TEMPLE UNIVERSITY
Department of Economics

ACADEMIC RESUME

John A. Sorrentino

Associate Professor, Emeritus



AREAS OF SPECIALIZATION:

Energy Economics, Environmental Economics, Ecological Economics & Economics of Sustainability

EDUCATION:

B.B.A. Economics, **Baruch College, The City University of New York**, 1969
M.S. Economics, **Purdue University** , 1971
Ph.D. Economics, **Purdue University**, 1973

FELLOWSHIPS AND HONORS:

Sigma Alpha Honor Society Award for Scholarship, Service and Personality, **Baruch College**, 1969
New York State Regents' Teaching Fellowship, 1969-70
Good Teaching Award, **Purdue University**, 1971
National Science Foundation Traineeship, **Purdue University**, Summer 1971-Spring 1972
David Ross Thesis Research Grant, **Purdue University**, 1972-73
National Aeronautics and Space Administration/Federal Energy Administration/American Society for Engineering Education (ASEE), Systems Design Post-Doctoral Fellowship on Energy Conservation, Summer, 1975
Energy Research and Development Administration/ASEE Faculty Research Fellowship on Energy Education and Training for the Future, Summer, 1976
Summer Research Fellowship, **Temple University**, 1977
Research Leaves, **Temple University**, Spring 1982; Fall 1991; Spring 2009; Fall 2018 - Spring 2019
Department of Energy/ASEE Faculty Research Fellowship on Solar Thermal Energy, Summer 1984
Christian R. & Mary F. **Lindback Award** **Temple University**, May 1999
Induction into the **Temple University Teaching Academy**, Greenfield Conference Center, September 2000

ACADEMIC EMPLOYMENT:

Graduate Student Instructor, **Purdue University**, 9/69-6/72
Assistant Professor of Economics, **Temple University**, 9/73-6/79
Associate Professor of Economics with Tenure, **Temple University**, 7/79-Present
Faculty Member, New Jersey Governor's School on the Environment, **Richard Stockton College**, Summers 1989-93; 95-96
Faculty Associate, **Temple University Center for Sustainable Communities**, Fall 2000 - Present

PUBLICATIONS:

"Private Resolution of Production Externalities," ***Eastern Economic Journal***, April 1975 (with A. Whinston)

This paper placed a reciprocal externality situation into a two-person game format with "partial" cooperation. Pre-game strategy restriction was allowed. Then, each player had the options of controlling its own waste to avoid full damage to the other, and processing the other's waste to avoid full damage to itself. The possible orderings of the costs of control, processing and full damages were specified, and various strategies shown to be socially efficient. A numerical example was given.

"The Economic Implications of Recycling Exhaustible Natural Resources: The Case for Crude Oil," ***Ecological Modelling***, September 1975 (with A. Whinston)

Using network flow diagrams and a large-scale linear-integer programming format, this paper modeled a system whereby the costs of achieving fixed demands for oil products were minimized. Included in the variables were quantities of re-refined oil, which when collected and re-used, prevented some of the costs of environmental contamination resulting from inappropriate discharge. Some policy implications were discussed. The model was not solved empirically.

"A Publicly-Coordinated Plan for Controlling Interfirm Externalities," ***Proceedings*** of the Northeast Conference of the American Institute for Decision Sciences, Philadelphia, April-May 1976

Following up on dissertation work, this paper examined the problem of coordinating the decisions of individual agents when the latter may not conform to social objectives. In particular, it dealt with a government (center) attempting to achieve social efficiency in the presence of public-good externalities. Large-scale nonlinear programming provided the format, and a system of "penalties" was designed to induce correct behavior. No numerical solution was attempted.

"Externalities in a Regulated Industry: The Aircraft Noise Problem," ***American Economic Review***, Vol. 67, No. 4, September 1977 (reprinted from *Papers and Proceedings*, February 1977) (with J. Muskin)

This paper came from the Muskin Ph.D. dissertation. The IBM 360 Linear and Separable Programming Package was used to develop shadow prices, which would become emissions charges attached to aircraft landing fees.

"An 'Effluent' Charge Approach to Aircraft Noise Abatement," ***Journal of Environmental Economics and Management***, Vol. 5, No. 4, December 1978 (with J. Muskin)

Expanding on the previous article, this work recalculated shadow prices based on data revisions. The program found the cost-minimizing mix of adoption %s of noise-abatement options, given EPA-promulgated goals for reduction of populations in particular noise "contours" around airports, and a limit on service reduction. After national data were used to solve the overall problem, an example was used to show how the noise charge would be implemented at a hypothetical airport.

"An Economic Theory of Criminal Externalities," in ***Crime Spillover***, edited by S. Hakim and G. Rengert, Sage Publications, Beverly Hills, CA, 1981

The problem of "crime spillover" results from the exportation of criminal activity from districts that expend relatively more resources in crime-fighting to those that do not. A mechanism was set up in this paper similar to that of the 1976 AIDS paper above. A "penalty scheme" was suggested to reconcile the wishes of the "source" and "sink" districts, so that a socially efficient level of spillover occurs. No numerical solution was achieved.

"Modelling Aircraft Noise Abatement: Dealing with a 'Flow' Pollutant," in ***Application of Ecological Modelling in Environmental Management***, Part B, edited by S.E. Jorgenson and W.J. Mitsch, Elsevier Scientific Publishing Co., Amsterdam, The Netherlands, 1983 (with C.Fiorentino)

After more detail about biophysical aircraft noise measures, and about actual legal cases initiated by individuals and municipalities in the US, a general central-coordination model was proposed. Again, the objective was to cause decisions made by actors in the airline industry to conform to social goals. A numerical solution to a linear version of the problem was presented.

"On the Economics of Toxic Substances Control," in ***Toxic and Hazardous Wastes***, edited by M.D. LaGrega and D.A. Long, Technomic Publishing Co., Lancaster, PA, June 1984

This paper set up a blueprint of a three-agent model: a toxic substance producer, a recipient, and a central authority. The goal was to have the central authority develop a regulatory scheme to reconcile the needs of the discharger to those of the victim in the name of social efficiency.

"A Model of 'Social Consciousness' with Applications to Personal Exchange and Energy/Environment Decisions," in "Mathematical Modelling in Science and Technology," edited by E.Y. Rodin and X.J.R. Avula, published as Volume 11 of ***Mathematical and Computer Modelling***, Pergamon Press, New York, 1988

Work in this area had a two-fold mission: to extend the analysis in the 1975 "Private Resolution..." paper above to explicitly recognize behavior that involves costs to individuals, but benefits to others; and to propose a multi-dimensional slate of characteristics similar to those used in "Pattern Recognition" to classify individuals as socially benevolent or not. Some discussion was included on the natural and social environments that individuals function within, and on energy and environmental choices affecting others that individuals can make.

"Getting Economics Students Plugged In," ***National Teaching & Learning Forum***, Vol. 4, No. 2, January, 1995

This short article grew out of a "Focus on Faculty" article for the Temple Computer Services Newsletter, Bits'n'PCs. It contains a discussion of early experiences with students working in a LAN setting to type open-book essays or to complete spreadsheets based on previous assignments. It also included student comments on learning to discuss topics on the class listserv groups.

"The Transition from the LAN Computer Classroom to the Virtual Classroom: What Trials & Tradeoffs?" in **Teaching in the Community Colleges Electronic Journal (TCC-J article)**, Vol. 1, No. 1, Summer 1996

A paper was presented on what was purported to be the second-of-its-kind all-online conference. It was stored on the website of the community college in Hawaii that hosted the conference. The paper adds more detail & experience to the previous shorter papers on computer-assisted education.

"Going Virtual: What to Bring Along from the F-2-F Classroom and LAN Computer Lab?" under "Focus on the Social Sciences" on ***Technology Tools for Today's Campuses***, a CD-ROM ed. by James L. Morrison, & produced by Microsoft under the direction of Jim Ptaszynski, Spring 1997

A variation of the previous paper was solicited by Professor Morrison of UNC for *Horizon*, an electronic journal on electronic topics in education. It was published & freely disseminated on a CD compiled by Microsoft.

Study Manual for Society of Actuaries Course 2 and Casualty Actuaries Society Exam 2 (Economics), 2002 Edition (ISBN 1-56698-365-7), Revised as ***Study Manual: CAS Economics Exam***, 2005 (ISBN: 1-56698-509-9) **Actex Publications**, Winsted, CT

This legacy study guide helped prepare would-be actuaries for the economics sections of their qualifying exams.

"Can a Viable Distance Education Program Stay Behind the Technology 'Wave?'" in ***The Distance Education Evolution: Issues and Case Studies***, edited by D. Monolesque, C. Schifter & L. Greenwood, **IGI Global Publishing**, Hershey, PA 2004 (ISBN: 1-59140-224-7)

The topic of staying "behind the wave" was dealt with in two ways: a difference-of-means test was done on the author's grades in the face-to-face & "low-tech"-online versions of an MBA economics survey course (showing no significant difference), & the results of a survey of MBA students showed that the professor far outweighed technology in terms of importance to perceived learning & student satisfaction.

"Energy," "Equilibrium, Partial/General," "Game Theory," "John D. Rockefeller," and "OPEC" (with M. Rabbani) in ***The Encyclopedia of Capitalism***, Syed B. Hussain, ed., produced by Golson Books, Ltd., Croton-on-Hudson, NY, published by **Infobase Publishing**, Inc., NYC, NY, 2004 (ISBN: 0-8160-5224-7)

"Poverty in the United States," (with Md M. R. Meenar) in ***The Encyclopedia of World Poverty***, First Edition, Mehmet Odekon, ed., produced by Golson Books, Ltd., Croton-on-Hudson, NY, published by **Sage Publications**, Thousand Oaks, CA, 2006 (ISBN 1-4129-1807-3)

This piece provided a description through text, maps & tables of the occurrence of poverty in the US. Some reasons for its existence, and policies that have been implemented to combat it, were discussed.

"Suitable Housing Placement: A GIS-Based Approach," (with Md M. R. Meenar & Bradley J. Flamm), ***Environmental Management***, *Vol. 42, No. 5, November 2008*

This paper used CommunityViz software to place housing in the Pennypack Creek Watershed projected to be needed as a result of employment forecasts created by the Delaware Valley Regional Planning Commission. The location was based on suitability analysis performed with ArcGIS software. The "suitable" scenario out-performed the "trend" scenario in all but one indicator of energy use and environmental impact.

"Coupling GPS and GIS" (with Md M. R. Meenar & S. Yesmin) & **"Dealing with 3D Surface Models: Raster and TIN,"** (with Md M. R. Meenar) in **The Handbook of Research on Geoinformatics**, **IGI Global Publishing**, Hershey, PA, 2009

The first entry discusses the hardware & software interfaces between the Global Positioning System & Geographic Information Systems as they have evolved over time. The second entry compares the data gathering & processing requirements using raster interpolation methods and triangulated irregular networks to create 3D digital terrain models.

"Successfully Preserving a Farm as Open Space: What Values Were behind the Giving?," **Expert Opinion on Environmental Biology**, Vol. 2, Issue 2., doi: 10.4172/2325-9655.1000105, Fall 2013.

In a Case Report format, this work involved a comparison of actual donations for preserving a farm for the ecological services of open space with values that donor/respondents expressed in a retrospective survey. Of special interest was whether nearby households donated for altruistic reasons or to preserve their property values.

"Housing location in a Philadelphia metro watershed: Can profitable be green?," (with Mahbubur M. Meenar, Alice J. Lambert & Donald T. Wargo) in **Landscape and Urban Planning**, Vol. 125, doi.org/10.1016/j.landurbplan.2014.02.005, May 2014.

The objective of this paper was to examine the profit levels, energy use and environmental impacts of two residential development scenarios in a watershed in the Philadelphia metro region under two zoning assumptions. The two scenarios were based on profitability and sustainability respectively. A key policy-related question was whether these occurred together in the Pennypack Creek Watershed.

"Residential Land Use Change in the Wissahickon Creek Watershed: Profitability and Sustainability?" (with Mahbubur M. Meenar & Donald T. Wargo) in **Sustainability** 11, 5933; doi:10.3390/su11215933.

The analysis in the previous paper was applied to another major creek watershed in the Philadelphia metro region. The results were different as the profit & sustainable scenarios had quite similar environmental effects.

Containing carbon through cap-and-trade or a per-unit tax. **Oxford Research Encyclopedia of Environmental Science.** Oxford University Press.

Carbon permit markets and carbon taxes are examined as economic incentive schemes to help mitigate the effects of climate change through reduction in emissions. Both theory and applications of these schemes are discussed as nations throughout the world attempt to find the common ground needed for preservation of the “global commons.”

OTHER RESEARCH:

"Economies of Scale and the Averch-Johnson Effect: Policy Cost Estimates," for Dr. Gary Bowman, under contract with **Federal Communications Commission (FCC)**, Dept. of Economics, Temple University, 1975

"Theoretical Determinants of Natural Monopoly and Statistical Methodology for Multiproduct Production Functions," for Dr. Paul Rappoport, under contract with **FCC**, Dept. of Economics, Temple University, 1976

"Energy Conservation: An Assessment of Systems, Technologies and Requirements" (ECASTAR), a report co-authored with the Engineering Systems-Design Fellows, under **NASA/FEA** contract NGT 01-003-004, Marshall Space Flight Center, Huntsville, AL, Summer 1975, NTIS, 1976

"A Proposed Plan for Education and Training in Nonnuclear and Nuclear Energy Technologies", a report co-authored with the Faculty Fellows of ASEE, under **ERDA** contract E(48-18) 2432, Washington, DC, Summer 1976, ERDA 76-133, NTIS, 1977

"Electric Utility Profit," for the Legislative Office for Research Liaison, **Pennsylvania State Legislature**, Harrisburg, PA, 1978 (Unpaid)

Evaluation of Energy/Environment papers of the International Institute for Applied Systems Analysis, for Kappa Systems, Inc., under contract with **NSF**, Arlington, VA, 1978

"An Evaluation of Models/Methods for Environmental Management," Task II of "Methods Development for Assessing Air Pollution Control Benefits," under **EPA** contract R805059-01, University of Wyoming, 1979

"On the Economic Feasibility of a Laboratory-Level Energy Device: The Hydride/Nafion Cell," for Dr. Robert Salomon, under **DOE** Grant OERI 006213, Dept. of Chemistry, Temple University, 1983

"Modeling Fuel Cycles to Incorporate Environmental and Social Costs," for Dr. George Lady, Optima Consulting Services, Mt. Holly, NJ, for the **Energy Information Administration (EIA)/DOE**, 1991

"The Economic Impacts of the Regulation of Hazardous Organic NESHAPs in the 1990 Clean Air Act: Methodology,"; "Regulating Emissions from Vapor Degreasers: Methodology," for JACA Corporation, under contract with the **EPA**, Fort Washington, PA, 1991; 1992/3

"Federal Energy Subsidies: Direct and Indirect Interventions in Energy Markets," (EIA-SR/EMEU/92-02) with Decision Analysis of VA, Vienna, VA, for **EIA/DOE**, 1992

"Project Evaluation Index," in the "Economic Development Committee Report," **Lower Delaware National Wild & Scenic Rivers Study**, December 1994 (Unpaid)

"A Comparison of Standards for Commercial Electric & Gas Heating Systems," for Dr. George Lady, **Optima Consulting Services**, Mt. Holly, NJ, Fall 1996/Winter 1997

Chair, Decision Processes Group, in "Applying the EPA's Regional Vulnerability Assessment (ReVA) Approach to the Pennypack Creek Watershed," for the **PA Department of Environmental Protection (DEP)**, & funded by Grant # CR-83084001-1, Office of Science Policy, Office of Research and Development, US **EPA**, Fall 2003 to Summer 2006.

Final Report, "Applying the EPA's Regional Vulnerability Assessment (ReVA) Approach to the Pennypack Creek Watershed," for the **PA DEP**, co-editor with Md. M.R. Meenar & J. Featherstone, January 2007

"Private Incentives for Sustainable Business Practices," work-in-progress

"A Framework for Energy Conservation Policy," work-in-progress

"Some Geonomics of Organic Farming: Externality and Land Tax Games," work-in-progress

ACTIVITIES AT PROFESSIONAL MEETINGS:

Discussant, Energy Policy Session, **Southern Regional Science Association (SRSA)** Meetings, Richmond, VA, April 1976

"Externalities in a Regulated Industry: The Aircraft Noise Problem," presented to the **American Economic Association (AEA)** Meetings, Atlantic City, NJ, September 1976

"Externalities and Information," Presenter and Discussant, Environmental Economics Session, **Eastern Economic Association (EEA)** Meetings, Hartford, CT, April 1977

"An 'Effluent' Charge Approach to Aircraft Noise Abatement," Presenter and Discussant, Topics in Energy Economics Session, **EEA** Meetings, Washington, DC, April 1978

"Energy Conservation: Individual or Social Choice?" presented to the **SRSA** Meetings, Richmond, VA, April 1978

"Coordinating the Effort to Abate Aircraft Noise," presented to the **AEA** Meetings, Chicago, IL, August 1978

"Is the Coase Controversy Irrelevant?" Presenter and Discussant, Theoretical Issues in Consumer Economics Session, **EEA** Meetings, Boston, MA, May 1979

Discussant, Topics in Applied Price Theory Session, **AEA** Meetings, Atlanta, GA, December 1979

"On the Applicability of the Theory of Clubs," presented to the **AEA** Meetings, Washington, DC, December 1981

Session Organizer, "Changes in Power Industry Regulation: A Mock Hearing with Audience Voting," **Western Economic Association International (WEAI)** Meetings, Vancouver, BC, Canada, June-July 1994

"The Transition from the LAN Computer Classroom to the Virtual Classroom: What Trials & Tradeoffs?" presented to the **Teaching in the Community Colleges Online Conference (CFORUM-L)**, April 1996

Local #4531 Representative, "National Higher Education Issues Conference: Technology & the Changing Nature of Work," **American Federation of Teachers**, San Francisco, CA, March 1996

"Environmental Information Systems: Have They Raised or Lowered Industry Compliance Costs?" presented to the Inaugural **Hawaii Conference on Business (HCB)**, Honolulu, HI, June 2001

"Environmental Information Systems: Are They Bridging Theory & Policy?" presented to the Inaugural Conference of the **US Society for Ecological Economics (USSEE)**, Duluth, MN, July 2001

"Some Economics of Distance Education: The Virtual MBA," presented to the Second Annual **HCB**, Honolulu, HI, June 2002

"Willingness to Pay to Preserve the Raytharn Farm: A Retrospective View," presented to the Second Biennial Conference of the **USSEE**, Saratoga Springs, NY, May 2003

"Private Incentives for Sustainable Business Practices," presented to the **WEAI** Meetings, Denver, CO, July 2003

"Sustainable Business Practices: Voluntary or Mandatory?" presented to the conference of the **International Society for Ecological Economics (ISEE)**," Montreal, Canada, July 2004

"Can Regional Vulnerability Assessment Methodology Be Applied at the Local Watershed Level?" presented to the conference of the **USSEE**, Tacoma, WA, July 2005

"Sustainable Housing Placement: A GIS-Based Approach" presented to the **WEAI** Meetings, San Diego, CA, July 2006

"Does Scale Matter in Ecosystem Damage Assessment?" presented to the **WEAI** Meetings, Seattle, WA, July 2007

"A Framework for Energy Conservation Policy" presented to the **WEAI** Meetings, Honolulu, HI, July 2008

"Back to the Future: the Return of High Density," presented to the **EEA** Meetings, Philadelphia, PA, February 2010

"Housing Placement in a Philadelphia Suburb: Profitability, Sustainability or Both?" presented to the conference of the **USSEE**, East Lansing, MI, June 2011

"Food Insecurity and Urban Agriculture: A GIS-Based Approach," presented to the **ISEE** Meeting in Rio de Janeiro, Brazil, June 2012

"Targeting Food Insecurity in the Philadelphia Metro Region," presented to the conference of the **USSEE**, Burlington, VT, June 2013

"Transitioning into a Green & Just Future: the Case of Greenworks Philadelphia," presented to the **ISEE** Meeting in Reykjavik, Iceland, August 2014

"What Students Want (and Need)" in the track, "Engaging Students with Technology," Teaching with Technology Symposium, Temple University, 20 March 2015

"Using In-Kind Environmental and Health Amenities to Compensate for Increasing Wealth Inequality: A Philadelphia Story," presented to the **WEAI** Meetings, Honolulu, HI, June-July 2015

Member, USSEE Scientific Committee, organizing the content of "Pathways for Change: Towards a Just and Sustainable Economy," a joint conference of the US & Canadian Societies for Ecological Economics, Vancouver, Canada, October 2015

"Green Amenities, Local Food, and Economic Justice in a Large US City: The Legacy of Greenworks Philadelphia," presented to the **ISEE** Meeting in Washington, DC, June 2016.

"Can the Provision of Local Green Public Goods and Healthy Food Choices Promote Economic Justice in a Large Urban Area?" presented to the **WEAI** Meetings in Santiago, Chile, January 2017.

"Textbook-Related Online Software: Do the Benefits Exceed the Costs?" in the track, "Engaging Students with Technology," Teaching with Technology Symposium, Temple University, 31 March 2017.

"Practicing Food Justice: A Comparative Evaluation of Recent Actions in Chicago & Philadelphia" presented to the conference of the **USSEE** St. Paul, MN, June, 2017.

"Residential Development in a Philadelphia Metro Watershed: The Case of the Wissahickon Creek" presented to the **WEAI** Meetings, Vancouver, Canada, June, 2018.

"Residential Development in Two Major Philadelphia-Area Watersheds: Tradeoffs between Economic Profit and Environmental Sustainability," presented to the **ISEE** Conference, Puebla, Mexico, September, 2018.

"Can the public provision of street trees and open green space in a built environment offset economic inequality?" presented to the **Ecological Society of America/USSEE Meeting**, Louisville, KY, August, 2019.

"What is Nature Worth? Metrics, Valuation and Sustainability," to be presented with Amy Cornelius & Chad Adams to the **2020 Sustainability Symposium** of Green Building United, 23 October 2020.

“Estimating the Damage to an Arboretum’s Ecosystems Services by an EF2 Tornado,” presented to the 2024 USSEE Conference, Schenectady, NY, June 2024

SEMINARS:

CONDUCTED:

"Energy Economics," to entering minority engineering students, **University of Alabama** - Huntsville, AL, July 1975

"Energy Conservation," to the **Federal Energy Administration**, Washington, DC, March 1977 (with NASA/FEA/ASEE Fellows)

"The Political Economy of Energy," as part of "Energy: The Continuing Challenge," for the **Philadelphia Area Cultural Consortium**, Philadelphia, PA, March 1979

"Energy Economics," for the **Secondary Education Program**, **Temple University**, Philadelphia, PA, October 1979

"Saving the Earth - What Can I Do?", **Noncredit Adult Education Program**, Temple University - Ambler, Spring 1990

"The **3 Es**: A Workshop on Economy, Energy and the Environment," in Energy Makes the World Go Around, **Energy Education Advisory Council (EEAC)**, **Philadelphia Electric Co. (PECO)**, **Beaver College and Delaware County Community College**, PA, January, 1993

"Economic Issues and Models of Ecosystems and the Environment," in the Science and Ethics Series, Chesapeake Biological Laboratory, **University of Maryland**, Solomon's Island, MD, February 1993

"Moving Externalities into the Market," in Public Utilities and the Environment, given by the Public Utilities Research and Training Institute, **University of Wyoming**, Laramie, WY, June, 1993

"Economics and the Environment," **University of Scranton** Lecture Series, November, 1993

"Putting a Price on Mother Nature," Speakers Program, **Jewish Community Center**, Ardmore, PA, December 1997

Panelist representing TAUP in a Roundtable Discussion of "Literacy, Technology & the Future of Temple," as part of the workshop, **Transforming Our Classrooms/Transforming Our Work**, Temple University, May 1998

"Microeconomics" for the **Casualty Actuaries of the Mid Atlantic Region (CAMAR) & Temple University Actuarial Institute (TUAI)** Course 2/Exam 2 Seminar, Philadelphia, PA, April 2000, & "Macro/Microeconomics" for CAMAR/TUAI, Philadelphia, PA, September 2000, March/April & September 2001; March/April 2002; March &

September 2003; Spring 2004; "Macro/Microeconomics" for **ACTEX/Mad River Publishers** Course 2/Exam 2 Seminar at Hartford Life Insurance Co., Simsbury, CT, April & October 2000, Hartford, CT, April & October 2001, 2002

"For Sale: Rights to Pollute the River?" presented to the **Schuylkill Watershed Congress**, Temple University Ambler, March 2002

"Rights to Pollute at the Going Market Price," part of the Sunday Service of the **Unitarian Universalist Fellowship of Pottstown**, September 2002

"Energy & Economic Growth" presented to the 15 March 2013 Global Economic Forum of the **World Affairs Council** of Philadelphia, Temple University

"What Price Mother Nature?" presented in the 20 March 2013 Join the Conversation Program of **Briar Bush Nature Center**, Abington, PA

ATTENDED:

"Energy, Radiation and the Environment," sponsored by the Atomic Energy Commission, Dept. of Radiation Biophysics, **University of Kansas**, Lawrence, KA, June 1974

"The Use of Computers in Instruction: Natural Resource Problems," sponsored by the **NSF**, Dept. of Chemical Engineering, **Lehigh University**, Bethlehem, PA, June 1978

"The Methanol Conference," **ARCO Chemical Co.**, Inc., Radnor, PA, May 1984

"Laboratory Experiments for Undergraduate Instruction in Economics," sponsored by **NSF**, **University of Arizona**, Tuscon, AZ, October 1993

"Teacher Training Workshop for College and University Economics Faculty," **Temple University**, Philadelphia, PA, May 1994

"Transforming Classrooms through Technology," **Penn State University**, State College, PA, June 1996

"Videoconference Training with the PictureTel Socrates Unit," presented by Training Alternatives, Vienna, VA, **Temple University Ambler,** September 1996

Participant, Workshop on Undergraduate Studies, Greenfield Conference Center, **Temple University**, May 1998

"Training on WIMBA Live Classroom & WHYY College Anywhere," **Temple University Technology Center**, September 1998

Participant, Certificate Program in Virtual Teaching, Office of Distance Learning and Summer Programs, **Temple University**, Summer 2012

Participant, Integrated Valuation of Environmental Services and Tradeoffs (InVEST) Training, Natural Capital Project, **University of Vermont**, June 2013

TEACHING:

Ph.D. DISSERTATIONS SUPERVISED:

Jerold B. Muskin, Aircraft Noise Abatement, 1976

Christopher M. Fiorentino, Air Pollution Health Index, 1987

D. Eric Malm, Targeting Demand-Side Management Programs, 1995

GRADUATE COURSES:

Ph.D.: Advanced Microeconomic Theory, Mathematical Economics, Theory of Welfare Economics; M.A.: Environmental Economics, Independent Studies: Natural Resource Modelling/Energy Economics/Environmental Modelling; MBA-Core: Economic Analysis (In class/Internet-assisted), MBA-Core: Economic Analysis (Online/Web-Based), MBA-Core: Management Information Systems, Economic Decision Making in the Firm (In class, & online)

Economics Segment of "Energy, Economics and the Environment: A Course for Teachers," sponsored by the **EEAC/PECO, Beaver College** and **St. Joseph's University**, January, 1992

UNDERGRADUATE COURSES:

Micro and Macro Principles; Micro/Macro for Engineers; Intermediate Micro Theory; Mathematical Analysis for Economists; Economics of Energy (developed by self; in 1996 it became: Energy, Ecology & Economy); Managerial Economics, Independent Studies: Advanced Energy Economics; Honors Course: Ecology/Economics/Energy; Economics Component of Freshman Interdisciplinary Studies (experimental program sponsored by The Mellon Foundation); Contemporary Economic Problems, Field Experience in Economics (a coop. course that relates economics topics to employment positions given to students); Selected Topics in Statistics; Introduction to Management Information Systems; The American Economy

COURSE FOR COLLEGE FACULTY:

"Economics and Ecosystems: Antagonists or Bedfellows?" in the **Chautauqua Faculty Development Program**, **Temple University - Center City**, May, 1992; May, 1995

NJ GOVERNOR'S SCHOOL ON THE ENVIRONMENT:

"Intensive Seminar: Energy for the Future," and "Integrative Seminar: The Human & Natural Environments," for "gifted" high school seniors, (includes field trips, research projects & extra-curriculars) **Richard Stockton College of NJ**, Pomona, NJ, July 1989-93, 1995-6

SERVICE:

TEMPLE UNIVERSITY:

Department:

Committees: Microeconomics Curriculum, Graduate Affairs, Undergraduate Affairs, Research, Hiring, Ph .D. Prelims, Lectures/Seminars/Workshops; Individual: Dept. Honors Coordinator, Coordinator of Undergraduate Student Advising, Coordinator of Ambler Campus Activities

School of Business & Management (now the Fox School):

Ad hoc Committee on SBM Development, Business Ph.D. Committee, Research Committee (Chairman), Steering Committee of the Collegial Assembly, Secretary of the Collegial Assembly, Ad Hoc Committee on Hewlett Foundation Grants, Faculty Council of the Center for the Advancement & Study of Entrepreneurship (CASE), Master's Programs Committee

College of Arts and Sciences (now the College of Liberal Arts):

Committee on Energy Curriculum, Advising Coordinators Council-Main Campus, Advising Coordinator-Ambler Campus, Co-coordinator of Freshman Interdisciplinary Studies, Faculty Participant in Freshman/Transfer-Student Orientation-Main and Ambler Campuses, Ad Hoc Committee on an Environmental Studies Major

Ambler College/Campus:

Member, Executive Committee and Chair, Personnel Committee; Member, Ambler Campus Sustainability Committee

University:

Educational Programs and Policies Committee, Faculty Coordinator and Advisor for Future Leaders Scholarship, Presidential Committee on Auxiliary Enterprises, Task

Force on Increasing Income from Auxiliary Services, Research and Study Leaves Committee, Campus Life Advisory Committee-Ambler Campus, Associate Professor, Center for Environmental Studies; Teaching, Learning & Technology Roundtable (TLTR), Distance Learning Subcommittee of TLTR; Joint Task Force on Ownership of Intellectual Property; Co-Chair of the Faculty Rewards & Incentives Subcommittee of TLTR; Ad Hoc Committee on University Software Policy; Chair, Intellectual Property & Distance Education Subcommittees of the Temple Association of University Professionals; Teaching, Learning & Technology Roundtable 2 (TLTR2); Demonstration Organizer: Panasonic/LearningNet Network/Video Technology, Temple University Fort Washington Open House, 13 November 1997

OUTSIDE UNIVERSITY COMMUNITY:

Member, Energy Task Force of the **Consumer Council of Philadelphia**, 1975 ; Vice President and Member of the Board of Directors of the **Citizens Committee for Environmental Control**, Cheltenham, PA, 1974-76; Guest Lecturer on "Environmental Economics" for the Philadelphia Chapter of **American Youth Hostels**, Fall, 1977; Guest Commentator on "FAA Aviation Forecasts for Philadelphia" for the **Federal Aviation Administration**, Spring, 1978; Member, College Task Force, **Energy Education Advisory Council (EEAC)/PECO Energy**, 1989; Chairman, Transition Team, Higher Education Advisory Council, **PECO**, 1990; Member, Continuing Education Task Force, **EEAC/PECO**, 1991-94; Judge, Youth Debates on Energy for **EEAC/PECO**, 1992-98; Associate Professor, **Weston Institute** for Environmental Research and Education, 1989-91; Charter Member, **Science Technology Education Partnership**, a 501 (C)(3) Non-Profit Corporation, 1998; Gave testimony in favor of new CAFE standards for auto & light trucks at EPA/NHSHA Hearings, 19 January 2012, Crowne Plaza Hotel - Philadelphia Downtown (Transcript_Philadelphia_CAFE-GHG_hearing_MYs2017-25.pdf; p. 9); Member, **Abington Township Environmental Advisory Council**, 2009-2010 & 2011-present; Elected Secretary-Treasurer of the **US Society for Ecological Economics** (2015-2017, 2017-2019, 2019-2021, 2021-)

OTHER ACTIVITIES:

Book Review: **The New World of Economics**, R. McKenzie and G. Tullock, for R.D. Irwin, Inc., 1979
Book Review: **Environmental Economics**, J. Seneca and M. Taussig, for Prentice-Hall, Inc.,1992
Prospectus/Chapter Reviews: Prentice-Hall, Inc.; Blackwell Publishers, Inc.; Southwestern Publishing Company; Houghton-Mifflin, M.E.Sharpe, Inc.

AFFILIATIONS:

- **Abington Township Environmental Advisory Council, Abington, PA**
- **Amnesty International**

- **International Society for Ecological Economics**
- **National Wildlife Federation**
- **Natural Lands**
- **Natural Resources Defense Council**
- **Pennypack Farm Education Center/Community-Supported Agriculture**
- **Temple Association of University Professionals, American Federation of Teachers, AFL-CIO**
- **The League of Conservation Voters**
- **The Nature Conservancy**
- **The Union of Concerned Scientists**
- **United States Society for Ecological Economics**
- **World Wildlife Fund**