

## **Robert E. Barnes**

Associate Dean, External Affairs  
and Adjunct Associate Professor  
School of Engineering and Applied Sciences  
University at Buffalo  
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### **EDUCATION:**

Ph.D., Industrial Engineering, University at Buffalo, 1984  
M.S., Industrial Engineering, University at Buffalo, 1976  
B.S., Industrial Technology, State University College at Buffalo, 1972  
A.A.S., Construction Technology, Hudson Valley Community College, 1967

### **PROFESSIONAL POSITIONS:**

School of Engineering and Applied Sciences, University at Buffalo

1994-present Associate Dean, External Affairs, Office of the Dean, responsibilities include planning, programming and supervising:

- outreach programs such as corporate relations and economic development
- student work experience programs
- continuing and distance education
- engineering alumni relations
- publications and promotional materials

1993-present Executive Co-Director, Strategic Partnership for Industrial Resurgence, an industrial economic development program; sharing responsibility for the yearly programming and expenditures of \$680,000

1993-present Executive Director, EngiNet™, a SUNY Engineering Distance Learning Network, supervise programming and distribution of courses

1992-present Administrator, Center for Infrastructure Research and Development

1989-present Adjunct Associate Professor, teaching each spring semester EAS590, Case Studies in Engineering Management - a cap-stone course which emphasizes the role of a managing engineer in an enterprise

1995-1999 Chair, Technical Activities Committee, Greater Regional Industrial Technology Program and Member of Management Group

- oversaw projects totaling \$1million
- coordinated representatives from the four participating institutions: Syracuse University, Rochester Institute of Technology, University of Rochester and the University of Buffalo
- set program criteria, solicited proposals, and recommended funding to the director
- monitored projects through visitation to the companies and the academic teams conducting the research

1985-1994 Director, External Affairs, Office of the Dean

1986 Interim Director of Administration, Malaysian Program

1983-1985 Associate Director, Industrial Liaison

1984 Adjunct Associate Professor

1981-1983 Instructor, Department of Industrial Engineering  
Department of Social and Preventive Medicine, School of Medicine, University at Buffalo

1981-1982 Research Associate, Research Program in Occupational and Environmental Health  
School of Health Related Professions, University at Buffalo

1981-1982 Research Associate  
Erie County Department of Health

1979-1980 Director, Office of Professional Services

1976-1979 Assistant Director, Planning, Development and Evaluation  
Lakes Area Emergency Medical Services, Inc., Buffalo, New York

1973-1976 Assistant Director, Research and Evaluation Unit  
Engineering Research and Development Bureau, New York State Department of Transportation, Albany, New York

1969-1971 Senior Engineering Technician

1967-1969 Engineering Technician

#### HONORS

Member, Tau Beta Pi  
Buffalo-area Engineering Awareness for Minorities, (BEAM) Inc., Special Award for  
Service, February, 1996  
Sweet Home Central School District, Certificate of Recognition, February, 1996

#### PROFESSIONAL AFFILIATIONS:

Member, Institute of Industrial Engineers  
Member, American Society for Engineering Education

## PUBLICATIONS:

Bunn, Michele D. And Barnes, R. E., "Market segmentation for improved distance education program planning," Distance Education, 20-2, 274 - 294, 1999.

Barnes, R.E., Drury, C.G., and Pomerantz, D., "Training Mentally Retarded Adults for Inspection," Ergonomics in Rehabilitation, Part IV, Chapter 9, Taylor Francis, Ltd., 129-144, 1988.

Vena, J.E., Sultz, H.A., Carlo, G.L., Fiedler, R.C., and Barnes, R.E., "Sources of Bias in Retrospective Cohort Mortality Studies: A Note on Treatment of Subjects Lost to Follow-up," Journal of Occupational Medicine, 29-3, 256-261, 1987.

Vena, J.E., Cookfair, D.L., Fiedler, R.C., and Barnes, R.E., "Mortality of a Municipal Worker Cohort: II. Females." American Journal of Industrial Medicine, 9, 159-169, 1986.

Vena, J.E., Sultz, H.A., Fiedler, R.C., and Barnes, R.E., "Mortality of Workers in an Automobile Engine and Parts Manufacturing Complex," British Journal of Industrial Medicine, 42:85-93, 1985.

Vena, J.E., Sultz, H.A., Fiedler, R.C., Barnes, R.E., and Carlo, G.L., "Mortality of a Municipal Worker Cohort: I. Males." American Journal of Industrial Medicine, 7:241-252, 1985.

Vena, J.E., Graham, S., Zielezny, M., Swanson, M.K., Barnes, R.E., and Nolan, J., "Lifetime Occupational Exercise and Colon Cancer," American Journal of Epidemiology, 122-3, 357-365, 1985.

Barnes, R.E., Drury, C.G., and Photiadis, G.P., "Telephone Access to Ambulance Services," Emergency Medical Services, 5, 1, January/February, 1976.

Barnes, R.E., and Drury, C.G., "An Application of Signal Detection Theory to EMS Decision-Making," Ethics in Science and Medicine, 3, 187-193, 1976.

Drury, C.G., and Barnes, R.E., "Theories of Decision-Making Applied to EMS," Commissioned paper by Bureau of Health Planning and Resources Development, Health Resources Administration, U.S. Department of Health, Education and Welfare, 1976.

## PUBLISHED ABSTRACTS:

Vena, J.E., Sultz, H.A., Fiedler, R.C., and Barnes, R.E., "Mortality of a Municipal Worker Cohort and Application to the Methodologic Issue of the Healthy Worker Effect." Abstracts of the 110th American Public Health Association Annual Meeting, November 1982.

Barnes, R.E., "Objectives Based Management in a Local Health Department: A Critical Assessment," Abstracts of the 108th American Public Health Association Annual Meeting, October 1980, 312 (paper presented).

Barnes, R.E., Vena, J.E., and Gentry, J.T., "Health Services Utilization and Needs Assessment Survey: Usefulness to a local Health Department," Abstracts of the 108th American Public Health Association Annual Meeting, October 1980, 163-164 (paper presented).

Gentry, J.T., and Barnes, R.E., "Personnel, Target Population or Location: How You Organize Will Help or Hinder You," Abstracts of the 108th American Public Health Association Annual Meeting, October 1980, 312.

Drury, C.G., Schiro, S.G., Czaja, S.J., and Barnes, R.E., "Human Reliability in Emergency Medical Response," Proceedings of the 1977 Annual Reliability and Maintainability Symposium, January 1977, 38-42.

Barnes, R.E., and Braaten, J.N., "EMS and MIS," abstract in Selected Bibliography of Scientific Publications

Scientific Publications and Programmatic Reports for the U.S.A. Bicentennial Emergency Medical Services and Traumatology Conference, Division of Emergency Services, U.S. Department of Health, Education and Welfare, May 1976, 19-4.

Barnes, R.E., and Drury, C.G., "The State of Telephone Access to Ambulance Services," abstract in Selected Bibliography of Scientific Publications Scientific Publications and Programmatic Reports for the U.S.A. Bicentennial Emergency Medical Services and Traumatology Conference, Division of Emergency Services, U.S. Department of Health, Education and Welfare, May 1976, 2-12.

Drury, C.G., Barnes, R.E., and Rakower, S.R., "A Decision-Making Perspective for System Response to Ambulance Need," U.S.A. Bicentennial Emergency Medical Services and Traumatology Conference, Baltimore, Maryland, May 1976.

Barnes, R.E., Drury, C.G., and Rakower, S.R., "Theory of Signal Detection as an Evaluative Tool in Emergency Medical Services Delivery Systems," Proceedings of the 19th Human Factors Society Annual Meeting, Fall 1975.

Drury, C.G., Barnes, R.E., and Daniels, E.B., "Pedestrian Operated Vehicles in Hospitals," AIEE Proceedings, Spring 1975, 184-191, (paper presented).

#### PAPERS PRESENTED:

Barnes, R.E., "Municipal Worker Mortality Experience and the 'Healthy Worker Effect'," Western New York Affiliate New York State Public Health Association, Niagara Falls, New York, March 1981.

Vena, J.E., Sultz, H.A., Barnes, R.E., and Fiedler, R.C., "Occupational Health Study of Auto Workers," Western New York Affiliate New York State Public Health Association, Niagara Falls, New York, March 1981.

Barnes, R.E., and Vena, J.E., "A Descriptive Study of Health Services Utilization and Needs Assessment, Erie County, New York: A Household Survey," New York State Public Health Association Annual Meeting, Buffalo, New York, June 1980.

#### UNIVERSITY AND SEAS SERVICE:

New York Nu Chapter - Tau Beta Pi, Faculty Advisor (1988-1994), Senior Advisor (1994-present)  
UB Related Educational Programs Subcommittee, Middle States Accreditation (2001 – 2002)  
Provost's Committee on Distance Learning, Chair: Peer Institution Subgroup (1996 - 1997)  
SEAS 50th Anniversary Committee (1994-97)  
Faculty Exchange Program with ITESM-Monterrey (1988-1994)  
Alumni Administrators Committee (1988-present)  
Tau Beta Pi - SEAS/High School Scholarship Program (1987-1991)  
Master of Engineering Degree Program Committee (1986-present)  
Engineering Commencement Co-Coordinator (1986-present)  
National Society of Black Engineers, Advisor (1985-1988)  
Minority Academic Society Annual Career Conference (1985-1988)  
Industrial Internship Solicitation (1984-1995)  
Summer Engineering Employment Program (1984-1994)  
Faculty Senate Alternate (1987-1988,94-95, 97-98)  
Industrial Engineering Chair Search Committee, Secretary (1987)  
Sophomore Mechanics Symposium, for I. Shames (1986-1987)  
Honors Program Mentor (1986)  
SEFA (1985)  
Sponsored Programs Committee (1985-1986)

#### PROFESSIONAL SERVICE:

Math Is Everywhere, Co-host (2002 – present)  
Project Lead The Way<sup>SM</sup>, Western New York Coordinator (1997-2000)  
Buffalo-area Engineering Awareness for Minorities, (BEAM) Inc., Board Member  
(1985-present); President; Vice President; Chair, Program Planning and Evaluation  
Committee; Summer Research Program (1985-1988); Invention Convention Judge  
Sweet Home Central School District, Higher Education Representative, District Planning Committee  
(1993-1997); Member, Key Communicators (1994-present); Member, Community Education  
Advisory Committee (1992-present)

#### COMMUNITY SERVICE:

Boy Scouts of America, Pack and Troop 173, Adult Leader (1987-present)  
Girls Scouts, Adult Leader  
Kenmore Baptist Church, Moderator (two, two-year terms); Board of Trustees including Member,  
Chair, and Chair of Finance Committee; Sunday School Teacher (25 years)  
Mel Ott Little League, Coach and Assistant Coach  
Amherst Youth Basketball, Assistant Coach

## FUNDING OBTAINED:

Japan Productivity Center - Systems Integration Seminar, \$4,715, 1992; AI Course, \$5,049, 1991; CIM Course, with B. Wang and S. Dunnett, \$37,120, 1990.

Public Service Training Program - Engineering, Nelson A. Rockefeller College of Public Policy and Affairs, SUNY Albany (not current)

- Workshops, 150-3041: \$102,734, 1985 - 1992.
- Engineering Work Group and Workshops, 150-3551, \$87,400, 1988 - present.

Foreign Student Training, FEPADE and U.S. Aid, 150-3661, \$29,054, 1988-1989.

Graduate Contract Courses, via Millard Fillmore College, with A. Soom (not current)

- Bell Aerospace Textron, eight graduate courses, \$82,400, 1988 - 1990.
- Delphi Harrison, 17 graduate courses, \$180,500, 1988 - present.
- Motorola, four graduate courses, \$52,000, 1995 - present.
- Niagara Mohawk, ten graduate courses, \$130,000, 1994 - 1996.
- Praxair, 12 graduate courses, \$156,000, 1992 - present.
- South Towns Consortium, \$13,000, 1993.

Advanced Technical Training Program, New York State Power Authority, 150-6520, \$265,499, 1985-1986; 150-6501, \$5,321, 1985.

## OTHER SUPPORT (coordinator and/or contributor):

Summer Workshop for Pre-Engineering Teachers: a faculty development workshop in mechanics and computers, National Science Foundation, for I. Shames, J. Huddleston and G. Lee, UB School of Engineering, \$99,199, 1991.

Pre-Freshman Engineering Program, U.S. Department of Energy, for G. Lee, UB School of Engineering, \$13,000, 1986-1987.

Erie County Health Utilization and Needs Assessment Study, Comprehensive Employment Training Act, for J. Gentry, Erie County Department Health, \$250,000, 1978.

Community Diagnosis Seminar, New York State Department of Health, for H. Sultz, UB School of Health Related Professions, \$17,000, 1981-1982.

Health Data Management Training Program, PAL Special Projects Administration, with J. Vena, UB Department of Social and Preventive Medicine, \$8,000 and \$10,000, 1982.

PUBLICATIONS FOR SEAS (editor/coordinator)

Igniting Ideas - 2002-present

Dean's Progress Report - 2002

SEAS News (formerly Buffalo Engineer and Engineering Newsletter) - 1984-present, semi-annually

SEAS Research Applications Booklet - 1984, 1988, 1995

SEAS Graduate Bulletin - 1st Edition, 1987-1989; 2nd Edition, 1990-1992; 3rd Edition, 1994-1996

SEAS Undergraduate Booklet - 1st Edition, 1985

SEAS Graduate Posters - 1st Edition, 1985; 2nd Edition, 1987, 3rd Edition, 1993

Engineering Excellence, an Undergraduate Recruitment Videotape, 1986

Engineering Progress of Western New York - 1985-1987

CONFERENCE COORDINATOR:

- 1994 Office of Naval Research, August
- 1993 American Carbon Society, June
- American Institute of Physics, Corporate Affiliates, October (assisted)
- Tau Beta Pi, National Meeting, October (assisted)
- 1988 American Physical Society, Division of Fluid Dynamics, November
- 1988 American Carbon Society, July
- 1988 Superconductivity Conference, April, September
- 1987 Superconductivity Conference, September
- 1987 American Society of Civil Engineers, Engineering Mechanics Division, 6th Specialty Conference, May
- 1986 23rd Annual Meeting of the Society of Engineering Science, August
- 1985 Conference on Electrical Insulation and Dielectric Phenomena, IEEE, October (University portion)

SPECIAL TRAINING:

- 1995 Teaching in a Smart Classroom  
University at Buffalo
- 1993 Case Studies in Science  
University at Buffalo
- 1980 Management Training  
New York State School of Industrial and Labor Relations  
Cornell University
- 1977-1979 Management Training  
American Management Association (two courses)
- Summer 1974 Analysis of Urban Emergency Service Systems  
Massachusetts Institute of Technology

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