STATEMENT OF QUALIFICATIONS Dr. Jeffrey A. Michael

EDUCATION

- Ph.D. Economics. North Carolina State University. Raleigh, NC. 1999.
- M.S. Resource Economics and Policy. University of Maine. Orono, ME. 1994.
- A.B. Economics Major, Biology Minor. Hamilton College. Clinton, NY. 1992.

EXPERIENCE

University of the Pacific. Sacramento and Stockton, California.

Executive Director of the Center for Business and Policy Research and Professor of Public Policy. Joint appointment, Eberhardt School of Business (60%) and McGeorge School of Law (40%). 2015-present.

Director of Business Forecasting Center and Associate Professor. 2008-2015.

Towson University. Towson, Maryland.

Director of the Center for Applied Business and Economic Research (CABER). 2007 – 2008.

Associate Dean of the Honors College. 2005 – 2007.

Associate Professor of Economics (with tenure), 2005–08.

Acting Director of the University Honors Program. 2004 – 2005.

Assistant Professor of Economics, 1999-2005.

North Carolina State University. Raleigh, North Carolina.

Instructor of Economics. 1998-99.

National Needs Fellow in Forest Economics and Management. 1995 - 1998.

University of Maine. Orono, Maine.

Assistant Scientist. 1994-95.

Research Assistant. 1992-94.

Independent Consultant.

Economic and financial analysis for business, government and local governments. 1994-present.

PUBLICATIONS AND PRESENTATIONS

Peer Reviewed Publications

"Economic Sustainability Plan for the Sacramento-San Joaquin Delta" February 2012. Delta Protection Commission. http://forecast.pacific.edu/desp.html. (with Robert Pyke et. al.)

"Conservation Easements and Property Values: Selection Effects and Differential Impacts on Vacant and Residential Properties." Revise and resubmit at *Land Economics*.

"The Role of Energy Efficiency Spending in Maryland's Implementation of the Regional Greenhouse Gas Initiative." *Energy Policy*. Volume 38 (11), November 2010, pp. 6820-6829. (with Anthony Paul, Karen Palmer, et. al.)

- "Environmental Land Use Restrictions and Property Values." *Vermont Journal of Environmental Law.* Volume 11 (3), Spring 2010, pp. 437-464. (with Raymond Palmquist).
- "Economic and Energy Impacts from Participation in a Regional Greenhouse Gas Initiative: A Case Study for the State of Maryland." *Energy Policy*. Volume 36 (6), June 2008, pp. 2279-2289. (with Karen Palmer, Matthias Ruth, et. al.)
- "Episodic Flooding and the Cost of Sea-level Rise." *Ecological Economics*. Volume 63 (1), June 2007, pp. 149-159.
- "Forest Management and the Endangered Species Act." Chapter 4 in *Explorations in Environmental* and Natural Resource Economics. Halvorson, R. and D. Layton editors. Edward Elgar Publishing. September 2006, pp. 63-94. (with Dean Lueck)
- "The Campus Parking Game: An Illustration of Price Discrimination and Consumer Welfare." *Southern Economic Journal*. Volume 71 (3), January 2005, pp. 668-682. (with Arthur Zillante, Sarah Stafford et. al.)
- "Preemptive Habitat Destruction Under The Endangered Species Act." *Journal of Law and Economics*. Volume XLVI (1), April 2003, pp. 27-60. (with Dean Lueck).
- "Efficient Habitat Protection with Diverse Landowners and Fragmented Landscapes." *Environmental Science and Policy,* Volume 6 (3), June 2003, pp. 243-251.
- "The Endangered Species Act and Private Landowner Incentives." in *Human-Wildlife Conflicts:* Economic Considerations. Clark, L. editor. U.S. Department of Agriculture, National Wildlife Research Center, Fort Collins, CO. 2002.
- "Recycling, International Trade, and the Distribution of Pollution: The Effect of Increased U.S. Paper Recycling on U.S. Import Demand for Canadian Paper." *Journal of Agricultural and Applied Economics*. July 1998, pp. 217-223.
- "The Role of Expectations and Heterogeneous Preferences for Congestion in the Valuation of Recreation Benefits." *Agricultural and Resource Economics Review*. October 1997, pp. 166-173. (with Stephen Reiling).

Other Research Publications and Reports

California and Metro Forecast. Principal author and analyst for 30 forecasts since 2008.

- Forecast of California and 10 metropolitan areas in northern and central California is widely utilized by regional banks, businesses and public agencies for business planning.
- Each 60-page report includes commentary on regional economic issues, historical data and five-year forecasts of economic and demographic data.
- Jointly sponsor annual forecast conferences with the Hispanic Chamber of Commerce and Building Industry Association.
- Regional Analyst. Research and analysis on varying demographic and economic topics in cooperation with the San Joaquin Council of Governments
 - The Long Way Home: Regional Commuting Patterns. Fall 2015
 - Transportation, Health and the Built Environment. Spring 2015.

- Active Transportation in San Joaquin County. August 2014.
- San Joaquin County Occupational Profile. February 2014.
- Population Projections Update. November 2013.
- Regional Cost of Living Index. November 2013, June 2014.
- Goods Movement System and the San Joaquin Economy. July 2013.
- Mapping San Joaquin Demographics. May 2013.
- International Trade in San Joaquin County. December 2012.
- San Joaquin Population Projections, Census 2010 Update. July 2012.
- The Delta and the San Joaquin County Economy. May 2012.
- Housing Needs and Trends in San Joaquin County. March 2012.
- San Joaquin County Commuting Patterns. October 2011.
- San Joaquin Population and Demographic Forecast. June 2011.
- Rental Housing in San Joaquin County. April 2011.
- San Joaquin County Income: Results from the ACS. March 2011.
- Economic Impact of Nonprofit Arts Sector. November 2010.
- San Joaquin Migration Trends and Population Projections. June 2010.
- Delinquencies, Defaults, and Foreclosures: Understanding the San Joaquin County Real Estate Market. May 2010.
- Health Care in San Joaquin County. February 2010.
- Education in San Joaquin County. November 2009.
- San Joaquin County Population Forecast. August 2009.
- San Joaquin County Employment Landscape. June 2009.
- San Joaquin County Housing: Current Challenges and Future Needs. Dec. 2008.
- Economic Impact of San Joaquin County Agriculture. September 2008.
- Population and Demographic Projections for San Joaquin County. July 2008.
- San Joaquin County Migration Patterns. May 2008.

"Economic Impact of Stockton Metropolitan Airport and Potential New Service to Los Angeles and Mexico." April 2016.

"Public Transit – Human Services Coordinated Transportation Plans." CalTrans. June 2015.

- Statewide Executive Summary for Rural Counties.
- Individual Coordinated Plans for 13 Rural Counties: Alpine, Colusa, Del Norte, El Dorado, Glenn, Lassen, Mariposa, Mendocino, Modoc, Sierra, Siskiyou, Tehama.

"Economic Benefits of Investment To Comply with SB 5 Flood Control Requirements." June 2015.

"Regional Economic Assessment for the North San Joaquin Valley" U.S. EDA. March 2015

- "Identity, Linkages and Opportunities", Overview Report.
- Human Capital Technical Report
- Migration Technical Report
- Commuting Technical Report
- Industrial Structure and Clusters Technical Report
- Occupational Structure and Clusters Technical Report
- Other Regional Assets and Components Technical Report

"Economic Benefits and Costs in the Upper San Joaquin River Storage Investigation Feasibility Report." April 2014.

[&]quot;North San Joaquin Valley Index." October 2015.

[&]quot;Review of the Bay Delta Conservation Plan Statewide Economic Impact Report." December 2013.

- "Benefit-Cost Analysis of Delta Water Conveyance Tunnels." July 2012.
- University of the Pacific Community Impact Report. November 2010. http://forecast.pacific.edu/impact.html
 - Community Impact Report and Executive Summary
 - Economic Impact Analysis.
 - Community Engagement and Knowledge Generation Impact Analysis.
- "A Retrospective Estimate of the Economic Impacts of Reduced Water Supplies to the San Joaquin Valley in 2009." September 2010. (with Richard Howitt, Josué Medellín-Azuara, and Duncan MacEwan).
- "Employment Impacts of the California Salmon Fishery Closure." April 2010.
- "Employment Impacts of Reduced Water Supplies to San Joaquin Valley Agriculture." Dec. 2009.
- "Unemployment in the San Joaquin Valley in 2009. Fish or Foreclosure?" August 2009.
- "The Economics of Ending Delta Water Exports Versus a Peripheral Canal: Checking the Data of the PPIC." December 2008.
- "Economic and Energy Impacts from Maryland's Potential Participation in the Regional Greenhouse Gas Initiative." Report to the Maryland Department of the Environment. January 2007. (with ten other collaborators from RESI, University of Maryland, Resources for the Future and Johns Hopkins University)
- "Downzoning and Rural Land Markets: A review of recent studies in Maryland and New Jersey."

 Report to the Maryland Center for Agro-Ecology, Inc. July 2006. (with Ray Palmquist and George Parsons)
- "The Economic Cost of Sea Level Rise to Three Chesapeake Bay Communities." Report to the National Oceanic and Atmospheric Administration (NOAA) and Maryland Department of Natural Resources. September 2002. (with David Sides and Tim Sullivan).
- "Economic Analysis of "The Point" and the Adjacent Counties: Baseline Information, Valuation, and Potential Impacts of Exploratory Drilling." Report to the North Carolina Division of Coastal Management. November 1999. (with Ray Palmquist and Pete Schumann)
- "The Economic Impact and Preferences of Visitors to Fort Knox State Park." Maine Agricultural and Forest Experiment Station Staff Paper. REP 465. June 1995. (with Stephen Reiling)
- "An Analysis of Maine Tourism Indicators." Maine Agricultural and Forest Experiment Station Staff Paper. REP 462. January 1995. (with Stephen Reiling)
- "Factors Affecting the Value of a Wilderness Visit: A Contingent Valuation Study of Caribou-Speckled Mountain Wilderness Users." U.S. Forest Service, Northeast Forest Experiment Station, General Technical Report NE-198. (with Stephen Reiling and Hsiang-Tai Cheng)
- "A Profile of Caribou-Speckled Mountain Wilderness Users, Their Perceptions and Attitudes." Maine Agricultural and Forest Experiment Station Staff Paper. REP 457. May 1994. (with Stephen Reiling and Kristina McLean)

Academic Conference Presentations

Western Economic Association Annual Meeting. Portland, OR. June 2016.

Keynote Panel at the Biennial State of the San Francisco Estuary Conference. San Francisco Estuary Partnership. Oakland, CA. September 2015.

McGeorge Law Review Symposium. Sacramento, CA. April 2014.

Western Regional Science Association Annual Meeting. San Diego, CA. February 2014.

Biennial State of the San Francisco Estuary Conference. San Francisco Estuary Partnership. Oakland, CA. October 2013.

North American Association of Fisheries Economists Forum. St. Petersburg, FL. May 2013.

American Accounting Association. Western Region Meeting. San Francisco, CA. April 2013.

Association of University Business and Economic Research Annual Meeting. Honolulu, HI. October 2012.

7th Biennial Bay-Delta Science Conference. Sacramento, CA. October 2012.

Association of University Business and Economic Research Annual Meeting. Indianapolis, IN. October 2011.

Western Regional Science Association Annual Meeting. Monterey, CA. February 2011.

Association of University Business and Economic Research Annual Meeting. Charleston, WV. October 2010.

Association of University Business and Economic Research Annual Meeting. Austin, TX. October 2009.

Western Regional Science Association Annual Meeting. Napa, CA. February 2009.

Association of University Business and Economic Research Annual Meeting. Bellingham, WA. October 2008.

Southern Economic Association Annual Meeting. New Orleans, LA. November 2004.

Southern Economic Association Annual Meeting. San Antonio, TX. November, 2003.

Southern Economic Association Annual Meeting. New Orleans, LA. November 2002.

National Science Foundation Workshop on Classroom Experiments in Economics. College of William and Mary, Williamsburg, VA. May 2002.

Protecting Nature on Private Land: From Conflicts to Agreements. International workshop sponsored by the European Forest Institute. Lahti, Finland. June 2002.

Human Conflicts with Wildlife: Economic Considerations. National Wildlife Research Center. Fort Collins, CO. August 2000.

Association of Environmental and Resource Economists Workshop on the Effectiveness of Environmental Regulation. San Diego, CA. June 2000.

Pacific Northwest Conference on Environmental and Resource Economics. Eugene, OR. May 1999.

American Economic Association Annual Meeting. New York, NY. January 1999.

American Agricultural Economics Association Annual Meeting. Salt Lake City, UT. August 1998.

Camp Resources VI. Wilmington, NC. August 1998.

Northeast Agricultural and Resource Economics Association Annual Meeting. Ithaca, NY. June 1998.

Southern Forest Economics Workshop. Williamsburg, VA. March 1998.

Southern Agricultural Economics Association Annual Meeting. Little Rock, AR. February 1998.

Camp Resources IV. Wilmington, NC. August 1996.

Northeast Agricultural and Resource Economics Association Annual Meeting. Burlington, VT. June 1995. Northeast Recreation Research Symposium. Saratoga, NY. April 1994.

Selected Other Professional Presentations

Invited Testimony to the California Legislature

- Assembly Water, Parks and Wildlife Committee. AB 1713 (Eggman) April 19, 2016.
- Senate Select Committee on the Sacramento San Joaquin Delta. Pending Delta Decisions and their Potential Economic and Other Impacts on San Francisco and the Bay Area. March 11, 2016. San Francisco, CA.
- Assembly Committee on Accountability and Administrative Review. Hearing on Finance and Accountability of the Bay Delta Conservation Plan. February, 12, 2014.
- Senate Natural Resources and Water Committee. Hearing on Governance and Financing of the Bay Delta Conservation Plan. August 13, 2013.
- Senate Natural Resources and Water Committee. Update on Economic Sustainability Plan for Sacramento-San Joaquin Delta. February 28, 2012.
- Assembly Committee on Accountability and Administrative Review. The State's Role In Addressing Income and Wealth Inequality. December 7, 2011.
- Environmental Caucus Meeting: Water and Jobs in the San Joaquin Valley, June 2010.
- Assembly Committee on Jobs, Economic Development and the Economy: California's Employment Outlook. February 2010.

Selected Presentations to Statewide Business, Professional Groups and Government Commissions

- UCLA Anderson Forecast. Los Angeles, Ca. June 2016.
- Capitol Weekly, Water 2016 Fiscal Panel. April 2016.
- Engineering News and Record Western Water Conference. Keynote Presentation and Panel. Huntington Beach, CA. November 2015.
- California State Association of County Auditors. San Francisco, CA. April 2015.
- California Self-Insurance Association. Sacramento, CA. November 2014.
- California Workers Compensation Insurance Board Conference. San Francisco, June 2014.
- California Hispanic Chamber of Commerce Legislative Conference. Sacramento, May 2014.
- California Department of Finance Forecast Conference. Sacramento, CA. October 2010-13.
- California State Teachers Retirement System Meeting. Sacramento, CA. September 2013.
- California Sheriffs Association Annual Meeting. Anaheim, CA. September 2013.
- Professional Fiduciary Association of California Annual Conference, Monterey, April 2013.
- California Hispanic Chamber of Commerce Economic Summit. Sacramento. March 2013.

- California Energy Commission Outlook. Sacramento. January 2011 and January 2013.
- Association of California Water Agencies: Deltanomics. San Diego. December 2012.
- California Department of Finance Forecast Conference. Sacramento. November 2010-2012.
- California Bankers Association, Chief Credit Officer Symposium. Monterey. Nov. 2012.
- California Sheriffs Association Annual Meeting. Squaw Valley, CA. August 2012.
- Delta Stewardship Council, State of California. Presentations and testimony at 4 public meetings in 2011-12.
- California School Boards Association Budget Workshop. January 2012.
- Delta Protection Commission, California Resources Agency. Presentations and testimony at 6 public meetings 2011-12.
- California Fire Chiefs Association Economic Summit. Sacramento. May 2009.