

STEVEN R. CUNNINGHAM

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SCHOOL ADDRESS

Department of Economics
341 Mansfield Road, Unit 1063
University of Connecticut
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EDUCATION

Ph.D., Economics, 1989. Florida State University, Tallahassee, Florida.
Thesis: *Monetary Equilibria and Chaos*. Major Professor: George Macesich.

M.S., Economics, 1989. Florida State University, Tallahassee, Florida.

B.A., Mathematics, 1978. University of South Florida, Tampa, Florida.
Graduate work in differential equations and complex analysis.

FIELDS & INTERESTS

Ph.D. fields: macroeconomics/monetary theory & policy, econometrics, mathematical economics, and international economics.

Areas of current interest:

- Monetary theory & policy, including financial markets & institutions,
- Macroeconomics (consumption and investment, etc.),
- Econometrics, esp. time series analysis (including spectral theory),
- Macro dynamics including set-valued dynamical systems and chaos.

SPECIAL HONORS & APPOINTMENTS

Founder and first director of the Connecticut Center for Economic Analysis (CCEA). This is a University Center created by the Provost and the Board of Trustees to provide forecasts, impact analyses, and policy evaluations for the State and for private concerns. The Center also publishes a widely cited economic quarterly. CCEA forecasts and analyses have been cited in Connecticut newspapers and in the *Wall Street Journal*. (1992-1998)

Member, Board of Directors and Technical Director of USJA, Inc., a 501c3 corporation and national sports organization. (1999-2004)

Appointment as Research Assistant to the Vice Chairman of the Board of Governors of the Federal Reserve System, Manuel Johnson, in Washington, D.C. (Summer 1988)

Doctoral Research Fellowship at the Super Computer Research Institute (SCRI) at Florida State University, 1989–1990. Top ranked super computer facility in the world. (Awarded, but declined.)

Florida Industrial Representative of the Mathematical Association of America, 1981–1983.

Member of a special working group of about 20 economists and businesspeople advising presidents, prime ministers, and officials of the former Soviet Union. The group met at the Geonomics Institute in Middlebury, Vermont, and wrote proposals for restructuring the economies of former Soviet Union and its republics. In May 1990, we made proposals for the development of (i) capital markets, (ii) money, credit, and banking systems, and (iii) trade legislation. In May 1991, we met again to form a proposal for horizontal (inter-republic) organization.

PUBLICATIONS

Technical Publications

- [1] "The Problem with Interim Employment" (with J. Vilasuso), *Journal of Institutional and Theoretical Economics*, 115 (2), June 1999, pp. 321-44.
- [2] "A Time Series Analysis of the Relationship Between Inflation Uncertainty and Unemployment" (with H. Tang and J. Vilasuso), *Journal of Macroeconomics*, Vol. 19 No. 4 (Fall 1997), pp. 731-752.
- [3] "Time Aggregation and the Money-Real GDP Relationship" (with J. Vilasuso), *Journal of Macroeconomics*, Vol. 19 No. 4 (Fall 1997), pp. 675-695.
- [4] "Reinsurance Firm Relocation Proposal: An Economic Evaluation" (with W. Lott and T. Blois), Connecticut Center for Economic Analysis for the Connecticut Department of Economic and Community Development (1997).
- [5] "A Semiconductor Facility in Connecticut: An Economic Impact Study" (with W. Lott and T. Blois), Connecticut Center for Economic Analysis for the Connecticut Department of Economic and Community Development (1997).
- [6] "Electric Industry Restructuring: Economic Impact Study" (with W. Lott and T. Blois), Connecticut Center for Economic Analysis for the Connecticut Department of Economic and Community Development (1997).
- [7] "Venture Capital Initiative: Economic Impact Study" (with W. Lott and T. Blois), Connecticut Center for Economic Analysis for the Connecticut Department of Economic and Community Development (1997).
- [8] "Stainless Steel Slab Facility Proposal: Economic Impact Study" (with W. Lott and T. Blois), Connecticut Center for Economic Analysis for the Connecticut Department of Economic and Community Development (1997).
- [9] "The Florence Griswold Museum: Impact of the Proposed Expansion on the Connecticut Economy" (with W. Lott and T. Blois), Connecticut Center for Economic Analysis for the Florence Griswold Museum (December 2, 1996).
- [10] "Tests for Nonlinearity in EMS Exchange Rates" (with J. Vilasuso), *Studies in Nonlinear Dynamics and Econometrics* Vol. 1 No. 3 (October 1996), 155-168.
- [11] "The Korean Stock Market: Road to Liberalization" (with Y.K. Cho), in *Research in International Business and Finance*, Supplement 1, John Doukas and Larry Lang, editors. Greenwich, Connecticut: JAI Press Inc (1996), pp. 213-240.
- [12] "Connecticut Tourism Strategy Study" (with W. Lott and T. Blois), Connecticut Center for Economic Analysis for the Connecticut Department of Economic and Community Development and SRI International (May 3, 1996).
- [13] "The Finance, Insurance, and Real Estate Industries: An Economic Analysis," (with W. Lott and T. Blois), Connecticut Center for Economic Analysis for the University of Connecticut School of Business and Northeast Utilities (April, 1996).

- [14] "The Amistad Freedom Schooner: An Economic Impact Study" (with W. Lott and T. Blois), Connecticut Center for Economic Analysis for the Mystic Seaport Museum and Connecticut Afro-American Historical Society (February 7, 1996).
- [15] "Norwalk Oyster Festival & Sheffield Lighthouse: Economic Impact Analysis" (with W. Lott and Tara Blois), Connecticut Center for Economic Analysis for the Norwalk Seaport Association (January 9, 1996).
- [16] "Time Aggregation and Causality Tests: Results from a Monte Carlo Experiment" (with J. Vilasuso), *Applied Economics Letters* Vol. 2 No. 10 (October 1995), pp. 403-405.
- [17] "The Bridgeport Casino Proposals: An Economic Evaluation" (with W. Lott and T. Blois) Connecticut Center for Economic Analysis for the Connecticut Department of Economic and Community Development and the Connecticut Department of Special Revenue. (October 10, 1995).
- [18] "Navy's Recommendations for New London County to the BRAC Commission: An Economic Impact Study" (with W. Lott), Connecticut Center for Economic Analysis for the Subbase Realignment Coalition. (May 5, 1995).
- [19] "Highlights Book for the Economic Analysis of the Navy's Recommendations to Base Realignment and Closing Commission" (with W. Lott) Connecticut Center for Economic Analysis for the Subbase Realignment Coalition. (May 1, 1995).
- [20] "Proposed Shutdown of the Allied Signal Plant in Stratford, Connecticut: An Economic Impact Study" (with W. Lott), Connecticut Center for Economic Analysis for the Greater Bridgeport Regional Planning Agency (April 20, 1995).
- [21] "Griffin Line Major Investment Study: An Economic Impact Study" (with W. Lott and K. Tota), Connecticut Center for Economic Analysis for the Greater Hartford Transit District and the Capitol Region Council of Governments (April 18, 1995).
- [22] "Uconn 2000 Capital Project: Economic Impact Analysis," (with W. Lott), Connecticut Center for Economic Analysis for the University of Connecticut. (March 16, 1995).
- [23] "Is Keynesian Demand Management Policy Still Viable?" (with J. Vilasuso), *Journal of Post Keynes-ian Economics*, (Winter 1994-95), Vol. 17, No. 2, pp. 187-210. The issue is built around the article.
- [24] "Mystic Aquarium: Economic Impact of the Proposed Expansion," Connecticut Center for Economic Analysis for the Connecticut Department of Economic Development (November 1994).
- [25] "Swiss Bank: An Economic Impact Study" (with W. Lott), Connecticut Center for Economic Analysis for the Connecticut Department of Economic Development (November 1994).
- [26] "Mystic Seaport: Contributions from Continuing Operations," (with W. Lott), Connecticut Center for Economic Analysis for the Mystic Seaport Historical Museum (July 1994).
- [27] "The Griffin Line Corridor: An Economic Impact Study" (with W. Lott), Connecticut Center for Economic Analysis for the Greater Hartford Transit District and the Capitol Region Council of Governments (March 14, 1994). U.S. Department of Transportation quarterly, in press.
- [28] "Comparing the Volatility of U.S. GNP Across Exchange Rate Regimes: An Application of Saphe Cracking" (with J. Vilasuso), *Journal of Macroeconomics* 16 (Summer 1994), 445-459.

- [29] "1995 World Special Olympics: An Economic Impact Study" (with W. Lott), Connecticut Center for Economic Analysis for the 1995 Special Olympics Committee (March 1994).
- [30] "Mystic Seaport Museum Expansion: An Economic Impact Study" (with W. Lott), Connecticut Center for Economic Analysis for the Mystic Seaport Historical Museum (February 18, 1994).
- [31] "Unit Root Testing: A Critique from Chaos Theory," *Review of Financial Economics* Vol. 3 No. 1 (Fall 1993), pp. 1-18.
- [32] "The New England Patriots Football Franchise: An Economic Impact Study" (with W. Lott), Connecticut Center for Economic Analysis for the Connecticut Department of Economic Development (November 1993).
- [33] "The Relationship of Opportunity Costs to the Interest Elasticity of Money Demand," *Eastern Economic Journal* (Summer 1993) pp. 309-319.
- [34] "Defense Spending Cuts in New London County: An Economic Impact Study" (with W. Lott), Connecticut Center for Economic Analysis for the Connecticut Department of Economic Development (May 11, 1993).
- [35] "Groton-New London Submarine Base Closing: An Economic Impact Study" (with W. Lott), Connecticut Center for Economic Analysis for the Connecticut Department of Economic Development (March 17, 1993).
- [36] Review of *Current Issues in Monetary Policy in the United States and Japan: The Predictability of Money Demand* by Elias Grivoyannis. (NY: Praeger, 1991. Pp. x+214.) *Eastern Economic Journal* (Spring 1993).
- [37] Review of *The Theory of Economic Breakdown: An Institutional-Analytical Approach* by John Cornwall. (Cambridge, MA: Basil Blackwell, 1990. Pp. xvi, 256.) *Journal of Economic Literature*, Vol. XXX (March 1992), pp. 195–197.
- [38] "Financial Innovation, Price Smoothing, and Monetary Policy" (with Milton H. Marquis), *Economic Inquiry* Vol. 28 No. 4 (October 1990), pp. 831–850.
- [39] "Is There a Role for Commodity Prices in the Design of Monetary Policy? Some Empirical Evidence" (with Milton H. Marquis), *Southern Economic Journal* Vol. 57 No. 2 (October 1990), pp. 394–412.
- [40] "Application of Cepstral Techniques to Rayleigh Wave Multipathing," NTIS/ENSCO DCS-STR-80-45 (November 1980).
- [41] "Topic Report: An Evaluation of Maximum Entropy as Applied to the Shallow Depth Problem," NTIS, unclassified extract from a classified document (March 1980).
- [42] "LP Surface Wave Deghosting," NTIS, ENSCO T/9107/ (November, 1979). Classified.
- [43] "The ENSCO Seismic Waveform Archives and Database Management System", ENSCO (November, 1979).

Nontechnical Publications (Business Magazines, Newspapers, etc.)

- [1] "Economic Outlook: Growth Ahead: (with W. Lott and T. Blois), *The Connecticut Economy: A University of Connecticut Quarterly Review* Vol. 5 No. 2 (Winter 1997), p. 8.

- [2] "Connecticut Recovers its Vitality" (with W. Lott), *The Connecticut Economy: A University of Connecticut Quarterly Review* Vol. 5 No. 1 (Spring 1997), p. 8.
- [3] "Forecast Update: Soft Landing and Sustained Growth," *The Connecticut Economy: A University of Connecticut Quarterly Review* vol. 4 no. 2 (April 1996).
- [4] "Competitiveness Indices for Connecticut" (with W. Lott and J. O'Meara), Connecticut Center for Economic Analysis for the Connecticut Department of Economic Development. (June 30, 1995).
- [5] "Economic Recovery: How Long and How Strong?" (with W. Lott), *The Connecticut Economy* (January 1995).
- [6] "The Swiss Bank Deal: CT Taxpayer as a Winner" (with W. Lott), *The Connecticut Economy* (October 1994).
- [7] "A New Light Rail System for Connecticut?" (with W. Lott), *The Connecticut Economy* (July 1994).
- [8] "A Light Rail System for Hartford" (with W. Lott), *The Connecticut Economy* (July 1994).
- [9] "The Korean Stock Market Story: Organization and Procedures," *Business Tech International*, December -January 1995.
- [10] "The Korean Stock Market Story: Recent Developments," *Business Tech International*, February-March 1995.
- [11] "The Korean Stock Market Story: 1956-1980," *Business Tech International*, August-Sept. 1994.
- [12] "The Korean Stock Market Story: The Post-1980 Experience," *Business Tech International*, Oct.-Nov. 1994.
- [13] "Connecticut's Recovery: A Step Behind the U.S." (with W. Lott) *The Connecticut Economy* (April 1994).
- [14] "The Stock Market and the Eight Elements of a Market Economy," *Business Tech International*, vol. 2 no. 4 (June-July 1994).
- [15] "Stock Market Technical Analysis," *Business Tech International* vol. 2 no. 3 (April-May, 1994).
- [16] "Selecting Stocks," *Business Tech International* vol. 2 no. 2 (February-March 1994).
- [17] "Puts and Calls: Stock Speculation or Gambling?" *Business Tech International* vol. 2 no. 1 (December 1993-January 1994).
- [18] "Operatiuni cu si fara acoperire la bursa de valori (The Long and Short of Stock Speculation)," *Business Tech International* vol. 1 No. 12 (October-November 1993).
- [19] "Connecticut Income, Population, and Employment Forecast" (with W. Lott), *The Connecticut Economy* (October 1993).
- [20] "Uconn Profs Explain Report," *Bristol Press* (October 1, 1993).
- [21] "Partea Nevazuta a Tranzactilor (Brokerage Operations: The Back Room)," *Business Tech International*, vol. 1 no. 11 (August-Sept. 1993).

- [22] "Foreign Exchange and the Romanian Economy," *Business Tech Romania*, vol. 1 no. 10 (June-July 1993).
- [23] "Schimbul extern si economia romaneasca: legaturi critice (Foreign Exchange and the Romanian Economy: Critical Links)," *Business Tech International*, vol. 1 no. 10 (June-July 1993).
- [24] "New London County is on the Way Back" (with W. Lott), *The Connecticut Economy* (July, 1993).
- [25] "Income, Population, and Employment Forecasts," (with W. Lott) *The Connecticut Economy* (April 1993).
- [26] "Structura financiara a firmei (The Financial Structure of the Firm)," *Business Tech International*, vol. 1, no. 9 (April-May 1993).
- [27] "Constituirea unei burse de valori (Constructing a Stock Exchange)," *Business Tech International*, vol. 1, no. 8 (February-March 1993).
- [28] "The Proposed 1% Investment Policy" (with W. Lott), *The Connecticut Economy* (January 1993).
- [29] "Human 'Imperfection' As A Market Strength," *The Freeman* (October 1992).

WORKING PAPERS AND MANUSCRIPTS

- [1] "Stock Market Volatility and Margin Requirements" (with Y. K. Cho).
- [2] "The Korean Stock Market: Tests of Efficiency" (with Y. K. Cho).
- [3] "Monetary Policy in the Presence of Chaos and a Financial Sector."
- [4] "Amplitude Swings in Consumption and the News about Income" (with M. Marquis).
- [5] "The Transmission of Information Between Macroeconomic Variables" (with M. Marquis).

PARTICIPATION AT CONFERENCES, SEMINARS, AND SYMPOSIA

- "Inflation Uncertainty and Unemployment: A Multi-Sector Approach" (with H. Tang and J. Vilasuso), Southern Economic Association Annual Meetings. November 20, 1995. (New Orleans)
- "Enterprise for the Americas Initiative: Monetary Considerations," Annual Meeting of the New England Council of Latin American Studies. September 24, 1995. (Harvard)
- "Modeling the Connecticut Economy: A Panel Discussion," Ninth New England Statistics Symposium. April 22, 1995. (Storrs) The Connecticut Center for Economic Analysis sponsored the sessions.
- "Inflation Uncertainty and Unemployment: A Multi-Sector Approach" (with J. Vilasuso and H. Tang). Eastern Economic Association Meetings, March 1995. (New York)
- "Systematic Sampling, Temporal Aggregation, and the Money-Output Relationship" (with J. Vilasuso), Western Economic Association Annual Meetings. June 30, 1994. (Vancouver)
- "Monetary Policy and Chaos in the Presence of a Financial Sector," Eastern Economic Association Annual Meetings. March, 1994. (Boston)
- "Nonlinear Thinking in Social Science History." Invited panelist and discussant in a special session of the Social Science History Association Meeting. November 5, 1993. (Baltimore)

"Defense Spending Reductions in Groton/New London: An Impact Study," Regional Economic Modeling (REMI) Annual Conference. January 1993. (Atlanta)

"Money and Banking in a Free Society," Colloquium sponsored by LibertyFund in Indianapolis, Indiana, July 16–20, 1992. 15 economists by invitation.

"Social Economics and Topics in Social Welfare," session chair, Annual ASSA/ASE Meetings. January 5, 1992. (New Orleans)

"Macrostabilization Policy via Micro Means: An Emerging Role for Government," paper presented at the Annual ASSA/ASE Meetings. January 3, 1992. (New Orleans)

"Applying Chaos in the Social Sciences," invited remarks for sessions on applications of nonlinear dynamic methods (chaos) to issues in modeling social and historical changes. Social Science History Annual Meetings, November 1, 1991. (New Orleans)

Guest lecturer for the Graduate Macroeconomics Seminar at Trinity College, Hartford, Connecticut. Topic: "The Economic Applications and Consequences of Chaos." November 1990.

"The Evolving Concept of Equilibrium," by invitation, at the Austrian Economics Seminar at New York University, April 2, 1990.

"Unit Root Testing: A Critique," the Annual Meeting of the Eastern Economic Association, March 29–April 1, 1990. (Cincinnati)

"The Evolving Concept of Equilibrium," Symposium at Trinity College, Hartford, Connecticut, sponsored by the Institute for Humane Studies, November 13, 1989.

"Is There a Role for Commodity Prices in the Design of Monetary Policy? Some Empirical Evidence" (with M. H. Marquis), the Western Economic Association Annual Meetings, June 1989. (Los Angeles)

"Transaction Demand, Expected Prices, and 'Passive' Policy Rules" (with Milton H. Marquis), the Western Economic Association Annual Meetings, July 1988. (San Francisco)

"The Application of a Technique from Communication Theory to Macroeconomic Series," the Annual Meeting of Eastern Economics Association, March 1988. (Boston).

"Commodity Prices and Monetary Policy" (with Milton H. Marquis), the Annual Meeting of the Southern Economics Association, November 1987. (Washington, D.C.)

"Monetary Policy, Commodity Prices, and the Real Business Cycle" (with Milton H. Marquis), the Annual Meeting of the Western Economics Association, July 1987. (Vancouver, Canada)

"Application of Cepstral Techniques to Rayleigh Wave Multipathing," NTIS/ENSCO DCS-STR-80-45, Nov. 1980. Presented at the Annual Meeting of the Mathematical Association of America, March 1981. Invited address at the Annual Meeting of the American Statistical Association, May 1981.

"Historical Notes on the Fractional Calculus," Symposium at University of South Florida, December 1977.

"The Cauchy-Kovalevsky Theorem in Partial Differential Equations," Symposium at University of South Florida, May 1978.

GRANTS

Grant from Mystic Seaport Museum to estimate the economic contribution of the proposed Amistad Freedom Schooner to the Connecticut Economy, Fall-Winter 1995. (\$5,250)

Grant from the Norwalk Seaport Association to study the economic impact of the Annual Oyster Festival on the economy of the surrounding communities, Fall 1995. (\$5,000)

1996 Connecticut Department of Economic and Community Development Block Grant for three impact studies, contributions to *The Connecticut Economy*, and a Competitiveness Index for the State. (\$100,000)

Grant from SRI International to evaluate and forecast the tourism industry and its role in the larger state economy, Spring 1996. (\$2,500)

Grant from Northeast Utilities and the UConn School of Business to study the Finance, Insurance, and Real Estate Industries, Winter-Spring, 1996. (\$3,500)

Grant from the Connecticut Department of Labor to project employment trends in Connecticut, Summer 1995. (\$47,500)

Grant from the South Central Regional Council of Governments for regional employment forecasts, Summer 1995. (\$7,500)

Grant from the Connecticut Office of Policy Management (OPM) for a dynamic revenue forecasting model. 1995-1996. (\$88,800)

Connecticut United for Research Excellence (Debra Pasquale) for an industry study of the biomedical industry. Summer-Fall 1995. (\$8,970)

Grant from Mystic Seaport to estimate the economic contribution of continuing operations at the Seaport on the Connecticut Economy, Connecticut Model, Summer 1994. (\$9200)

Grant from the Hartford Transit District, the Capital Region Growth Council, and the Capital Region Council of Governments to update the economic impact analysis for the Griffin Line Light Rail System proposed for Hartford County, Connecticut Model, Winter 1994-95. (\$7500)

1995 Connecticut Department of Economic Development Block Grant for three impact studies, contributions to *The Connecticut Economy*, and a Competitiveness Index for the State. (\$135,000)

Sub Base Realignment Coalition for an analysis of the Navy's recommendations for New London County to the BRAC Commission, May 1995. (\$11,750)

Greater Bridgeport Regional Planning Agency for an analysis of the proposed shutdown of the Allied Signal Plant in Stratford, Connecticut April-May 1995. (\$10,000)

1994 Connecticut Department of Economic Development (DED) grants to the Economics Department of the University of Connecticut to establish the Connecticut Center for Economic Analysis. Analysis and forecasts of the Connecticut economy. (\$100,000)

Grant from Greater Hartford Transit District, the Hartford Regional Growth Council, and the Capitol Region Council of Governments to study the economic impact of a light rail system running along the Griffin corridor from the Hartford train station past the Griffin Industrial Park to the Bradley International Airport. A related grant purchased extensions to our existing computer state economic model. Winter 1993-94. (\$15,000)

Connecticut Office of Fiscal Analysis Grant to the Connecticut Center for Economic Analysis of the Department of Economics of the University of Connecticut. February 1994, for Economic Impact Studies and Policy Analyses, \$12,000.

Mystic Seaport Historical Museum Grant to the Connecticut Center for Economic Analysis of the Department of Economics of the University of Connecticut. February 1994, for Economic Impact Studies, \$9,200.

TESTIMONY

Connecticut House Program Review and Investigations Committee Public Hearing on "H.B. 6650 (Raised) An Act Implementing the Recommendations of the Legislative Program Review and Investigations Committee Concerning Economic Development." March 17, 1995.

Connecticut State Education and Finance Committees of the House Public Hearing on "H.B. 6785 (Raised) An Act to Enhance the Infrastructure of the University of Connecticut." March 3, 1995.

Prepared economic impact studies for presentation to the Federal Base Realignment and Closing Commission (BRACC) hearings considering closing substantial parts of the Submarine Base at Groton-New London, Connecticut. Resulted in the base being kept open. (May 1993)

DEPARTMENTAL, COLLEGE, AND UNIVERSITY COMMITTEE WORK

Member of Graduate Faculty since 1991. Major professor or committee member for many Ph.D. and M.A. theses. Member of the Graduate Examination Committee since 1990.

Working Paper Committee Chair (1990–1992); instrumental in starting a departmental working paper series.

Member of the Computer Committee (1989–90, 1994-95, 1998-2002, currently, and *ex officio* member all other years); involves user support and the supply of technical advice in the procurement of equipment. Set up a department local area network (LAN), put department on campus backbone and Internet, with W. Lott (1992-94).

Member of the graduate and undergraduate program committees, recruiting committee, PTR (promotion, tenure, and reappointment) committee, college curriculum committee.

Member of a special committee reporting directly to the Board of Trustees to secure the UConn 2000 funding--\$1 billion in new capital financing for the University to replace and enhance the physical plant.

TEACHING EXPERIENCE

- Macroeconomic Theory and Policy, principles, honors principles, intermediate, M.A.-level, and Ph.D.-level. (University of Connecticut course numbers ECON 111, 111H, 219, 309, 419)
- Finance and Financial Economics. (ECON 300)
- International Finance. (ECON 243)
- Ph.D.-level Macroeconometrics/Time Series Analysis. (ECON 300)
- Ph.D.-level Monetary Theory and Policy (ECON 346, 446).
- Graduate Mathematical Economics II (ECON 315, 415).
- Money and Banking. (ECON 230)
- Graduate and Undergraduate History of Economic Thought. (ECON 205, 323)

WORK RECORD

- 1995- Associate Professor, Department of Economics, University of Connecticut, Storrs, CT.
- 1992-1998 Director, Connecticut Center for Economic Analysis, University of Connecticut, Storrs, CT.
- 1990-1998 President, Cunningham Systems Corporation, Storrs, CT.
- 1989-1995 Assistant Professor, Department of Economics, University of Connecticut, Storrs, CT.
- 1987-1988 Instructor, Department of Economics, Florida State University, Tallahassee, FL.
- 1988 Research Assistant to the Vice Chairman of the Board of Governors of the Federal Reserve System.
- 1982-1986 Manager, Corporate Revenue, Gross Profit, and Pricing (member corporate financial staff), AT&T Paradyne Corporation, Largo, FL.
- 1981-1982 Staff Mathematician/Senior Engineer, Harris Corporation, Palm Bay, FL.
- 1979-1981 Senior Scientist, ENSCO, Inc., Indian Harbour Beach, FL.

SUMMARY OF NONACADEMIC WORK EXPERIENCE

Financial Services. Developed a software system, *ItemPRO II*, which allows banks, S&L's, and credit unions to use the Federal Reserve's MICR capture service to reduce costs and improve service in processing transactions (checks and sharedrafts). The software has been marketed by McCurrach & Company, a Tennessee-based firm, since 1990-1998.

DoD Basic Research. Worked as a scientist in the areas of applied mathematics and mathematical physics. Developed spectral and cepstral (time series) techniques for use in the seismic monitoring of the Limited Threshold Nuclear Test Ban Treaty. Studied the use of homomorphic deconvolution with dispersive waveforms. Developed adaptive predictive filters as counterevasive techniques in response to the hidden-in-earthquake scenario. Principal researcher and program manager, various projects involving signal processing, statistical time series analysis, and electronic warfare.

High-Tech Product Development. Developed mathematical, statistical, and signal-processing software, as well as provided innovations for a speech synthesis IC. Did high-level design for, and directed implementation of an analog circuit simulation system; part of a larger project to integrate that system with the CADD system.

Manufacturing Production. Introduced the concept for and organized a configuration management function. This was so successful at economizing and streamlining, while gaining much needed controls that the staff grew to 27 managers, professionals, and semi-professionals. Worked closely with the Senior V.P., Operations, to establish a new product development methodology. Developed an Engineering Change Cost System used for tracking and controlling costs caused by design changes; first year savings of over \$5 million. Costed products, managed software development libraries (system build operation). Established all manufacturing procedures for handling software via product routings, work orders, inventory forecasts, & management. Responsible for production of software and firmware corporate-wide; established production operation in Puerto Rican subsidiary.

Contracts. Wrote proposals and qualification packages from RFPs and Commerce Business Daily Notices (DoD). Worked closely with the Contract Officer and the Contract Officer's Technical Representative (COTR) as principal researcher and project manager on contracts.

Corporate Finance. Member of corporate financial staff at Paradyne Corporation, a \$300 million company. Performed a variety of analytical tasks requiring extensive and advanced knowledge of generally accepted accounting and financial principles, financial and administrative systems, prod-

ucts, sales marketing, product development, distribution channels, manufacturing costs, computers and related software, industry and business environments, as well as superior communication/presentation skills. Responsible for the pricing function, including international transfer pricing. Coordinated expense and capital budgeting with divisions. Developed operating plan with division and executive management. Worked closely with corporate financial planning department on budgets, operating plan, and consolidation methods. Did pro forma analyses on project proposals. Wrote operations and engineering R&D pieces for public corporate financial reports (10-Ks, 10-Qs, etc.), and was part of the team that pulled together the total financial picture for those reports. Responsible for economic and industry analysis for executive management and the Board of Directors.

CURRENT AND PAST PROFESSIONAL AFFILIATIONS

American Economic Association
Econometric Society
Royal Economic Society
American Finance Association
Eastern Economic Association
Western Economic Association

Southern Economic Association
Society for Economic Dynamics & Control
Society for Evolutionary Economics
American Statistical Association
American Mathematical Society
Mathematical Association of America

SPECIAL SKILLS AND EXPERIENCE

Internet. Webpage coding, directly in HTML and with the aid of programs like Microsoft Frontpage. TCP/IP training. Webmaster for numerous webpages. Operate a large international Listserv-based mail list, several Listserv and Majordomo-based local mail lists. Some involvement in eCommerce.

Networks. Set up a departmental Local Area Network (LAN) with W. Lott. NETBIOS-based systems, especially LANtastic, Windows 95-2000 and XP, some Novell experience. Remote computing. Internet and TCP/IP. Wrote sophisticated financial application software to operate in LAN environment.

Computer Systems. Large-scale IBM systems: 360, 4341, 3033, 3090, ES9000, 5390, and SP2 under OS/MFT, OS/MVT, OS/VS1, OS/MVS, VM/370 with CMS, TSO, and CICS. Some Unix. Control Data CYBER 170 Model 730 and NOS. Various *Super computers*. Also, GE 635, NAS 9050, BIT 480, Harris 550 and 800 series under VULCAN, 8080-, Z80-, and 6502-, 80X86-, 80X88-based microcomputers, Pentium, Nova (DG) systems.

Software Development. Large systems development, computer graphics, and applications programming. Have implemented phased development methodologies. Programming in BASIC, FORTRAN, COBOL, Pascal, "C", assemblers, machine languages, and specialized database languages. Windows programming in "C++" and Visual BASIC. Designed and programmed a commercial software system whereby financial intermediaries can process their own transactions on a PC.

Statistical Software. RATS, LimDep, MicroTSP, EViews, Shazam.

Video. Created an instructional video series, marketed through a national professional organization and Amazon.com. Participated in all aspects of the process—scripting, performing, editing, marketing, etc.