

Auburn University

Auburn University, Alabama 36849-5108

APR 26 1999

Office of the Provost
and Vice President for Academic Affairs
208 Samford Hall

April 26, 1999

Telephone: (334) 844-5771
FAX: (334) 844-5778

Dean Richard C. Kunkel
Chair, Provost and Vice President
for Academic Affairs Search Committee
208 Samford Hall
Campus

Dear Dean Kunkel:

Thank you for your letter of April 21, 1999, informing me that I have been nominated for the position of Provost and Vice President of Academic Affairs at Auburn University. I am interested in being considered for this position and have, therefore, included a copy of my most recent Curriculum Vita as an attachment.

You asked that I supply the names and addresses of three references. I would ordinarily give the names of my superiors and colleagues in response to such a request. Since I am already an employee of Auburn University I will forego giving any names of people on the Auburn Campus. You may feel free to talk with anyone you feel is in a position to evaluate my capabilities. If you wish to contact anyone outside Auburn University, the following individual is familiar with my capabilities:

Dr. Ray M. Bowen, President
Texas A&M University
College Station, TX 77843-1246
(409) 845-2217

Dean Richard C. Kunkel
April 26, 1999
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Again, thank you for your letter. If you feel additional information is necessary, please do not hesitate to let me know.

Sincerely,

A handwritten signature in black ink, appearing to read "William F. Walker". The signature is fluid and cursive, with the first name "William" and last name "Walker" clearly distinguishable.

William F. Walker
Interim Provost and
Vice President for Academic
Affairs

Attachment

WILLIAM FRED WALKER

Significant Administrative Experience

September 1, 1998 - Present

Interim Provost and Vice President for Academic Affairs

Activities in Progress:

- Developing institutional strategy for recruitment and retention of minority faculty; ultimately to be extended to recruitment and retention of minority students.
- Implementation of planning and funding for areas selected for enhancement as institutional priorities.
- Overseeing program reorganizations, restructuring or closure as dictated by the Board of Trustees as a result of recommendations from the Commission to Review the Role of Auburn University in the Twenty-First Century.
- Working with Executive Vice President and others to improve the planning and budget processes of the University.
- Developing and implementing a strategic plan for information technology for the University.
- Coordinating institutional efforts to develop assessment programs for all areas of the University as required by SACS as well as many program accreditation organizations.

June 1988 - August 1998

Dean, College of Engineering; Auburn University

- A uniform system for making annual faculty assignments and for determining faculty performance has been instituted. Faculty in the college are evaluated and rewarded based on performance of their assigned responsibilities in each of the areas of instruction, research and extension/service.
- The concept of faculty governance continues to be strongly endorsed and supported. Faculty are now involved in all important issues through department and college-wide committees such as the college scholarship committee, the curriculum committee, the strategic planning committee and the tenure and promotion committee.
- Strategic planning is an ongoing activity in the College of Engineering. The college faculty have been involved in every phase of the process from developing a vision and establishing strategic initiatives to forming action teams whose task has been to develop plans for instituting the initiatives.
- Representation of women in the undergraduate engineering population increased to over 22%. African-Americans now comprise about 7.5% of the total undergraduate engineering population. The percentages of women and African-Americans now exceed national averages and are targeted to increase even more.
- A scientific program to determine factors influencing retention of women and under represented minorities in engineering has been initiated. The results of this study are providing the basis for intervention programs designed to increase the retention and graduation rates of these groups.
- A large modern network of engineering computer work stations has been established in the college of engineering. Approximately 450 work stations have been installed and made available for students and faculty. Currently, over 4500 users are involved with the

network. Funding for this project was approximately \$8 million, almost all of which was obtained from private sources.

- Provided leadership in establishing constituency based development program for the university.
- The position of Development Officer for the College of Engineering was established for the purpose of increasing charitable contributions to the college. As a result, charitable giving to engineering has risen significantly from approximately \$1.4 million in FY 1988 to over \$33 million over the period 1990-1997.
- The College of Engineering endowment has risen from approximately \$1 million in 1988 to almost \$20 million currently.
- The corporate identity of the college has been significantly enhanced. Communications with all groups holding an interest in the college have been established and improved. These include prospective students, current students, alumni and friends. Video tapes, brochures, newsletters and annual reports have all been developed to improve communications with these groups.
- The importance of quality instruction in the college has been clearly established. Significant annual monetary teaching awards have been made possible as a result of successful fund raising activities. Four such awards for faculty who teach engineering students are presented annually and are the largest monetary teaching awards in the university.
- The curriculum in each engineering program has been modernized in order to provide engineering students with broader exposure to liberal arts and the humanities.
- Provided leadership to the college in overcoming numerous accreditation problems involving funding, personnel and space.
- Developed the funding and program to allow engineering students to travel abroad for the purpose of providing breadth to their education.

- Provided leadership in organizing and sponsoring a university wide symposium to report findings of a scientific study analyzing reasons for the high attrition rate in engineering (Fall, 1994).
- Chaired university wide committee charged with the responsibility of determining the best manner for Auburn to participate in environmental studies. The result was the establishment of the Auburn University Environmental Institute.
- Formed the Materials Research and Education Center (1994).
- Formed the Center for Microfibrous Materials Research (1996).
- Developed the plan and secured the funding for \$15 million renovation of Wilmore Engineering Laboratory building.
- Provided leadership for establishing a college-wide precinct plan detailing space requirements for the college for the next 25 years.
- Significant administrative appointments as Dean of Engineering:
 - Associate Dean for Academics
 - Associate Dean for Cross-Disciplinary Programs
 - Associate Dean for Extension
 - Associate Dean for Research and Director of the Engineering Experiment Station
 - Department Head - Aerospace Engineering Department
 - Department Head - Civil Engineering Department (2)
 - Department Head - Computer Science and Engineering Department (2)
 - Department Head - Mechanical Engineering Department (3)
 - Department Head - Textile Engineering Department
 - Director of Development for the College of Engineering (3)
 - Director, Engineering Network Services
 - Director, Engineering Outreach Program

- Director, National Center for Asphalt Technology
- Director, Pulp and Paper Research and Education Center (2)
- Director, Thomas Walter Center for Technology Management
- Director, Materials Research and Education Center
- Director, Minority Engineering Program
- Director, Center for Microfibrous Materials Research

- Distinguished University Professor of Electrical Engineering
- Distinguished University Professor of Mechanical Engineering

- Huff Eminent Scholar in Civil Engineering
- Earle C. Williams Eminent Scholar in Electrical Engineering
- Thomas Walter Eminent Scholar in Technology Management

**Chair, Mechanical Engineering and Materials Science
Department; Rice University**

- Responsible for administration and oversight of all operations in two separate programs, mechanical engineering and materials science.
- Oversaw the design and construction of a \$3.3 million laboratory and office building to house departmental activities in mechanical engineering and materials science.
- Successfully oversaw the modification of curricula requirements in mechanical engineering and materials science to overcome difficulties with respect to program accreditation by the Accreditation Board for Engineering and Technology.
- Responsible for the acquisition of several faculty members of international stature.
- Oversaw significant increases in research funding to over \$1 million annually.

CURRICULUM VITA

WILLIAM FRED WALKER

**Interim Provost and
Vice President for Academic Affairs
Auburn University**

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Fax (334) 844-5778

Internet: walkewf@mail.auburn.edu

Mailing Address:

650 Jennifer Drive
Auburn, AL 36830
(334) 887-8444

Education

Arlington State College, A.S.
University of Texas, B.S.; Aerospace Engineering
University of Texas, M.S.; Aerospace Engineering
Oklahoma State University, Ph.D.; Mechanical Engineering

Professional Experience (Academic)

Auburn University (June 1988-present)
Rice University (1965-1988)

Professional Experience (Industrial)

Vice President, Eta Thermal Systems, Inc. (1981 - 1988)
Vice President, Techaid Corporation (1978 - 1984)
Board of Directors, Health Systems International (1978 - 1981)
Staff Member, Sandia Corporation (Summer, 1962; Summer, 1970)
Aerothermodynamics Engineer, Ling-Temco-Vought, Inc. (1960 - 1961)

Professional Experience (Consulting)

Agar Instrumentation
ARAMCO

Brown & Root Engineering
Eastex Paper
Exxon
Houston Police Department Bomb Squad
NASA Manned Spacecraft Center
Pullman Kellogg
Royce Equipment Company
Ruston Gas Turbines, Inc.
Sandia Laboratories
Schlumberger
Taub Lab for Mechanical Circulatory Support, Baylor College of Medicine
Union Carbide, Inc. (Oak Ridge National Laboratory)
United States Postal Service

University Activities and Committees

Rice University (1965 - 1988)

Professor of Mechanical Engineering & Materials Science; (1975-1988)
Adjunct Professor, Department of Surgery; Baylor College of Medicine
(1973 - 1980)
Head, Design Group, Biomedical Engineering Laboratory; Rice University
(1972 - 1980)
Associate Professor of Mechanical & Aerospace Engineering; (1970-1975)
Assistant Professor of Mechanical & Aerospace Engineering; (1965-1970)
Chairman, Department of Mechanical Engineering & Materials Science
(January, 1977 - June, 1986)
Committee on University Distribution Requirements (1985)
SACS Self-study Committee (1984)
Faculty Associate of Wiess College
Faculty Associate of Richardson College
Chairman of Examinations & Standings Committee
Admissions Committee
Religious Activities Committee
Research Council
Financial Aid Committee
Welfare Committee
Brown Engineering Development Committee
Affirmative Action Committee
Biomedical Engineering Laboratory Committee
Engineering Professional Masters Committee

Auburn University (1988 - present)

Interim Provost and Vice President for Academic Affairs
Cochair, Commission to Study the Role of Auburn in the Twenty First Century
Dean, College of Engineering
Professor of Mechanical Engineering
Chair, Search Committee, Associate Provost and Vice President for Research
Member and Chair; Administrative Board, Auburn Environmental Institute
Auburn Alumni Engineering Council (1988-1998)
Board of Directors; Auburn Pulp and Paper Foundation (1988-present)
Board of Directors, Auburn Food Technology Institute
Board of Directors, State of Alabama Engineering Hall of Fame
Board of Directors, National Center for Asphalt Technology
Member, Engineering Deans Council of Alabama
Member, ASEE Engineering Deans Institute
University of Texas Health Science Center Advisory Committee
Accreditation Board for Engineering and Technology/ASME Ad Hoc Visitor
Member, President's Budget Advisory Committee (1991, 1992, 1997, 1998, 1999)
Member, President's Quality Improvement Council
Member, Search Committee, Assistant to the President for Minority Affairs
Chair, Search Committee for Dean, College of Business
University Senate (numerous terms)
Member, President's Information Technology Task Force
Member, President's Priorities and Goals Committee
Member, President's task Force on University Mission
Member and Chair, President's Task Force on Distance Education
Introduced strategic planning process for the College of Engineering
Sponsor and Organizer; Campus Symposium - Retention in Engineering, October 18, 1994
Introduced and sponsored research project entitled "A Longitudinal Study to Analyze Performance and Develop Effective Interventions for Women and Minority Engineering Students"

Sponsor and Organizer, Conference on "Strategies for Recruiting and Retaining Women and Minorities in Engineering, Science and Mathematics", September 1990
Sponsor, Facilitator Training Course for Associate Deans and Department Heads (1993)

Memberships

American Association for Higher Education
American Institute of Aeronautics & Astronautics (AIAA)
American Society for Artificial Internal Organs (ASAIO)
American Society of Engineering Education (ASEE)
ASEE Engineering Dean's Institute
Fellow of American Society of Mechanical Engineers (ASME)
International Society for Artificial Internal Organs
Society of Sigma Xi
Tau Beta Pi (Engineering Honor Society)

Professional Registration

Registered Professional Engineer in the State of Texas; 38588

Courses Taught

Undergraduate

Aerodynamics
Applied Thermodynamics
Fluid Mechanics I
Fluid Mechanics II
Fluid Machinery
Gas Dynamics
Introductory Engineering Mechanics
Introductory Thermodynamics
Partial Differential Equations
Senior Design Project
Thermal Systems Design

Courses Taught

Graduate

Advanced Fluid Mechanics I
Advanced Fluid Mechanics II
Advanced Gas Dynamics I
Advanced Gas Dynamics II
Biomechanics
Cardiovascular Fluid Dynamics
Computational Fluid Dynamics
Transonic Aerodynamics
Vorticity

Major Research Interests

Computational Fluid Dynamics
Fluid Mechanics
Power Generation
Fluid Dynamics in Biological Systems
Retention of Women and Minorities in Engineering

Previous Research Support

NASA, NGR 44-006-033: \$37,000
Numerical Solution of Turbulent Shear Flows

NSF, GK 1605: \$9,000
Experimental Study of Turbulent Shear Flows

NHLI, HE 09251: \$200,000/year
"Interdisciplinary Studies in Circulation Research"

NHLI 13330: \$450,000/year
"Taub Laboratories for Mechanical Circulatory Support," Baylor College of Medicine; M.E. DeBakey and J.H. Kennedy, Project Directors

NHLI: \$2,700,000/year for 5 years
Cardiovascular Research and Demonstration Center, Baylor College of Medicine

Royce Equipment Company: \$15,000/6 months, REDDI
Hydrodynamic Evaluation of Traveling Water Screens

NHLI: \$120,000/4 years
Cavitation Phenomenon Near Moving Prosthetic Surfaces

Falcon Linear Systems: \$50,000/5 months
"Down-Hole Linear Motor"

NSF: Numerical Solution of Low Reynolds Number Flow Over a Cylinder in an
Infinite Fluid Domain

Bellsouth Foundation, Exxon, Union Carbide: \$90,000/12 months, "Factors
Affecting Performance of Women and Minorities in Engineering Majors."

Graduate Students Advised (Rice University)

Jeffrey H. Morehouse: "A Geometric Solution of Rotational Flow Fields." M.S.,
1967.

John R. Kirkpatrick: "An Experimental Study of the Pressure Contours in the
Turbulent Reattachment Bubble of a Bistable Fluid Amplifier." M.S., 1968.

James J. McCoy, Jr.: "An Experimental Study of the Effect of Aspect Ratio, Wall
Angle, and Wall Offset on the Resultant Force on the Two-Dimensional Jet in a
Bistable Fluid Amplifier." M.S., 1968.

John R. Kirkpatrick: "A Numerical Study of Two-Dimensional, Turbulent,
Compressible Reattached Jet Flow in Air." Ph.D., 1969.

James E. Park: "A Numerical Study of Two-Dimensional, Turbulent,
Compressible Reattached Jet Flow in Air." Ph.D., 1969.

William J. Spargo: "An Experimental Study of Switching in a Coanda
Wall." M.S., 1969.

W. Robert Wolfram, Jr.: "The Effects of Upstream Mass Injection on
Downstream Heat Transfer." M.S., 1969.

- Carlos M. Simon: "An Analytical Study of the Flow of Turbidity Currents." Ph.D., 1971.
- W. Robert Wolfram, Jr.: "Swirling Flow of a Dissociated Gas." Ph.D., 1971.
- William J. Spargo: "A Model for Predicting the Pressure Within the Recirculation Bubble of an Attached Jet." Ph.D., 1972.
- Patrick H. McKinney: "An Investigation of the Thermodynamic Performance of a Discharging Spherical Pressure Vessel." Ph.D., 1973.
- Theodore T. Hirata: "A Compartmental Lung Model To Simulate Open Circuit Nitrogen Washout." Ph.D., 1974.
- John M. Lloyd III: "Flow Visualization Studies of a Left Ventricular Bypass Pump." M.S., 1975.
- Jean-Pierre Brugger: "Hydrodynamic considerations of Coronary Blood Flow with and without Stenosis." M.S., 1976.
- Lola N. Bilowich: "Use of a Laboratory computer for the Hydrodynamic Evaluation of Aortic Valve Prostheses In-Vitro." M.S., 1978.
- Toshimasa Tokuno: "Cavitation Inception on Decelerating Surfaces." Ph.D., 1978.
- Charles M. Dube: "A Holographic Investigation of the Effects of Cavitation Near Moving Prosthetic Surfaces." Ph.D., 1979.
- Masahiro Kamata: "Hydraulic Evaluation of Filter Screens for Power Plant Water Intake." M.S., 1979.
- Allison C. Scott: "Stress Distribution in the Human Buttocks." M.S., 1980.
- Masahiro Kamata: "Oil Slick Behavior in Waves." Ph.D., 1982.
- Debow Freed III: "Biochemical and Morphologic Effects of Cavitation on Normal Human Platelets." Ph.D., 1983.

Frank Fisher Reynolds III: "An Interactive Computer Solution for Thermal Systems." M.S., 1984.

Donald W. Allen: "Numerical Simulation of Vortex-Induced Oscillation of an Elastically Mounted Circular Cylinder Using Body-Fitted Coordinates." Ph.D., 1987.

Montgomery B. Goforth: "The Use of Hot-Film Sensors in Dilute Polymer Flows." M.S., 1987.

Rothberg, Robert H.: "A Numerical Study of Vortex-Shedding Suppression in Laminar Flow About a Cylinder Near a Plane Boundary." Ph.D., 1989.

Journal Articles and Presentations

"Heat Transfer in Turbulent Pipe Flow with Coolant Injection" (with S.W. Yuan and R.F. Pohler). Developments in Mechanics, Volume 1, Proceedings of the Seventh Midwestern Mechanics Conference; p. 526; Plenum Press, New York; 1961.

"The Analysis of Submerged Jet Flow Fields by a Numerical Field Computation Method" (with G.W. Zumwalt). Proceedings of the Third Fluid Amplifier Symposium, Volume 4; pp. 5-15; Harry Diamond Laboratories; 1964.

"Numerical Solution for Predicting the Interaction for a Moving Shock Wave with a Turbulent Mixing Region" (with G.W. Zumwalt and L.J. Fila). Journal of Applied Mechanics, Volume 35, Number 2; p. 220; June, 1968.

"Recent Advances in Laboratory Instruction" (with J.E. Cox). American Society of Mechanical Engineers, Paper Number 68-PET-8; September, 1968.

"Numerical Method for Predicting the Interaction of a Moving Shock Wave with a Turbulent Mixing Region." American Society of Mechanical Engineers, Paper Number 68-AMPM-M; 1968.

"Undergraduate Engineering Laboratory Instruction (with J.E. Cox). Mechanical Engineering, Volume 91, Number 3; p. 36; March, 1969.

"The Effects of Upstream Mass Injection on Downstream Heat Transfer" (with W.R. Wolfram). Journal of Heat Transfer; p. 385; August, 1970.

"Description of a Subsonic Compressible Turbulent Jet Flowfield" (with J.R. Kirkpatrick). Journal of Computational Physics:10; p. 555-572; 1972.

"Development of an Orthotopic Cardiac Prosthesis" (with J.H. Kennedy, et al.). Journal of Thoracic & Cardiovascular Surgery, Volume 65, Number 5; May, 1973.

"Pulsatile Blood Pump Induced Cavitation." Proceedings of the 27th Annual Conference on Engineering in Medicine & Biology; October, 1974.

"Swirl Type Left Ventricular Assist Pump-Flow Visualization Studies" (with J.M. Lloyd III). Proceedings of the 27th Annual Conference on Engineering in Medicine & Biology; October, 1974.

"Performance Characterization of Pulsatile Blood Pumps" (with J.C. Clark, H.M. Bourland, and C.J. Harley). ASME Advances in Bioengineering; 1974.

"Flow Studies of a Left Ventricular Assist Pump." ASME Advances in Bioengineering, 1974.

"Cavitation in Pulsatile Blood Pumps." ASME Advances in Bioengineering; 1974.

"Swirling Flow of a Dissociated Gas" (with W.R. Wolfram). Journal of Fluids Engineering, Volume 97(1), 1975.

"Hydrodynamic Considerations of Coronary Blood Flow with and without Stenosis" (with J.P. Brugger and B.F. Picologlou). Presented to the Society of University Surgeons, Surgical Research Society, and European Society for Surgical Research; Philadelphia, Pennsylvania; October, 1976.

"Cavitation Near Moving Prosthetic Surfaces" (with T. Tokuno and C.M. Dube). Presented at the Second International Symposium for Artificial Organs; Tokyo, Japan; August, 1977.

"Baylor Left Ventricular Bypass Pump: Recent Experience" (with J.E. Chimosky, W. O'Bannon, G.P. Noon, and M.E. DeBakey). Proceedings of the 30th Annual Conference on Engineering in Medicine & Biology; Los Angeles, California; November, 1977.

"Stabilization of Unsteady Ball Valve Motion in a Pulsatile Blood Pump" (with J.M. Lloyd III and W. O'Bannon). Proceedings of the 30th Annual Conference on Engineering in Medicine & Biology; Los Angeles, California; November, 1977.

"Recent Experience with the Baylor Left Ventricular Bypass Pump" (with J.E. Chimosky, et al.). Biomat., Med. Dev., Art. Org., Volume 5(4); pp. 361-377; 1977.

"Cavitation Near Moving Prosthetic Surfaces." Artificial Organs, Volume 2; pp. 166-168; 1978.

"Pulsed Doppler Estimation of Stenosis in Small Vessels" (with D. Freed). Proceedings of the 31st Annual Conference on Engineering in Medicine & Biology; Atlanta, Georgia; November, 1978.

"High Frequency Pulsed Doppler Ultrasound: A New Tool for Microsurgery" The Journal of Microsurgery, Volume 1:2; September, 1979.

"Effects of Vaporous Cavitation Near Prosthetic Surfaces" (with D. Freed, M. Dube, T. Tokuno) Trans. 27th ASAIO; pp. 105-109; 1981.

"Cavitation Effects Near Moving Prosthetic Surfaces" (with D. Freed and M. Dube). Biomechanics Symposium; ASME AMD, Volume 43; pp. 65-68; 1981.

"Cavitation Near Decelerating Prosthetic Surfaces" (with D. Freed, M. Dube, and T. Tokuno). Cavitation and Polyphase Flow Forum; J.W. Hoyt (editor); 1981.

"Effects of Cavitation in Prosthetic Devices" (with D. Freed, M. Dube, T. Tokuno). Proceedings of the 34th ACEMIS, Volume 34; p. 366; 1981.

"Cavitation Effects on Red Blood Cells and Plasma" (with D. Freed, M. Dube, T. Tokuno). Trans. ASAIO, Volume 10: 4; 1981.

"Evaluation of Shunt Stenosis Using High Frequency Pulsed Doppler Ultrasound" (with D. Freed, C.J. Harley, and J. Agris). Trans. ASAIO, Volume 10: 42; 1981.

"Blood Trauma Due to Cavitation" (with D. Freed and T. Tokuno). ASME Cavitation and Polyphase Flow Forum; 1981.

"Effects of Cavitation in Prosthetic Devices" (with D. Freed, T. Tokuno, and C.M. Dube). 39th ACEMB; 1981.

"Cavitation Effects on Normal Platelets" (with D. Freed). Proceedings of the 36th Annual Conference on Engineering in Medicine & Biology; 1983.

"Platelet Damage Caused by Low-Level Cavitation" (with D. Freed). Circulation (supplement), Volume 68; pp. 111-152; 1983.

"Notes on the History of Cavitation" (with D. Freed). ASME Cavitation and Polyphase Flow Forum: J.W. Hoyt (editor); 1984.

"An Analysis of the Motion of Pigs Through Gas Pipelines" (with J.S. Weingarten and A.J. Chapman). ASME Annual Winter Meeting; New Orleans, Louisiana; 1984.

"An Analysis of the Motion of Pigs Through Gas Pipelines." Journal of Fluids Engineering, Volume 106; p. 374; 1984.

"Scaling Parameters Involved in Vortex Shedding Problems" (with R.D. Cohen). Forum on Unsteady Flow, FED Volume 63, PVP Volume 131; ASME: P.H. Rothe and F.J. Moody (editors); 1987.

"Modeling the Boundary Layer Behavior During Vortex Shedding" (with R.D. Cohen). International Journal of Engineering Fluid Mechanics, Volume 2, No. 4; pp. 331-342; 1989.

"Enhanced Boundary Pressure Update for Incompressible Flow Simulation" (with R.H. Rothberg and Alan J. Chapman); J. Computational Physics; p. 88, No. 2, June 1990.

"Factors Related to Success in College: Preliminary Results From a Longitudinal Study of Student Relations", with Larry Benefield, Glennelle Halpin, and Gerald Halpin; Southern Association of Institutional Research Annual Conference; San Antonio, TX; October, 1994.

"Relationships Between Psychological Types and Success in College," with Larry

Benefield, Glennelle Halpin and Gerald Halpin; presented at the Mid-South Educational Research Association Symposium, Nashville, Tenn., November, 1994.

"Minority Retention in Engineering: The Challenge and a Response" with Larry D. Benefield, Glennelle Halpin, Gerald Halpin, and Christine W. Curtis; Expanding Minority Opportunities: First Annual National Conference; Tempe, Arizona, January 20-21, 1995.

"Barriers in Gathering Information"; Malcolm Baldrige Award Criteria in Education: Guidelines for Continuous Improvement in Higher Education; National Conference on Continuous Quality Improvement; Auburn University, Alabama ; October 22-25, 1995.

"Broadening Participation: Attracting and Retaining Minority Students"; with Glennelle Halpin, Gerald Halpin, and Larry Benefield; Proc. ASEE Gulf Southwest Sec. Meeting; The University of Texas at San Antonio; March 27-29, 1996.

"Student Access and Retention in Engineering: Impact of Race and Gender"; with Glennelle Halpin, Gerald Halpin, and Larry Benefield; American Education Research Association 1996 Annual Meeting; New York; April 8-12, 1996.

"Assessment and Quality in Higher Education: A Model With Best Practice"; with Larry Benefield, Glennelle Halpin, Gerald Halpin, and Landa Trentham; 1996 AAHE Conference on Assessment and Quality; Washington, DC, June 1996.

"Student Persistence in College: What Makes Them Stay"; with Glennelle Halpin, Gerald Halpin, and Larry Benefield; NCTLA Post Secondary Education in the 21st Century Conference; State College, Penn. June 21-23, 1996.

"Quality Improvement in a College of Engineering Instructional Program"; with Larry D. Benefield, Landa L. Trentham, and Karen Khodadadi; Journal of Engineering Education; pp57-64, v. 86, no.1, Jan. 1997.

"Retention in Engineering Education: Longitudinal Race and Gender Differences"; with Gerald Halpin, Glennelle Halpin, and Larry Benefield; Meeting of the American Research Association; Chicago, March 1997.

"Women in Engineering: Outlook for the Future"; with Glennelle Halpin, Gerald Halpin and Larry Benefield; Fifth European Congress of Psychology; Dublin, Ireland; July, 1997.

"The College Freshman Survey: Development and Validation of a Discipline-Specific Measure"; with Glennelle Halpin, Gerald Halpin and Larry Benefield; American Education Research Association; San Diego, Calif; April, 1998.

"Minority Retention in Engineering: Results From a Longitudinal Study"; with Gerald Halpin, Glennelle Halpin and Larry Benefield; ASEE Annual Meeting, Seattle, Washington; July, 1998.

"An Evaluation of an Integrated Pre-Engineering Program: Results from the Freshman Year and Beyond," with Glennelle Halpin, Gerald Halpin and Larry Benefield; Annual ASEE Meeting, Charlotte, NC, June 21-23, 1999.

"Gender, Race, and Ethnicity in Colleges of Science, Mathematics and Engineering," with Gerald Halpin, Glennelle Halpin and Larry Benefield; AERA (and NCME) Annual Meeting, Montreal, Canada, April 19-23, 1999.

Books

Introductory Gas Dynamics (with A.J. Chapman). Holt, Rinehart, & Winston, Inc., 1971.

Introductory Gas Dynamics (with A.J. Chapman). Rice University, 1980.

Other Publications

"Hydrodynamic Evaluation of Traveling Water Screens" (with M. Kamata). Rice Engineering Design & Development Institute Report; March, 1979.

"A Numerical Solution for the Interaction of a Moving Shock Wave with a Turbulent Mixing Region" (with G.W. Zumwalt). Sandia Laboratories Report; SC-CR-67-2531.

"Quality Improvement in Engineering Education" Report of the EDC Task Force, May 1993.

"Performance Factors Study", 1993-94 Annual Report; Auburn University; with Halpin, Glennelle; Halpin, Gerald; Benefield, Larry; and Curtis, Christine.

Film

"Mis Au Point et Implantation Experimental des Prothesis Cardiaques De Baylor/Rice" (with J.H. Kennedy, M.E. DeBakey, et al.). Carrel Symposium; Lyon, France; 1972.

"Development of an Orthotopic Cardiac Prosthesis" (with M.E. DeBakey, J.H. Kennedy, et al.). Presented at the 1973 ASAIO Meeting.