David Nawrocki, Ph.D.

Villanova School of Business Department of Finance 800 Lancaster Avenue Villanova University Villanova, PA 19085 610-519-4323 Office E-Mail: NawrockiD@AOL.COM

David.Nawrocki@villanova.edu

EDUCATION

Ph.D. Pennsylvania State University (1976)

Major - Finance

Minors - Organizational Behavior and Public Administration (Systems Management)

M.B.A. Pennsylvania State University (1972) Concentration in Finance and Operations Research

B.S. Pennsylvania State University (1970) Major - Finance Minors - Economics and History

COMPUTER EXPERIENCE

Forty years of programming experience in academic research, banking and microcomputer software development. Courses in FORTRAN, OS-360 Assembler, APL, BASIC, and OS-360 JCL and Utilities. (15 Credits). Author of ten microcomputer packages. Primary responsibility for the computerization of the College of Commerce and Finance, Villanova University, 1984-1991 and planning/implementation of Villanova Applied Finance Lab, 2003-2005.

WORK EXPERIENCE

August 2004-Present – Katherine M. and Richard J. Salisbury Jr. '54 Endowed Professor of Finance, Villanova University.

2003-2009 - Director of the Institute for Research in Advanced Financial Technology (IRAFT), Villanova University.

2004-2009 – Director – M.S. in Finance program, Villanova University.

1991-Present - Professor of Finance, Villanova University, Villanova, PA 19085.

1996-2001 and 2003-2006 - Member of the Investment Subcommittee for the Board of Trustees, Villanova University, Villanova, PA 19085

2001-2003 – Member of Board of Directors, Novana Systems, Alexandria, VA.

1992-1996 - Member of Board of Directors, Aexpert, Inc. Lancaster, PA 17603.

1982-Present - President, Computer Handholders, Inc., Arcola, PA 19420.

1996-Present - Director of Research, The QInsight Group, San Diego, CA. Registered Investment Advisor in Pennsylvania and California.

1991-1992 Visiting Professor of Finance, San Diego State University, San Diego, CA 92182.

1984-1991 Associate Professor of Finance, Villanova University.

1981-1984 Assistant Professor of Finance, Villanova University.

1975-1981 Assistant Professor of Finance and Statistics, Drexel University, Philadelphia, PA.

1974-1975 Computer Consultant, International Money Management Group, Morgan Guaranty Trust, New York.

1972-1973 Economic Analyst, Investment Research Department, Girard Bank and Trust, Philadelphia, PA.

1970-1975 Instructor, Department of Finance, Pennsylvania State University, University Park, PA

TEACHING EXPERIENCE

Current courses include undergraduate portfolio management, financial markets and student-managed investment fund. During my career, I have also taught graduate research seminars, capital budgeting, econometric forecasting, money and banking, financial institutions and markets, investments, advanced financial management and introductory financial management and personal finance at both the undergraduate and graduate level.

a. Teaching Innovations

1. The integration of systems theory and organizational behavior into foundation finance, financial markets and portfolio theory courses and the integration of ethics into a financial markets course.

- 2. The integration of computer software and databases into the portfolio management course. The course at one point met the requirements of a writing intensive course as set by the College of Arts and Sciences, Villanova University. The course focuses on the concept of "life-long learning".
- 3. I designed and initiated the first Student-Managed Investment Fund utilizing Socially Responsible Investment techniques at Villanova. I wrote the course proposal, helped developed the Investment Policy Statements, and acquired the necessary approvals from the University Financial Affairs Office and the University Counsel. Along with the Villanova Equity Society, over 160 students at Villanova are managing five investment funds totaling \$500,000.
- 4. "Art of Value Investing" Course developed with John Constable and Ben Auger. Course comprised of 14 practitioner lectures and 12 student stock presentations. Spring 2010.

RESEARCH ACTIVITIES AND PUBLICATIONS

Published Articles in Refereed Publications

- 1. "Faith and Fortune: The Return to Risk Performance of Socially Responsible Investing According to Catholic Values." (with S.Williams, J.Rodriguez, N.Carosella, J.Doh) *Journal of Investing*, (In Press) 2012.
- 2."A Bifurcation Model of Market Returns." (with T.Vaga), *Quantitative Finance*, Conditionally Accepted, April 2011,(100 points).
- 3. "The Utility of Wealth in an Upper and Lower Partial Moment Fabric." (with F. Viole), *Journal of Investing*, 20(2), 58-85, 2011. (28 pages), (100 points).
- 4."A Symmetric LPM Model for Mean-Semivariance Analysis." (with D. Cumova), *Journal of Economics and Business*, 63(3), 217-236, 2011. (20 pages), (200 points).
- 5. "Industry Competitiveness Using Herfindahl and Entropy." (with W. Carter), *Applied Economics* (2006 Impact Factor: 0.522), 42(22), 2855-63, 2010. (100 points).
- 6. "The Critical Line Algorithm for UPM/LPM Parametric General Asset Allocation Problem with Allocation Boundaries and Linear Constraints." (pp. 24). (with D. Cumova and D. Moreno), London UK: Palgrave Macmillan: <u>Risk and Portfolio Management: The New Frontier</u>. 2006.
- 7. "Learning Styles and Portfolio Management." (with C. Nawrocki), *Advances in Financial Education*, 2005, 3, 89-98.
- 8. "Downside Risk Measures: A Brief History." (pp. 235-250). Princton NJ: Bloomberg Press: <u>The Investment Think Tank</u>, ed. Evensky and Katz, 2004.

- 9. "Dynamic Asset Allocation During Different Inflation Scenarios." (with Harold Evensky), Journal of Financial Planning, October 2003, 44-51.
- 10. "The Case for Relevancy of Downside Risk Measures." Original Contribution in <u>The Handbook of Risk</u>, (Ben Warwick, editor), IMCA (Journal of Investment Management Consulting), Hoboken, NJ: John Wiley and Sons, 2003, 79-95.
- 11. "The Problems with Monte Carlo Simulation." Journal of Financial Planning, November 2001, 106-119.
- 12. "Portfolio Optimization, Heuristics, and the 'Butterfly Effect'", Journal of Financial Planning, February 2000, 68-78.
- 13." A Brief History of Downside Risk Measures." Journal of Investing, Fall 1999, 9-26.
- 14. "Earnings Announcements and Portfolio Selection: Do They Add Value?" (with W. Carter), International Review of Financial Analysis, Vol. 7, No.1, 1998, 37-50.
- 15. "Capital Market Theory: Is It Relevant to Practitioners?" Journal of Financial Planning, October 1997, 97-102.
- 16. "Apocalypse Revisited: Do You Know Where Your Optimizer is at Night." Journal of Financial Planning, December 1996, 68-74.
- 17. "Portfolio Analysis with a Large Universe of Assets." Applied Economics, 1996, Vol. 28, 1191-1198.
- 18. "Market Dependence and Economic Events." Financial Review, May 1996, Vol. 31, No. 2, 287-312.
- 19. "Expectations, Technological Change, Information and the Theory of Financial Markets." International Review of Financial Analysis, Vol. 4, No. 2, 1995, 85-106.
- 20. "R/S Analysis and Long Term Dependence in Stock Market Indices," Managerial Finance, Vol. 21, No. 7, 1995, 78-91.
- 21. "The Characteristics of Portfolios Selected by N-Degree Lower Partial Moment," International Review of Financial Analysis, Vol. 1, No. 3, 1992, 195-209. **C&F Best Research Paper 1994.**
- 22. "Portfolio Management Using Portfolio Theory Techniques and the PMSP Professional Software Package," Financial Markets and Portfolio Management, No. 2, Summer 1992, pp. 219-235.

- 23. "Optimal Algorithms and Lower Partial Moment: Ex Post Results," Applied Economics, 23 (March 1991), pp. 465-470.
- 24. "Tailoring Asset Allocation to the Individual Investor," International Review of Economics and Business, (October/November, 1990), 977-90.
- 25."A Customized LPM Risk Measure for Portfolio Analysis," (With K. Kilroy-Staples), Applied Economics, 21(February 1989), pp. 205-218. **C&F Best Research Paper**, **1989.**
- 26."State-Value Weighted Entropy As a Measure of Investment Risk," (With W. Harding), Applied Economics, 18(April, 1986), pp. 411-419.
- 27."Entropy, Bifurcation and Dynamic Market Disequilibrium," Financial Review, (Spring 1984), pp. 266-284.
- 28."Adaptive Trading Rules and Dynamic Market Disequilibrium," Applied Economics, 16(February 1984), pp. 1-14. **C&F Best Research Paper 1984.**
- 29."A Comparison of Risk Measures When Used in a Simple Portfolio Selection Heuristic," Journal of Business Finance and Accounting, 10, 2(Summer 1983), pp. 183-194.
- 30. "Short Sales and Mechanical Trading Rules," Financial Review, (Spring 1981), pp. 16-28.
- 31. "Development of Computer Programs for Application of Portfolio Theory in the Classroom," Journal of Financial Education, (Fall 1980), pp. 93-97.
- 32. "The Behavior of Stock Market Aggregates: Evidence of Dependence on the American Stock Exchange," (With G.C. Philippatos), Journal of Business Research, (Fall 1973), pp. 101-114.
- 33. "The Information Inaccuracy of Stock Market Forecasts: Some New Evidence of Dependence on the N.Y.S.E.," (With G.C. Philippatos), Journal of Financial and Quantitative Analysis, (June 1973), pp. 445-458.

Published Book Reviews

- 1. "Book Review on 'An Introduction to Risk and Return From Common Stocks,' by Richard Brealey", Wall Street Review of Books, Winter 1985, 28-32.
- 2. "Book Review on Free Markets, Finance, Ethics, and Law, by Larry Bear and Rita Maldonado-Bear," Journal of Financial Education, Vol.21, Fall 1995, 93-94.

Presentations at Academic Conferences

- 1. "Art of Value Investing", Academy of Business Education/Financial Education Association, Orlando, FL, 2011.
- 2. "Inverse ETFs and a Student Managed Fund," Academy of Business Education/Financial Education Association, San Antonio, TX, 2010.
- 3."A Financial Market Bifurcation Parameter," (with T.Vaga), International Workshop on Coping with Crises in Complex Socio-Economic Systems, Zurich Switzerland, (June 2009).
- 4."A Primer on the Flow of Funds for Understanding the 2008 Financial Crisis," Academy of Business Education/Financial Education Association, Fort Lauderdale, Fl, 2009.
- 5. "A Symmetric LPM Model for Mean-Semivariance Optimization," (with Denisa Cumova), Southern Finance Association Meetings, Key West, FL 2008.
- 6. "An Overview of the Villanova University Student Managed Funds Program," Presentation, Southern Finance Association Meetings, Key West, FL, 2008.
- 7. "Do Stakeholders Belong in Corporate Finance?," Panel Presentation, Academy of Business Education/Financial Education Association, Hilton Head, SC, 2008.
- 8. "Social Responsibility and a Student Management Fund," Academy of Business Education/Financial Education Association, Hilton Head, SC, 2008
- 9. "Implementing a Student Managed Investment Fund with a Student Investment Club," Academy of Business Education/Financial Education Association, Bermuda, 2007.
- 10. "A Genetic Algorithm for UPM/LPM Analysis Revised" (With Denisa, Cumova, David Moreno and Ignacio Olmeda), XIV Foro de Finanzas, Castellon, SPAIN, November 2006.
- 11. "A Genetic Algorithm for UPM/LPM Analysis." (With Denisa, Cumoca, David Moreno and Ignacio Olmeda), EURO-INFORMS, Cyprus, June 2006.
- 12. "Managing the Investment Process: A Proposal for an MBA Course in Student Managed Funds", Academy of Business Education/Financial Education Association, San Antonio TX. (April 2006).
- 13. "Portfolio Optimization in an Upside Potential and Downside Risk Framework", (with D. Cumova), Eastern Finance Association Annual Meetings, Philadelphia, PA. (April 2006).

- 14. "A Bifurcation Model of Nonstationary Markets", (with T. Vaga), Mid-Atlantic Research Conference in Finance, Villanova, PA. (March 2006).
- 15. "An Organization Design for a Student Managed Investment Fund", Journal of the Academy of Business Education, 2005 Proceedings Issue.
- 16. "Analysis of a New Student Managed Fund Curriculum", Academy of Business Education/Financial Education Association Joint Meetings, Orlando, FL. (April 2005).
- 17. "On Persistence of Risk Measures: Second Revision", (with D. Moreno and I. Olmeda), Seventh Annual Spanish-Italian Meeting on Financial Mathematics, Cuenca SPAIN. (July 2004).
- 18." Pareto Optimality as a Framework for Ethical Decisions." Financial Education Association, Mystic, CT, April 2004.
- 19. "Learning Styles, Myers Briggs Tests and Portfolio Management." (With C. Nawrocki), Academy of Business Education, San Francisco, September 2003.
- 20. "On the Persistence of Risk Measures." (With David Moreno and Ignacio Olmeda), EURO-INFORMS Conference, Istanbul, Turkey, July 2003.
- 21. "A Capital Budgeting Spread Sheet Approach" Financial Education Association, Orlando, FL, April 2003.
- 22. "Learning Styles and a Portfolio Management Class." (With C. Nawrocki), Financial Education Association, Baltimore, MD, April 2002.
- 23. "Learning Styles and Portfolio Management", (With C. Nawrocki), Academy of Business Education, September 2001.
- 24. "The Case for the Relevancy of LPM Measures." Paper presented to the Seventh Annual Conference on Multinational Financial Issues, Philadelphia, PA, April 2000.
- 25. "Systems Theory and Financial Markets." (With G.C. Philippatos) Paper presented to the Russell Ackoff Systems Conference, Villanova University, March 1999.
- 26. "Real and Financial Performance in OECD Countries." (With G.C. Philippatos) Paper presented to Fourth Annual Conference on Multinational Issues, June 1998.
- 27. "Real and Financial Performance in the G5 Countries: Some Public Policy Implications." (With G.C. Philippatos), Paper presented to Fourth Annual Conference on Multinational Financial Issues, June 1997.
- 28. "Towards a Disequilibrium View of Nonstationary Market Parameters." Paper presented to Third Annual Conference on Multinational Financial Issues, June 1996.

- 29. "A Behavioral Theory of the Operation of Financial Markets." Paper presented to Eastern Finance Association (EFA) meetings, April 1996.
- 30. "Phases of the US Business Cycle and the Investment Performance of Internationally Diversified Portfolios," (with William Carter), Paper presented to Second Annual Conference on Multinational Financial Issues, June 1995.
- 31. "Phases of the Business Cycle and Portfolio Management." (with William Carter), Paper presented to Eastern Finance Association (EFA) meetings, April 1995.
- 32. "Earnings Announcements, Fundamental Quality Ratings, Portfolio Selection and Simple Portfolio Insurance. Do They Add Value?", (with William Carter), Eastern Finance Association, April 1994.
- 33. "Portfolio Analysis with a Large Universe of Assets", Paper presented to Eastern Finance Association (EFA) meetings, April 1993.
- 34. "Tailoring Asset Allocation to the Individual Investor," Paper presented to the Academy of Financial Services (AFS), October 1990.
- 35. "Rank of the Covariance Matrix and Portfolio Selection from a Large Universe of Securities," Paper presented to the Eastern Finance Association (EFA), April 1990.
- 36. "Asset Allocation Software for Portfolio Management on Personal Computers," Paper presented to the annual meetings of the International Business Schools Computer Users Group (IBSCUG), July 1989.
- 37. "Composition of Portfolios Selected by N-Degree Lower Partial Moment," Paper presented to the annual meetings of the Financial Management Association (FMA), New Orleans, October 1988.
- 38. "Optimal Algorithms and N-Degree Lower Partial Moment," Abstract appeared in Financial Review, Summer 1987, Paper presented to 1987 meetings of Eastern Finance (EFA).
- 39. "A Customized LPM Risk Measure for Portfolio Analysis," (with K. Kilroy), Abstract appeared in Financial Review, Summer 1986, Paper presented to 1986 meetings of EFA.
- 40. "A Model of Portfolio Behavior in Disequilibrium Markets," (With W. Harding), Abstract appeared in Financial Review, Summer 1985, Paper presented to 1985 meetings of EFA.

- 41. "An Empirical Test of Alternative Risk Measures," Abstract appeared in Financial Review, (Summer 1981), Paper presented to annual meetings of Eastern Finance Association (EFA), 1981.
- 42. "Co-Movement of Sixteen International Stock Exchanges During Major World-Wide Crises," (With T. Hindelang), Proceedings of Northeast Chapter of American Institute of Decision Sciences AIDS, (Currently DSI), (March 1980).
 43. "Adaptive Trading Rules in Stock Market Studies," Proceedings of NE AIDS (DSI), (March 1979).
- 44. "Nonstationary Market Equilibrium," Abstract appeared in Financial Review, (Summer 1979), paper presented to annual meetings of Eastern Finance Association, 1979.
- 45. "Information Theory and Financial Research," National Meetings of the American Institute of Decision Sciences (DSI), Chicago, Illinois, 1977.
- 46. "Conditional Entropy and Market Equilibrium," (With G.C. Philippatos), Paper presented to the International Meetings of The Institute of Management Science (TIMS), 1977.
- 47. "Internationally Diversified Portfolios: Some Implications for International Mutual Fund Performance,' (With G.C. Philippatos and C. Guez), Paper presented to the International Meetings of TIMS, 1975.
- 48. "Conditional Entropy as a Test for Pair-Wise Independence in Stock Prices," Abstract appeared in ORSA/TIMS Bulletin, 22, (Fall 1974), paper presented to annual meetings of ORSA/TIMS.
- 49. "Empirical Tests on a Transitional Portfolio Rebalancing Strategy," (With G.C. Philippatos and B.C. Foulkrod), Proceedings of SE AIDS, (March 1973).
- 50. "Portfolio Revision Policies Based on the Parabolic Masks of the Cumulative Sums of the Forecast Errors," (With G.C. Philippatos), Proceedings of National AIDS, (November 1972).
- 51. "Detection of Short Term Trends in a Time Series: An Application of Information Theory to Stock Market Aggregates," (With G.C. Philippatos), Proceedings of NE AIDS, (May 1972).

Invited Faculty Seminar Presentations

1. "Portfolio Optimization in an Upside Potential and Downside Risk Framework," (With Denisa Cumova), Faculty Seminar, University of Alcala, Alcala, SPAIN, February 2007.

2. "A Bifurcation Model of Non-Stationary Markets," (With Tonis Vaga), Faculty Seminar, Carlos III University, Madrid, SPAIN, February, 2007.

Application to Pennsylvania Historical Society for Roadside Historical Marker

I researched and wrote the application to the PA Historical Society for a roadside historical marker honoring Arnold Nawrocki, inventor of individually wrapped cheese slices. Marker was approved and dedicated in Curwensville, PA, June 2007.

Villanova Finance Department Seminar Presentations

- 1. "An Analysis of Heterogeneous Utility Benchmarks in a Zero Return Environment," the Bush?" (with F. Viole), Villanova Finance Department Seminar, November 2011.
- 2. "A Symmetric LPM Model for Mean-Semivariance Optimization," (With Denisa Cumova), Villanova Finance Department Seminar, Villanova, PA, November 2007.
- 3. "A Critical Line Algorithm with Bounded Constraints for UPM/LPM Analysis." (With Denisa Cumova), Villanova Finance Department Seminar, Villanova, PA, March 2004.
- 4. "Portfolio Optimization in an Upside Potential and Downside Risk Framework." (With Denisa Cumova), Villanova Finance Department Seminar, Villanova, PA, December 2003.
- 5. "Industry Concentration Using Conditional Entropy and Herfindahl Indexes," Villanova Finance Department Seminar, Villanova PA, Spring 2003.
- 6. "Learning Styles and a Portfolio Management Class" (with Christine Nawrocki), revised paper, Villanova Finance Department Seminar, Villanova, PA, Fall 2002.
- 7. "Building Industry Indexes Using GICS Codes" (with William Carter), Villanova Finance Department Seminar, Villanova, PA, Spring 2002.
- 8. "On Persistence of Performance Measures" (with David Moreno and Ignacio Olmeda), Villanova Finance Department Seminar, Villanova, PA, Fall 2002.
- 9. "Nonlinearities and Asset Pricing", Villanova Finance Department Seminar, Villanova, PA, Spring 2001.
- 10. "Stock Returns and Inflation", (with Harold Evensky), Villanova Finance Department Seminar, Villanova, PA Fall 2001.
- 11. "Business Cycles and Stock Market Returns." (with W. Carter and T. Vaga), Villanova Finance Department Seminar, Villanova, PA, December, 2000.

General Session Presentations at Professional Conferences

- 1. "Student Managed Investment Funds," Panel Discussion, Academy of Business Education/Financial Education Association, Orlando, FL, 2011.
- 2. "The Role of Experiential Learning and Conferences in Finance," Panel Discussion, Academy of Business Education/Financial Education Association, Orlando, FL, 2011.
- 3. "Understanding the Financial Crisis Using the Flow of Funds," Financial Planning Association, Philadelphia Chapter, 2010.
- 4. "Teaching Behavioral Finance in the Classroom." Panel Discussion, Mid-Atlantic Research Conference in Finance (MARC), Villanova, PA, March 2006.
- 5. "Integrating Trading Rooms into the Finance Curriculum." Panel Discussion, Financial Education Association/Academy of Business Education, San Antonio, TX, April 2006.
- 6. "Problems with Monte Carlo", November 2003, Canadian Institute of Actuaries, Toronto, Canada.
- 7. "In Search of the Philosophers' Stone Monte Carlo Simulation." Presentation presented to Smith Barney Consulting Group Analyst University, Chicago, IL, August 2003.
- 8. "In Search of the Philosophers' Stone." **Keynote Speech** presented to 17th Annual Symposium for FPA Upstate New York and Western NY, Rochester, NY, May 2002.
- 9. "Using LPM and Downside Risk Measures." Quantitative Alliance for Finance Professionals, New York, NY, February, 2000.
- 10. "Capital Market Theory and the Use of Downside Risk Measures." Paper presented to Ninth Annual Quantitative Conference, Prudential Securities, New York, NY, January 1995.
- 11. "Portfolio Risk: Is Standard Deviation Dead?" Paper presented to the National Association of Personal Financial Planners South Conference, Atlanta, GA, November 1996.

Research Monographs

- 1. "A Variable Spending Policy for the State of Idaho Endowment Funds", (with W.Carter and D.Bender) Idaho Endowment Fund Investment Board, 1999. Part of Public Record of State of Idaho Legislature.
- 2. "Characteristics of Individual Investors in an Internet Based Investment Advisory System", (with Stone Wahl), Ashton Technology, February 2001.

Editor: Conference Proceedings

<u>Proceedings: Russell L. Ackoff and the Advent of Systems Thinking</u>, (Edited by Matthew Liberatore and David Nawrocki), Villanova University, 1999.

Books

Physics Envy: A Collection of White Papers Identifying Positive Economics, Optimization, and Their Role in the Financial Crisis and Solutions, (with F. Viole), Amazon Books, 2011.

Ph.D. Dissertation

Stock Market Equilibrium, Conditional Entropy and Adaptive Trading Rules, Dissertation Abstracts, 37,7(1976), Ph.D. Dissertation, Pennsylvania State University, 1976. (George C. Philippatos and J. Russell Ezzell, Co-advisors).

Current Working Papers

"The Quantification of Risk in an Upper and Lower Partial Moment Fabric," Revise and Resubmit, <u>Journal of Investing</u>. (100 Points).

"The Market Hypothesis," Working Paper.

"Portfolio Optimization in an Upside Potential and Downside Risk Framework," Submitted, Revise and Resubmit, <u>Journal of Economics and Business.</u> (200 Points).

"Understanding the Flow of Funds and the 2008 Financial Crisis," *Advances in Financial Education*, Accepted 2012. (25 Points).

"An Analysis of Heterogeneous Utility Benchmarks in a Zero Return Environment," the Bush?" (with F. Viole), Working Paper, 2011.

Two chapters, Ethical Incidences book, James Bierstaker, John Wiley, 2011.

One chapter, Student Managed Funds book, Brian Bruce, Institutional Investor Books, 2011.

Microcomputer Packages and Manuals

1. Portfolio Management Software Package, Computer Handholders, Inc., (Arcola, PA 19420), 133 page manual and 4 disks, 1984. This package was adopted for classroom or research use by over 150 universities in thirty countries. Ads appeared in Journal of Finance (1985-1994).

- 2. Portfolio Management Software Package, Second Edition, Computer Handholders, 155 page manual and 5 disks, 1987.
- 3. Portfolio Management Software Package, Student Edition, Computer Handholders, 75 page manual and 2 disks, 1988.
- 4. Portfolio Management Software Package, Research Edition, Computer Handholders, 160 page manual and 6 disks, 1989.
- 5. PMSP Professional Edition, Computer Handholders, 120 page manual and 3 disks, 1990,1991,1992, V1.0, V2.0, V2.1.
- 6. PMSP Professional Student Edition, Computer Handholders, Inc. 120 page manual and 3 disks, 1991,1992, V2.1.
- 7. CAPBUD Cash Flow Analysis Program, Computer Handholders, 60 page manual and 1 disk, 1988, 1991, 1992. Versions 1.0,2.0.2.1,3.0,3.1,4.0,5.0,5.1.
- 8. FORTRAN and Assembler Utilities for MICROSOFT/Supersoft/Silicon Valley Software FORTRAN Compilers for the IBM PC, Computer Handholders, Inc., (Arcola, PA 19420), 70 page manual and 1 disk, 1984, 1987, 1990, 1993, 1995.
- 9. FINANCE Present Value and Compound Value Program, Versions 1.0,2.0,2.1,3.0, 3.1 and 3.2. FINANCE is a freeware program that is available through every major freeware distribution service in the US. FINANCE V2.1 was selected for PC-SIG's CD ROM collection of freeware and public domain software in 1988.
- 10. Portfolio Management Software Package 80486 Professional Edition, 32 bit version of PMSPP that optimizes 150 assets using 900 observations. Manual and one 3.5" disk. V3.1,V3.2,V3.3,V3.4 1994,2001.

Journal Referee

I have acted as a journal referee for the following journals:

Decision Sciences, Applied Economics, The Financial Review, Management Science, Managerial and Decision Economics, Journal of Financial and Quantitative Analysis, American Journal of Mathematics and Management Science, Journal of Financial Education, Financial Practice and Education, Natural Resource Modeling, and the Quarterly Journal of Business and Economics.

I was Associate Editor for **The Financial Review** from 1992 to 1997.

I am currently an Associate Editor for **The International Review of Financial Analysis** since 1991.

I am currently a member of the Editorial Review Board for the **Journal of Financial Planning** since 1996.

I have also been on numerous program committees for the Eastern Finance Association, Multinational Finance Association, and the Financial Management Association meetings over the past four decades.

Co-Advisor/Outside Reader Thesis Committee

David Moreno, 2004, University of Alcala, Madrid, Spain. Hosted David Moreno as a visiting scholar to Villanova University for three months in 2002 and summer 2005.

Denisa Cumova, 2004, University of Technology, Chemnitz, Germany.

Patrick Schaffer, Master's Thesis Committee Chair, "Implied Volatility as a Forecast of Future Volatility," Villanova University, (September 2009 - March 2011).

Professional Memberships

American Finance Association (current)

Academy of Financial Services

Financial Management Association (current)

Eastern Finance Association (current)

Western Finance Association (current)

Southern Finance Association (Southwestern Finance Association) (current)

Decision Sciences Institute (formerly American Institute of Decision Sciences)

American Economic Association (current)

International Business Schools Computer Users Group

Multinational Finance Society

Financial Education Association (current)

Honors

Meyer I.C.E. Award for Innovation and Creative Excellence, 2010, Villanova School of Business, 2010.

Order of the Four Chaplains, 1981

Beta Gamma Sigma Business Honor Society, 1984

Phi Kappa Phi Honor Society, 2000 - President Villanova Chapter 2003-2005. Member of the executive board, 2000-present.

Outstanding Young Men of America, 1978

Who's Who in America - Finance and Industry, 1999, 31st Edition.

Who's Who in America - Finance and Business 2006-2007, 35th Edition.

Who's Who in American Education 2006-2007, 7th Edition.

Who's Who in America 2006, Marquis Who's Who. (2005). 60th Edition.

Who's Who in America 2007, Marquis Who's Who (2006) 61st Edition.

Who's Who in America - 2008, 62nd Edition (pub. 2007).

Who's Who in America - 2009, 63rd Edition (pub. 2008).

Who's Who in the World 2007, Marquis Who's Who (2006) 24th Edition.

Who's Who in the World - 2009, 26th Edition (pub. 2008).

Highest Award of Excellence from the Center for Global Leadership and Corporate Social Responsibility SIG, Best Research Paper, Villanova School of Business, 2009. (with Nicholas Carosella, Scott Williams, Jose Rodriguez, and Jonathan Doh)

Honorable Mention - Best Research Paper, Center for Responsible Leadership and Governance (CRLG), February 2006. (with Denisa Cumova).

Critical Incidence Award, CRLG, Teaching of Ethics in Business, 2006, Villanova University, School of Business. (with James Jablonski).

Laureate Award for Computer World Honors Award for Best Use of Technology in Academics and Education (June 2006). (with Timothy Ay).

Critical Incidence Award, CRLG, Teaching of Ethics in Business, 2003, Villanova University, College of Commerce and Finance (C&F).

Villanova University Sabbatical for 2000-2001 Academic Year Villanova University Summer Sabbaticals for 1988-89.

Ben Franklin Grant, State of PA, 1991-92, "Artificial Intelligence and Portfolio Analysis," Co-investigator with Ken Ray, Aexpert, Inc.

Founding Member - Board of Directors - Multinational Finance Society, 1995.

Villanova C&F Faculty Best Research Paper Award - Theoretical 1984

Villanova C&F Faculty Best Research Paper Award 1989

Villanova C&F Faculty Best Research Paper Award 1994

Villanova University Summer Research Grant 1984

Villanova C&F Summer Research Grants 1982 and 1985

Service

University Investment Committee - Board of Trustees (1995-2000, 2003-2006), member. Member of manager search subcommittees. Member of subcommittee on Socially Responsible Investment, 2006.

C&F Computer Committee – 1982-1994. Managed the installation of two computer labs, four computer classrooms, two computer networks, faculty and staff office computers, and initiated the first on-going computer technology budget in C&F.

C&F Research Committee (1981-1987 and 1993-1997), member.

C&F Rank and Tenure Committee (1996-2002), member.

C&F Rank and Tenure Committee (1998-2000, 2002-2004, 2005-2006), chair.

C&F Systems Management MBA Committee (1997-1999), member.

University Academic Computing Committee (1986-1991), member.

Middle States Accreditation - Financial Resources Task Force (1998-1999), member.

C&F Computer Committee (1986-1987), chair.

C&F Computer Committee (1987-1991), vice-chair.

C&F Technology Committee, (2003-2007), member.

C&F Research & Sabbaticals Committee, (2001-2005), member.

University Summer Research Grant Evaluation Committee, 2003-05, member.

Member of the program committee for the Russell Ackoff Conference on Systemic Thinking in honor of Russ' 80th birthday, March 1999. I was the track chairperson for business applications of systems theory sessions and for the Social Systems Sciences applications sessions.

Faculty advisor for the Financial Management Association student group in C&F. I helped set up the group's web site and I helped arrange speakers. In addition, I helped the officers to manage the society's programs. (January 1999 to September 2000).

Faculty advisor for the Villanova Equity Society, 2003-present. Helped set up the student managed investment funds managed by the student organization. The

organization manages two socially responsible equity investment funds. Our current project is to visit Warren Buffet in October 2010.

Faculty advisor to Villanova Fixed Income Society, 2007-present.

Wrote the proposal for and was the director of the Institute for Research in Advanced Financial Technology (IRAFT) which acted as an incubator organization for the Applied Finance Lab in Bartley Hall, the Student-Managed Investment Funds, the Villanova Equity Society, the Villanova Fixed Income Society, the Mid-Atlantic Research Conference in Finance, and the M.S. in Finance program. I developed and am currently teaching the first Student-Managed Fund class at Villanova University. 2003-2009.

Institute for Research in Advanced Financial Technology (2003-2009)

David Nawrocki – Director

Michael Pagano – Associate Director

James Jablonski – Applied Finance Lab Coordinator

IRAFT Programs included:

Applied Finance Lab – Opened January 2005 Student Managed Investment Funds (SMF) – Started January 2004

Masters of Science in Finance (MSF) – First Class started in May 2005 (currently there are 30 students enrolled in the program.)

Villanova Equity Society (Student Club) – Restarted in September 2005 Mid-Atlantic Research Conference (MARC) in Finance – Started March 2006 Villanova Fixed Income Society – Started September 2007. Rotman Student Trading Competition – University of Toronto – 2005 to present.

RISE Forum – Student Trip – University of Dayton – 2004 to 2010. (28 students attended the 2010 RISE.)

GAME Forum – Student Trip – 2011. (45 students attended 2011 GAME Forum.)

Warren Buffett Q&A Student Trip, Omaha, NE. 2010 and 2011 (20 Students each year).

Finance Department Seminars – 2003 to present.

Visiting Scholars Program – 2006 to present. Sponsors one or two external speakers to visit Villanova each year.

IRAFT Curriculum Development and Support

During the past six years, IRAFT developed and implemented 15 new 3 credit courses:

Undergraduate Market Microstructure course (3 credits)

MSF SMF 2 semester course (6 credits)

MBA SMF 2 semester course (6 credits – 3 in management and 3 in finance)

Undergraduate SMF 2 semester course (3 credits – 1.5 credits per semester)

MSF Financial Theory (3 credits)

MSF Stochastic Processes (3 credits)

MSF Derivatives (3 credits)

MSF Time Series and Forecasting (3 credits)

MSF Financial Institutions (3 credits)

MSF Financial Modeling (3 credits)

MSF Risk Management (3 credits)

MSF Advanced Financial Management (3 credits)

MSF Valuation (3 credits) – New in May 2006

The Art of Value Investing (3 credits) – Spring 2011