants. American Bar Association Business Law Hybrid Section Annual Meeting, joint meeting of Project Finance and Development Committee and the Energy Business Committee, September 15, 2022; webinar October 7, 2022.

Winter is Coming! *Industry Insights* series, University of Colorado Denver, Global Energy Management Program, November 18, 2021.

Factors Driving Energy Today. The Crude Audacity live podcast recording, Denver, November 20, 2019.

New Landscape of Oil & Gas in Colorado: Shifting Trends in Markets and Regulation. The Energy Summit, Denver, August 27-28, 2019.

Energy Prices – 2018 & Beyond: What are the Questions? Energy Finance Discussion Group, Denver, January 2018.

Political Risks and Oil Prices. NAPE Denver Expo, Denver, CO, October 2016; Denver Petroleum Club, Denver, CO, February 2016.

Understanding Markets for Oil & Natural Gas (and so-called 'expert' opinion). neXecutives Program seminar, Denver Petroleum Club, Denver, CO, August 2016.

Making Sense of Commodities Prices (panel). Colorado Business Economic Outlook Forum, Denver, CO, December 2015.

Beyond Our Borders – Natural Gas in a Global Context: How political and economic risks affect investment decisions. Natural Gas Symposium, Colorado State University, Fort Collins, October 2011.

Energizing Society: A collaborative approach to resource management. Graduates of Earth and Mineral Sciences Seminar Series, College of Earth and Mineral Sciences, The Pennsylvania State University, September 2011.

How the Evolving Market for Electrical Power Benefits the Wyoming Economy. Federal Reserve Bank of Kansas City Wyoming Economic Forums, Sheridan, Casper, and Cheyenne, September 2002.

Neither Lucky Nor Good: The Case of Electricity Deregulation in California. Conference of the European Association for Research in Industrial Economics, Dublin, Ireland, September 2001.

on Financial Contracting:

New Economy: Markets, Financing and the New Reality for Energy Companies. Energy 2.0 Economy, Environment, and Equality, Denver, March 9-10, 2020.

M&A Activity in Oil & Gas. Denver Business Journal Who's Who in Energy 2019 Awards Banquet, Denver, December 5, 2019.

Financial assurance for environmental protection: trends and opportunities. The Property and Environmental Research Center, Conference on Financial Contracting, Transactions Costs, and Environmental Amenities, Bozeman, MT, July 2012.

Managing Political, Regulatory, and Legal Risks in Practice. 'Summer in Seattle' Conference on Politics, Law, and Business, Albers School of Business and Economics, Seattle University, August 2011.

QE2: The Politics, Economics, and Business of Easy Money. Glead Chair Distinguished-Speaker Series, Albers School of Business and Economics, Seattle University, February 2011.

Is Auditor Independence Endogenous? Evidence and Implications for Public Policy. Department of Finance, School of Business, University of Kansas, Lawrence, December 2004; Department of Economics, University of Texas-Arlington, October 2004; Conference of the Western Economic Association International, Vancouver, British Columbia, July 2004.

on the Economics of ESG Issues:

The Economics of ESG: Implications for Political Risk Analysis and Strategy. *Insiders Series*, Western Energy Alliance, Denver, CO, March 22, 2023.

The Changing Dynamics of the Oil & Gas Industry in Colorado. Petroleum Equipment & Services Association, Denver Petroleum Club, November 21, 2019.

Political Risk Analysis for Energy Business: the dynamics of public policy. The Council of Petroleum Accountant Societies Education Day, Denver, May 21, 2019.

Dealmakers' Forum. Association for Corporate Growth, Denver, November 7, 2018.

From Private Interests to Public Action: the Political Economy of Public Policy. Bighorn Leadership Program, Colorado Springs, CO, October 20, 2018.

on Innovation and Technology:

How Cities Survive Covid: Lessons for Innovation Environments. National Association of Entities Promoting Innovation Environments (Anprotec, Brazil), 31st Annual Conference, November 11, 2021.

On the Location of Innovation: Policy Challenges for Less-Populous Places. Innovation Expo 2010, South Dakota Enterprise Institute, Sioux Falls, October 2010.

Universities, population, and regional innovation. North American Meetings of the Regional Science Association International, Brooklyn, November 2008; North American Meetings of the Regional Science Association International, Toronto, Canada, November 2006; Department of Economics, Colorado State University, Fort Collins, May 2006; Conference of the Western Economic Association International, San Francisco, July 2005.

Barriers to network-specific investment. Department of Economics, Colorado State University, Fort Collins, April 2007; Department of Agricultural Economics and Economics, Montana State University, Bozeman, March 2007; Conference of the Western Economic Association International, San

Francisco, July 2005; Midwest Macroeconomics Meetings, University of Iowa, Iowa City, May 2005; Previously titled "Hold-up on a Monopoly-owned Network," Department of Economics, The Pennsylvania State University, State College, September 2004; Missouri Economics Conference, Columbia, April 2004; Conference on the Economics of Payments, Federal Reserve Bank of Atlanta, April 2004.

Innovation and the Regional Economy. Federal Reserve Bank of Kansas City Economic Forums, Albuquerque, NM, October 2006; Cheyenne and Casper, WY, September 2006.

Where Does Innovation Happen. Rocky Mountain Biowest Conference, Denver, August 2006.

Creating Knowledge Regions. European Union Association of Regional Development Agencies, Madeira, Portugal, May 2006.

Technological Maturity and the Location of Innovation: Implications for Colorado. South Metro Denver Chamber of Commerce, December 2005.

Technological Maturity and the Location of Innovation," Department of Geography, The Pennsylvania State University, State College, March 2005; North American Meetings of the Regional Science Association International, Seattle, November 2004.

Innovation and the Regional Economy: Implications for Wyoming. Federal Reserve Bank of Kansas City Wyoming Economic Forums, Cheyenne and Casper, August, September 2004.

Measuring R&D Spillovers: On the Importance of Geographic and Technological Proximity. University of Missouri and the Missouri Department of Economic Development Workshop, Jefferson City, February 2003; North American Meetings of the Regional Science Association International, San Juan, Puerto Rico, November 2002; Department of Economics, University of Missouri, Columbia, October 2002.

On the Importance of Geographic and Technological Proximity for R&D Spillovers: an Empirical Investigation. Federal Reserve System Meeting for Applied Microeconomics, San Francisco, May 2001; Missouri Economics Conference, Columbia, May 2001; Meeting of Federal Reserve System Committee for Regional Analysis, St. Louis, October 2000; NBER Summer Institute, Boston, July 2000; Commerce and Business Administration, University of British Columbia, Vancouver, February 2000; Smith School of Business, University of Maryland, College Park, February 2000; Department of Economics, Trinity University, San Antonio, January 2000; Federal Reserve Bank of Kansas City, January 2000; Conference of the European Association for Research in Industrial Economics, Turin, Italy, September 1999.

On the Nature and Importance of Spillovers from Innovative Activity. Omicron Delta Epsilon Invited Graduate Student Papers Session, Meeting of the Allied Social Sciences Association, New York, January 1999.

on Regional / Macro Economic Policy and Conditions:

On economics of and market reaction to tariffs. 9News, Denver, April 4 and 10, 2025.

Oil & Gas Industry in Colorado: Economic and Fiscal Impacts. Rocky Mountain Oil & Gas Coalition, Centennial, CO, June 21, 2019.

An Overview of Current Systematic Risks. Denver Association of Business Economists, Denver, CO, March 2014.

The Record of Growth and Regulation in the States (panel). George W. Bush Institute, A Conference On Energy Regulation, Dallas, TX, September 2013.

The Great Credit Crunch of 2008. Rotary Club of University Hills, Denver, November 2008.

Central Banking: Crisis, Credibility, and Lessons for Reform. Omicron Delta Epsilon Awards Reception, Department of Economics, Colorado State University, Fort Collins, May 2008.

Reputation and the Federal Reserve. Weidenbaum Center Public Policy Meeting, Washington University in St. Louis, February 2008.

Commentary on Economic Conditions. Colorado Association of Commerce and Industry, Denver, October 2006; University of Northern Colorado's 2006-2007 Business Plus Speaker Series, Greeley, October 2006; Tower Club Luncheon, Denver, CO, October 2006; Pueblo Rotary Club, Pueblo, CO, August 2006; St. Joseph Hospital Foundation, Denver, CO, August 2006; Denver Association of Business Economists, University of Colorado - Denver, June 2006; Daniels College of Business, University of Denver, April 2006; Federal Reserve Bank of Kansas City Regulatory Forums, Casper, WY, Denver and Montrose, CO, April 2006; Colorado Hedge Fund Roundtable, Denver, April 2006.

Regional Analysis at the Federal Reserve. School of Business, University of Northern Colorado, Greeley, October 2006; The Bard Center for Entrepreneurship, University of Colorado – Denver, May 2006.

Economic Outlook and the Outlook for Housing. National Community Land Trust Conference, Boulder, CO, July 2006.

The Importance of Asset Building. United Way National Leadership Conference, Young Americans Bank, Denver, May 2006.

Economic Outlook – Wyoming in Perspective. Wyoming Business Alliance / Wyoming Heritage Foundation, Casper, WY, May 2006.

Conducting Monetary Policy. Rotary International, Pryor, OK, June 2003.

Economic Conditions in the Tenth Federal Reserve District. Institute of Real Estate Management, Kansas City, MO, March 2003.

on Epistemology:

Commencement Address: The Limits of Intellectual Honesty. Graduate School, University of Northern Colorado, Greeley, December 2006.

SELECTED MEDIA APPEARANCES: Fortune Magazine, 9News Denver, KOA Radio Denver, NPR Marketplace, Colorado Sun, Denver Business Journal, The Denver Post.

PROFESSIONAL SERVICE AND OTHER ACTIVITIES:

Member, President's Leadership Council, Denver Museum of Nature & Science, 2006-present.

Member, Friends of the Institute, Institute for Science & Policy, Denver Museum of Nature & Science, 2020-present, (member of Founding Advisory Team, 2017-2020).

Member, Denver Association of Business Economists, 2018-present.

Member, American Bar Association, 2021-present.

Member, Colorado Bar Association, 2018-2019.

Member, Association for Corporate Growth, 2018-2019.

Member, Development Committee, College of Earth and Mineral Sciences, The Pennsylvania State University, 2012-2018.

Member, District Advisory Committee, Denver Public Schools Board of Education, 2016-2018.

Chair, Energy Business and Finance Program Industrial and Professional Advisory Council, College of Earth and Mineral Sciences, The Pennsylvania State University, 2012-2018, (member 2010-2012).

Member, Renewable Energy and Sustainable Systems Program Industrial Advisory Board, The Pennsylvania State University, 2011-2017.

Director, Graduates of Earth and Mineral Sciences Alumni Society, The Pennsylvania State University, 2004-2010.

Advisor, The Alliance for Earth Sciences, Engineering, and Development in Africa, College of Earth and Mineral Sciences, The Pennsylvania State University, 2005-2010.

Instructor, "Anyone Can Cook!" Steele Elementary School Out-of-the-Box elective program, Denver Public Schools, 2008-2009.

Director, Colorado Council on Economic Education, 2006-2007.

Judge, Open Barbeque Contest 2005, Sauce, Baste, and Rub Contest 2003, American Royal.

Junior Achievement Economics Course Consultant and Company Advisor, McMain Magnet High School, New Orleans, 1990, 1993, 1994.

Director, Shell Employees of New Orleans Federal Credit Union, 1991 – 1993

Referee:

- *Research Policy*
- *American Economic Review*
- Bank of England working paper series
- *Economic and Social Review*
- *Journal of Regional Science*
- *Review of Network Economics*
- *Review of Regional Studies*
- World Bank, Global Development Network Research Grant Competition

Discussant – various social science associations meetings, Federal Reserve System meetings.

HONORS/AWARDS/DISTINCTIONS

- Outstanding Professor Award, Global Energy Management Program, University of Colorado – Denver, 2013, 2014, 2018
- Laube Award for Community Impact, Engagement, and Innovation, Business School, University of Colorado – Denver, May 2015.
- Statement of Accomplishment, Jazz Improvisation, Berklee College of Music, Coursera.org, June 2013.
- Alumni Achievement Award, The Pennsylvania State University, College of Earth and Mineral Sciences Alumni Society, 2012.
- FixYa.com four-thumbs-up Maytag Atlantis clothes washer repair solution rating, 2009.
- Federal Reserve System Senior Leadership Conference, 2006.
- Certified Barbeque Judge, Kansas City Barbeque Society, 2005.
- President's Award, Federal Reserve Bank of Kansas City, 2002, 2003.

revised August 2025