

DOUGLAS ALAN GEGAX
Vita

Department of Economics
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I. ACADEMIC INFORMATION

Degrees:

Ph.D., Economics, University of Wyoming, January 1985
B.A., Summa Cum Laude, Economics, San Diego State University, May 1980

Areas of Specialization:

Public Utilities, Regulation, and Industrial Organization
Environmental and Resource Economics
Public Finance
Quantitative Methods and Microeconomic Theory

Academic Positions:

2003-Present Professor of Economics, New Mexico State University
1990-2003: Associate Professor of Economics, New Mexico State University (NMSU)
1984-1990: Assistant Professor of Economics, NMSU
1980-1984: Instructor of Economics and research/teaching assistant, University of Wyoming

Academic Awards and Honors:

- (1) Outstanding Graduate Teaching Award, College of Business Administration and Economics, NMSU, 1994-95
- (2) Excellence in Funded Research Award, College of Business Administration and Economics, NMSU, 1991-92
- (3) Patricia C. Christmore Teaching Award – college nominee, NMSU, January 1990
- (4) Outstanding Graduate Teaching Award, Agriculture Economics and Economics Graduate Student Organization, NMSU, 1987-1988
- (5) Phi Kappa Phi, University of Wyoming, spring 1984
- (6) Outstanding Ph.D. Student Award, Department of Economics, University of Wyoming, spring 1982 and also spring 1984
- (7) Most Outstanding Graduating Economics Student Award, Department of Economics, San Diego State University, spring 1980
- (8) Phi Beta Kappa, San Diego State University, spring 1980
- (9) Phi Kappa Phi, San Diego State University, spring 1980

Teaching Experience:

Principles of Macroeconomics	Industrial Organization
Principles of Microeconomics	Advanced Microeconomic Theory (Graduate)
Intermediate Microeconomic Theory	Seminar in Public Utilities Regulation (Graduate)
Managerial Economics	Mathematical Economics
Managerial Economics (Graduate)	Advanced Macroeconomic Theory (Graduate)
Advanced Mathematical Economics (Graduate)	Applied Econometrics
Mathematical Statistics	Business Calculus
Economic Statistics	Introduction to Economics

II. THE CENTER FOR PUBLIC UTILITIES

Dr. Gegax currently serves as Director for the Center for Public Utilities (CPU) and has been a member of the CPU since 1986. The CPU is housed in the College of Business Administration and Economics at NMSU and has been in existence since 1978. The CPU produces issues conferences, training courses, conference proceedings and instruction/training materials for directors, managers and professional staff at firms and federal and state commissions in the telecommunications, electricity, natural gas and water industries. Dr. Gegax is one of three faculty who develop the course outlines and objectives pertaining to, teach in, and handle the logistics of running, these conferences. The National Association of Regulatory Utility Commissioners (NARUC) officially sanctions the programs offered by the CPU. The only other university utilities training program sanctioned by NARUC is at Michigan State University. In total, the CPU conferences average around 450 attendees per year and these attendees come from all 50 states as well as many foreign countries

The overlap between the CPU activities and the MA in economics with a Public Utilities Option strengthens the content of the Masters Program. The Masters Program is structured as to have a balance between theory and application. The input the CPU receives from individuals who are currently "in the trenches" allows the Masters Program to be continually updated to reflect real world conditions and applications as the "regulated" industries evolve. In the end, this produces a graduate from the Masters Program with the up-front skills needed to make an immediate contribution to the employer.

III. ACADEMIC PUBLICATIONS

- (1) "Electricity Restructuring Efforts, California Spillovers and Power Market Concerns in the Desert Southwest," with Tom McGuckin, Quarterly Bulletin, forthcoming.
- (2) "Municipalization Under Deregulation: A Cautionary Tale," with David Daniel, The Journal of Applied Research and Public Policy, Summer 2000.
- (3) "Price and Non-Price Conservation Policies for Urban Residential Water," with Tom McGuckin and Ari Michelson, New Mexico Journal of Science, V. 38, November 1998.
- (4) "Validating Conjoint and Hedonic Preference Measures: Evidence from Valuing Reductions in Risk," with Linda Stanley, Journal of Business and Economics. Spring, 1997.
- (5) "Competitive Entry in the Electric Utility Industry: A Summary," with Kenneth Nowotny, Yale Journal on Regulation. Winter, 1993, 63-87.
- (6) "Perceived Risk and the Marginal Value of Safety," with Shelby Gerking and William Schulze, The Review of Economics and Statistics. November 1991, 589-596.

- (7) "Industrial Cogeneration and Regulatory Policy," with Paulette Barclay and John Tschirhart, Journal of Regulatory Economics, V.I, 3, September 1989, 225-240.
- (8) "Natural Monopoly Measures and Regulatory Policy," Public Utility Regulation: The Economic and Social Control of Industry, Kenneth Nowotny, David Smith and Harry Trebing (eds.), Kluwer-Nijhof Publisher, Boston, 1989.
- (9) "A Critique of Ramsey Pricing," with Kenneth Nowotny, Public Utility Regulation in an Environment of Change, Patrick Mann and Harry Trebing (eds.), Michigan State University Press, Ann Arbor, 1987.
- (10) "Estimating Evaluations of Safety from Labor Market Data: A New Measure of Risk," with Shelby Gerking and William Schulze, Seminarberichte der Gessellschaft fur Regionalforschung, V.22, November 1985, 81-108.
- (11) "An Analysis of Interfirm Cooperation: Theory and Evidence from Electric Power Pools," with John Tschirhart, Southern Economic Journal, V. 50, April 1984, 1077-1097.

IV. PUBLIC PRESENTATIONS AND ORAL TESTIMONY

- (1) "Cost-Based Methodologies for Regulation and Frequency Response Services for a Non-Standard Customer," expert written and oral testimony on behalf of the United States (Western Area Power Administration and the U.S. Department of Justice), June – December 2004, in the United States Court of Federal Claims, Case No. 00238C, North Star Steel Company (plaintiff) vs. the United States (defendant).
- (2) "A Public Seminar on the Proposed Utility Rate Increases For the City of Las Cruces," with Tom McGuckin, City Council Chambers; Las Cruces, New Mexico; July 8, 2003.
- (3) "The Use of Industry Cost Yardsticks in Performance-Based Regulation: The Case of Philippine Electric Utilities," a presentation to the Philippine Energy Regulatory Commission; Manila, Philippines; March 26, 2002.
- (4) "Why New Mexico's Electricity Restructuring Act Should be Delayed," with Paul Turner, oral testimony to the New Mexico Public Regulation Commission, September 26, 2000, Santa Fe, New Mexico.
- (5) "California's Electricity Markets: Lessons Learned for New Mexico," with Paul Turner, oral testimony to the New Mexico Legislative Council's Economic and Rural Development and Telecommunications Committee, September 19, 2000, Las Cruces, New Mexico.
- (6) "Deregulation Models Across the United States," with Suedeem Kelly, Tom McGuckin and Paul Turner, the Office of the New Mexico State Attorney General, Santa Fe, New Mexico; March 29-31, 2000.
- (7) "Economic Impacts of Retail Wheeling on the State of New Mexico," with David Smith, oral testimony to the New Mexico Legislative Energy Committee; November 21, 1995; Santa Fe, New Mexico.
- (8) "Economic Theory and Applications to Public Policy in the Energy Industries," Moderator, Conference on Current Issues Challenging the Regulatory Process, March 8-10, 1989, Santa Fe.
- (9) "The Economics of Telecommunications," Discussant, U.S. West Academic Seminar, August 2-5, 1988, Denver.
- (10) "Open Network Architecture and Deregulation," Discussant, Mountain Bell Academic Seminar, October 21-23, 1986,

(11) "Deregulating Electric Power Generation," with Joe Kerkvliet, invited presentation to the New Mexico Public Service Commission, May 14, 1986, Santa Fe.

V. OFF-CAMPUS TRAINING COURSES

(1) "Basic Cost Allocation and Rate Design in Electric Industry," Conference on Regulation and the Rate-Making Process (Center for Public Utilities), Albuquerque, New Mexico; September and May 1995 - present.

(2) "Electric Utility Revenue Requirements, Cost Allocation, Rate Design and Industry Restructuring: A training course for the Missouri Public Service Commission," with David Smith; January 13-17, 2003; Jefferson City, Missouri.

(3) "Basic Revenue Requirements, Cost Allocation and Rate Design: A training course for the Arkansas Public Service Commission," with David Smith; December 10-12, 2001; Little Rock, Arkansas.

(4) "Electric Utility Revenue Requirements, Cost Allocation, Rate Design and Industry Restructuring: A training course for the Colorado Public Utilities Commission," with David Smith; October 22-25, 2001; Denver, Colorado.

(5) "Cost Allocation, Unbundled Rate Design and Spot Market Implementation for the Philippines Electricity Industry: A training Course for the Philippine Energy Regulatory Commission," with Larry Blank, Michael Pitlock and David Smith; Manila, Philippines; November 16-25, 2000.

(6) "The Basics of Rate Design: A Course Presented to the Hawaiian Electric Company," with David Smith and James Sarikas; October 16-19, 2000; Honolulu, Hawaii.

(7) "Cost Allocation, Rate Design and Market Power in the Electric and Natural Gas Industries," Federal Energy Regulatory Commission; Washington D.C.; (a) June 4-6, 2001; (b) April 12-14, 1999; (c) February 24-26, 1997.

(8) "Applying Integrated Resource Planning: A Training Course for the North Caucasus Region of Russia," with Ron Eachus; National Resource Defense Council, spring 1994.

VI. SELECTED PROFESSIONAL CONSULTING PROJECTS

(1) "Cost-Based Methodologies for Unbundled Regulation and Frequency Response Services for a Non-Standard Customer," expert written and oral testimony on behalf of the United States (Western Area Power Administration and the U.S. Department of Justice), June – December 2004, in the United States Court of Federal Claims, Case No. 00238C, North Star Steel Company (plaintiff) vs. the United States (defendant).

(2) "Cost-of-Service Rate Design for the City of Las Cruces Utility Services," with Tom McGuckin, for the City of Las Cruces Utility Division, spring 2002 to fall 2003

(3) "Recommended Changes to the New Mexico Electric Utility Industry Restructuring Act: A Desert Southwest Market Power Analysis," with Tom McGuckin, for the Office of the New Mexico Attorney General, June 2001 to August 2002

- (4) "Implementing Electricity Restructuring and Unbundled Distribution Prices in the Philippines," with David Smith, Larry Blank, Bob Burns and Mike Pitlock, for the Department of Energy and U.S. Agency for International Development, Spring 2000 to Summer 2002.
- (5) "Economic Analysis and Implementation of Customer-Choice and Distribution Unbundling Pilot Program," with Tom McGuckin, Texas-New Mexico Power Company, spring 1998 – fall 1999.
- (6) "Application for the Certificate of Public Convenience and Necessity and for Approval of Rate Schedules, direct written and rebuttal testimony, Texas-New Mexico Power Company, spring – fall 1997.
- (7) "Price and Non-Price Water Conservation Programs for Residential Water Use," with Tom McGuckin, American Water Works Association. Spring 1996.
- (8) "Alternative Electric Industry Restructuring Plans for the state of Texas and Stranded Cost Estimates for Particular Utilities," June-October, 1996, Southwestern Public Service Company, Amarillo, Texas.
- (9) "Price and Non-Price Water Conservation Programs for Western Irrigation Districts," with Tom McGuckin, October 1995-June 1996, U.S. Bureau of Reclamation.
- (10) "Economic Impacts of Retail Wheeling on the State of New Mexico," with David Smith, August-December 1994, New Mexico Public Utility Commission.

DOUGLAS A. GEGAX
Summary Bio

EDUCATION

Ph.D., Economics, University of Wyoming, 1985
B.A., Summa cum Laude, Economics, San Diego State University, 1980

PROFESSIONAL INTERESTS

Public Utilities, Regulation, Industrial Organization, Microeconomic Theory
Environmental and Resource Economics, Quantitative Methods

EMPLOYMENT HISTORY

2003 – Present: Professor of Economics, New Mexico State University
1988 – Present: Partner, EnWater Resource Consultants
1990 – 2003: Associate Professor of Economics, New Mexico State University
1984 – 1990: Assistant Professor of Economics, New Mexico State University

PERTINENT PROJECT EXPERIENCE

Dr. Gegax has extensive experience in the areas of electric and water utility rate design and market structure analysis. He has provided written and oral testimony for federal and state regulatory agencies on topics such as unbundled rate design and electric industry restructuring. Dr. Gegax has developed technical and non-technical information and educational materials for utility and commission audiences and has consulted for regulatory commissions as well as investor-owned utilities. He has numerous publications in nationally recognized journals in the areas of Public Utilities, Regulation, Conservation and Environmental and Resource Economics including The Review of Economics and Statistics, The Yale Journal on Regulation and The Journal of Regulatory Economics. His project experience in the electricity areas pertinent to this proposal include (***denotes projects that involved written and/or oral testimony**):

(1) Director, Center for Public Utilities (CPU), New Mexico State University.

Dr. Gegax currently serves as Director for the Center for Public Utilities (CPU) and has been a member of the CPU since 1986. The CPU is housed in the College of Business Administration and Economics at NMSU and has been in existence since 1978. The CPU produces issues conferences, training courses, conference proceedings and instruction/training materials for directors, managers and professional staff at firms and federal and state commissions in the telecommunications, electricity, natural gas and water industries. The training courses are typically one week “classroom-type” courses covering legal issues in utility regulation, revenue requirements, cost allocation, bundled and unbundled rate design and resource planning and conservation. Subject areas include Law, Economics, Finance, Accounting and Engineering. Periodically, these courses are also given on-site to specific companies or commissions – including the Federal Energy Regulatory Commission. Dr. Gegax is one of three faculty members who develop the course outlines and objectives pertaining to, teach in, and handle the logistics of running, these conferences. The National Association of Regulatory Utility Commissioners (NARUC) officially sanctions the programs offered by the CPU. The only other university utilities training program sanctioned by NARUC is at Michigan State University. In total, the CPU conferences average around 450 attendees per year and these attendees come from all 50 states as well as many foreign countries. Individual state and federal regulatory commissioners, along with executives and managers from utilities, sit on the CPU’s advisory council and offer guidance regarding the type and scope of programs offered by the CPU.

* (2) “Cost-Based Methodologies for Unbundled Regulation and Frequency Response Ancillary Services for a Non-Standard Customer.” In this case, Dr. Gegax served as an expert providing written and oral testimony on behalf of the United States (Western Area Power Administration and the U.S. Department of Justice), June – December 2004, in the United States Court of Federal Claims, Case No. 00238C, North Star Steel Company (plaintiff) vs. the United States (defendant).

* (3) “Cost of Service Analysis for Water, Wastewater, Solid Waste and Gas: Final Report to the City of Las Cruces.” with Tom McGuckin for the City of Las Cruces Utilities. A report to, along with oral testimony in front of, the City Council of Las Cruces, New Mexico and entered into the public record, September 15, 2003. Based on this analysis, the City Council voted 6 – 1 to adopt this study’s recommended rate increases.

(4) “An Analysis of Electric Deregulation and its Effects on Consumers: Why New Mexico’s Electric Utility Restructuring Act Should be Repealed.” with Tom McGuckin, A report to the New Mexico Attorney General Patricia Madrid, filed at the Office of the New Mexico Attorney General and distributed to the 2003 New Mexico legislative Session, December, 2002. This analysis contributed to the NM legislative appeal of the NM retail-restructuring act.

* (5) California Electricity Markets: Lessons Learned for New Mexico with Paul Turner September 19, 2000 oral testimony to the New Mexico Legislative Council’s Economic and Rural Development and Telecommunications Committee and then to the New Mexico Public Regulation Commission. In these testimonies Dr. Gegax and Turner gave a detailed presentation of what happened in the California electricity markets and, given the conditions of the New Mexico Electric Utility Restructuring Act of 1999 (SB 428), what were the potential impacts on New Mexico. In the presentations, Gegax and Turner also gave recommendations regarding how SB 428 should be modified.

(6) Implementing Electricity Restructuring and Unbundled Distribution in the Philippines with David Smith, Larry Blank, Bob Burns and Mike Pitlock, for the U.S. Department of Energy and the U.S. Agency for International Development, Summer - winter 2000. In this project, the above team will guide the Philippines in their electricity restructuring efforts. The work plan will focus on establishing unbundled tariffs and capacity building for policy making and assessment. Specifically, the scope of work includes: establishing terms and conditions for transmission and distribution cost-based rates with performance-based regulatory mechanisms, establishing methods for the removal of cross-subsidies, evaluation of stranded costs, establishing rules and guidelines for cost allocation and affiliate transactions. The team will also work with the Philippines Department of Energy and Energy Regulatory Board in establishing the conditions for divesting generation from transmission as well the conditions governing a competitive wholesale power exchange.

(7) “Economic Analysis and Implementation of Customer-Choice and Distribution-Unbundling Pilot Program.” Drs. Gegax and McGuckin developed the analysis of, and assisted in implementing, Texas-New Mexico Power Company’s (TNMP) retail electric customer-choice pilot program from spring 1998 to fall 1999. The project involved: aggregating the residential and commercial participant load; choosing the alternative suppliers; unbundling TNMP’s generation, transmission and distribution rates, monitoring TNMP compliance regarding nondiscriminatory equal access to transmission and distribution; development of customer education programs; benefits and costs to program participants as well as other affected parties; development of billing and metering mechanisms required for customer choice; and a description of issues to be address prior to TNMP entering a full-blown deregulated retail energy market. The project involved the first and only retail restructuring program in the state of New Mexico and resulted in a final status report to the New Mexico Public Regulation Commission.

* (8) "An Application for the Certificate of Public Convenience and Necessity (CNN) and Market-Based Rates in Santa Teresa, New Mexico." This project involved an analysis of the benefits of the New Mexico Public Utility Commission granting Texas-New Mexico Power Company (TNMP) a CCN to serve as the provider of distribution services for a new industrial, commercial and residential development in Santa Teresa, New Mexico. TNMP would have also provided competitive (market-based) wholesale pool power. The project involved estimating the benefits to future retail customers as well as estimating the degree of damages (or lack thereof) to an existing electric utility whose service territory is in close proximity to the proposed development. In the project which ran from spring to fall 1997, Dr. Gegax served as an expert witness and wrote both direct and rebuttal written testimony on behalf of TNMP.

* (9) Impacts of Retail Wheeling on the State of New Mexico. This study, written for the New Mexico Public Utilities Commission and conducted during the fall and winter of 1994, focused on a quantitative analysis of the economic impacts on utility revenues and rates, stranded investment and customer class utility bills should a state retail wheeling statute be passed in the state of New Mexico. The project involved the determination of current retail customers who would be, based on economic and technical factors, the most likely candidates to take advantage of a retail wheeling statute. The study examined a number of alternative scenarios regarding the characteristics of such a statute, the market price for alternative generation services and allocation of stranded costs. The project also involved written and oral testimony to the Integrated Resource Planning Subcommittee, New Mexico State Legislature.