



Notre Dame

R E P O R T

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Rambend Realty Increases Scholarship Funding

The University has received a \$60,000 pledge from the South Bend Ramada Inn which will increase the funding of its previously established Rambend Realty Corporation Endowed Scholarship to \$100,000.

In 1988 the South Bend Ramada Inn gave the University a \$40,000 gift to establish a scholarship in the name of the Rambend Realty Corporation, which owns the inn. Frank Melroy, president of Rambend Realty, and Mervin Lung, the firm's vice president, made a formal pledge to Father Malloy to expand the scholarship fund, June 15.

Endowed Position Funded in Academic Services for Student-Athletes

Notre Dame alumnus has provided a \$50,000 gift to establish the first endowed position in the Office of Academic Services for Student-Athletes.

The James J. Mains Jr. Tutorial Program has been anonymously funded in honor James J. Mains Jr., the benefactor's former teacher and coach at St. Joseph Central Catholic High School in Ironton, Ohio.

The Office of Academic Services for Student-Athletes provides some 600 varsity athletes with counseling, guidance and tutoring — assistance that has contributed to a graduation rate that consistently ranks at or near the top of all universities engaged in major college athletic competition.

The Mains Tutorial Program is the first endowed position in a new initiative that seeks to fund all personnel and operating expenses in the academic services office.

Tyson Elected Fellow and Trustee

Rev. David T. Tyson, C.S.C., president of the University of Portland, has been elected a fellow and trustee of the University of Notre Dame.

Prior to becoming Portland's 18th president in August 1990, Tyson served as vice president for student affairs and associate professor of management at Notre Dame. He holds a bachelor's degree in sociology and a master's degree in theology from Notre Dame and a doctorate in higher education administration from Indiana University.

At Portland, Tyson has instituted the university's first comprehensive plan for assessing future academic needs and has established new joint volunteer ventures with the local community. Under his leadership, Portland has been rated among the top private universities in the West by *U.S. News & World Report*.

A residential Catholic university, Portland was established in 1901 by the Congregation of Holy Cross, the religious community that founded Notre Dame in 1842.

MBA Program Selected as Innovative

The Master's of Business Administration program has been selected as one of 20 "Innovative" runners-up in an annual survey compiled by *Business Week* magazine.

In conjunction with its report on the top 20 business schools, the magazine cited the Notre Dame program and 19 others that "try harder" with creative curriculums that are adding more relevance to an MBA degree.

"What sets these schools apart is their ability to develop strengths in niche areas and to offer creative touches to the traditional MBA," *Business Week* wrote. "Most of these schools offer top-notch training, as good as the institutions that garner more acclaim due to their larger endowments and alumni connections."

Notre Dame was singled out for its "small size (that) provides a family-like atmosphere," and for the emphasis on "ethics and community services (that are) critical elements in the culture."

The *Business Week* rankings were based on a survey of leading corporate recruiters who took six factors into account; average score on the Graduate Management Admissions Test, number of applicants accepted, annual tuition, scholarship support, percentage of students with a job after graduation, and average starting pay for graduates.

The University

Magazine Wins Catholic Press Competition

Notre Dame Magazine has been awarded first place for general excellence among general interest magazines in the 1993 Catholic Press Association (CPA) competition.

This was the second consecutive year that the magazine has been given the CPA's top magazine award.

Notre Dame Magazine also won first place in the competition's best cover (four-color, large size) category for the cover of its Winter 1991/92 edition on women in the Church.

Alumni Association Wins CASE Grand Gold Medal

For the second year in a row, Notre Dame's Alumni Association has received the Council for Advancement and Support of Education (CASE) Grand Gold Medal in the overall alumni program category.

The association has won six CASE awards in as many years. It also received the Grand Gold Medal, the highest of the CASE awards, in 1988 and 1990, and bronze medals in 1989 and 1991.

During 1992, the University's sesquicentennial, the association and its 220 local clubs sponsored 1,910 events in which 124,368 alumni, parents, students and friends of the university participated. These included such community service activities as a nationwide Humanitarian Week, during which 4,700 volunteers performed 13,000 hours of community service; the annual Christmas in April neighborhood revitalization program; volunteer efforts at local food banks and homeless shelters; seminars on professional ethics; and interactive teleconferences on marriage and family life.

NCAA Graduation Rate of Football Players Ranks N.D. #1

Notre Dame ranks first cumulatively in the graduation rate of football players at Division 1-A colleges and universities, according to an annual report compiled by the National Collegiate Athletic Association.

The NCAA Graduation-Rates Report is the second such survey released by the association under terms of a new federal law and applies to student-athletes who enrolled in 1985 at 298 Division I schools. The first survey was issued last summer and focused on the 1983 and 1984 entering classes.

Notre Dame football players graduated at a 92 percent rate in the most recent report and at an 86 percent rate in the three-year average. Duke University ranks second cumulatively at 84 percent, followed by Boston College (83 percent), Northwestern University (77 percent), and Stanford University (77 percent). The national three-year average stands at 46 percent.

The three-year average of 83 percent for all Notre Dame student-athletes compares to 51 percent nationally and ranks 11th. Bucknell University at 93 percent ranks first overall. The cumulative graduation rate for all Notre Dame students is 92 percent.

The graduation rate of African-American student-athletes continues to be of particular concern for NCAA member institutions, with the three-year national average standing at 35 percent for all black student-athletes and 34 percent for black football players. At Notre Dame, all African-American student-athletes graduate at an 84 percent rate and African-American football players are at 87 percent.

Faculty Notes

Honors

Joseph A. Buttigieg, professor of English, has received \$58,236 from the National Endowment for the Humanities for his translation of the final three volumes of Italian Political philosopher Antonio Gramsci's "Prison Notebooks," written in a fascist jail between 1929 and 1935.

Robert A. Howland Jr., associate professor of aerospace and mechanical engineering, has been named a recipient of the 1993 Amoco Teaching Award for outstanding undergraduate teaching in the College of Engineering. The Amoco Teaching Awards are supported by the Amoco Foundation to recognize undergraduate faculty members who have demonstrated superior teaching skills over a period of several years.

Ralph M. McNerny, Grace professor of medieval studies, director of the Maritain Center and professor of philosophy, was elected to membership in the Catholic Academy of Sciences. He was invited to serve as a member of the editorial board of a new publication "Legit: A Literary Magazine for Readers and Writers of the Great Lakes Area."

William D. Nichols, professor of accountancy, has been named a recipient of the 1993 Amoco Teaching Award for outstanding undergraduate teaching in the College of Business Administration.

Guillermo O'Donnell, Kellogg professor of government and international studies and sociology and academic director of the Kellogg Institute, has been appointed for a three-year term as a member of the Academic Council of the Center of International and Comparative Politics of the University of São Paulo, Brazil.

Laura J. Pyrak-Nolte, assistant professor of civil engineering and geological sciences, received a citation for excellence in editing from the American Geophysical Union at the spring meeting at the Editors Evening Dinner in Baltimore, Md., May 24.

Donald E. Sporleder, professor of architecture, was appointed to the National Council of Architectural Registration Boards Building Design Pre-testing Committee. The building design examinations will be administered to candidates for licensure in the United States and Canada in June and December of 1994. He was appointed conference chairman for the seventh North American Masonry Conference to be held at the University of Notre Dame, June 1-5, 1996. The School of Architecture and the Department of Civil Engineering and Geological Sciences in the College of Engineering were selected to host the conference by the Masonry Society Board at the sixth North American Masonry Conference held in Philadelphia, Pa., June 5-9.

Dennis J. Stark, assistant professor of physical education and director of aquatics, was re-elected to serve another three-year term on the Corvillia Board at the annual meeting, May 21. Corvillia provides residential services to people with developmental disabilities in the Michiana area.

Eugene C. Ulrich and James C. VanderKam, professors of theology, were awarded \$185,000 to support the preparation of three volumes in an edition of the Dead Sea Scrolls from the National Endowment for the Humanities.

Rev. Oliver F. Williams, C.S.C., associate provost and associate professor of management, was elected to the board of directors of the United States-South Africa Leadership Development Program (USSALEP) at its annual meeting in Washington, D.C., May 14. Founded 35 years ago, USSALEP is a multiracial association of concerned Americans and South Africans dedicated to the development of South Africa's human resources and the attainment of a just society. USSALEP-South Africa is currently administering an \$8,000,000 grant from the United States Agency for International Development. The purpose of the grant is to fund infrastructure and related support projects to formerly banned or disenfranchised South African political organizations.

James L. Wittenbach, assistant chair and professor of accountancy, was appointed for a three-year term to the Department of Accountancy Advisory Committee at Ferris State University in Big Rapids, Michigan.

Activities

Joseph P. Amar, assistant professor of classical and Oriental languages and literatures, presented "Jacob of Serug's *Mimra* on Ephrem the Syrian," a report on a forthcoming critical edition, to the North American Patristic Association at Loyola University in Chicago, Ill., June 3-5.

Steven C. Bass, Schubmehl-Prein chair and professor of computer science and engineering, presented "A Neglected Error Source in the CORDIC Algorithm" co-authored with X. Hu at the Proceedings of the 1993 international symposium on Circuits and Systems in Chicago, Ill., May 3-6.

Subhash C. Basu, professor of chemistry and biochemistry, gave the invited seminar "Structure, Biosynthesis and Function of Glycolipids" in the Department of Biochemistry and Pharmacy at the University of Michigan in Ann Arbor, Mich., Feb. 4. He presented "Brain Galactosyltransferases Purification, Substrate Recognition and Cloning" in the College of Pharmacy at the Oklahoma State University in Stillwater, Okla., March 12. He gave the seminar "Replication Origin at the Lectin Binding Site of ECB DNA" in the Department of Chemistry at Bowling Green State University in Bowling Green, Ohio, April 7.

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Stephen M. Batill, professor of aerospace and mechanical engineering, described the development of the new anechoic wind tunnel in the Hessert Center with a presentation titled "Design Installation and Calibration of an Anechoic Wind Tunnel" at the 29th annual Subsonic Aerodynamic Testing Association meeting in Pforzheim, Germany, May 31-June 3. He coordinated the Notre Dame student delegation presentation "Gaining the Competitive Edge — Design for Manufacturing" at the ninth annual summer conference of the NASA/USRA Advanced Design Program in Houston, Tex., June 14-18.

Peter H. Bauer, assistant professor of electrical engineering, presented the lecture titled "Optimization of Volumetric Efficiency Gains in Internal Combustion Engines Using Concepts of Lossless Passive Systems" at the Technology Center of General Motors Research in Warren, Mich., June 1.

Gary H. Bernstein, associate professor of electrical engineering, chaired a session and presented a poster titled "New Technique for Computation and Challenges for Electron Beam Lithography" with Xiaokang Huang and Greg Bazan at the 37th international symposium on Electron, Ion and Photon Beams in San Diego, Calif., June 1-4.

Krzysztof Bobrowski, associate professional specialist in the Radiation Laboratory, presented the paper "Benzophenone-sensitized Photooxidation of Sulfur-containing Amino Acids in Alkaline Aqueous Solutions. Steady-state and Nanosecond Laser Flash Photolysis Studies" co-authored by Gordon L. Hug, associate professional specialist in the Radiation Laboratory, Bronislaw Marciniak and Halina Kozubek at the 17th DOE Solar Photochemistry Research Conference in Brainerd, Minn., June 6-10.

Jacqueline Vaught Brogan, associate professor of English, organized and participated in the panels "Wallace Stevens and Questions of Ethnicity" and "The Radical Elizabeth Bishop" at the American Literature Association in Baltimore, Md., May 28.

Hsueh-Chia Chang, chair and professor of chemical engineering, chaired a session on "H Applications" and delivered the papers "Low-dimensional Intermittent Chaos on a Catalytic Wafer," "Controlling Thermal Front Propagation Through Video Feedback" and "Deciphering and Controlling Intermittent Chaos" at the American Control Conference in San Francisco, Calif., June 2-4. He co-authored the invited paper "Chaotic Advection with Heat Transfer" with Mihir Sen, associate professor of aerospace and mechanical engineering, presented at the first international Thermal Energy Congress in Marrakesh, Morocco, June 6-10.

Daniel M. Chipman, professional specialist in the Radiation Laboratory, presented the paper "On the Accuracy of Spin Density Calculations for Hydrocarbon Radicals" at the

26th Midwest Theoretical Chemistry Conference in Carbondale, Ill., May 21.

Sister Elaine V. DesRosiers, O.P., professional specialist and director of Educational Media, participated in a visual literacy delegation to Vietnam, April 28-May 11. The People to People Citizen Ambassador delegates examined the educational system in Hanoi and Ho Chi Minh City. She gave a presentation "Educational Technology Today" at the Vietnam Textbook — Teaching Aids Company, May 6. She gave the invited presentation "Visions of Teaching with Technology: Overview" and served as a staff member of the Wakonse Conference on College Teaching at Stony Lake, Mich., May 28-June 2.

Aubrey L. Diamond, professor of law, presented "Consumer Protection in Loan Transactions" at a conference on Legal Issues Involved in Banking Services in the Single European Market held by Trier Academy of European Law and Mainz University in Trier, Germany, June 17-18.

Jay P. Dolan, professor of history, presented the lecture "Both American and Catholic" at Catholic Thought on Cultural Concerns at Corpus Christi University in Toledo, Ohio, May 25. He presented the lecture "The Roman Catholic Parish Organization" at a program on nonprofit organizations at Yale University in New Haven, Conn., June 3.

William G. Dwyer, professor of mathematics, was a visiting professor at the University of Paris, VII, May 15-June 12. He gave a lecture titled "A Homotopy Analogue of Lie Groups," May 18, and "Centers and Automorphisms," May 25. He gave an invited talk on "Transfer Maps for Fibrations" at the University of Paris-Nord, Villeteneuse, France, May 27. He gave a plenary lecture "The Calculus of Fractions in Homotopy Theory" at the conference on Algebraic Topology in honor of Michel Zisman held at the University of Paris, VII, June 4.

Leonid Faybusovich, assistant professor of mathematics, gave the invited talk "On the Phase Portrait of the Karmarkar's Flow" at the meeting of the American Mathematical Society in DeKalb, Ill., May 20-22.

Guillermo J. Ferraudi, professional specialist in the Radiation Laboratory, presented the paper "Photophysical and Photochemical Properties of RE(I) Complexes: On the Role of Ligand-centered States" at the 17th DOE Solar Photochemistry Research Conference, Brainerd, Minn., June 6-10.

Malcolm J. Fraser, associate professor of biological sciences, served on the NIH Study Section for presentation of grant reviews in Bethesda, Md., Feb. 24-26. He served on the USDA study panel for competitive grants evaluation in Washington, D.C., May 17-20. He chaired a session-in-depth on Invertebrate Viruses and Cell Culture, chaired a

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symposium on "Insect Viruses and Cell Cultures" and presented a talk titled "The Baculovirus Genome as a Target DNA for Assays of Lepidopteran Transposable Element Movement in Insect Cell Lines" at the Congress on Cell and Tissue Cultures in San Diego, Calif., June 5-9.

Emerson G. Funk, professor of physics, gave the talk "Report on Nuclear Protection Delegation Visit to the Former Soviet Union, Including Chernobyl" at the annual meeting of the Hoosier Chapter of the Health Physics Society in Indianapolis, Ind., May 11.

J. Philip Gleason, professor of history, gave the commencement address and was awarded an honorary Doctor of Humane Letters at the Loyola University of Chicago graduation exercises for the Graduate School and College of Arts and Sciences in Chicago, Ill., May 15.

Davide A. Hill, assistant professor of chemical engineering, presented an invited seminar titled "Normal-Mode Micro-Dielectrometry: A New Tool to Probe Chain Relaxation in the Vicinity of a Solid Surface" at the Department of Chemical Engineering and Center for Composite Material at the University of Delaware in Newark, Del., May 4. He presented the invited seminars "On the Use of Normal-Mode Microdielectrometry to Probe Structure Evolution in Polymer Melts and Liquid Crystals" and "Scanning-Angle Reflectometry Measurements on Flowing Hydroxy-Propyl-Cellulose Liquid Crystalline Solutions" at the Dipartimento Di Ingegneria Chimica at the Università Di Napoli "Federico II" in Napoli, Italy, May 28.

Candace Howes, assistant professor of economics, organized a panel titled "Empirical Investigations of the Need for and Consequences of Trade Policy" and presented a paper titled "Relative Total Factor Productivity in the U.S. and Japanese Auto Industries, 1958-1991" at the Eastern Economics Association meetings in Washington, D.C., March 19-21. She jointly organized a conference with Ajit Singh, visiting Scholl professor of economics, titled "Strengthening Industrial Competitiveness in the 1990s" co-sponsored by the Economics Department, the Kellogg Institute and the Institute for Scholarship in the Liberal Arts at Notre Dame, Ind., March 27-29. She presented a paper titled, "The Original Intent of GATT Should be Restored, Trade and Industrial Policy Should be Strategic and High Tech is Not Enough" at that conference; at the Faculty Seminar of the Center for Labor Studies at Rutgers University in New Brunswick, N.J., April 8; at the Hubert Humphrey Colloquium in Public Policy at Rutgers University, April 14; and at the Department of Policy and Planning at the University of Massachusetts in Lowell, Mass., April 26. She participated on a plenary panel titled "NAFTA: The Challenge of Harmonization" at the fifth annual conference on U.S.-Mexico Relations: The Impact of NAFTA on Environment and Labor at the Bildner Center, City University Graduate Center, in New York, N.Y., May 7.

Gordon L. Hug, associate professional specialist in the Radiation Laboratory, presented the paper "Electron-transfer Parameters in the Photooxidation of Sulfur-containing Amino Acids by Substituted Benzophenone Triplet" co-authored with Krzysztof Bobrowski, associate professional specialist in the Radiation Laboratory, and Bronislaw Marciniak at the 17th DOE Solar Photochemistry Research Conference in Brainerd, Minn., June 6-10.

Roger F. Jacobs, professor of law, law librarian and associate dean for research and information services, accompanied an American Bar Association of Legal Education to meet and discuss mutual interests with legal academics from the Commonwealth of Independent States to Moscow and Minsk, May 24-30. He gave an invited lecture on the subject of legal research in American practice and education at the Institute of Advanced Legal Studies in London, England, June 14.

Prashant V. Kamat, professional specialist in the Radiation Laboratory, presented the paper "Semiconductor Colloids for the Design of Optically Transparent Thin Films, Electron Storage and Photosensitization" at the 17th DOE Solar Photochemistry Research Conference in Brainerd, Minn., June 6-10.

Lloyd H. Ketchum Jr., associate professor of civil engineering and geological sciences, and graduate student Susan Lehmann co-authored the paper "Slow Sand Filtration" presented at the spring meeting of the American Slow Sand Association in Iliion, N.Y., May 21.

Edward A. Kline, professor of English and O'Malley director of the Freshman Writing Program, chaired and organized a seminar on the nature of freshman seminars for representative faculty of Goshen College in Goshen, Ind., March 19. He led a workshop on the Daedalus Integrated Writing System for Faculty from the English Department of Valparaiso University in Valparaiso, Ind., May 14. He served as a judge for the Achievement Awards in Writing for High School Students sponsored by the National Council of Teachers of English during June.

Charles Kulpa, professor of biological sciences, presented an invited symposium lecture titled "Biochemistry of Microbial Desulfurization of Dibenzothiophene" and presented three posters from his laboratory at the American Society for Microbiology Meeting in Atlanta, Ga., May 16-20.

Gary A. Lamberti, assistant professor of biological sciences, organized the symposium titled "Ecology of Mountain Streams: Interactions of Physical and Biotic Processes," presented the invited paper "Importance of Periphyton in Stream Food Webs," co-authored the paper "Direct and Indirect Effects of Introduced Crayfish (*Orconectes rusticus*) on a Stream Benthic Community" and co-authored the poster "Zebra Mussel Abundance and Ecological Impact in the St.

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Joseph River Basin (Indiana and Michigan): Projections for Future Spread and Impact on Flowing Waters" at the annual meeting of the North American Benthological Society in Calgary, Alberta, Canada, May 25-28.

Scott Mainwaring, associate professor of government and international studies, gave a presentation on "Party Systems in Latin America" at the Woodrow Wilson International Center for Scholars in Washington, D.C., June 9.

Lawrence C. Marsh, associate professor of economics, presented the paper "Estimating Neural Network Nonparametric Production Functions" to the faculty and graduate students of the Empirical Economics Workshop in the Department of Economics at the University of Chicago in Chicago, Ill., June 9. The topic drew wide interest since the use of neural networks is a new methodology for economists especially when testing to determine the optimal number of phantom units (hidden nodes) while maintaining functional consistency and asymptotic normality.

Rev. Don McNeill, C.S.C., director of the Center for Social Concerns, professional specialist and concurrent assistant professor of theology, addressed the First Friday Club of Chicago during their annual luncheon meeting on the topic "Community and Public Service Among Young Adults — Present Initiative and Future Challenges" in Chicago, Ill., May 7.

Anthony N. Michel, McCloskey dean of engineering and Freimann professor of electrical engineering, along with Miloje S. Radenkovic and Kaining Wang presented the papers "Robustness and Perturbation Analysis of a Class of Nonlinear Systems with Applications to Neural Networks," "Sufficient Conditions for Hurwitz and Schur Stability of Interval Matrices" and "Bursting Phenomena in Extended — Least Squares Based Self-Tuning Control" at the 1993 American Control Conference in San Francisco, Calif., June 2-4.

Juan C. Migliore, associate professor of mathematics, gave the talk "Lifting the Cohen-Macaulay Property, II" at the Curves Seminar at Queen's University in Kingston, Ontario, Canada, March 8. He presented "Hypersurface Sections of Curves" at the Commutative Algebra Seminar at Michigan State University in East Lansing, Mich., March 23. He presented the colloquium "Les Liaisons Sans Danger" at Syracuse University in Syracuse, N.Y., April 23.

Michael C. Mossing, assistant professor of biological sciences, presented a poster with Hazbun and Mollah titled "Dimerization and DNA Binding of the λ Cro Repressor" at the Steenbock symposium on Protein-Nucleic Acid Interactions at the University of Wisconsin in Madison, Wis., May 22-26. He presented a poster with Shopon Mollah titled "A Simplified DNA Binding Protein: Monomeric Lambda Cro" at the Beckman symposium on Protein Structure and Function at the University of Illinois in Urbana, Ill., June 3-6.

Dian H. Murray, associate dean of arts and letters and associate professor of history, presented "Nanzhongguo hai de Haidao, zousi yu banghui: 1750-1850" (Piracy, Smuggling, and Secret Societies in the South China Sea, 1750-1850) at the first international symposium on Secret Societies in Modern China in Nanjing, China, June 1-3.

Robert C. Nelson, professor of aerospace and mechanical engineering, served as a member of a peer review team who evaluated NASA's High Angle of Attack Flight Dynamics Program at NASA Langley Research Center in Hampton, Va., Feb. 28-March 4. He served as a reviewer for a peer review of the Flight Control Division's Aerodynamic Stability and Control Research Program of the Wright Laboratory at Wright Patterson AFB, Ohio, May 4-6. He was a lecturer for an AGARD Special Short Course titled "Aerodynamics of Manoeuvring Aircraft" in Ankara, Turkey, May 27-28, in Torino, Italy, May 31-June 1, and in Manchester, United Kingdom, June 3-4.

Larry K. Patterson, faculty fellow in chemistry and assistant director of the Radiation Laboratory, presented the paper "Electron Transfer Across Lipid Boundaries in Langmuir Films. Absorption and Time-resolved Studies" co-authored by Li Li and Yi-Ming Wang at the 17th DOE Solar Photochemistry Research Conference, Brainerd, Minn., June 6-10.

Anand Pillay, professor of mathematics, gave the invited seminar "Number of Models of Superstable Theories" at University Lyon, France, Nov. 10. He presented the invited seminar "Nash Groups" at University Paris VII, France, Nov. 12. He presented the invited lecture "Pseudo-finite Fields" at Humboldt University in Berlin, Germany, Nov. 26. Pillay gave the invited lecture "Fields Definable in O-minimal Expansions of Real Closed Fields" at the AMS meeting in San Antonio, Tex., Jan. 14. He gave the invited talk "Model Theory and a Theorem of van der Waerden" in the algebra seminar at Wesleyan University in Middletown, Conn., Feb. 9. He presented "Euler Characteristic in Model Theory" in a logic seminar at the Massachusetts Institute of Technology in Cambridge, Mass., Feb. 25. He gave the invited talk "Nonmultidimensional Superstable Theories" at the Association of Symbolic Logic spring meeting in Notre Dame, Ind., March 11. He gave a math colloquium "Geometric Stability Theory" and the invited talk "1-based Theories — The Main Gap for Saturated Models" at a logic meeting at the Carnegie Mellon University in Pittsburgh, Pa., April 2-3.

Wolfgang Porod, professor of electrical engineering, was a panelist for the High-Performance Computation and Communication Grand Challenge Applications group proposal evaluation meeting held at the National Science Foundation in Washington, D.C., April 26.

Joseph M. Powers, assistant professor of aerospace and mechanical engineering, presented an invited lecture on "Re-

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cent Theoretical Work on Ram Acceleration at Notre Dame" at Institut Franco-Allemand, DeRecherches DeSaint-Louis, France, June 3. He presented a paper titled "Model Formulation and Predications for a Pyrotechnic Combustion Driven Pinpuller" at EuroPyro '93 Conference in Strasbourg, France., June 8.

Laura J. Pyrak-Nolte, assistant professor of civil engineering and geological sciences, presented a poster titled "Effective Cleat Porosity and Cleat Geometry from Wood's Metal Porosimetry" at the 1993 international Coalbed Methane Symposium in Birmingham, Ala., May 17-21.

Joachim J. Rosenthal, assistant professor of mathematics, presented the invited lecture "On Stabilization of Autoregressive Systems and Pole Assignability" to the Department of Mathematics and Systems Science at Washington University in St. Louis, Mo., May 18. He presented the paper "A Cell Structure for the Set of Autoregressive Systems" at the meeting of the American Mathematical Society in DeKalb, Ill., May 20-23.

Michael K. Sain, Freimann professor of electrical engineering, presented the invited talk "Acceleration Feedback Control Strategies for Aseismic Protection" co-authored by S. Dyke, P. Quast, Billie F. Spencer Jr., associate professor of civil engineering and geological sciences, and Jeffrey C. Kantor, professor of chemical engineering, at the American Control Conference in San Francisco, Calif., June 3.

Jonathan Sapirstein, professor of physics, presented the talks "Theory of Parity Violation in Atomic Cesium" and "Theory of Highly Charged Many-Electron Atoms" at the DAMPO APS meeting in Reno, Nev., May 16-19.

Ken D. Sauer, assistant professor of electrical engineering, presented the paper "A Bayesian Segmentation Approach to 3-D Tomographic Reconstruction from Few Radiographs" at the international conference on Acoustics, Speech and Signal Processing in Minneapolis, Minn., April 27-30.

Rev. Timothy R. Scully, C.S.C., associate professor of government and international studies, gave a lecture titled, "El Rol del Centro Politico en el sistema politico Chileno" in the Instituto de Ciencias Politicas at the Catholic University in Santiago, Chile, May 5.

Mihir Sen, associate professor of aerospace and mechanical engineering, made an invited keynote presentation on "Chaotic Advection with Heat Transfer" and chaired a plenary lecture and a session on Natural and Mixed Convection at the first international Thermal Energy Conference in Marrakesh, Morocco, June 6-10. He presented a lecture on "Chaotic Particle Paths and Heat Transfer in Coiled Tubes" at the École Nationale de l'Industrie Minérale in Rabat, Morocco, June 11.

Daniel Sheerin, chair and professor of classical and Oriental languages and literatures, in collaboration with Martin Connell, theology, presented the paper "Zeno of Verona's *invitatio fontis* and Baptistry Inscriptions" at the annual meeting of the North American Patristics Society at Loyola University in Chicago, Ill., June 4.

Steven B. Skaar, associate professor of aerospace and mechanical engineering, gave an invited presentation and lecture "Vision-Based Guidance for a Powered Wheelchair" with Eric Baumgartner at the University of Pittsburgh School of Health and Rehabilitation Sciences, Pittsburgh, Pa., June 3.

Peter H. Smith, assistant professor of music, delivered a paper titled "Liquidation, Augmentation, and Brahms' Blurring of the Recapitulatory Articulation" at the annual meeting of the New England Conference of Music Theorists in Medford, Mass., April 3, and at the annual meeting of Music Theory Midwest in Madison, Wis., May 15.

J. Eric Smithburn, professor of law, presented invited lectures to a group of visiting British family court judges sponsored by the National Council of Juvenile and Family Court Judges in Reno, Nev., May 26.

Billie F. Spencer Jr., associate professor of civil engineering and geological sciences, presented the paper "Determination of Tire-Wheel Interface Pressure Distribution for Aircraft Wheels" at the 34th AIAA Structures, Structural Dynamics and Materials Conference in San Diego, Calif., April 5-7.

Rafael A. Tenorio, assistant professor of finance and business economics, presented the paper "Multiple Unit Auctions with Strategic Price-Quantity Decisions" at the spring Midwest Mathematical Economics Conference held at the University of Kentucky in Lexington, Ky., May 14-16.

Chris R. VandenBossche, associate professor of English, presented "The Value of Literature: Representations of Text, Production, and Consumption in the Copyright Debates of 1837-1842" to the Society for the History of Authorship, Reading, and Publishing at the Graduate Center at the City University of New York in New York, N.Y., June 9-11.

Arvind Varma, Schmitt professor of chemical engineering, served as session chairman and presented an invited paper titled "Optimal Distribution of Catalyst in Pellets" at the U.S.-Japan-China symposium on Catalysis held in Beijing, China, June 7-11.

Jaime R. Vidal, assistant director of the Cushwa Center and concurrent assistant professor of theology, presented the paper "Latin American *Religiosidad Popular*: A Medieval Plant Transplanted to New World Soil" at the 20th annual meeting of the international society for the Comparative Study of Civilization held at the University of Scranton in Scranton, Pa., June 3-6.

Administrators' Notes

Honors

David Harr, general manager of the Morris Inn, has been elected vice president of the Indiana Hotel & Motel Association for 1993. He has served on the association's board of directors since 1988, most recently as secretary/treasurer and as the chair of the Education/Scholarship Committee. Since 1884 the Indiana Hotel & Motel Association has represented and offers valuable support to the professionals who have been engaged in the hospitality industry in Indiana.

Adele Lanan, director of student media, has been named outreach director by College Media Advisers, a national organization of more than 600 student media professionals who advise student newspapers, yearbooks, magazines and electronic media at more than 300 colleges and universities. As outreach director, she will spearhead CMA's efforts to extend its educational programs and services to diverse media advisors and diverse collegiate journalists. Lanan advises the *Dome*, the *Scholastic*, the *Juggler* and WSND-FM and WVFI-AM.

Sherri Tubinis, rooms manager at the Morris Inn, has been awarded the Certified Rooms Division Executive designation by the Educational Institute of the American Hotel & Motel Association. This designation is one of the highest awarded by the institute and to qualify executives must demonstrate academic and industry achievement.

Rev. Richard V. Warner, C.S.C., counselor to the president and director of Campus Ministry, was re-elected to three-year terms as a regent of the University of Portland in Oregon and of the corporate board of the Family Prayer Foundation in New York.

Activities

Dale Getz, athletic facilities manager, was a member of a panel discussion titled "Pre Season Football Field Maintenance" and hosted a seminar for the Sports Turf Managers Association in Notre Dame, Ind., May 20.

Eva E. Nance, director of Institutional Research, presented the paper "Why Students Choose Catholic Institutions: A Comparison of Catholic and Non-Catholic Students" to the Catholic Colleges and Universities Special Interest Group at the annual national conference of the Association of Institutional Researchers in Chicago, Ill., May 16. This paper, based on data from 46 Catholic colleges and universities, explores the reasons Catholics and non-Catholics choose Catholic institutions and identifies those reasons that are different for the two groups.

Rev. Richard V. Warner, C.S.C., counselor to the president and director of campus ministry, delivered an address titled "La Universidad y la Comunidad" to the second international meeting of Private Universities in Madrid, Spain, March 27.

Documentation

Academic Affirmative Action Report on Faculty Diversity 1992-93

I. OVERVIEW

In last year's report, the committee concluded that minimal progress had been made in the prior 10 years in reaching the University's goal of increasing the proportion of women and minorities on the various faculties. During this past year, somewhat greater progress was made toward this goal. Table 1a gives an overall summary of all faculties according to gender and minority status for 1992-93, while Table 1b indicates the percentage of non-citizens included in each category.

To put these data in perspective, shown below is the percentage of women and minorities in selected faculties for this current year, last year, and 1981-82.

	WOMEN			MINORITIES		
	92-93	91-92	81-82	92-93	91-92	81-82
Regular Teaching and Research	15.5%	14.4%	10.0%	12.7%	11.6%	9.2%
Total Teaching and Research	17.5%	16.6%	11.2%	11.2%	10.3%	8.3%
All Faculties	22.0%	21.0%	13.7%	11.2%	10.7%	9.4%

Progress has been made in each of the three categories shown above; in fact, the increase last year was greater than the previous 10-year average in each category. An indication of how these increases came about can be seen by examining the incremental changes over the past year. The *net* changes in the numbers of faculty in each of these three categories are shown below:

	1992-93 Compared with 1991-92		
	Total Increase	Increase in Women	Increase in Minorities
Regular Teaching and Research	17 (100%)	10 (59%)	9 (53%)
Total Teaching and Research	52 (100%)	16 (31%)	13 (25%)
All Faculties	48 (100%)	21 (44%)	12 (25%)

It should be noted that these figures represent net changes; that is, they are the difference between gross additions to the faculty and the reductions caused by retirements, resignations, transfers, etc. In general, the percentage of women and minorities among the new hires is lower than shown above. For example, for the teaching and research faculty, there were 50 new hires, of whom 15 (30 percent) were women and six (12 percent) were minorities. This means, of course, that the departure rate among women and minorities was lower: 33 faculty left, of whom five were women (15 percent) and three were minorities (9 percent).

Thus, viewing the University as a whole, the good news is that there has been some acceleration of the movement toward reaching our diversity goals over this past year. The bad news is that we still have a long way to go. Even at last year's rate of net additions to the regular teaching and research faculty, for instance, it would take over 10 years to have 25 percent women on that faculty, over 25 years to have 33 percent, and almost another 150 years to reach 50 percent.

Still, we are moving in the right direction, thanks to the efforts that individual departments and CAPs have made. We must continue this steady progress which will be attained by careful attention to each year's incremental hirings. Major steps should be planned when significant additions to the faculties are made, such as those envisioned by the Colloquy discussions now in progress.

II. FACULTY BY RANK

Table 2a lists the distribution of faculty by gender and minority status according to their ranks. All faculties who are citizens or resident aliens are included. Table 2b lists the percentages of these categories who are resident aliens. Details of these distributions by colleges can be found in "Analysis for the Affirmative Action Report" which has been distributed to all academic units of the University.

Once again the data can be viewed selectively and in comparative form, this year and last year and the change over that time period. Shown below are data for the regular teaching and research faculty, comparing numbers and percentages at the senior ranks (full and associate professors) and the junior ranks (assistant professors and instructors). This division of senior and junior ranks is roughly equivalent to tenured versus untenured categories.

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	1992-93		1991-92		CHANGE	
Regular Teaching and Research Faculty	Senior Ranks	Junior Ranks	Senior Ranks	Junior Ranks	Senior Ranks	Junior Ranks
Total Numbers	446	152	437	143	9	9
Percent	75%	25%	75%	25%	50%	50%
Number of Women	40	53	38	45	2	8
Percent of Women	43%	57%	46%	54%	20%	80%
Number of Minorities	42	16	40	9	2	7
Percent of Minorities	72%	28%	82%	18%	22%	78%

In looking only at the regular teaching and research faculty by ranks, it is quite apparent that women are disproportionately represented. Three-fourths of all regular teaching and research faculty and almost that same ratio of minorities (72 percent) are tenured, but less than half (43 percent) of the women have achieved tenure. The net new additions to this faculty over the past year were evenly distributed among the senior and junior ranks in total, but for women and minorities it was not, with approximately 80 percent being in the junior ranks.

This analysis again leads to the conclusion that, while progress is being made, it would take quite a long time at the current rate of change to reach a state where the percent of tenured women and minorities is approximately that of the total faculty. Major steps can and should be made by making a significant commitment to recruiting women and minorities in the tenured ranks. This would be especially important and dramatic when the Colloquy additions are made.

III. AVAILABILITY BY DEPARTMENTS

Table 3 provides data on the Regular Teaching and Research faculty by departments; faculty included in this table must have their primary appointment on the teaching and research faculty. In addition to the actual percentages, Table 3 also provides an availability index which can be used to evaluate the affirmative action status of academic departments. These availability indices are reflective of the national experience and were compiled by the University of Washington Equal Employment Office. This index reflects the availability of affirmative action appointments at all ranks; in many instances, the current availability of new women Ph.D.s is much higher.

Of the 30 academic units in Table 3 for which availability figures are known, eight have sufficient women on their regular faculty to be within one percentage point or better of the relevant availability figure: four departments in arts and letters, two in engineering, and one each in business and science. Ten units equal or exceed the availability figures for minorities: three each in arts and letters and business, two in science, one in engineering, and the Law School. Comparable figures from last year's report were eight out of 29 units meeting the availability figures for women and 12 out of 29 units meeting the availability figures for minorities. Thus, we have made no progress in the past year on this dimension.

IV. CONCLUSION

Diversity on our faculties, especially the regular teaching and research faculty, remains an elusive goal. Progress has been made, over the last year and over the last decade, but we started from a base far below those of comparable institutions. Departments must continue the good work and steady progress which is evidenced in these data. The University should reaffirm its commitment to increase the proportion of women and minorities on the faculties. If and when the major additions envisioned by the Colloquy become reality and such a commitment is not fulfilled, the gains of the past few years could easily be erased. A more hopeful scenario is one in which all units of the University affirm our commitment to increased excellence and diversity through positive action in filling those new positions with a substantial number of qualified women and minorities.

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Table 1a
Women and Minority Composition for 1992-93 by Faculty Categories
Number of Faculty and Selected Percentages

Faculty Category	Women	Men	Total	African	Asian	Hispanic American	Total Minority
NUMBER OF FACULTY:							
REGULAR							
teaching/research	100	544	644	10	49	23	82
special professional	61	85	146	3	8	6	17
special research	6	20	26	0	6	0	6
librarian	23	19	42	1	1	1	3
other	10	38	48	2	3	0	5
Total Regular	200	706	906	16	67	30	113
NON-REGULAR							
teaching/research	58	203	261	4	8	7	19
special professional	3	11	14	0	2	0	2
special research	1	7	8	0	0	0	0
librarian	0	1	1	0	0	0	0
other	0	3	3	0	0	0	0
Total Non-regular	62	225	287	4	10	7	21
TOTAL FACULTY	262	931	1193	20	77	37	134
SELECTED PERCENTAGES:							
T & R FACULTY							
Regular	15.5%	84.5%	100%	1.6%	7.6%	3.6%	12.7%
Non-regular	22.2%	77.8%	100%	1.5%	3.1%	2.7%	7.3%
Total T & R	17.5%	82.5%	100%	1.5%	6.3%	3.3%	11.2%
OTHER REGULAR	38.2%	61.8%	100%	2.3%	6.9%	2.7%	11.8%
OTHER NON-REG	15.4%	84.6%	100%	0.0%	7.7%	0%	7.7%
TOTAL FACULTY	22.0%	78.0%	100%	1.7%	6.5%	3.1%	11.2%

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Table 1b
Women and Minority Composition for 1992-93 by Faculty Categories
Percentage of Non-citizens

Faculty Category	Women	Men	Total	African	Asian	Hispanic American	Total Minority
REGULAR							
teaching/research	12%	11%	11%	0%	51%	52%	45%
special professional	13%	8%	10%	0%	88%	67%	65%
special research	33%	30%	31%	NA	67%	NA	67%
librarian	4%	0%	2%	0%	0%	0%	0%
other	0%	0%	0%	0%	0%	NA	0%
Total Regular	12%	10%	10%	0%	54%	53%	46%
NON-REGULAR							
teaching/research	21%	26%	25%	0%	63%	71%	53%
special professional	0%	64%	50%	NA	100%	NA	100%
special research	0%	29%	25%	NA	NA	NA	NA
librarian	NA	0%	0%	NA	NA	NA	NA
other	NA	0%	0%	NA	NA	NA	NA
Total Non-regular	19%	27%	25%	0%	70%	71%	57%
TOTAL FACULTY	13%	14%	14%	0%	56%	57%	48%

Notes for all Tables:

Caucasian assumed when ethnicity unknown.
Males assumed when gender unknown.
Foreign assumed when citizenship unknown.
Non-resident alien assumed when visa is unknown.
(Non-resident aliens excluded in Tables 2a and 2b.)
Includes Spring only appointments.
NA indicates the data are not available.

Source for all Tables:

"Analysis for the Affirmative Action Report"
Institutional Research Report #92-34

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Table 2a
Women and Minority Composition for 1992-93 by Faculty Categories and by Rank
U.S. Citizens and Resident Aliens

NUMBER OF FACULTY AND SELECTED PERCENTAGES

Regular Faculty								Non-Regular Faculty							
	Women	Men	Total	African Amer	Asian	Hispanic	Total Minority		Women	Men	Total	African Amer	Asian	Hispanic	Total Minority
Teaching/Research															
Full	15	247	262	2	20	7	29	3	30	33	1	1	0	2	
Associate	25	159	184	2	6	5	13	1	40	41	0	1	1	2	
Assistant	49	93	142	6	6	3	15	18	59	77	3	2	1	6	
Instructor	4	6	10	0	1	0	1	26	28	54	0	0	3	3	
Subtotal	93	505	598	10	33	15	58	48	157	205	4	4	5	13	
Special Professional															
Full	3	12	15	0	1	0	1	0	0	0	0	0	0	0	
Associate	13	35	48	1	0	2	3	1	2	3	0	0	0	0	
Assistant	36	29	65	2	3	3	8	2	1	3	0	0	0	0	
Staff	5	7	12	0	0	0	0	0	1	1	0	0	0	0	
Subtotal	57	83	140	3	4	5	12	3	4	7	0	0	0	0	
Special Research															
Full	1	6	7	0	1	0	1	0	3	3	0	0	0	0	
Associate	3	4	7	0	1	0	1	0	0	0	0	0	0	0	
Assistant	1	5	6	0	1	0	1	1	2	3	0	0	0	0	
Subtotal	5	15	20	0	3	0	3	1	5	6	0	0	0	0	
Library															
Full	4	3	7	1	1	0	2	0	1	1	0	0	0	0	
Associate	11	9	20	0	0	0	0	0	0	0	0	0	0	0	
Assistant	7	5	12	0	0	0	1	0	0	0	0	0	0	0	
Staff	0	2	2	0	0	0	0	0	0	0	0	0	0	0	
Subtotal	22	19	41	1	1	1	3	0	1	1	0	0	0	0	
Other	10	38	48	2	3	0	5	0	3	3	2	0	0	2	
Totals	187	660	847	16	44	21	81	52	170	222	6	4	5	15	
Percent	22.1%	77.9%	100%	1.9%	5.2%	2.5%	9.6%	23.4%	76.6%	100%	2.7%	1.8%	2.3%	6.8%	

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Table 2b

**Women and Minority Composition for 1992-93 by Faculty Categories and by Rank
U.S. Citizens and Resident Aliens**

PERCENTAGE OF RESIDENT ALIENS

Regular Faculty								Non-Regular Faculty							
	Women	Men	Total	African Amer	Asian	Hispanic	Total Minority		Women	Men	Total	African Amer	Asian	Hispanic	Total Minority
Teaching/Research															
Full	7%	2%	3%	0%	15%	29%	17%	0%	3%	3%	3%	0%	100%	NA	50%
Associate	4%	1%	1%	0%	0%	20%	8%	0%	8%	7%	7%	NA	0%	0%	0%
Assistant	4%	12%	9%	0%	83%	33%	40%	0%	3%	3%	3%	0%	0%	0%	0%
Instructor	25%	17%	20%	NA	100%	NA	100%	8%	0%	4%	4%	NA	NA	0%	0%
Subtotal	5%	4%	4%	0%	27%	27%	22%	4%	4%	4%	4%	0%	25%	0%	8%
Special Prof															
Full	0%	8%	7%	NA	100%	NA	100%	NA	NA	NA	NA	NA	NA	NA	NA
Associate	8%	3%	4%	0%	NA	50%	33%	0%	0%	0%	0%	NA	NA	NA	NA
Assistant	8%	7%	8%	0%	67%	67%	50%	0%	0%	0%	0%	NA	NA	NA	NA
Staff	0%	14%	8%	NA	NA	NA	NA	NA	0%	0%	0%	NA	NA	NA	NA
Subtotal	7%	6%	6%	0%	75%	60%	50%	0%	0%	0%	0%	NA	NA	NA	NA
Special Research															
Full	0%	17%	14%	NA	100%	NA	100%	NA	0%	0%	0%	NA	NA	NA	NA
Associate	0%	0%	0%	NA	0%	NA	0%	NA	NA	NA	NA	NA	NA	NA	NA
Assistant	100%	0%	17%	NA	0%	NA	0%	0%	0%	0%	0%	NA	NA	NA	NA
Subtotal	20%	7%	10%	NA	33%	NA	33%	0%	0%	0%	0%	NA	NA	NA	NA
Library															
Full	0%	0%	0%	0%	0%	NA	0%	NA	0%	0%	0%	NA	NA	NA	NA
Associate	0%	0%	0%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Assistant	0%	0%	0%	NA	NA	0%	0%	NA	NA	NA	NA	NA	NA	NA	NA
Staff	NA	0%	0%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Subtotal	0%	0%	0%	0%	0%	0%	0%	NA	0%	0%	0%	NA	NA	NA	NA
Other	0%	0%	0%	0%	0%	NA	0%	NA	0%	0%	0%	0%	NA	NA	0%
Totals	5%	4%	4%	0%	30%	33%	25%	4%	4%	4%	4%	0%	25%	0%	7%

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Table 3
Women and Minority Availability and Composition
Regular Teaching and Research Faculty, 1992-93

	Women Availability	Women Actual	Minority Availability	African American Actual	Asian Actual	Hispanic Actual
Arts and Letters						
American Studies	NA	16.7%	NA	16.7%	0.0%	0.0%
Anthropology	40.9%	14.3%	7.2%	0.0%	0.0%	0.0%
Art	46.7%	28.6%	5.8%	7.1%	0.0%	0.0%
Center for Contemporary Society	NA	0.0%	NA	0.0%	0.0%	0.0%
Classical and Oriental Lang. and Lit.	31.7%	12.5%	15.5%	0.0%	0.0%	0.0%
Communication and Theatre	32.6%	33.3%	8.7%	0.0%	0.0%	0.0%
Economics	13.2%	11.1%	11.1%	0.0%	11.1%	0.0%
English	46.0%	31.4%	5.4%	8.6%	0.0%	0.0%
Freshman Writing Program	NA	0.0%	NA	0.0%	0.0%	0.0%
German and Russian Lang. and Lit.	44.3%	14.3%	1.5%	0.0%	0.0%	0.0%
Government and International Studies	19.1%	19.2%	11.2%	0.0%	0.0%	7.7%
History	23.2%	21.7%	7.8%	4.3%	0.0%	0.0%
Medieval Institute	NA	0.0%	NA	0.0%	0.0%	0.0%
Music	26.5%	40.0%	6.2%	0.0%	0.0%	0.0%
Philosophy	18.0%	6.1%	5.1%	0.0%	6.1%	0.0%
Program of Liberal Studies	NA	23.1%	NA	0.0%	0.0%	0.0%
Psychology	40.0%	38.1%	7.8%	0.0%	0.0%	0.0%
Romance Languages and Literatures	51.2%	50.0%	14.1%	0.0%	0.0%	8.3%
Sociology	35.1%	23.5%	12.9%	0.0%	0.0%	17.6%
Theology	NA	13.3%	NA	3.3%	0.0%	0.0%
Business						
Accountancy	14.3%	9.1%	9.8%	4.5%	13.6%	4.5%
Finance	14.3%	14.3%	9.8%	0.0%	0.0%	0.0%
Management	14.3%	10.0%	9.8%	0.0%	15.0%	5.0%
Marketing	14.3%	8.3%	9.8%	0.0%	16.7%	0.0%
Engineering						
Aerospace and Mechanical Engineering	2.1%	0.0%	16.4%	0.0%	16.0%	4.0%
Chemical Engineering	5.5%	9.1%	21.6%	0.0%	18.2%	9.1%
Civil Engineering and Geological Sciences	3.8%	13.3%	21.2%	0.0%	6.7%	0.0%
Computer Science and Engineering	11.7%	0.0%	11.3%	0.0%	12.5%	0.0%
Electrical Engineering	2.6%	0.0%	20.8%	0.0%	16.7%	0.0%
Science						
Biological Sciences	26.2%	13.0%	8.6%	0.0%	4.3%	0.0%
Chemistry and Biochemistry	20.5%	0.0%	10.6%	4.3%	4.3%	0.0%
Mathematics	12.7%	10.3%	10.7%	0.0%	13.8%	10.3%
Physics	6.2%	5.7%	9.0%	0.0%	8.6%	0.0%
Architecture	21.8%	16.7%	18.1%	0.0%	0.0%	8.3%
Law School	25.7%	24.0%	9.2%	4.0%	4.0%	4.0%
Freshman Year: Physical Education	36.0%	0.0%	6.9%	0.0%	0.0%	0.0%

Documentation

University Committee on Libraries April 30, 1993

The meeting was called to order at 3 p.m. in the office of the director of libraries by the chairman, Robert Scheidt. Also in attendance were Harvey Bender, Maureen Gleason, Robert Miller, Dan Sheerin, Donald Sniegowski and secretary Melodie Eiteljorge.

The minutes of the meeting of March 31 were approved as written.

Robert Miller reported that the Library Advisory Council met on April 23 and 24 with 17 members in attendance. The focus of the meeting was consideration of library services to the College of Business Administration. Business Librarian Thomas Cashore and Business Reference Librarian Carol Szambelan coordinated the meeting with Dean Keane and a user panel of two faculty and two students, one graduate and one undergraduate.

On Friday evening, April 23, the Friends of the Library held a kick-off dinner for the libraries' "Two Million and 30 Reasons to Celebrate" program. This year-long celebration began with the acquisition of the two millionth volume, an early printed book from Dr. Astrik Gabriel, which was presented at the dinner. The two million and first volume was also presented as a gift from the friends, the *Oxford English Dictionary* on CD-ROM. There will be programs and presentations throughout the year in celebration of the combined theme, culminating in another dinner in the spring of 1994 to commemorate the 30th anniversary of the Hesburgh Library.

The budget process is finished. The provost has reserved funds outside the library budget to avoid a serials cut for 1993-94, although Collection Development staff are aware that this is only a temporary solution. The long-term process of assessing ways to deal with escalating serials costs will continue, and cancellations are still encouraged as appropriate. Letters went to the faculty as a whole, notifying them of this situation.

Miller and John Houghton recently presented a motion to the Graduate Council on "Graduate Council Guidelines":

All proposals for the inauguration or expansion of a graduate program presented for consideration for approval of the Graduate Council shall include a statement of both the immediate and anticipated long-term budgetary implications of the program in areas such as faculty positions, graduate student stipends, physical facilities (including offices and laboratories) and library and other information resources. The statement shall include appropriate documentation on the availability of the required/desired resources with supporting statements from units outside the proposing department.

Maureen Gleason attended the meeting of the council in which this motion was discussed, and she stressed three points: 1) it would assist those planning and implementing new programs; 2) it would provide the Graduate Council with information for responsible discussions of programs; and 3) it is consistent with the effort within the University to link programs to financial resources. There was not, however, much support for the motion. Arguments against it were: 1) it is unnecessary, bureaucratic; 2) it is not appropriate for the Graduate Council to involve itself in financial issues; and 3) the last sentence seems to suggest that units outside the proposing department had to support the program. Someone then suggested that a group be appointed to look into the proposal. It was then tabled.

Donald Sniegowski asked if it would be beneficial to add a library component to Graduate Council reviews. Miller replied that a statement on library resources is included in self studies but that it is not required in the external review report. Sniegowski suggested that it might be helpful to mandate that a bibliographer be a member of each review committee.

Robert Scheidt announced that he and Paula Higgins have been elected as the at-large representatives to the committee. Miller suggested that a June meeting be scheduled to discuss whether or not the committee would like to submit a reaction to the Colloquy report. A meeting was scheduled for June 10, 7:30 a.m. at the Morris Inn. The new members will be invited to attend.

Miller reported that User Services department heads have been assessing library hours for next year. They plan to develop a schedule at the beginning of each year for the entire period. There will be some significant changes in some of the branch hours, with both cuts and additions. This will begin on an experimental basis with hours varying among the branch libraries. Traditionally all the branches have maintained the same hours. The Screen Design Task Force has spoken with department heads about displaying this information. Harvey Bender noted that there should be ample publicity on changes in hours. He suggested color coded bookmarks for each branch, listing the hours. There will also be some modest changes in the hours for the Hesburgh Library. The 24 hour opening for exam periods will continue.

Scheidt asked if there is any indication of what to expect in serials prices for 1994-95. Gleason replied that making accurate predictions is impossible because of the number of variables.

There being no further business, the meeting adjourned at 4:15 p.m.

Respectfully submitted,

Melodie Eiteljorge
Secretary

The Graduate School Research Division

Current Publications and Other Scholarly Works

Current publications should be mailed to the Office of
Research of the Graduate School, Room 312, Main Building.

COLLEGE OF ARTS AND LETTERS

Economics

- Bonello, Frank J.
F.J. Bonello. 1993. The City of Detroit: A Personal Perspective. Pages 175-181 in, T.R. Swartz and F.J. Bonello, eds., *Urban Finance Under Siege*. M.E. Sharpe, Inc., Armonk, New York.
See under Swartz, Thomas R. 1993. *Instructor's Manual for Taking Sides: Clashing Views on Controversial Economic Issues*, 6th Edition.
See under Swartz, Thomas R. 1993. *Taking Sides: Clashing Views on Controversial Economic Issues*, 6th Edition.
See under Swartz, Thomas R. 1993. *Urban Finance Under Siege*.
Dutt, Amitava K.
A.K. Dutt and E.J. Amadeo. 1993. A Post-Keynesian Theory of Growth, Interest and Money. Pages 181-205 in, M. Baranzini and G.C. Harcourt, eds., *The Dynamics of the Wealth of Nations, Essays in Honour of L. Pasinetti*. Macmillan, New York, New York and St. Martin's Press, Basingstoke, United Kingdom.
A.K. Dutt. 1993. Review of On Political Economists and Modern Political Economy: Selected Essays of G.C. Harcourt, C. Sardoni, ed. *Manchester School of Economic and Social Studies* 61(2):212-213.
Swartz, Thomas R.
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The Graduate School Research Division

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The Graduate School Research Division

Physics

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COLLEGE OF ENGINEERING

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COLLEGE OF BUSINESS ADMINISTRATION

Management

Simon, John T.

W.J. Hopp and J.T. Simon. 1993. Estimating Throughput in an Unbalanced Assembly-Like Flow System. *International Journal of Production Research* 31(4):851-868.

LAW SCHOOL

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See under Chemical Engineering; Brennecke, Joan F. 1993. *Journal of Physical Chemistry* 97:5618-5623.

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W. Schuddeboom, S.A. Jonker, J.M. Warman, M.P. de Haas, M.J.W. Vermeulen, W.F. Jager, B. de Lange, B.L. Feringa and R.W. Fessenden. 1993. Sudden Polarization in the Twisted, Phantom State of Tetraphenylethylene Detected by Time-Resolved Microwave Conductivity. *Journal of the American Chemical Society* 115(8):3286-3290.

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The Graduate School Research Division

Summary of Awards Received and Proposals Submitted

In the period April 1, 1993, through April 30, 1993

AWARDS RECEIVED

Category	Renewal		New		Total	
	No.	Amount	No.	Amount	No.	Amount
Research	12	1,694,404	12	660,690	24	2,355,094
Facilities and Equipment	0	0	1	13,342	1	13,342
Instructional Programs	3	84,540	2	54,208	5	138,748
Service Programs	0	0	6	24,617	6	24,617
Other Programs	<u>0</u>	<u>0</u>	<u>1</u>	<u>250,000</u>	<u>1</u>	<u>250,000</u>
Total	15	1,778,944	22	1,002,857	37	2,781,801

PROPOSALS SUBMITTED

Category	Renewal		New		Total	
	No.	Amount	No.	Amount	No.	Amount
Research	12	1,381,319	13	2,668,355	25	4,049,674
Facilities and Equipment	0	0	3	7,638,436	3	7,638,436
Instructional Programs	1	218,257	0	0	1	218,257
Service Programs	0	0	0	0	0	0
Other Programs	<u>1</u>	<u>223,906</u>	<u>2</u>	<u>289,316</u>	<u>10</u>	<u>513,222</u>
Total	14	1,823,482	25	10,596,107	39	12,419,589

The Graduate School Research Division

Awards Received

In the period April 1, 1993, through April 30, 1993

AWARDS FOR RESEARCH

Aerospace and Mechanical Engineering

Corona, E.
Buckling of Thin-Walled Structures Under Cyclic Bending
National Science Foundation
\$95,495 36 months

Powers, J.
Modeling of Pyrotechnic Systems
NASA - Lewis Research Center
\$49,858 24 months

Anthropology

Schurr, M.
Analysis of Kentucky Fort Ancient/Mid-Mississippian
Samples
Kentucky Heritage Council
\$3,486 7 months

Biological Sciences

Mossing, M.
Structure and Function of Cro Variants
National Institutes of Health
\$93,555 12 months

Civil Engineering and Geological Sciences

Makris, N.
Nonlinear Method for Analysis of Pile Foundations
National Center/Earthquake Engineering Research
\$30,000 12 months

Gray, K.
Removal of DBP Precursors by Granular Carbon Adsorption
Malcolm Pirnie
\$40,000 25 months

Kareem, A.
Dynamic Response of Structures-REU Supplement
National Science Foundation
\$10,000 41 months

Chemistry and Biochemistry

Miller, M.
Asymmetric Synthesis of Antiviral and Antifungal Agents
Miles
\$16,476 7 months

Fehlner, T.
Main Group-Transition Element Clusters: Supplement
National Science Foundation
\$35,000 36 months

Thomas, J.
Reactions in Organized and Constricted Systems
National Science Foundation
\$126,500 12 months

Castellino, F.
Diagnostic Method or Kit to Detect Alzheimers Disease
American Biogenetic Sciences
\$148,000 12 months

Helquist, P.
Synthesis of Enantiomers and Salmeterol
Sepracor, Inc.
\$17,983 7 months

Electrical Engineering

Alcock, C.
On-Line Sensor Development for I.F.R.
Argonne National Laboratory
\$26,589 6 months

Bernstein, G.
Microelectromechanical System
Miles
\$30,000

Romance Languages and Literatures

Douthwaite, J.
The History and Fictions of the 'Wild Girl of Champagne'
National Endowment for the Humanities
\$4,750 2 months

Mathematics

Pillay, A.
Topics in Model Theory
National Science Foundation
\$34,500 24 months

Hu, B.
Nonlinear PDE and Free Boundary Problems
National Science Foundation
\$55,000 36 months

Physics

Browne, C.
Third Year Budget for Nuclear Structure Research
National Science Foundation
\$561,000 36 months

Shephard, W., Cason, N., et al.
Experimental Research in Elementary Particle Physics
National Science Foundation
\$305,000 24 months

Kolata, J.
Third Year Budget for Heavy Ion Reaction Studies
National Science Foundation
\$285,000 36 months

The Graduate School Research Division

Livingston, A.
Highly Charged Ions in Electron Beam Ion Trap -
Supplement
National Institute of Standards and Technology
\$27,929 10 months

Psychology

Cole, D.
Competency-Based Model of Child Depression
National Institutes of Health
\$101,299 12 months

Radiation Laboratory

Schuler, R.
Effects of Radiation on Matter
Department of Energy
\$72,674 12 months

Theology

Ulrich, E.
The Publication of Three Volumes of Dead Sea Scrolls
National Endowment for the Humanities
\$185,000 24 months

AWARDS FOR FACILITIES AND EQUIPMENT

Electrical Engineering

Stevenson, R.
Image Processing Investigations
Apple Computer Inc.
\$13,342 60 months

AWARDS FOR INSTRUCTIONAL PROGRAMS

Biological Sciences

Carlton, R.
Control of Biogeochemical Processes in Lake Sediments
National Science Foundation
\$3,980 24 months

Lodge, D.
REU Supplement
National Science Foundation
\$8,791 24 months

Civil Engineering and Geological Sciences

Halfman, J., Rigby, J.
A Program of Summer Stipends
Lilly Endowment, Inc.
\$5,000 4 months

O.S.I.P.A.

Borelli, M.
Notre Dame Science/Engineering for Talented Seniors
National Science Foundation
\$49,208 12 months

Physics

Rettig, T.
REU Site Program for Physics
National Science Foundation
\$71,769 12 months

AWARDS FOR SERVICE PROGRAMS

ND Center for Pastoral Liturgy

Bernstein, E.
Center for Pastoral Liturgy
Various Others
\$605 1 month
Center for Pastoral Liturgy
Various Others
\$1,674 1 month

Center for Continuing Formation in Ministry

Cannon, K.
Center for Continuing Formation in Ministry
Various Others
\$15,893 1 month

Institute for Pastoral and Social Ministry

Cannon, K.
I.P.S.M./Central Office
Various Others
\$7 1 month
I.P.S.M./Dynamic Parish
Various Others
\$438 1 month

Programs for Church Leaders

Tebbe, F.
Program for Church Leaders
Various Others
\$6,000 1 month

AWARDS FOR OTHER PROGRAMS

Law School

Shaffer, T.
Legal Aid Clinic
W.M. Keck Foundation
\$250,000 29 months

The Graduate School Research Division

Proposals Submitted

In the period April 1, 1993, through April 30, 1993

PROPOSALS FOR RESEARCH

Aerospace and Mechanical Engineering

Atassi, H.
Hydrodynamics and Acoustics
Department of the Navy
\$135,117 12 months

Thomas, F., Nelson, R.
Experiments on Confluent Boundary Layers
NASA - Ames Research Center
\$29,987 3 months

Mueller, T.
Transport Modeling of Hydrogen in Metals
Department of the Navy
\$50,000 12 months

Biological Sciences

Lamberti, G.
Influence of Land Use and Riparian Conditions on
Streams
Environmental Protection Agency
\$590,948 36 months

O'Tousa, J.
Genetic Analysis of Retinal Degeneration in Drosophila
National Institutes of Health
\$139,711 12 months

Adams, J.
Molecular Analysis of *P. vivax* Erythrocyte Binding
Proteins
World Health Organization
\$446,393 36 months

Civil Engineering and Geological Sciences

Halfman, J.
Textural Analysis of Lake Superior Sediments
National Science Foundation
\$324,139 36 months

Neal, C.
Dynamics, Evolution and Composition of the Lunar
Mantle
NASA - Lunar Planetary Institute
\$127,625 24 months

Chemical Engineering

Kantor, J., Chang, H.
REU Supplement
National Science Foundation
\$5,000 12 months

Leighton, D.
Migration in Bidisperse and Polydisperse Suspensions
Lockheed Comp.
\$49,993 12 months

Brennecke, J.
REU Supplement for NSF CTS91-57087
National Science Foundation
\$1,908 3 months

Chemistry and Biochemistry

Huber, P.
Protein Binding Domains on Eukaryotic 5S rRNA and
rDNA
National Institutes of Health
\$189,615 12 months

Castellino, F.
Structure-Function Studies on Plasminogen and Plasmin
National Institutes of Health
\$342,679 12 months

Pasto, D.
Additions to Chiral Allenes
ACS Petroleum Research Fund
\$110,550 36 months

Electrical Engineering

McGinn, P.
Critical Current Density in Melt Textured YBCO
Purdue University
\$177,549 12 months

Processing of Textured Superconducting Microlaminates
Purdue University
\$47,226 12 months

Miller, A., Das, B., et al.
Superconducting Quantum Structures
Purdue University
\$101,720 12 months

Michel, A.
Qualitative Analysis of Complex Dynamical Systems
National Science Foundation
\$65,063 12 months

Costello, D., Huang, Y., et al.
Integrated System Design for the Transmission of Image
Data
National Science Foundation
\$667,929 36 months

Mathematics

Yin, H.
Nonlinear Parabolic Equations and Applications
Department of the Army
\$40,064 24 months

The Graduate School Research Division

Physics

Kolata, J.
Nuclear Research with Heavy Ions
National Science Foundation
\$8,495 2 months

Ruchti, R., Biswas, N., et al.
High Energy Collider Physics
National Science Foundation
\$82,620 12 months

Blackstead, H.
Studies of High-Temperature Superconductors
Purdue University
\$125,000 12 months

Poirier, J.
Research at Ultra High Energies
National Science Foundation
\$141,343 12 months

Ruggiero, S.
Transport Properties of YBCO Thin Films
Purdue University
\$49,000 12 months

PROPOSALS FOR FACILITIES AND EQUIPMENT

Aerospace and Mechanical Engineering

Renaud, J.
Coordinate Measuring Machine-Metrology Investigation
Brown & Sharpe
\$20,170 12 months

College of Engineering

Taylor, J.
Academic Research Infrastructure Program
National Science Foundation
\$3,753,456 21 months

College of Science

Duman, J., Jones, G.
Renovation of Nieuwland Science Hall
National Science Foundation
\$3,864,810 24 months

PROPOSALS FOR INSTRUCTIONAL PROGRAMS

O.S.I.P.A.

Borelli, M.
CANDAX McNair Project
Department of Education
\$218,257 12 months

PROPOSALS FOR OTHER PROGRAMS

School of Architecture

Stamper, J.
Request for Residency at Bellagio, Italy, Study Center
Rockefeller Foundation
\$9,375 4 months

Biological Sciences

Craig, G.
Research Supplement for Underrepresented Minority
National Institutes of Health
\$6,775 12 months

Computer Science and Engineering

Uhran, J., Henry, E.
Integrating EDA Tools in the Curriculum
National Science Foundation
\$90,694 27 months

Institute for International Peace Studies

Hayner, A.
NAFSA B/EEP Grant for Leesik, Meelis in Peace Studies
(MA)
NAFSA/Association of International Educators
\$30,412 12 months

NAFSA B/EEP Grant for Helena Rozlivkova: Peace Studies
(ISP)
NAFSA/Association of International Educators
\$30,412 12 months

NAFSA B/EEP Grant for Starova, Blerina in Peace Studies
(MA)
NAFSA/Association of International Educators
\$30,412 12 months

NAFSA B/EEP Grant for Nikolini Kenig in Peace Studies
(ISP)
NAFSA/Association of International Educators
\$30,412 12 months

NAFSA B/EEP Grant for Delia Marincean in Peace Studies
(MA)
NAFSA/Association of International Educators
\$30,412 12 months

NAFSA B/EEP Grant for Mrse, Snjezana in Peace Studies
(MA)
NAFSA/Association of International Educators
\$30,412 12 months

Student Affairs

Marlowe, D., Beauchamp, E.
NYS-P-ND
NCAA
\$223,906 8 months

Notre Dame

R E P O R T

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