

KELLY, DAVID L.

University Address

Department of Economics
University of Miami
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Research Interests

Environmental economics, including Economic Growth and the Environment, Environmental Regulation, Climate Change, and Macroeconomics and the Environment.

Learning in environmental, macroeconomic, and finance models.

Computational macroeconomics.

Teaching Interests

Macroeconomics, Monetary economics, Environmental economics.

Experience

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| May 2003–Present | Associate Professor, Department of Economics, University of Miami. |
| August 2006–August 2008 | Chair, Department of Economics, University of Miami. |
| August 1998–December 2002 | Assistant Professor, Department of Economics, University of Miami. |
| July 1996–July 1998 | Visiting Assistant Professor, Department of Economics, University of California at Santa Barbara. |
| May 1995–July 1998 | Postdoctoral Researcher, Department of Economics, University of California at Santa Barbara. |
| July 1996–July 1997 | Visiting Assistant Professor, Department of Environmental Science and Management, University of California at Santa Barbara. |
| August 1994–May 1995 | Visiting Assistant Professor of Economics, Graduate School of Industrial Administration, Carnegie Mellon University. |

Degrees

Ph.D., Economics.

Graduate School of Industrial Administration, Carnegie Mellon University, 1995.

M.S., Economics.

Graduate School of Industrial Administration, Carnegie Mellon University, 1991.

B.S., Honors in Mathematical Economics.

Wake Forest University, 1989.

Publications

Bartz, Sherry and David L. Kelly, "Economic Growth and the Environment: Theory and Facts," *Resource and Energy Economics*, 30:115-49 (2008).

Kelly, David L. and Stephen F. LeRoy, "Liquidity and Liquidation," *Economic Theory*, 31(3):553-572 (2007).

Kelly, David L., "Review: Plowshares and Pork Barrels: The Political Economy of Agriculture," *Bulletin of Marine Science*, 79(2):425-7 (September 2006).

Kelly, David L., "Price and Quantity Regulation in General Equilibrium," *Journal of Economic Theory*, 125(1):36-60 (2005).

Kelly, David L., Charles D. Kolstad, and Glenn T. Mitchell, "Adjustment Costs from Environmental Change," *Journal of Environmental Economics and Management*, 50(3):468-95 (2005).

Kelly, David L. and Stephen F. LeRoy, "Liquidity and Fire Sales," in Jon Faust, Athanasios Orphanides and David Reifschneider, eds., *Models and Monetary Policy: Research in Tradition of Dale Henderson, Richard Porter, and Peter Tinsley*, Board of Governors of the Federal Reserve System, 249-70 (2005).

Kelly, David L. and Douglas G. Steigerwald, "Private Information and High Frequency Stochastic Volatility," *Studies in Non-linear Dynamics and Econometrics*, 8(1):1-28 (2004). Lead article.

Kelly, David L., "On Environmental Kuznets Curves Arising From Stock Externalities," *Journal of Economic Dynamics and Control*, 27(8):1367-90 (2003).

Kelly, David L. and Jamsheed Shorish, "Stability of Functional Rational Expectations Equilibria," *Journal of Economic Theory*, 95(2):215-250 (2000).

Kelly, David L. and Charles D. Kolstad, "Solving Infinite Horizon Growth Models With an Environmental Sector," *Journal of Computational Economics*, 18:217-23 (2001).

- Kelly, David L. and Charles D. Kolstad, "Malthus and Climate: Betting on a Stable Population," *Journal of Environmental Economics and Management*, 41:135-161 (2001). Lead Article.
- Kelly, David L. and Charles D. Kolstad, "Bayesian Learning, Pollution, and Growth," *Journal of Economic Dynamics and Control*, 23(4):491-518 (1999). Lead Article.
- Goenka, Aditya, David L. Kelly, and Stephen E. Spear, "Endogenous Strategic Business Cycles," *Journal of Economic Theory*, 81(1):97-125 (1998).
- Kelly, David L. and Charles D. Kolstad, "Integrated Assessment Models for Climate Change Control," in Henk Folmer and Tom Tietenberg, eds., *International Yearbook of Environmental and Resource Economics 1999/2000: A Survey of Current Issues*, Cheltenham, UK: Edward Elgar (1999).
- Kelly, David L. and Charles D. Kolstad, "The Climate Change Footprint: Will We See it Before it is Upon Us?," in Nakicenovic, N., W.D. Nordhaus, R. Richels, F.L. Toth, eds., *Climate Change: Integrating Science, Economics and Policy*, WP-96-135, International Institute for Applied Systems Analysis (IIASA), Laxenburg, Austria (1996).
- Kelly, David L. and Charles D. Kolstad, "The Role of Population Growth in Controlling Greenhouse Gas Emissions," in *Energy and Economic Growth: Is Sustainable Growth Possible?*, proceedings of the 20th Annual International Conference, Volume 1, pp. 52-65 (1997).

Working Papers

- Boleslavsky, R. and David L. Kelly, "Dynamic Regulation Without Payments: Timing is Everything," February 1, 2011.
- Bajona, C. and David L. Kelly, "Trade and the Environment With Pre-existing Subsidies: A Dynamic General Equilibrium Analysis," University of Miami Working paper number 2006-3, October 22, 2008. Submitted.
- Kelly, David L., David Letson, and Daniel Solís, "Evolution of Subjective Hurricane Risk Perceptions: A Bayesian Approach," University of Miami working paper number 2009-5, April 1, 2010. Submitted.
- Bossi, L., Pere Gomis-Porqueras, and David L. Kelly, "Optimal Second Best Taxation of Addictive Goods," University of Miami Working Paper number 2007-8, November 27, 2010. Submitted.
- David L. Kelly, "Subsidies to Industry and the Environment," University of Miami Working Paper number 2006-2, August 1, 2007.
- David L. Kelly, "Unit Roots in the Climate: Is the Recent Warming Due to Persistent Shocks?," University of Miami Working paper (2000).

Natalia G. Andronova, David L. Kelly, Charles D. Kolstad, and Michael Schlesinger, “Learning About Climate Sensitivity From the Instrumental Temperature Record,” University of Miami Working paper (1998).

Grants

- 2011 University of Miami Provost’s Research Award
“Dynamic Regulation Without Payments: Timing is Everything.”
- 2010 US Department of Education
Center for Competitiveness of US Services for Prosperity and Sustainability (CIBER) Area Coordinator “International Environmental Sustainability and Security Services.” In addition to area coordinator responsibilities, the grant funded two projects: “Incidence of Bailouts and Subsidies” and “The Impact of Reduced Trade Barriers on the Environment.”
- 2006 University of Miami School of Business Grant
“Hurricane Event Markets.” Co-Pi’s: David L. Kelly, David Letson, and David Nolan.
- 2005 Center for Ecosystems Science and Policy Faculty Seed Grant
“Hurricane Event Markets.” Co-Pi’s: David L. Kelly, David Letson, and David Nolan.
- 2002 James W. MacLamore Summer Award
“Adjustment Costs, Incomplete Information, and Learning.”
- 2001 James W. MacLamore Summer Award
“Dynamic Differences in Price and Quantity Regulation.”
- 1999 James W. MacLamore Summer Award
“Stochastic Volatility and Asset Prices.”
- 1996-7 DOE research grant
Uncertainty and learning about damages from climate change (with Charles Kolstad).
- 1996-7 USDA research grant
Climate change impacts on US agriculture (with Charles Kolstad and David Schimmelpfennig).

Awards

- Excellence in Research Award, University of Miami School of Business, August 19, 2000.
- William Larimer Mellon Fellowship, 1989-1992.

Refereed Conferences

- “Eliciting Information About Firm Costs Without Monetary Payments” presented at National Bureau of Economic Research Summer Institute, July 29, 2010.
- “Evolution of Subjective Hurricane Risk Perceptions: A Bayesian Approach” presented at the Conference on Uncertainty and Learning in the Management of Environmental and Resource Economics, University of California at Santa Barbara, December 3, 2009.

- “Evolution of Subjective Hurricane Risk Perceptions: A Bayesian Approach” presented at the Eleventh Occasional Workshop on Environmental and Resource Economics, University of California at Santa Barbara, October 10, 2009.
- “Optimal Second Best Taxation of Addictive Goods in Dynamic General Equilibrium” presented at the 2009 Latin American Meetings of the Econometric Society, October 2, 2009.
- “Subsidies to Industry and the Environment” presented at National Bureau of Economic Research Summer Institute, July 23, 2007.
- “Subsidies to Industry and the Environment” presented at Ninth Occasional California Workshop on Environmental and Natural Resource Economics, November 3, 2006.
- “Free Trade and the Environment With Pre-Existing Subsidies” presented at National Bureau of Economic Research Summer Institute Research Sketches, July 27, 2006.
- “Free Trade and the Environment With Pre-Existing Subsidies” presented at the Eighth Occasional California Workshop on Environmental and Natural Resource Economics, October 29, 2005.
- “Price and Quantity Regulation in Dynamic General Equilibrium” presented at the Sixth Occasional California Workshop on Environmental and Natural Resource Economics, October 26, 2001.
- “Price and Quantity Regulation in Dynamic General Equilibrium” presented at National Bureau of Economic Research Summer Institute, July 31, 2001.
- “An Economic Model of Conditional Heteroskedasticity” presented at the Econometric Society meetings, January 4, 1998.
- “On Climate Change and Economic Growth,” presented International Energy Workshop, Stanford University, June 16, 1998.
- “Malthus and Climate: Betting on a Stable Population” presented at the 1996 Workshop on Environmental and Natural Resource Economics, University of California at Santa Barbara, May 16, 1996.
- “Valuing and Hedging American Put Options Using Neural Networks” presented at *Neural Networks in the Capital Markets* Conference, Caltech University, November 17, 1994.
- “Stability of Functional Rational Expectations Equilibria” presented at *Richard Cyert Honorary Conference*, Carnegie Mellon University, Sept. 11, 1993.

Invited Seminars

- University of Miami “Eliciting Information About Firm Costs Without Monetary Payments” November 11, 2010.
- University of Pennsylvania (Wharton Center for Risk Management): “Evolution of Subjective Hurricane Risk Perceptions: A Bayesian Approach,” January 31, 2008.
- Concordia University: “Subsidies to Industry and the Environment,” October 19, 2007.
- Ryerson University: “Subsidies to Industry and the Environment,” October 18, 2007.
- University of Florida (Tropical Research and Education Center): “Subsidies to Industry and the Environment,” October 19, 2006.
- Carnegie Mellon University: “Subsidies to Industry and the Environment,” October 6, 2006.
- University of Calgary: “Free Trade and the Environment With Pre-Existing Subsidies,” February 17, 2006.
- McGill University: “Voluntary Over-Compliance With Firms as Quasi-Governmental Institutions,” March 26, 2004.
- University of Montreal HEC: “Economic Growth and the Environment: Theory and Facts,” March 25, 2004.
- University of Central Florida: “Economic Growth and the Environment: Theory and Facts,” 2003.
- University of Texas: “On Kuznets Curves Arising From Stock Externalities,” March 12, 1999.
- Florida International University: “On Kuznets Curves Arising From Stock Externalities,” October 2, 1998.
- University of California at Santa Barbara: “On Kuznets Curves Arising From Stock Externalities,” Fall 1997.
- University of Miami: “On Kuznets Curves Arising From Stock Externalities,” February 1998.
- University of Tennessee: “On Kuznets Curves Arising From Stock Externalities,” February 1998.
- North Carolina State University: “On Kuznets Curves Arising From Stock Externalities,” February 1998.
- University of Aarhus: “An Economic Model of Conditional Heteroskedasticity,” June, 1998.

Energy Modeling Forum: “Integrated Assessment With Endogenous Technical Change and Sustained Growth,” June 1998.

Electric Power Research Institute: “Bayesian Learning, Growth, and Pollution,” spring 1997.

University of Wyoming: “Bayesian Learning, Growth, and Pollution,” spring 1997.

University of California at Santa Barbara: “Bayesian Learning, Growth, and Pollution,” Fall 1996.

Federal Reserve Bank of St. Louis: “Learning to be Rational Using Neural Networks,” spring 1995.

Lehman Brothers: “Valuing and Hedging American Put Options Using Neural Networks,” spring 1995.

Queens University: “Learning to be Rational Using Neural Networks,” spring 1994.

Board of Governors of the Federal Reserve: “Learning to be Rational Using Neural Networks,” Fall 1994.

George Mason University: “Learning to be Rational Using Neural Networks,” spring 1994.

Carnegie Mellon University: “Learning to be Rational Using Neural Networks,” Fall 1993.

Teaching Experience

Environmental Economics (Eco 345) Department of Economics, University of Miami, fall 2009, fall 2010. Undergraduate elective course.

Graduate Macroeconomic Theory (Eco 521, 621, 603) Department of Economics, University of Miami, fall 1998, spring 1999, fall 1999, fall 2000, spring 2001, fall 2001, fall 2002, spring 2003, fall 2004, spring 2005, fall 2005, fall 2006, spring 2007, fall 2009, spring 2009, spring 2010, fall 2010. Ph. D. level courses.

Monetary Economics (Eco 403) at Department of Economics, University of Miami, fall 1999, fall 2000, fall 2001, fall 2002, fall 2004, fall 2007, spring 2008, spring 2010 and Carnegie Mellon University spring 1995. Undergraduate elective course.

Principles of Macroeconomics (Eco 212) at University of Miami, spring 1999, spring 2000, spring 2001, and spring 2002, spring 2003, spring 2006. Undergraduate course.

Managerial Economics (Eco 691) Department of Economics, University of Miami, spring 2004. MBA level course.

Managerial Economics (Eco 685) Department of Economics, University of Miami, spring 2005. MBA level course.

Macroeconomics (Econ 204B) at Department of Economics, University of California Santa Barbara, spring 1997, 1998. Ph. D. level course.

Environmental Cost-Benefit Analysis (ESM 245) at Department of Environmental Science and Management, University of California Santa Barbara, Winter 1996. Masters level elective course.

Environmental Management and Regulation (ESM 204) at Department of Environmental Science and Management, University of California Santa Barbara, fall 1996. Masters level required course in Environmental Economics.

Graduate Seminar in Environmental Economics (Econ 594ER) at Department of Economics, University of California Santa Barbara, 1996. Seminar Ph. D. level course.

Public Finance at Graduate School of Industrial Administration, Carnegie Mellon University, spring 1995. Undergraduate elective course.

Advanced Economic Analysis IV at Graduate School of Industrial Administration, Carnegie Mellon University, spring 1994. Course in computational macroeconomics. Ph.D. level course taught with other GSIA faculty.

Macroeconomics at Graduate School of Industrial Administration, Carnegie Mellon University, fall 1994, Summer term 1993, Summer term 1992, Summer term 1991. Course in macroeconomics with emphasis on international issues for advanced undergraduates.

Professional activities

Discussant, "Bayesian Econometrics: Past, Present, and Future," Conference on Uncertainty and Learning in the Management of Environmental and Resource Economics, University of California at Santa Barbara, December 3, 2009.

Panel Discussant, *Models and Monetary Policy: Research in the Tradition of Dale Henderson, Richard Porter, and Peter Tinsley*, Board of Governors of the Federal Reserve, March 28, 2004.

Discussant, National Bureau of Economic Research Summer Institute; Harvard University, August 3, 1998.

Referee for *American Economic Review*, *Agricultural Economics*, *BE Journals in Economic Analysis and Policy*, *BE Journals in Macroeconomics*, *BE Journals in Theoretical Economics*, *Canadian Journal of Agricultural Economics*, *Climate Policy*, *Climatic Change*, *Ecological Economics*, *Economics Bulletin*, *Economic Journal*, *Economic Theory*, *European Economic Review*, *Journal of Economic Dynamics and Control*, *Journal of Economic Theory*, *Journal of Environmental Economics and Management*, *Journal of Environmental Management*, *Journal of Policy Reform*, *Journal of Population Economics*, *Macroeconomic Dynamics*, *Optimal Control Applications and Methods*, *Resource and Energy Economics*, *Review of Economic Dynamics*, *Southern Economic*

Journal, and grants for the National Oceanic and Atmospheric Administration and the National Science Foundation.

Dissertation committees: Aijun Besio, Jiangze Bian, Lygia Lobo, Ana Maria Vallina, Yue Xue, Ayeisha Brinson, Zhigang Feng.

Dissertations Supervised: Augustine Nelson, Sherry Bartz.

Current Dissertation Supervision: Tan Zhou.

Current Dissertation Committees: Liang Zhao.

Chair, Department of Economics, University of Miami, 2006-8.

Director of Graduate Studies, Department of Economics, University of Miami, 1999-2006, 2008-present.

Member of Graduate Faculty, University of Miami, 1998-present.