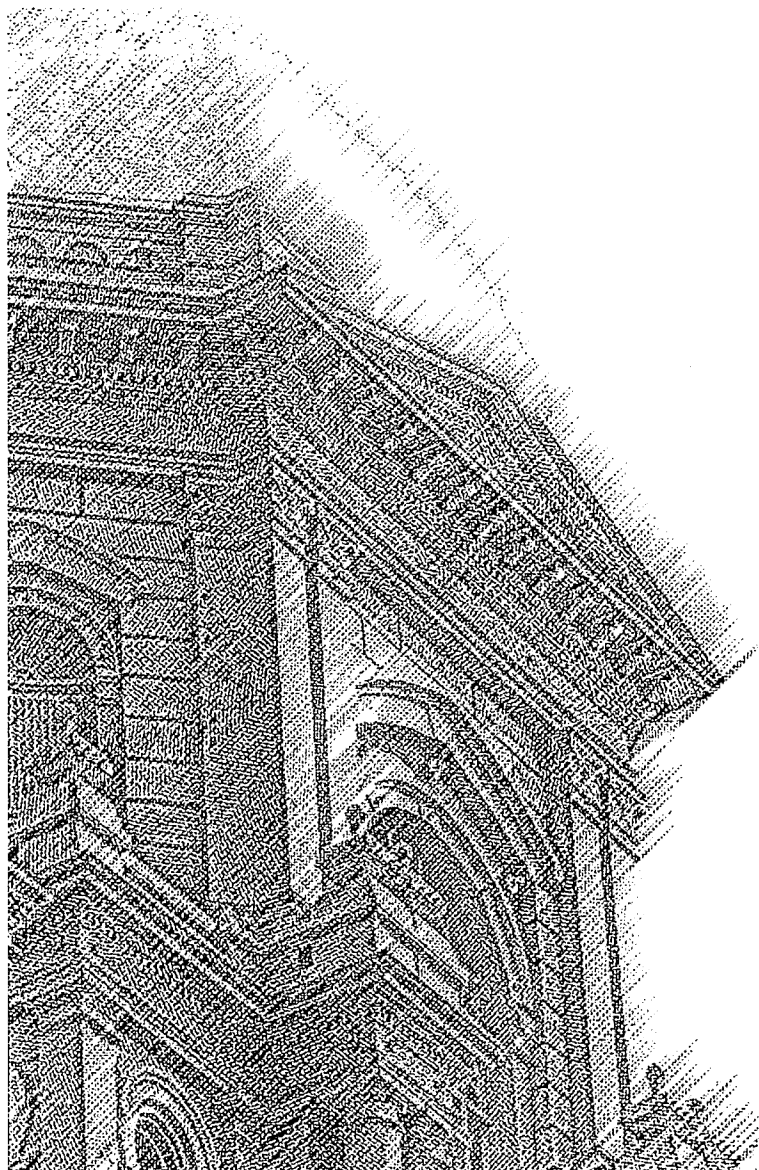


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N U M B E R 1 0

The University

Notre Dame Dedicates New Academic Center in London

The University of Notre Dame will dedicate its new academic center on Trafalgar Square in London on February 6 with a daylong series of events featuring a Mass at Westminster Cathedral and a dedication address by George Basil Cardinal Hume.

The dedication will take place in conjunction with the first international meeting of Notre Dame's Board of Trustees February 4-5 in London. The new site of the University's London Study Centre is named Marian Kennedy Fischer Hall, honoring the mother of Notre Dame alumnus Charles K. Fischer of Fort Worth, Texas. Fischer and his family underwrote the renovation of the historic building, located at No. 1 Suffolk Street in the heart of London. The building has a distinguished academic history. Constructed in 1906 as the home of the Oxford and Cambridge Men's Club, it most recently was occupied by the British School of Osteopathy. At 27,000 square feet, it more than doubles the size of the University's former London site and is believed to be the largest U.S. university facility in the city.

The new London facility is the second major advance in international studies for Notre Dame this academic year. The University inaugurated its Keough-Notre Dame Study Centre, Ireland, in Dublin's historic Newman House on October 17.

Notre Dame has the largest proportion of students studying abroad of any American research or doctoral institution. Its academic presence in London spans almost three decades and encompasses programs in arts and letters, engineering, business and law.

The University established the first, and still the only, full-time international branch of a U.S. law school in 1970 in London and offers three programs there — a full-year J.D. program; a summer J.D. program; and an LL.M. program in international

and cooperative law. It added a London M.B.A. program in 1977 to offer business students a unique learning experience in an international business environment.

Notre Dame's College of Arts and Letters in 1982 introduced a third-year, one-semester undergraduate program that has become immensely popular, having enrolled more than 3,000 students since its inception. The program's 50 rotating courses are taught by three Notre Dame faculty members and some 30 faculty from British universities, primarily the University of London. The program includes an internship component that pairs students with members of Parliament and also offers a study opportunity at the New Globe Theatre. The College of Engineering introduced its own third-year program in 1993 and also offers a six-week summer program of study of engineering projects including the Thames Flood Barrier, the Sellafield Nuclear Plant, and the Eurotunnel.

A 1949 Notre Dame graduate and Life Trustee of the University, Fischer is president, chief executive officer and chairman of the board of Harbison-Fischer Manufacturing Company, the world's largest manufacturer of subsurface oil well pumps. Fischer and his wife, Jill, a native of Hove, Sussex, are longtime patrons of the arts. They have four children, all of whom are Notre Dame graduates.

Faculty Notes

Appointments

Janice Poorman has been promoted to associate dean for graduate studies and research at the University of Notre Dame. As an assistant dean since 1993, Poorman has played a principal role in the design and implementation of the Graduate School's comprehensive program of initiatives for the recruitment and retention of students from under-represented American ethnic and racial groups. Poorman's initiatives have led to a 240 percent increase in the number of entering minority graduate students at Notre Dame and have received recognition for excellence in minority recruitment from the Council of Graduate Schools and the National Association of Graduate Admissions. In her new position, Poorman will continue to coordinate programs to enhance diversity while also joining with associate dean Terrence Akai in directing the Graduate School's broader recruitment and marketing efforts.

Honors

Joan Aldous, Kenan professor of sociology, was selected to be a Fellow of the National Council on Family Relations.

David M. Lodge, professor of biological sciences, has been selected as the first cohort of twenty Aldo Leopold Leadership Fellows (an Ecological Society of America program).

Dan Meisel, director of the Radiation Laboratory and professor of chemistry and biochemistry, was reappointed to the editorial advisory board of the *Journal of Physical Chemistry*.

Nazareno (Larry) Rapagnani, assistant provost of information technologies, has been appointed to the EDUCAUSE, Current Issues Committee for 1997-2000 period. He was elected chair of this committee for 1999.

Jay Tidmarsh, associate professor of law, was elected to membership in the American Law Institute. He was elected to the executive committee of

the Association of American Law Schools' Section on Civil Procedure.

Kwang-tzu Yang, Hank professor emeritus of aerospace and mechanical engineering, was given the 1998 Distinguished Service Award by the Heat Transfer Division of the American Society of Mechanical Engineers (ASME) in testimony of the high regard and the deep appreciation of the Society for his valued services in advancing the engineering profession at the 1998 International Mechanical Engineering Congress and Exhibition in Anaheim, California.

Activities

Asma Afsaruddin, assistant professor of Arabic in the Department of Classics, presented the paper entitled "Traditions of Praise: Defining the Most Excellent Leadership" at the 32nd annual meeting of the Middle East Studies Association in Chicago, Illinois, December 5.

Panos J. Antsaklis, professor of electrical engineering, was invited to be a Xerox Distinguished Lecturer in Control and Diagnostics and visited Xerox's Research and Technology Wilson Center in Webster New York, where he delivered two lectures on intelligent autonomous systems and on hybrid and discrete event systems, January 18-19.

Albert-Laszlo Barabási, assistant professor of physics, gave the talk "Ratchet Effect in Surface Electro-migration: Smoothing Surfaces by an AC Field" at the Materials Research Society fall meeting in Boston, Massachusetts, December 1-5. He gave the theoretical physics seminar "Beach Physics: Studies of Wetting and Drag Force in Granular Media" to the faculty of the Department of Theoretical Physics at Babes-Bolyai University in Kolozsvav, Romania, December 22. He gave the invited talk "Equilibrium Theory of Self-Assembled Dislocation Free Island Formation" at the Lawrence Symposium on Critical Issues in Epitaxy in Mesa, Arizona, January 6-9.

Jeff Bergstrand, associate professor of finance, and **Scott Baier**, assistant professor of finance, presented the paper "International Trade in Goods and Services and the Emerging Popularity of Regional Free Trade Agreements" at a session of the American Economic Association at the Allied Social Science Association annual meeting in New York, New York, January 3-5.

Ralph Chami, assistant professor of finance, presented the papers "What's Different About Family Businesses?" and "Should Gift Giving Be Subsidized?" co-authored with Connie Fullenkamp, assistant professor of finance, at the American Economic Association Meetings in New York, New York, January 3-5.

Olivia Constable, associate professor of history, presented the paper "Venetian Fondaci at Home and Abroad: A Response to Commercial Diaspora in the Late Middle Ages" at the annual meeting of the American Historical Association in Washington, D.C., January 9.

Lawrence S. Cunningham, professor of theology, was the keynote speaker at the Annual Diocesan Congress of Religious Educators in San Diego, California, November 14. He was interviewed on National Public Radio's "Morning Edition," December 12. He was interviewed for ABC's national evening news, January 15.

Brian Daley, Huisking professor of theology, was a panel participant on the theology of prayer in the early Church, responded to a paper by Bishop Rowan Greer of Monmouth, Wales, and presented the paper "Building the New City: the Cappadocian Fathers and the Rhetoric of Philanthropy" at the conference "Prayer and Spirituality in the Early Church" in Sydney, Australia, January 8-11. He was a participant in "The Scripture Project" at the Center of Theological Inquiry in Princeton, New Jersey, January 28-31.

Paquita Y. Davis-Friday, assistant professor of accountancy, presented "Equity Valuation and Current Cost Disclosures: The Case of Mexico" at the 1999 American Accounting Association

International Accounting Section Mid-year Meeting in Orlando, Florida, January 7-9. She and **Juan M. Rivera**, associate professor of accountancy, had their paper "The Impact of Inflation Accounting on U.S. Investors: Evidence from Mexican Firms Traded as American Depositary Receipts (ADRs)" included in the Research Forum at the 1999 American Accounting Association International Accounting Section Mid-year Meeting in Orlando, Florida, January 7-9.

Victor L. Deupi, visiting assistant professor of architecture, presented design proposals for Sala Baganza and the Rocca Sanvitale at the opening of an exhibition on the future of Sala Baganza in Parma, Italy, September 26. He was a Visiting Design Critic at the School of Architecture at the University of Miami in Coral Gables, Florida, October 16-December 17. He presented the lecture "The Critical Function of Classical Architecture in the Late Twentieth Century" in Miami, Florida, November 20. He exhibited design proposals for "Salsomaggiore Terme in the Province of Parma," in collaboration with Studio Bontempi, at the Prince of Wales's Institute of Architecture in London, England, November 17. He exhibited design proposals for "Masterplan for the Extension of the Town of Gocek, Turkey," in partnership with **Richard Economakis**, assistant professor of architecture, at the 23rd International Conference on Making Cities Livable in Santa Barbara, California, November 16-18.

Julia Douthwaite, associate professor of Romance languages and literatures, chaired the session "The Female Threat in Revolutionary and Romantic Texts" and presented the paper "Seeing and Being Seen: Visual Codes and Metaphors in *La Princesse de Clèves*" at the annual convention of the Modern Language Association in San Francisco, California, December 28.

William G. Dwyer, Hank professor of mathematics, gave the talk "Equivariant Approximation" in the University of Chicago Mathematics Department in Chicago, Illinois, January 15.

Georges Enderle, O'Neil professor of international business ethics, gave the keynote address "Approaches to Business Ethics in Different Parts of the World" at the First International Conference of Business, Economics, and Ethics in Latin America in Sao Paulo, Brazil, July 28. He presented the paper "What NGOs Expect from Global Companies" at the annual meeting of the Society for Business Ethics in San Diego, California, August 7. He presented the paper "Ethical Assessment of Global Companies" at the 20th World Congress of Philosophy in Boston, Massachusetts, August 13.

Barbara J. Fick, associate professor of law, faculty fellow in the Kroc Institute for International Peace Studies and member of the Higgins Labor Research Center, presented two 2-day seminars entitled "International Labor Standards and the Role of Trade Unions in a Democratic Society" to trade union leaders in Brcko, Bosnia-Herzegovina, funded by the American Center for International Labor Solidarity, December 12-13 and December 14-15.

Douglas J. Fishkind, assistant professor of biological sciences, and members of his laboratory authored and presented the papers "Probing Nonmuscle Myosin II Assembly Properties In Vivo Using LMM-GFP Fusion Proteins" and "Nonmuscle Myosin IIB GFP: An In Vivo Probe for Cell Motility and Cytokinesis" at the 38th annual American Society for Cell Biology meetings in San Francisco, California, December 12-16.

Mohamed Gad-el-Hak, professor of aerospace and mechanical engineering, delivered the invited talk "The Fluid Mechanics of Microdevices" at the Aerospace Colloquium of the Faculty of Engineering at Cairo University in Cairo, Egypt, December 23.

Gustavo Gallón, visiting faculty fellow in the Kellogg Institute for International Studies, **Garth Meintjes**, associate professional specialist in the law school and associate director of the Center for Civil and Human Rights, and **Dinah Shelton**, professor of law, served as panelists in the special round

table discussion on "Holding Heads of State Accountable" at the University of Notre Dame, January 28.

Umesh Garg, professor of physics, gave the invited seminar "The Isoscalar Giant Dipole Resonance and Nuclear Incompressibility" at the Bhabha Atomic Research Centre in Bombay, India, January 8.

James A. Glazier, associate professor of physics, presented the invited seminar "Liquid Foams in Two and Three Dimensions" to the Department of Physics at the University of Science and Technology of China in Hefei, People's Republic of China, December 17; and in the Department of Physics at Fudan University in Shanghai, People's Republic of China, December 22.

Jan Lüder Hagens, assistant professor of German and Russian languages and literatures, presented the paper "Reconciliation through Performance? Religion and Theater in Hugo von Hofmannsthal's *Das Salzburger große Welttheater*" and served as Session Commentator for the session "German Theater Yesterday and Today" at the annual conference of the German Studies Association in Salt Lake City, Utah, October 8-11.

Mary Catherine Hilkert, associate professor of theology, presented the workshop "Preachers of Grace: Handling on a Living Tradition" at the Aquinas Institute of Theology in St. Louis, Missouri, January 22-23. She presented "Does God Will Suffering? Thomas Aquinas and Contemporary Theologians" as the Aquinas Lecture at Aquinas College in Grand Rapids, Michigan, January 29.

Lee Krajewski, Daley professor of management, presented "Learning from Reviewing" and "Publishing in Decision Sciences" to the New Faculty Development Consortium at the National DSI Conference in Las Vegas, Nevada, November.

Lawrence C. Marsh, associate professor of economics, and **Kajal Mukhopadhyay**, assistant research professor of economics and the Labora-

tory for Social Research, presented the paper "A Bivariate Trinomial Analysis of U.S. and Canadian Interest Rate Policy" to the North American Economics and Finance Association in New York, New York, January 5.

Hindy Najman, assistant professor of theology, gave the talks "The Divine Moses and His Natural Law: Philo on Authority and Interpretation" and "The Torah of Moses: Pseudonymous Attribution in Second Temple Writings" at the SBL/AAR Conference, Philo of Alexandria Group, in Orlando, Florida, November.

Dean A. Porter, director of the Snite Museum of Art, delivered the invited lecture "Taos Artists and Their Patrons, 1898-1950" at the Denver Art Museum in Denver, Colorado, January 14.

Joseph M. Powers, associate professor of aerospace and mechanical engineering, presented the paper "Detonation Solutions from Reactive Navier-Stokes Equations" at the 37th AIAA Aerospace Sciences Meeting and Exhibit in Reno, Nevada, January 11-14.

Joachim Rosenthal, associate professor of mathematics, gave the invited talks "Open Problems in the Area of Pole Placement" and "An Optimal Control Theory for Systems Defined over Finite Rings" during a special session on open problems in systems theory held at the 37th IEEE Conference on Decision and Control in Tampa, Florida, December 16-18.

Norlin G. Rueschhoff, professor of accountancy, presented "International Accounting Standards versus U.S. GAAP: How Do They Compare?," co-authored with **Paquita Y. Davis-Friday**, assistant professor of accountancy, at the 1999 American Accounting Association International Accounting Section Mid-year Meeting in Orlando, Florida, January 7-9.

Uri Sarid, assistant professor of physics, gave the invited seminar "Mesino-Antimesino Oscillations" at the physics department at Indiana University in Bloomington, Indiana, January 11.

W. Robert Scheidt, professor of chemistry and biochemistry, gave the invited colloquia "Iron Porphyrin NO_x Chemistry," "Iron Porphyrins — Excursions into Electronic States," and "March of the pi-Cation Radicals: New and Old Observations" at the Institut LeBel at the Université Strasbourg in France, May.

Dinah Shelton, professor of law, gave the seminar "From Dictator to Defendant: The Pinochet Case in Europe" at the University of Notre Dame, January 19.

Sandra Vitzthum, assistant professor of architecture, presented the paper "The Evolution of Building Traditions: A Look at Bali and Vermont" at the sixth International Association for the Study of Traditional Environments conference in Cairo, Egypt, December 18.

John A. Weber, associate professor of marketing, presented the paper "Partnering with Distributors to Stimulate Sales: A Case Study in the Paper Industry" at the Joint Conference of the Institute for the Study of Business Markets and the Center for Business and Industrial Marketing in Atlanta, Georgia, January 16-19.

Olaf Wiest, assistant professor of chemistry and biochemistry, gave the invited talk "Mechanism and Models of DNA Photolyase" at Rutgers University in Haverford, New Jersey, October 16; the University of Fribourg, December 14; ETH Zurich, December 15; and the University of Basel, December 18.

Kwang-tzu Yang, Hank professor emeritus of aerospace and mechanical engineering, presented the papers "Effects of Distance Between Fins on the Hydrodynamics in a Fin-Tube Heat Exchanger," with Ricardo Romero-Mendez, **Mihir Sen**, professor of aerospace and mechanical engineering, and **Rodney L. McClain**, associate professional specialist in aerospace and mechanical engineering, "Fluid Mechanics and Heat Transfer in Zero-Mean Oscillatory Flows in Short Channels," with P. Li, and "Experiments and Numerical Simulations of Swirling Fires Due to 2x2 Flames in a Channel with a Single Corner Gap," with Kohyu

Satoh, and chaired two technical sessions on Transport Phenomena in Manufacturing and Materials Processing at the 1998 International Mechanical Engineering Congress and Exhibition in Anaheim, California.

Randall C. Zachman, associate professor of theology, presented "The Theology of Karl Barth" to the Adult Education Class at First Presbyterian Church in South Bend, Indiana, November 29, December 6, 13, and 20. He presented "The Self-Revelation of God: Calvin, Schleiermacher, Barth, and Juengel" to the Adult Education Class at Fourth Presbyterian Church in Chicago, Illinois, January 10, 17, 24, and 31.

Publications

Joan Aldous, Kenan professor of sociology, wrote "Public Policy and Grandparents: Contrasting Perspectives," published in Maximiliane E. Szinovacz, ed., *Handbook on Grandparenting*. Westport, Connecticut: Greenwood Press, 1998, pp. 230-246. She co-authored "Fathering Over Time: What Makes the Difference?" with Gail M. Mulligan and Thoroddur Bjarnason, published in the *Journal of Marriage and the Family*, vol. 60, no. 4, November 1998, pp. 809-820.

Ani Aprahamian, associate professor of physics, co-authored "Lifetimes of States in the Opposite-Parity Bands of ^{153}Eu : Recoil-Distance Measurements Following Coulomb Excitation" with J.F. Smith, M.W. Simon, R.W. Ibbotson, P.A. Butler, A.M. Bruce, D. Cline, M. Devlin, G.D. Jones, P.M. Jones, and C.Y. Wu, published in *Physical Review C*, vol. 58, no. 6, December 1998, pp. 3171-3180.

Albert-László Barabási, assistant professor of physics, co-authored "Collective Motion of Self-Propelled Particles: Kinetic Phase Transition in One Dimension" with András Czirók and Tamás Vicsek, published in *Physical Review Letters*, vol. 82, no. 1, January 4, 1999, pp. 209-212. He and **Peter Schiffer**, assistant professor of physics, co-authored "Slow Drag in a Granular Medium" with R. Albert and M.A.

Pfeifer, published in *Physical Review Letters*, vol. 82, no. 1, January 4, 1999, pp. 205-209. He co-authored "Irregularities and Power Law Distributions in the Breathing Pattern in Preterm and Term Infants" with U. Frey, M. Silverman and B. Suki, published in the *Journal of Applied Physiology*, vol. 85, 1998, pp. 789-797.

Thomas E. Bogenschield, director of International and Off-Campus Programs, wrote "Dr. Castro's Princeton Visit, April 1959," published in *Boletín*, Princeton Program in Latin American Studies, Fall, 1998.

Jacqueline Vaught Brogan, professor of English, co-edited with Albert Gelpi *Women's Studies: Special Issue on "A Whole New Poetry Beginning Here": Adrienne Rich in the Eighties and Nineties*, vol. 27, no. 4, 1998, 133 pp. She guest edited *The Wallace Stevens Journal*, vol. 22, no. 2, 1998, 91 pp.

Paolo Carozza, associate professor of law, co-authored *Comparative Legal Traditions in a Nutshell* with Mary Ann Glendon and Michael W. Gordon, West Publishing, 1999.

Francis J. Castellino, dean of the College of Science, Kleiderer-Pezold professor of biochemistry and director of the Center for Transgene Research, and **Melanie DeFord**, associate professional specialist in chemistry and biochemistry, co-authored "Characterization of Kringle Domains of Angiostatin as Antagonists of Endothelial Cell Migration, and Important Process in Angiogenesis" with Weidong-Richard Ji, Yuan Chang, Hilary Gray, Xavier Villarreal, Mohammad Eghtedarzadeh Kondri, Daniel N. Marti, Miguel Llinas, Johann Schaller, Robert A. Kramer and Pamela A. Trail, published in *Federation of American Societies for Experimental Biology Journal*, vol. 12, no. 15, December 1998, pp. 1731-1738.

Xavier Creary, Huisking professor of chemistry and biochemistry, wrote "Reactions of Halodiazirines with Potassium Ethyl Xanthate," published in *Tetrahedron Letters*, vol. 40, 1999, pp. 29-32.

Lawrence S. Cunningham, professor of theology, wrote a review of Robert Daggy, *Dancing in the Waters of Life: Thomas Merton Journals 1962-1965*, published in *New Theology Review*, vol. 11, no. 3, 1998, pp. 89-90. He wrote "Religion Book Notes," published in *Commonweal*, vol. 125, November 6, 1998, pp. 32-36. He wrote "A Perspective on Pamela Kirk's *Sor Juana de la Cruz*," published in *Horizons*, vol. 25, no. 2, fall 1998, pp. 295-299. He wrote "On A Search for Solitude," published in Paul Pearson, et al., *Thomas Merton: Poet-Monk-Prophet*. Abergavenny, U.K.: Three Peaks Press, 1998, pp. 20-23. He wrote "Religion Booknotes," published in *Commonweal*, vol. 126, January 15, 1999, pp. 24-38.

Melanie DeFord, associate professional specialist in chemistry and biochemistry, and **Francis J. Castellino**, dean of the College of Science, Kleiderer-Pezold professor of biochemistry and director of the Center for Transgene Research, co-authored "Selective Inhibition by Kringle 5 of Human Plasminogen on Endothelial Cell Migration, and Important Process in Angiogenesis" with Weidong-Richard Ji, Laura G. Barrientos, Miguel Llinas, Hilary Gray, Xavier Villarreal, Robert A. Kramer, and Pamela A. Trail, published in *Biochemical and Biophysical Research Communications*, vol. 247, 1998, pp. 414-419.

Elizabeth A. Dube, staff librarian, wrote "A Conservation Needs Assessment of Carlsbad Caverns National Park Archives," published in *Twenty-fourth Annual Association of Graduate Programs in Conservation Student Conference Papers*. Kingston, Canada: Queen's University Art Conservation Program, 1998, pp. 1-17.

Keith Egan, adjunct professor of theology, wrote a review of F. Donald Logan, *Runaway Religious in Medieval England, c. 1240-1540*, published in *Carmelus*, vol. 45, 1998, pp. 229-230.

Georges Enderle, O'Neil professor of international business ethics, wrote "A Framework for International Marketing Ethics: Preliminary Considerations and Emerging Perspectives," published in the *Journal of Human Values*, vol. 4,

no. 1, 1998, pp. 25-43. He co-authored "A Balanced Concept of the Firm and the Measurement of Its Long-term Planning and Performance" with **Lee A. Tavis**, Smith professor of business administration, published in the *Journal of Business Ethics*, vol. 17, 1998, pp. 1129-1144. He wrote "Business and Corporate Ethics in the USA: Philosophy and Practice," published in B.N. Kumar and H. Steinmann, eds., *Ethics in International Management*. Berlin: Walter de Gruyter, 1998, pp. 367-400. He wrote "Welches Ethos für öffentliche Güter in der Weltwirtschaft?" published in H. Küng, K-J. Kuschel, *Weltethos und Wissenschaften*. München: Piper, 1998, pp. 61-83. He wrote "Ethische Überlegungen und Richtlinien zur Reform der Staatsbetriebe in China's Sozialistischer Marktwirtschaft," published in T. Maak and Y. Lunau, *Weltwirtschaftsethik. Auf der Suche nach den Grundlagen einer lebensdienlichen Weltökonomie*. Bern: Haupt, 1998, pp. 315-354. He wrote "Business Ethics as a Goal-Rights-System," published in E. Morscher, et al., eds., *Applied Ethics in a Troubled World*. Dordrecht: Kluwer Academic Publishers, 1998, pp. 151-166.

Josephine Massynbaerde Ford, professor of theology, wrote "The Christological Function of the Hymns in the Apocalypse of John," published in *Andrews University Seminary Studies*, vol. 36, no. 2, 1998, pp. 207-229.

Mohamed Gad-el-Hak, professor of aerospace and mechanical engineering, wrote a review of J.A. Liggett and D.A. Caughey, *Fluid Mechanics — An Interactive Text*, published in *Applied Mechanics Reviews*, vol. 52, no. 1, January 1999, pp. B7-B8.

Umesh Garg, professor of physics, co-authored "High Spin States in $^{97,98}\text{Rh}$ " with S.S. Ghugre, B. Kharraja, R.V.F. Janssens, M.P. Carpenter, B. Crowell, T.L. Khoo, T. Lauritsen, D. Nisius, W. Mueller, W. Reviol, L.L. Riedinger, and R. Kaczarowski, published in *Physical Review C*, vol. 58, 1998, pp. 3243-3251.

James A. Glazier, associate professor of physics, co-authored "Possible Cooperation of Differential Adhesion and

Chemotaxis in Mound Formation" with Yi Jiang and Herbert Levine, published in *Biophysical Journal*, vol. 75, December 1998, pp. 2615-2625.

Jimmy Gurulé, associate dean of the law school and professor of law, wrote "The 1998 U.N. Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances — A Ten Year Perspective: Is International Cooperation Merely Illusory?" published in the *Fordham International Law Journal*, vol. 22, no. 1, 1998, pp. 74-121.

Sharon Hammes-Schiffer, assistant professor of chemistry and biochemistry, wrote "Quantum Dynamics of Multiple Modes for Reactions in Complex Systems," published in *Faraday Discussion*, vol. 110, 1998, pp. 391-406. She wrote "Mixed Quantum/Classical Dynamics of Hydrogen Transfer Reactions," published in *The Journal of Physical Chemistry A*, vol. 102, no. 51, 1998, pp. 10443-10454.

Mary Catherine Hilkert, associate professor of theology, wrote "Preaching the Folly of the Cross," published in *Word and World*, vol. 19, no. 1, winter 1999, pp. 39-48.

William P. Hoyer, associate vice president and counsel and concurrent associate professor of law, wrote "Court Litigation in Higher Education: A Review of the 1997 Judicial Decisions," published in *The Journal of College and University Law*, vol. 25, no. 2, fall 1998, pp. 1101-1136.

Nai-Chien Huang, professor of aerospace and mechanical engineering, wrote "Dynamic Debonding Between Fibers and Matrix in Fiber-Reinforced Composites," published in Ren Wang, ed., *Rheology of Bodies with Defects*. Boston, Massachusetts: Kluwer Academic Publishers, 1999, pp. 145-152.

Julia F. Knight, professor of mathematics, wrote "Degrees of Models," published in Ershov et al., eds., *Handbook of Recursive Mathematics*, Elsevier, 1998, pp. 289-309.

James J. Mason, assistant professor of aerospace and mechanical engineering, co-authored "The Effects of Aging

Condition on Shear Localization from the Tip of a Notch in Maraging Steel" with J.A. Zimmerman and K.M. Roessig, published in *Journal of Material Science*, vol. 33, no. 6, 1998, pp. 1451-1460.

Thomas V. Merluzzi, associate professor of psychology, co-edited *Life-Span Perspectives on Health and Illness* with **Thomas L. Whitman**, professor of psychology, and **Robert D. White**, adjunct assistant professor of psychology. Mahwah, New Jersey: Lawrence Erlbaum and Associates, 1999. He co-authored "Adulthood and Aging: Transitions in Health and Health Cognition" in that volume with Raymond C. Nairn.

Anthony N. Michel, Freimann professor of electrical engineering, wrote "Recent Trends in the Stability Analysis of Hybrid Dynamical Systems," published in *IEEE Transactions on Circuits and Systems — I: Fundamental Theory and Applications*, vol. 46, no. 1, January 1999, pp. 120-134.

Eileen B. Mikals-Adachi, associate professor of East Asian languages and literatures, wrote "Echoes of the Past: The Tale of Genji and Modern Japanese Literature," published in the *South Asian Review*, vol. 19, No. 16, December 1998, pp. 115-121.

Philip E. Mirowski, Koch professor of economics, co-authored "A Paradox of Budgets: The Postwar Stabilization of American Neoclassical Demand Theory" with Wade Hands, published in *From Interwar Pluralism to Postwar Neoclassicism. Supplement to vol. 30 History of Political Economy*, pp. 260-292.

Wolfgang Porod, professor of electrical engineering, wrote "Quantum-Dot Cellular Automata Devices and Architectures," published in the *International Journal of High Speed Electronics and Systems*, vol. 9, no. 1, 1998, pp. 37-63.

Gretchen Reydam-Schils, assistant professor in the Program of Liberal Studies, wrote "Roman and Stoic: the Self as a Mediator," published in *Dionysius N.S.*, vol. 16, December 1998, pp. 35-62.

Mark W. Roche, O'Shaughnessy Dean and Joyce professor of German language and literature, wrote a review of Priscilla Hayden-Roy "A Foretaste of Heaven." *Friedrich Hölderlin in the Context of Württemberg Pietism*, published in *Colloquia Germanica*, vol. 31, 1998, pp. 177-79.

Joachim Rosenthal, associate professor of mathematics, co-authored "Open Problems in the Areas of Pole Placement" with Jan C. Willems, published in Blondel, Sontag, Vidyasagar and Willems, *Open Problems in Mathematical Systems and Control Theory*. The Netherlands: Springer-Verlag, 1998, pp. 181-191. He wrote "An Optimal Control Theory for Systems Defined over Finite Rings," published in *Open Problems in Mathematical Systems and Control Theory*. London: Springer-Verlag, 1998, sec. 38, pp. 193-201.

Maoyu Shang, adjunct research professor of chemistry and biochemistry, and **Thomas P. Fehlner**, Grace-Rupley professor of chemistry, co-authored "Synthesis of Mono- and Ditungstaboranes from Reaction of Cp^*WCl_4 and $[\text{Cp}^*\text{WCl}_2]_2$ with $\text{BH}_3\Sigma\text{thf}$ or LiBH_4 ($\text{Cp}^* = \text{h}^5\text{-C}_5\text{Me}_5$). Control of Reaction Pathway by Choice of Monoboron Reagent and Oxidation State of Metal Center" with Andrew S. Weller, published in *Organometallics*, vol. 18, 1999, pp. 53-64.

James P. Thomas, assistant professor of aerospace and mechanical engineering, wrote "Subcritical Crack Growth of Ti-6Al-4V at Room Temperature Under High Stress-Ratio Loading," published in *Scripta Materialia*, vol. 39, no. 12, 1998, pp. 1647-1652.

Julianne C. Turner, concurrent assistant professor of psychology, co-authored "Creating Contexts for Involvement in Mathematics" with Debra Meyer, Kathleen Cox, Candice Logan, Matthew DiCintio, and Cynthia Thomas, published in the *Journal of Educational Psychology*, vol. 90, no. 4, 1998, pp. 730-745. She co-authored "Students Reports of Motivation and Negative Affect: A Theoretical and Empirical Analysis" with Pamela K. Thorpe and Debra Meyer, published in the *Journal of Educational Psychology*, vol. 90, no. 4, 1998, pp. 758-771.

Chris R. Vanden Bossche, professor of English, wrote "Moving Out: Childhood," published in Herbert F. Tucker, ed., *A Companion to Victorian Literature and Culture*. Oxford: Blackwell, 1998, pp. 82-96.

John A. Weber, associate professor of marketing, wrote "Partnering with Distributors to Stimulate Sales: A Case Study in the Paper Industry," published in Michael K. Rich and Wes Johnston, eds., *Connecting to Customers: Value, Volume, and One-to-One*, Vol. 2. Atlanta, GA: Center for the Study of Business and Industrial Markets, 1999, pp. 91-103.

Administrators' Notes

Activities

Dennis Brown, associate director of public relations and information, gave the presentation "The New Age of Faculty-Staff Newspapers" at the District V meeting of the Council for the Advancement and Support of Education in Chicago, Illinois, December 13.

Documentation

James A. Burns, C.S.C., Graduate School Award

Nominations are requested for the James A. Burns, C.S.C., Graduate School Award, given annually to a faculty member for distinction in graduate teaching or other exemplary contributions to graduate education. This honor will be presented at the President's Dinner for the faculty in May, and the recipient will receive a citation and cash prize.

The first Notre Dame president with an advanced degree, a doctorate from the Catholic University of America, Father Burns was the leading reformer of Catholic education in this country in the first quarter of the 20th century. One of his most significant contributions was to raise academic standards by recruiting faculty with doctoral degrees.

Questions and letters of nomination should be addressed to Barbara M. Turpin, Associate Dean of the Graduate School, 206 Hurley Building, and must be received by March 5. Letters of nomination must be accompanied by a copy of the nominee's curriculum vitae.

James A. Burns, C.S.C., Graduate School Award Winners Since 1990

1989-90	Rev. Ernan McMullin
1990-91	Lawrence Marsh
1991-92	Wilhelm Stoll
1992-93	Scott Maxwell
1993-94	Joan Aldous
	Francis J. Castellino
1994-95	Robert C. Johansen
	Kwang-tzu Yang
1995-96	Jeanne D. Day
1996-97	Arvind Varma
1997-98	David Leege
	Thomas Mueller

Special University Awards

Nominations are requested for the three special awards as well as sufficient background material and/or documentation to support the candidate's nomination. Selection is based on the letter and materials submitted by the nominator. Nominations should be sent to Nathan Hatch, Provost, 240 Hayes-Healy Center, by Friday, March 5, to be forwarded to the selection committees. Award winners will be honored at the President's Dinner in May.

Faculty Award

Established in the 1927-28 academic year by the Alumni Association, the Faculty Award singles out that faculty member who, in the opinion of his or her colleagues, has contributed outstanding service to the University of Notre Dame. Each year a selection committee, composed of prior winners and representing the colleges and the Law School, studies the recommendations submitted by former recipients of this award, by the deans, and by individual faculty members, and selects a winner.

Faculty Award Winners Since 1960

1959-60	Otto Bird
1960-61	John Frederick
1961-62	Milton Burton
1962-63	Stephen Kertesz
1963-64	Raymond Gutschick
1964-65	Matthew Fitzsimons
1965-66	Bernard D. Cullity
1966-67	John Magee
1967-68	Rev. Charles E. Sheedy, C.S.C.
1968-69	Bernard Waldman
1969-70	James Massey
1970-71	Thomas Stritch
1971-72	Ernest Sandeen
1972-73	Rev. Ernan McMullin
1973-74	Robert E. Rodes Jr.
1974-75	Herbert E. Sim
1975-76	Ronald Weber
1976-77	Walter Miller
1977-78	J. Philip Gleason
1978-79	K.T. Yang
1979-80	Frederick J. Crosson
1980-81	Jeremiah P. Freeman
1981-82	Morris Pollard

1982-83	James Kohn
1983-84	John Malone
1984-85	Rudy Bottei
1985-86	Rev. David Burrell, C.S.C.
1986-87	Paul Weinstein
1987-88	Ray Powell
1988-89	Robert A. Leader
1989-90	Edward J. Murphy
1990-91	Eugene Henry
1991-92	George B. Craig Jr.
1992-93	Lee Tavis
1993-94	Sonia Gernes
1994-95	Ralph McInerney
1995-96	Carol Ann Mooney
1996-97	William B. Berry
1997-98	George Howard

Reinhold Niebuhr Award

Rev. Theodore M. Hesburgh, C.S.C., and Chancellor Willy Brandt of West Germany were the first recipients of Reinhold Niebuhr awards sponsored by friends of the Protestant theologian and author. Receiving this award in September 1972, at ceremonies at Union Theological Seminary in New York City, Father Hesburgh announced the establishment of a Reinhold Niebuhr award at the University of Notre Dame. This award is made annually to a student, faculty member or administrator whose life and writings promote or exemplify the area of social justice in modern life. The initial award to Father Hesburgh was \$5,000. This he turned over to the Notre Dame endowment to underwrite an annual cash award of \$250 for the winner of this campus honor. The selection committee includes representatives from the colleges and Law School, Campus Ministry, Center for Social Concerns, rectors, Ladies of Notre Dame and the student body. All members of the Notre Dame community are invited to submit recommendations for this award.

Reinhold Niebuhr Award Winners Since 1973

1973	Msgr. John J. Egan
1974	CILA (Community for the International Lay Apostolate)
1975	George N. Shuster
1976	Rev. Louis Putz, C.S.C.
1977	Mr. and Mrs. Arthur Quigley
1978	Thomas P. Broden
1979	Rev. William Toohey, C.S.C.
1980	Rev. Don McNeill, C.S.C.
1981	Charles K. Wilber
1982	Kenneth and Penny Jameson
1983	Julian Pleasants
1984	John W. Houck and Oliver F. Williams, C.S.C.
1985	James Sterba
1986	John H. Yoder
1987	Stephen Worland
1988	Denis Goulet
1989	Sharon Lynn O'Brien
1990	John J. Gilligan
1991	Thomas and Nancy Shaffer
1992	Patrick E. Murphy
1993	John Borkowski
1994	Bernard Doering
1995	Rev. Richard McCormick, S.J.
1996	Rev. William M. Lewers, C.S.C.
1997	Rev. Joseph D. Ross, C.S.C.
1998	Lee Tavis

Grenville Clark Award

On October 20, 1978, Father Hesburgh was one of three recipients of the Grenville Clark Prize, an award given every three years by the Grenville Clark Fund at Dartmouth College. Following the procedure established when he won the Reinhold Niebuhr award in 1972, Father Hesburgh donated the \$5,000 Clark stipend to the Notre Dame endowment to underwrite a cash prize of \$250 to be awarded each year. This award is made to a faculty member, administrator or student whose voluntary activities serve to advance the cause of peace and human rights to which Grenville Clark devoted his extraordinary life of public service. The selection committee includes representatives from the colleges and Law School, Campus Ministry, Center for Social Concerns, rectors, Ladies of Notre Dame and the student body. All members of the Notre Dame community are invited to submit recommendations for this award.

Grenville Clark Award Winners Since 1979

1979	Peter Walshe
1980	James and Mary Ann Roemer
1981	Sr. Judith Ann Beattie, C.S.C.
1982	Kenneth W. Milani
1983	Peggy Roach
1984	The Notre Dame Legal Aid and Defender Association
1985	Cecil and Mary Mast
1986	Rev. Robert F. Griffin, C.S.C.
1987	Conrad Kellenberg
1988	D'Arcy Chisholm and David Link
1989	Lloyd and Shelley Ketchum
	Kevin and Kathy Misiewicz
1990	Peter Morgan and Sr. Annette Giarrante, O.S.F.
1991	Kathleen Maas Weigert and Dolores Tantoco-Stauder
1992	Rev. H. Thomas McDermott, C.S.C.
1993	Michael and Christine Etzel
1994	Bro. Bonaventure Scully, C.F.X.
1995	Eugene J. McClory
1996	Jennifer A. Morehead
	Matthew Fitzgerald
1997	Thomas V. Merluzzi
1998	Jerry and Marge Marley

Faculty Senate Journal

December 8, 1998

The chair professor Michael Detlefsen called the meeting to order in room 202 of McKenna Hall, and offered the opening prayer. Next he asked for approval of the journal. The co-secretary Peter Lombardo said that two members had requested revision of their remarks prior to the meeting. Prof. Philip Quinn, seconded by Prof. Jean Porter, moved for approval with the revisions, and the Senate agreed.

The chair's report consisted of seven items, and is printed in full as Appendix A of this journal. In summary, the items were:

- (1) A follow-up communication with the director of libraries, Jennifer Younger, about faculty representation in the planning stages for library renovation.
- (2) A request from Dean of First Year Studies Eileen Kolman for a Senate forum on the Boyer Commission Report on Undergraduate Education, which the Senate executive committee had approved.
- (3) Another request for a Senate forum on membership in the Big Ten Conference.
- (4) The Kaneb Center for Teaching and Learning Director Barbara Walvoord has asked for Senate involvement in the study of a new teaching evaluation instrument, and Detlefsen requested volunteers, especially since it is a topic under study by the Senate's Student Affairs Committee.
- (5) Detlefsen congratulated Younger and Sue Dietl of the library staff for making the faculty library renewal procedure so much simpler this year. This follows a Senate study of the issue and is in line with Senate recommendations.
- (6) The chair read into the record a letter from an assistant professor at another university who declined to be considered for a faculty position at Notre Dame because of his perception that Notre Dame would not be a hospitable environment for gays and lesbians.
- (7) Detlefsen reported on the Academic Council's passage of the sexual

orientation clause, said it was due to persistent Senate pressure, and congratulated all who participated in the discussion.

In discussion, Rev. Patrick Gaffney, C.S.C., stated that Notre Dame does not discriminate against gay and lesbian individuals, but was against the practice of homosexuality. Professor Detlefsen clarified for the record that his reading of the letter did not imply Senate approval, agreement or approbation of the sentiments expressed. Prof. Ava Preacher believed Senators Detlefsen and Richard McBrien deserved praise for their brilliant and finely orchestrated arguments in the Academic Council, as these were instrumental in the passage of the sexual orientation clause. Professor Porter reminded the Senate that the clause had first been approved by the Faculty Senate in 1996, and now finally had been passed by the Academic Council.

The chair declared the Senate in recess for committee meetings. At 8:10, the Senate reconvened for committee reports.

A. Student Affairs: Professor Preacher reported on several items.

- (1) On the Women's Resource Center, the committee is planning a meeting involving Student Affairs, Student Activities, Campus Ministry, the WRC officers and faculty advisor. The students are preparing a letter asking to rescind their probation and will appeal if this request is denied.
- (2) The committee will work with the Kaneb Center group on the TCE question.
- (3) On the honor code, Prof. Stuart Greene will meet Rev. Tim Scully, C.S.C., vice president and senior associate provost.
- (4) Prof. A. Edward Manier has volunteered to help plan the forum on the Boyer Report.

B. Administration: The chair, Prof. Ikaros Bigi, reported on two issues.

- (1) On the framework for a faculty alcohol policy, the committee has prepared a text to be presented to the Senate in January for transmittal with an appropriate cover to the Academic

Council, emphasizing the need for continued Senate involvement as the proposal moves through the system.

(2) The committee had invited Rev. Bill Beauchamp, C.S.C., executive vice president, to meet with them to discuss the recent athletic department situation, but he has declined. The exchange of correspondence is printed as Appendix B of this journal. The committee is preparing a second letter to him, to be prepared by Prof. Richard Sheehan, to indicate again that the Senate feels strongly that it is in the University's interest to set the record straight, and this opportunity with a Senate committee is quite an appropriate venue to do so.

C. Academic Affairs: The chair, Prof. Gregory Sterling, reported on the following:

- (1) Prof. Felicitas Munzel will represent the committee for the Boyer Report forum.
- (2) The committee's library space planning report will be ready for the January meeting.
- (3) A subcommittee is working on the tenure issue for a later meeting.
- (4) The committee will present its CIC/Big Ten report under "New Business" later in this meeting. He asked that several corrections be made before transmitting it to the Board of Trustees. The report passed by a vote of seven in favor, none opposed, and one abstention in the committee; two members who were absent asked to be voted as in support.

D. Benefits: The chair, Prof. Thomas Cosimano, reported as follows:

- (1) The committee is arranging a meeting with Human Resources Director Roger Mullins.
- (2) Its agenda for the second semester will consist of these issues: a clarification of the University policy on oral contraceptives and its inclusion in the descriptions of health insurance plans to be offered; issues involving insurance for retirees, such as long-term care, medical plans and subsidies; and faculty tuition benefits.

Professor Detlefsen asked Professor Sheehan to report on the renovation plans in the Joyce Center. Professor

Sheehan represents the Senate in the planning process, along with Profs. Mario Borelli, Frank Bonello and Dian Murray. He said there were no changes to report. Coaches have been asked to evaluate their space needs to see if changes are warranted, but there is no money available for renovations at this time.

New Business

Professor Sterling presented a resolution from the Academic Affairs Committee (no second needed), recommending the University and Board of Trustees enter into negotiations to become a member of the Committee on Institutional Cooperation (CIC). He spoke on behalf of the committee in favor of the resolution. The committee approved the resolution. A report on this action will be sent to the Board of Trustees.

Professor Sterling said that Notre Dame does well in comparing itself to the existing CIC schools on undergraduate education, but not so well on graduate education. The greatest benefit to the University by joining would therefore be to our research and graduate programs. The report analyzed CIC programs and clustered them in major groupings for analysis. He was surprised that some CIC programs were underutilized, like the travelling scholars program for graduate students. This would be valuable for Notre Dame to have access to; if we could tell an incoming graduate student that he/she could spend a year elsewhere studying a subfield in his/her discipline, this would be a major attraction. In addition it might result in better job opportunities in a crowded job market. For the University as a whole, membership would encourage participation and sustained interaction at every level, and this is a great benefit in keeping abreast of what our sister institutions are doing. Our academic reputation may well be enhanced by membership, but it would not mean an automatic change from R2 to R1 or membership in the AAU. However, we would have potential allies to lobby for us and more support in becoming a member of AAU. The difference membership in CIC would bring would be in the perceptions of those who run other institutions.

Professor Sterling tried not to overstate the benefits of membership. It would not change Notre Dame. Any changes that would come would still be up to us, to make the most of the new opportunities available. But the implications are significant: our "benchmarks" would change and we would be up against the CIC institutions. The report indicated several potential liabilities, but the committee agreed these would not materialize (loss of our Catholic identity or loss of our standing as a national university). The committee believed Notre Dame would maintain control of its destiny.

A full discussion of the report ensued. Prof. William Eagan asked why Notre Dame was so worried about magazine rankings; he knows of a #1 ranked veterinary school that lost its accreditation. Is the potential of joining the Big Ten just another manifestation of this? Professor Sterling, responding directly, said the committee did not put much weight on those rankings, and he doesn't believe Notre Dame should adapt to their criteria. But these rankings are taken seriously by parents, and others, so we must pay attention to the perceptions they represent. The National Research Council (NRC) rankings, on the other hand, are taken seriously — they are important within the academy for evaluation and affect us mightily in improving ourselves. Professor Bigi said joining the CIC would put Notre Dame in the right company and may well help us, but he was unconvinced that the CIC schools represent the highest standards; he was not totally convinced of the advisability of joining. Professor Sterling responded that individually not every CIC institution was strong across the board, but as a group they are very strong. The CIC is a unique consortium, maybe comparable only to the California system and is an opportunity for us to measure ourselves and our improvement. Professor Bigi wondered if we would pressure the Administration for more resources if we joined. Professor Sterling said yes, of course, and hoped the Board would see the big picture. Joining is one step, and utilizing membership is the next. Improvement especially in graduate education would come only when the Administration gives it greater attention.

Professor Eagan, in a point of order, asked that statements be directed to the chair. Professor Detlefsen reminded members of the rule, but indicated that for purposes of this discussion, Professor Sterling may answer with the consent of the chair.

Professor Borelli asked Professor Sterling to talk about the liabilities of membership. Professor Sterling said there were two main ones: loss of identity as a national university and loss of our Catholic character. The committee believed neither would happen. Notre Dame will still recruit students nationally and internationally, and its faculty will still be drawn from the best schools; conference affiliations have not tied Stanford, Northwestern and Duke to "regional" labels. On the Catholic character issue, this remains up to us; the CIC will not dictate anything. If Notre Dame does what it should do, we will maintain our Catholic identity.

Porter spoke in favor of the resolution, saying that not only would our reputation and ranking improve, but also we would see immediate practical benefits that would improve our research and academic life. Prof. Richard Lamanna worried that, if graduate students went elsewhere for a year, they may not return; especially for a small department this would be difficult. Professor Quinn admitted there was some, unquantifiable risk, but in his department (philosophy) students have gone to Arizona, Brown, Cambridge, and all have returned. They go when they are far enough along in their research that they've got a lot invested here already, and transferring would only lengthen their time as a student. Professor Detlefsen supported Professor Quinn's statement and added that he had recruited two Mellon Fellows with the promise that they could do research for a time at another institution. There would be no harm in this program. Professor Sterling, taking a different view of the issue, said that Notre Dame is better than its "numbers" indicate, and people realize that when they are here. He didn't believe that having this kind of program available would result in any defections. Further, the program works both ways: we would be attractive to students at other CIC in-

stitutions for some of our stellar programs, and these students would serve as good advertisements when they returned to their home campuses.

Professor Sheehan asked for the floor. He felt the report was a good one, but still he may not vote in favor of the resolution. The report itself didn't overstate the case but he felt the third "whereas" was not supported by the report. He offered a friendly amendment to the resolution which Professor Sterling and the committee supported. Also Professor Sheehan was disturbed that the potential cost issues of membership were not addressed. To join the CIC and the Big Ten was a one-way step, one that couldn't be reversed, and he worried that membership might change Notre Dame's focus from undergraduate to graduate education. The non-academic cost issues made him uncomfortable in supporting the resolution.

Prof. Theodore Cachey wondered about the relationship between this resolution and the forum which the chair had mentioned in his report. Professor Detlefsen said the report and resolution resulted from a request which the chair of the board's academic and faculty affairs committee had made to him in October for a report on the academic ramifications of joining the Big Ten; he asked for the report by December, in time to consider before the board's meeting in London in February. The forum, in his view, would seem to strengthen the case made in the report, inform the faculty, and give all faculty the opportunity to speak out on the issues, thus broadening the conversation. Professor Cachey was concerned that the adoption of the resolution at this time would preclude discussion and conversation. Professor Detlefsen did not share that concern, and said the Senate would find out via the forum if indeed it was ahead of faculty opinion. Professor Sterling said the forum might be useful in shedding light on the financial and athletic issues that troubled Professor Sheehan, and may also shed light on alumni views. It would be the single opportunity members of the Notre Dame community would have to voice their views, and thus would be very useful, if it could be held in a timely way.

Prof. Laura Bayard asked Professor Sterling if he believed that the forum idea might be hurt if the Senate did not pass the resolution. He explained that the resolution and the report are two separate items. No matter how the Senate votes on the resolution, the report would go the Board of Trustees. The conversation that the forum would encourage would be based on the report. The resolution actually is only one piece of the puzzle and is limited to membership in the consortium. Prof. Richard Williams questioned if the CIC had indicated that there was something at Notre Dame that they wanted. What benefit would Notre Dame bring to the CIC? Professor Sterling replied that in his view the whole issue was driven by athletics — the Big Ten wanted the prestige of Notre Dame's joining. To him, if it were possible, he would join the CIC tomorrow without the Big Ten. Professor Borelli also wondered what Notre Dame offered the CIC. He pointed out that the University of Chicago and the University of Illinois at Chicago are members of the CIC but not the Big Ten, although he realized the histories behind these anomalies.

Professor Eagan moved the previous question, and Professor Borelli seconded. The motion failed, so discussion on the revised resolution continued.

Professor Cosimano wanted to support the resolution for its substantial academic benefits, but doubted that the Senate had all the information to make an informed decision. He knew we lacked financial and athletic issue information, and thought the resolution should be modified to reflect this. Professor Sterling said he and the committee had wrestled with that precise issue. They resolved the dilemma by concentrating on the academic issue, realizing that this was only one aspect of the larger decision to be made and further realizing that information on the financial and/or athletic issue could prove decisive on the matter. It would be very good for Notre Dame to join the CIC. The committee and their report cannot assess the other factors because they were beyond its scope and they sought no information on them.

Professor Bigi expanded on the costs of joining the CIC, and wondered if the academic benefits could ever outweigh them. Library and scholar exchanges are very good and would certainly strengthen the intellectual climate. But in the sciences, many such exchanges exist now, and are pursued; people he has spoken to at CIC universities do not even know they are in it. Maybe the interaction is different in the humanities, but in the sciences he doesn't expect huge academic benefits. Professor Sterling said a good many faculty members may never have heard of the CIC, but they and their institutions realize benefits from their membership. In any case, Notre Dame — if it joins — will make of its membership what it will. Professor Bigi accepted his statement, realizing that there are differences between the sciences and the humanities.

Professor Quinn, in response to one of Professor Sheehan's points, said membership in the CIC was indeed reversible — a school could resign from it — but he did not know about resigning from the Big Ten. He also didn't believe that Notre Dame would be under pressure to reform or do anything that it did not want to do. In response to Professor Cosimano's point, the resolution stated that Notre Dame "should enter into negotiations to join" the CIC; it is not any stronger than it needs to be.

Professor Porter, who supported the resolution, nevertheless appreciated the concerns expressed by senators and moved that the resolution be sent back to committee for further reflection. Professor Eagan seconded. Debate began on Professor Porter's motion to recommit with Professor Sheehan asking her to withdraw her motion in favor of an amendment he was about to propose. She agreed, pending his reading of his amendment. Professor Sheehan moved to change the resolution by dropping the "whereas" clauses and endorsing membership in the CIC on academic grounds. Professor Porter pointed out the proposal actually amounted to withdrawing the committee's resolution. There was no second to Professor Sheehan's amendment. Professor Borelli thought Professor Porter's

motion to recommit was more appropriate at this point especially because the resolution makes no mention of the Big Ten, only the CIC; Notre Dame is actually joining the Big Ten and only incidentally the CIC. This should be stated. Notre Dame has to make its own way and its own reputation in or out of the Big Ten.

Professor Porter sought the floor and moved to recommit the resolution, and Professor Eagan again seconded. Professor Conway, with Professor Eagan seconding, called the question on Professor Porter's move to recommit. The motion failed and discussion continued on the committee's revised resolution.

Professor Borelli called the question on the committee's revised resolution and Professor Quinn seconded. The motion passed, and the Senate voted on the committee's revised resolution, which Professor Sterling read:

Whereas, there are a number of real academic benefits for the library, graduate students, undergraduate students, faculty and University as a whole, by belonging to the Committee on Institutional Cooperation;

Whereas, the University of Notre Dame seeks to strengthen its research capability in graduate education; and

Whereas, the potential academic liabilities to membership in the Committee on Institutional Cooperation appear relatively small,

Be it resolved that the Faculty Senate recommends to the Officers of the University and the Board of Trustees that we enter into negotiations to become a member of the Committee on Institutional Cooperation.

The Senate voted in favor of the resolution: 25 in favor, 4 opposed, 1 abstention. The committee's report is printed as Appendix C of this journal.

Professor Manier noted that the volunteers for the Boyer Forum were from the College of Arts and Letters. He appealed for volunteers from other colleges to do a proper job on the forum. The chair invited all senators to remain for Christmas refreshments.

Professor Preacher moved to adjourn. Professor Lombardo seconded, and the Senate agreed, at 9:15 p.m.

Present: Asmus, Bayard, Bigi, Borelli, Cachey, Chetcuti, Conway, Cosimano, Costa, Davis, Deboer, Detlefsen, Dowd, Eagan, Edwards, Fein, Gaffney, Green, Greene, Lamanna, Lombardo, Manier, Munzel, O'Brien-O'Keeffe, Porter, Preacher, Quinn, Sheehan, Sterling, Williams, Wolbrecht, Rodriguez.

Absent: Affleck-Graves, Berry, Fraser, Hill, Paolucci, Ramsey, Renaud, Rivera, Wayne, Law.

Excused: Esch, Freeh, Jordan, McBrien, Stroik, Urbany.

Appendix A Chair's Report

My report tonight consists of seven items.

(1) Last month, I reported to you on an inquiry I made to Jennifer Younger, the University's Director of Libraries. It concerned faculty representation on the committee in charge of the libraries' renovations. I received a reply from Director Younger, but the reply did not adequately answer the questions I had put to her. In particular, it did not address the critical matter of non-library faculty representation on the committee. I have since tried unsuccessfully by phone to reach Director Younger for further clarification. Owing to that failure, I have written her a follow up letter asking her to address the following three questions.

- Who are the persons serving on this committee?
- By what means were they chosen for membership on the committee?
- What (if any) role is the University's Library Committee playing in the planning for the renovations?

I hope to be able to report some progress on this matter to you at next month's meeting.

(2) After last month's meeting, I received a request from Dean Eileen Kolman recommending that the Senate

stage a forum for the purpose of discussing the Boyer Commission's Report on undergraduate education. I put this proposal to the Senate's executive committee and they approved it. Accordingly, I am issuing a call for volunteers to help organize and conduct this session. I would ask that you let me know your willingness to serve in this capacity tonight. If I hear from no volunteers, I will ask the Student Affairs Committee and the Academic Affairs Committee to each name one person from their committees to oversee the planning of this forum.

(3) Recently, I was requested to stage a similar event for the general purposes of exchanging information and facilitating general faculty discussion of the matter of Notre Dame's possible entry into the Big Ten and the CIC. If such a discussion is to have any impact on the decision that the university ultimately reaches regarding this matter, it must take place before the February meeting of the Board of Trustees at which meeting the President has said that he intends to make a recommendation on this matter. There is, therefore, a relatively narrow time frame in which to plan and execute such a meeting. Unless I hear general opposition to the idea tonight, I will assume that you approve of the idea of having such a discussion and will proceed with its planning.

(4) I have been contacted by Barbara Walvoord of the Kaneb Teaching Center inviting Faculty Senate participation in the design of a better teaching evaluation instrument at Notre Dame. I ask any interested persons to contact me to help define and organize this participation. Failing the appearance of volunteers, I will ask the Student Affairs Committee to appoint a person to serve in this capacity.

(5) If you're at all like me, you've come to approach this season with a sense of dread. Not dread of Christmas, of course, but dread of the grueling and senselessly laborious matter of library renewal as it has hitherto existed at Notre Dame. If that is so, you will have been gladdened by the wondrous news this year of a much more rational and less tedious method

of library renewal. This is a matter that was taken up with considerable energy in recent years by the Senate's Academic Affairs Committee. The new procedure reflects ideas expressed by the Faculty Senate during that time and is a perfect example of how the Senate can and should serve the faculty in matters of everyday concern. This one event alone can be expected to free Notre Dame faculty from thousands of mind-numbing, unproductive person-hours of labor every year. In recognition of their enlightened action on this matter, I would encourage each of you to contact Jennifer Younger and Sue Dietl of the library and thank them for their efforts on our behalf.

(6) After last month's meeting, I received a letter from one Scott A. Sandage, assistant professor of history at Carnegie Mellon University. At his request I will now read this letter into the minutes of the meeting.

(7) Finally, I am pleased to report that, at their November meeting, the Academic Council voted to approve the proposal of the Faculty Senate to include sexual orientation as a characteristic to be protected by the university's non-discrimination clause. The President opened discussion of this item by saying that he had decided to recommend rejection of the proposal to the Board of Trustees at its February meeting. Despite this, a meaningful discussion ensued and, when the vote was taken (by secret ballot), the result was 19 for, 15 against and 2 in abstention. I'm sure that I speak for you when I thank all those who played a role in drafting, moving and passing this resolution in last spring's Senate (and/or its ancestor in May of 1996). In addition, I'm sure I speak for you when I thank those of our colleagues on the Academic Council who voted its approval.

This concludes my report.

Respectfully,

Mic Detlefsen, Chair

Carnegie Mellon
Department of History
Carnegie Mellon University
Pittsburgh, Pennsylvania 15213-3890
(412) 268-2880
Fax: (414) 268-1019

November 11, 1998

Dr. Michael Detlefsen, Chair
Faculty Senate
University of Notre Dame
Notre Dame, IN 46556

Dear Professor Detlefsen:

Recently, Professor Gregory Dowd invited me to apply for a vacant professorship in American history at Notre Dame. Apparently, my name came up as an award-winning scholar and innovative teacher. Applying to join the eminent history faculty of an internationally renowned university like Notre Dame would have been a great opportunity, and I believe I would have been a strong candidate. But I had to inform Professor Dowd that however much I might want Notre Dame, Notre Dame would not want me because I am openly gay.

From the educational press and the academic grape vine, I was well aware of recent incidents and policies aimed at lesbians, gays, and other sexual minorities at Notre Dame. The conversion of GLND/SMC into the administratively restricted group, NDLAGS — forbidden by charter to elect its own officers or invite speakers to campus assaults the core of the educational mission: to foster freedom of expression among articulate and well-trained young people. Last spring, a department in the College of Business Administration removed a top job candidate from its short list, simply because he informed the search chair that he was gay. This suggests that the concepts of meritocracy and academic freedom are unknown or unprotected at Notre Dame. Such widely-known incidents mar the reputation of a distinguished university and can only harm Notre Dame's efforts to recruit new faculty, as it has in my case.

As a historian and educator, I believe that universities exist to lead the way

into the future, not the past. I do not envision a gay future for America or for Notre Dame, but simply one with a uniform standard of equality. I have been in a committed relationship with another man for 15 years, since I was 20 years old. I could no more hide him, at university functions or in any other area of my life, than could any other faculty member with a long-term partner.

I decided to write this letter to urge everyone at Notre Dame — students, staff, faculty, and administrators — to support the current proposal to add sexual orientation to the university's nondiscrimination clause. As I understand it, the Fighting Irish have always been the embodiment of the good guys. Good guys don't discriminate; they fight for truth and justice — for everyone.

Sincerely,

Scott A. Sandage
Assistant Professor of History
National Endowment for the Humanities Fellow, 1998

P.S. I would be happy for you to read this letter into the minutes of the faculty senate. S.S.

Appendix B

November 1, 1998

Fr. W. Beauchamp
Executive Vice President
University of Notre Dame

RE: Invitation

Dear Father Beauchamp,

As chair of the Faculty Senate's Committee on the Administration of the University I have been designated by my committee and the Faculty Senate as a whole to invite you to a meeting of our committee at some mutually convenient time. We would like to discuss with you the events leading up to the recent jury trial in the Joe Moore case as well as its ramifications for the University and its decision making procedure. You are undoubt-

edly as pained by the highly embarrassing publicity this case has generated in the national media as are many members of the faculty.

Our focus is not on which concrete steps the Athletic Department has undertaken to avoid a recurrence of such events as came out during the suit. We are concerned particularly to understand

- the reasons for the University's going forward with the trial, and
- in which way and to which degree the expertise was utilized that is available at the University.

We view it as important that the faculty learns about such grave matters not primarily from media reports and quotes from various lawyers involved, but from you who was actually involved in the University's decision making. We also think you will welcome the opportunity to present to the faculty a reliable account of the University's rationale behind certain decisions and to clear up misinformation that might have been reported in the media.

We realize how crowded your own schedule is. For that reason, we would like to make it as convenient as possible for you to meet with the Committee on Administration. Could you perhaps suggest a few dates and times between the middle of November and early December when you might be able to join us for this discussion? Later afternoons and early evenings would be best for us, but we are open to consider whatever options you might offer us. I would expect the meeting to last between an hour and an hour and a half at most. Prior to the meeting we would send you a few questions to provide a basis for our discussion.

Thank you for your attention to this request. We look forward to hearing from you and to meeting with you soon. Since I will be in Japan Nov. 2-11, it would be most practical for me if you could send me your reply by e-mail to bigi@undhep.hep.nd.edu; I can read such a message from Japan. Otherwise you can direct your reply to me at: Dept. of Physics, NSH, Notre Dame.

In the meantime, be assured of our appreciation for all that you do for Notre Dame.

Sincerely yours,

Ikaros Bigi
Chair of the Committee on the Administration of the University
Professor of Physics
e-mail address:
bigi@undhep.hep.nd.edu

November 4, 1998

Professor Ikaros Bigi
Department of Physics, NSH
University of Notre Dame

Dear Professor Bigi:

I am in receipt of your invitation to attend a meeting of the Faculty Senate's Committee on the Administration of the University to discuss the Joe Moore lawsuit and trial. Specifically, you have indicated the interest of the Committee in information related to the decision of the University to go forward with the trial, and the various expertise and information that was used in arriving at this decision. While I understand the interest of the Committee in this matter, especially in light of the manner in which the trial has been treated by the television and print media, I respectfully decline your invitation.

There are a number of reasons for my not appearing to discuss this issue with the Committee. First of all, the case has not yet been fully resolved. The attorneys for Joe Moore have indicated their intention to appeal some of the decisions made by the judge in this case, particularly the amount of attorney's fees that were awarded. In addition, to fully respond to your inquiry about the reasons that University went forward with the trial would require my making available confidential and proprietary information that would be inappropriate to divulge in the forum you have suggested.

Finally, decisions regarding legal matters at the University, including determinations as how to proceed or not proceed in individual cases, are ultimately the responsibility of the University's officers and board

of trustees. The Joe Moore case and relevant issues associated with it have already been fully reviewed by the appropriate individuals and bodies of the University.

I hope that you receive this letter in the manner in which it has been sent. While I appreciate the interest of the Faculty Senate in matters of importance to the University, its programs and reputation, as well as the dedicated service of the members of that body in promoting the best interests of Notre Dame, it is important that the necessary confidences and lines of responsibility be preserved.

With all best wishes.

Sincerely,

(Rev.) E. William Beauchamp, C.S.C.
Executive Vice President

Appendix C

The Academic Implications of Joining the CIC

A Report of the Academic Affairs Committee of the Faculty Senate
The University of Notre Dame
Fall 1998

The decision to indicate whether the University of Notre Dame would or would not accept an invitation to join the Big Ten Athletic Conference and the Committee on Institutional Cooperation (CIC) is a complex issue that must take into account numerous factors. These include considerations about academics, athletics, finances, identity, and the reputation of the university. The range of these considerations makes this decision different than the decision to join the Big East which was a limited athletic commitment. This decision will not only involve the entire athletic program, but the university *as an academic institution*. As faculty who are committed to improving the excellence of the university, we offer the following report and recommendation based on the academic implications of joining the CIC. The focus of this report is restricted to academic considerations; other concerns will be addressed only to the extent that they impinge on aca-

democratic factors. We offer it as an important part, but only a part, of the complex of factors that must be weighed in the decision.

The CIC and Notre Dame

The CIC. The CIC is the academic consortium of the Big Ten. It is now forty years old (1958-98). The coalition rests on three principles (CIC Homepage):

- no single institution can or should attempt to be all things to all people;
 - inter-institutional cooperation permits educational experimentation and progress on a scale beyond the capability of any single institution acting alone;
 - voluntary cooperation fosters effective, concerted action while preserving institutional autonomy and diversity.
- As an academic enterprise, the provosts of the member institutions oversee the consortium. At present the CIC consists of twelve institutions on thirteen campuses:

- The University of Chicago
- The University of Illinois (Urbana-Champaign)
- The University of Illinois (Chicago)
- Indiana University
- The University of Iowa
- The University of Michigan
- Michigan State University
- The University of Minnesota
- Northwestern University
- Ohio State University
- Pennsylvania State University
- Purdue University
- The University of Wisconsin (Madison)

Other institutions participate in some of the programs sponsored by the CIC, but these are the member institutions. This cadre is unique in the academic world: there is not another consortium that serves to unite such a collection of significant universities in as close a collaborative relationship as the CIC. The closest analogy is the University of California system; however, it is a single system rather than a consortium of independent systems. The CIC currently produces 15-20 percent of all Ph.D.s in the United States; in some fields the percentage is as high as 50 percent (Roger Clark, Director of the CIC). It is easily the most important intellectual force in the Midwest and one of the most significant in the country.

Notre Dame and the CIC. A comparison between Notre Dame and the members of the CIC is revealing. The most obvious point of comparison is that like the University of Chicago and Northwestern but unlike the other schools in the CIC, Notre Dame is a private university. Predictably these private universities are much smaller than their public peers. On the other hand, the three private universities enjoy the highest rankings in the most recent *U.S. News and World Report* (1999):

INSTITUTION	OPEN RANK	RANK AS PUB. UNIV.
<i>First Tier</i>		
Northwestern	10	
Univ. of Chicago	14	
Univ. of Notre Dame	18	
Univ. of Michigan	25	4
Univ. of Wisconsin (Madison)	36	8
Univ. of Illinois (Urb.-Cham.)	42	10
<i>Second Tier</i>		
Univ. of Minnesota	51-117	17
Ohio State Univ.	51-117	23
Univ. of Iowa	51-117	26
Indiana Univ. (Bloomington)	51-117	30
Michigan State Univ.	51-117	35
Purdue Univ.	51-117	36
<i>Third Tier</i>		
Univ. of Illinois (Chicago)	118-172	

While the *U.S. News and World Report* bases its rankings on the entire institution, its orientation is to undergraduate education: it is designed to assist students select the best university or college to attend as an undergraduate. One of the reasons why we do exceptionally well is that we draw our undergraduate students from a selective pool of students throughout the nation. State schools must serve a greater range of constituents in their region. A comparison with the best public university in the CIC makes this clear. Our selectivity rank in the *U.S. News and World Report* ranking is 18th, while the University of Michigan has a selectivity rank of 37th. The percentage of our entering class who come

from the top ten per cent of their high school class is 82 percent; the University of Michigan has only 59 percent in the top ten percent.

The situation changes appreciably if we compare graduate programs. The two most significant measures of a research university are its classification in the Carnegie Classification System and membership in the Association of American Universities (AAU). All of the current constituents of the CIC are R1 institutions and members of the AAU. Notre Dame is an R2 institution and is not a member of the AAU. Perhaps the easiest way to grasp the reasons for these differences is through the latest report of the National Research Council (the survey was taken in 1992 and published in 1995). Unlike the *U.S. News and World Report* rankings that are weighted toward undergraduate education, this report focuses exclusively on graduate programs and research. There are two ways in which the differences between our graduate and research programs and those of CIC institutions are most obvious.

First, there are quantitative differences. The table on the following page sets out the critical criteria. The first column deals with Ph.D. programs and requires a word of explanation. There are discrepancies between the total number of Ph.D. programs reported in the survey and the number that were ranked. We have placed the reported total first and the actual number that were ranked second in parentheses. The total number of forty-one represents the number of Ph.D. programs surveyed: some institutions offer more than forty-one doctorates.

Institution	Ph.D. Programs in Survey (41 total)	Research & Development (Avg. \$ per year Aug 1986-92) (x1000)	Library Volumes (1992)	Library Serials (1992)	No. of Grad. Students (1992)
UC	30	96,971	5,578,937	45,613	6,921
IL UC	37	193,703	8,281,456	91,026	10,118
IL C	22 (21)	72,828	1,782,637	21,119	6,790
IU	28	76,798	5,438,860	39,929	NA
IA	33 (32)	95,103	3,317,265	40,047	7,057
MI	41 (38)	261,942	6,699,359	70,691	NA
MSU	31	112,209	2,934,376	27,876	7,094
MN	39 (37)	243,425	5,008,637	52,018	NA
NW	30	105,856	3,642,790	37,424	6,245
ND	22	16,835	2,252,029	21,727	1,949
OSU	39 (38)	149,064	4,693,081	33,010	NA
PSU	39 (36)	198,662	3,421,370	31,707	NA
PU	25 (24)	113,010	2,076,302	14,139	NA
WI	39 (38)	266,703	5,424,299	46,651	10,479

Second, there are substantial qualitative differences in the graduate programs. Of the forty-one Ph.D. programs surveyed in the report Notre Dame offers twenty-two. The following table illustrates how our twenty-two programs compare to the same programs among institutions in the CIC. The table indicates the number of programs in ranking groups (for details see Appendix One).

Institution	1-10	11-25	26-50	51-100	101-
UC	10	6			
IL UC	8	4	9		
IL C		1	3	13	
IU		6	8		1
IA		2	10	8	
MI	9	10	2		
MSU			17	3	
MN	4	11	5	1	
NW	4	8	7		
ND		4	6	9	3
OSU		10	8	3	
PSU	1	7	8	5	
PU	3	4	5	6	
WI	8	12			

If we include the other nineteen programs in the survey, we get the following results (for details see Appendix Two).

Institution	1-10	11-25	26-50	51-100	101-
UC	18	10	2		
IL UC	10	12	15		
IL C		1	4	16	
IU		14	12		2
IA		6	16	10	
MI	14	21	3		
MSU		1	24	6	
MN	5	17	14	1	
NW	6	13	11		
ND		4	6	9	3
OSU	2	14	16	6	
PSU	3	12	13	8	
PU	5	4	6	9	
WI	14	20	4		

The same pattern holds true for rankings of professional schools and programs in the *U.S. News and World Report* rankings (1998): nine CIC Business Schools rank ahead of us, at least ten CIC engineering programs, and six CIC Law Schools (see Appendix Three for details).

These and other similar rankings are not flattering to the graduate and research programs at the University of Notre Dame. Most of us believe that we are better than the rankings indicate for a number of reasons. The NRC rankings do not factor size into their equations: the small size of our graduate and research programs and the absence of a medical school hurts us. The rankings depend heavily on long-standing reputations and therefore often lag behind the reality: some departments have made significant progress since the data was collected for the last report. Nevertheless, the rankings do point out the fact that we are stronger in our undergraduate programs than we are in our graduate and research programs.

Summary. The result of assessing our undergraduate and graduate programs vis-à-vis the CIC through the two best known ranking systems indicates that the greasiest possible advantage the CIC offers the University of Notre Dame is at the graduate and research level since this is where the CIC is stronger. Conversely, we offer the CIC greater diversity since we are a private university with an exceptionally fine undergraduate record.

Benefits

The first step in assessing the impact of joining the CIC is to explore the possible benefits. We begin with an assessment of the programs that the CIC offers to its constituent institutions. There are a number of smaller projects that are also available—some of which we will mention later—but these are the major programs:

• Alliance for Success (AFS)

This is a collaborative effort among CIC schools, five historically Black colleges and universities, and two Hispanic serving institutions to promote minority presence in graduate

schools and faculties. AFS administers the Summer Research Opportunities Program (see below).

• Center for Library Initiatives

The Center for Library Initiatives is an attempt to build a mega-library out of the individual libraries of the CIC schools. It administers numerous programs (see below).

• Foreign Language Enhancement Program (FLEP)

FLEP awards twenty-seven scholarships of up to \$1500 to graduate students of CIC institutions each summer to help defray living expenses when they travel to another campus to study infrequently taught languages.

• High Performance Computational Science Program (HPCSP)

HPCSP promotes collaboration between CIC institutions and the National Computational Science Alliance (NCSA) that includes more than fifty universities and research institutions. NCSA is led headed by the National Center for Supercomputing Applications at the University of Illinois at Urbana-Champaign.

• Learning Technology Initiative (LTI)

LTI fosters the creative use of modern technology for educational purposes. It promotes both the innovative use of new technologies and the expertise of faculty in their use.

• Summer Research Opportunities Program (SROP)

SROP encourages sophomores and juniors from under-represented groups to work with a mentor on any CIC campus or IUPUI in an effort to encourage them to go on to graduate school.

• Traveling Scholar Program

This program enables doctoral students from any CIC institution to take course work, use laboratories, and engage in research in specialized library collections in any CIC institution without any fees beyond the fees at their own institution. Students may work for up to one year on another campus.

• Women in Science and Engineering Initiative (WISE)

WISE is an attempt by the CIC and three national organizations to promote gender equality among undergraduates, graduates, and faculty members in the fields of science, engineering, and mathematics.

If Notre Dame becomes a member of the CIC, we will have access to all of the programs and projects that the CIC offers, although we will not be required to participate in all. We may select those that have the greatest appeal to our own institutional needs. To illustrate those which we think have the greatest potential we have aligned the benefits with various constituencies at the university. There is, of course, a good deal of overlap for the various constituencies.

The Library. Membership in the CIC would offer the most tangible benefits to the library. The Virtual Electronic Library (VEL) of the CIC is at the forefront of the cooperative use of library facilities. At present when we use the electronic library catalogue (UNLOC), we have direct access to the electronic catalogues of Notre Dame, Bethel College, Holy Cross College, and Saint Mary's College. Membership in the CIC would make it possible for us to immediately access the electronic catalogues of the institutions in the CIC. Since in the former case we are the patron and in the latter case we are a client, it is to our advantage to enlarge our library through this means. Further, the CIC recently announced (10-16-98) the development of a program in collaboration with the Online Computer Library Center (OCLC) that will remove the paperwork from interlibrary loans by permitting the user to initiate the request electronically. This will expedite all interlibrary loans requests among CIC institutions. The best estimate is that it would cut the current average time period in half from two-four weeks to one-two weeks. It is safe to say that this feature would be a distinct advantage to virtually every member of the faculty and graduate student. We also believe that undergraduates would find this to be exceptionally useful, especially as they work in their majors during their junior and senior years.

Membership in the CIC would also benefit the library financially. For example, the size of the CIC allows it to purchase electronic licenses at a fifty percent discount through the Collaborative Access to Shared Electronic Resources project. In the past four years

it has purchased five million dollars worth of licenses. Since institutions pay for the specific services they receive and institutions have varying requirements, there is not a uniform cost or savings to each institution. It is, however, fair to say that each institution has saved a substantial amount in electronic license fees in the last four years. Similarly, we would be able to purchase electronic journals through the Electronic Journals Collection of the CIC. We might also benefit from cooperative collection development. A number of the institutions have distinctive library strengths. Other institutions do not need to duplicate these as long as they have access to them. We could advance areas that are important to us, while offering collections that are exceptionally strong in areas that are not important to us through other institutions in the CIC.

Finally, membership in the CIC would assist our preservation program in several ways: we would have ongoing and direct access to the expertise of others; we would be able to participate in the cooperative projects undertaken by libraries within the CIC; and we would be eligible for collaborative grants. For example, the Coordinated Preservation Microfilming Project of the CIC has already undertaken four separate projects in which more than 77,000 volumes have been preserved through microfilm.

Graduate Students. Graduate students could participate in the Traveling Scholars Program which permits graduate students from one institution to take courses or conduct research in another institution. The limitation of this program is that it requires students to locate at the other campus. The result is that participation has been more limited than what one might hope: at present approximately two hundred graduate students (out of 50,000) take advantage of this annually. In order to increase participation in other institutions, the CIC has developed another program, the Common Market of Courses and Institutes (CMCI) which will accomplish the same goal through electronic means. Specialized courses will be offered electronically to students in other in-

stitutions within the CIC. Since this will eliminate the geographical barrier, the CIC hopes to have an annual rate of participation of five hundred graduate students. The importance of this program should not, however, be viewed only in terms of actual participation. The program would also enable us to offer the program as an incentive to potential graduate students. For example, we do not have a Department of Near Eastern Studies. It would be a distinct advantage to tell some prospective students in Theology that they could take a year of course work at the Oriental Institute at the University of Chicago. Further, students who took advantage of this program and did well at the visiting institution would also be in a position to request letters of recommendation from faculty at two institutions which would give them an advantage when applying for a faculty position. The philosophy department has done this on an ad hoc basis with great success for a number of years. Membership in the CIC would give us a prearranged structure. Finally, students who came to Notre Dame from other institutions would serve as one of our best sources of advertisement when they returned to their home institution.

Undergraduate Students. The most popular program in the CIC is the Summer Research Opportunities Program (SROP). Each summer approximately six hundred and fifty undergraduate minority students work with mentors on research projects in their field of interest in order to prepare themselves for graduate school. This would offer us another opportunity to expand our efforts in minority recruitment and development at the undergraduate, and possibly graduate, level. There are also a number of summer travel programs that would enhance our undergraduate language instruction, e.g., the French Program in Quebec (a five week summer program at Laval University) and the Summer Program in Mexico (an eight-week program at the University of Guanajuato). Such programs would help some students who are unable to take advantage of our regular academic year abroad programs.

Faculty. The greatest benefits to faculty would be indirect: improved library services, more flexibility to assist graduate students with their programs, greater emphasis on collaboration, and the possibility of increased recognition as a research university. More directly, faculty could make use of the CIC as they wanted: they could participate in and cultivate collaborative projects or ignore the CIC. For those who wanted to work collaboratively, programs such as the Learning Technology Initiative offer real promise. Similarly, the numerous programs that promote gender equality and minority representation on the faculty would assist us as we attempt to make progress in these areas, e.g., WISE and the Directory of Minority Ph.D. and M.F.A. Candidates and Recipients. At minimum these programs would associate us with a group making a concerted effort to overcome what has proven to be a recalcitrant problem.

The University as an Institution. Perhaps the most important benefit that membership in the CIC would provide is the opportunity to interact with the schools of the CIC on a sustained and consistent basis at numerous academic levels. At present, Notre Dame is not only independent, but somewhat isolated in the academic world. While we have individual and group initiated collaborative projects, we do not have any that are institutional and persistent. CIC institutions work collaboratively and competitively on a regular basis. We would become part of that mix. We would stay informed of the latest developments in each of these institutions. We would also be challenged to stay abreast of these and to set the agenda where possible. In an era where scholarship and research are done collaboratively, this is of significant importance.

There is another less predictable, but very important consideration. Membership in the CIC might increase our academic reputation and permit us to advance in the basic classifications of research universities more quickly than we could if we remained outside the CIC. We do not believe that our rankings will automatically soar in the next National Research Council's re-

port simply because we join the CIC. The researchers for the NRC will gather all of the relevant data from departments in the future just as they have in the past. The difference will occur when others rank us for reputation. Membership in the CIC will associate us with R1 and AAU categories even if we do not officially belong. While it is impossible to predict the extent of influence this might have, it will be positive. It is also possible that we might enhance our chances of becoming a member of the AAU. If we make significant progress in our graduate and research programs, we might discover allies in the presidents of the CIC institutions who could lobby for us. We have no way of predicting whether they would or not; however, membership in the CIC increases the chances that they would. While membership in the AAU may not mean much to those outside academia, it means a great deal to those who control the power of American higher education.

Summary. As we have pointed out, there are real benefits for member institutions of the CIC. However, it is important not to overstate these. For example, the library already has access to all of the libraries in the CIC; our current access is simply less efficient. Similarly, the library can and does purchase material through various consortia. What we do not have is a default consortium. We must identify the best possible consortium for specific purchases and make arrangements to participate. Membership in the CIC would not therefore create a different library; it would facilitate and improve the current operations of the library appreciably. We could say the same thing about the advantages for both graduate and undergraduate students. Through a good deal of individual effort and ingenuity we can create ad hoc arrangements that approximate what the CIC offers. The cost for ad hoc arrangements is, however, often too great to undertake. The CIC offers us ready-made opportunities that are of real appeal. In sum, membership in the CIC will not remake our programs, it does offer us greater potential to advance what we already have. It would be up to us to take advantage of the possibilities.

Implications

The greatest implication that joining the CIC has is that it would change our benchmark. At present we typically view other private universities as our peer institutions. While this would not disappear — it has not for the University of Chicago or Northwestern — we would have to compete directly with the institutions in the CIC. The standards of the CIC would become the most immediate standards by which we and others would assess Notre Dame. Since the standards are high, this is worthwhile. We must also be realistic about how we fare in such comparisons. As we have already pointed out, we are exceptionally strong at the undergraduate level, but we do not fare nearly as well at the graduate level. This means that if we make this move, we need to redouble our efforts at the graduate level or face second class status. As faculty we have no desire to be second class citizens and assume that the administration and board of trustees share our perspective.

Some will challenge whether membership in the CIC is worthwhile if it requires that we give more attention to the graduate program. The fear is that we would become involved in a zero sum game: what we gained for the graduate program we would lose for the undergraduate. We do not believe this; rather, we are convinced that the two programs can be of mutual advantage if planned appropriately. For example, in the most recent external review of the biology department the reviewers wrote: "It is clear from our discussions with faculty and students that the undergraduate program has, in fact, improved substantially at the same time that the department's activities in research and graduate education have grown in size and improved in quality" (March 1997, p. 1). The coincidence in mutual progress was not accidental. Here are some of the ways that careful growth and cultivation of the graduate program could enhance our undergraduate program. The presence of a increased number of graduate students would help to raise the level of academic discourse among all students throughout the university. One of the

ways that this could happen would be more interaction between upper-class undergraduates and beginning graduate students in cross-listed courses. This is a regular feature of instruction at Ivy League schools and has worked with great success for the undergraduates. Similarly, the higher that we raise the standards for our graduate students, the better they will serve the undergraduates when they assist faculty in courses. Our strongest graduate programs have already proven this. There is also a direct link between our academic reputation as a graduate institution and the opportunities for our undergraduate students who want to continue their education. In short, we do not believe that we should not see the two programs as competing in either-or tension but as complementing one another in a both-and relationship.

Potential Liabilities

There are some potential negative implications of joining the CIC. The greatest potential liability of joining the CIC is the possible loss of our identity as an independent, national university. Would joining the CIC identify us as a Midwest university? We do not believe so. Stanford's position in the Pac-Ten has not regionalized it. The University of Chicago's and Northwestern's memberships in the CIC have not regionalized them. As long as we continue to draw our student body nationally and internationally, we will not be a regional university at any level.

The other major issue is whether membership in the CIC would affect the Catholic identity of Notre Dame. We do not see how it would in a direct way. The CIC recognizes the autonomy of each institution. Since our Catholic character is well known, the CIC could not accept us without accepting us as a Catholic institution. There is, however, an indirect issue that should be explored. There are numerous factors that contribute to our Catholic character. One of the key factors is the residential life of our undergraduates. Graduate school experience is a different matter: it is Catholic, but not in the same way. Since we are suggesting that the university would need

to expand the graduate program, we should ask how an expansion in the graduate program would affect our Catholic identity. If we doubled the current number of graduate students, we would still have a majority of undergraduates (and a large majority of Catholic students in all likelihood). It is our judgment that as long as the University maintains the current practice of undergraduate residential life, official university liturgies, the presence of the CSC, and continued emphasis on the departments that give the university its distinctive academic posture, the Catholic character of the University will not be jeopardized. We believe that we control the Catholic character of the University.

Resolution

Whereas, there are a number of real academic benefits for the library, graduate students, undergraduate students, faculty, and the university as a whole, by belonging to the Committee on Institutional Cooperation,

Whereas, there are no major liabilities to membership in the Committee on Institutional Cooperation,

Be it resolved that the Faculty Senate recommends to the officers of the University and the Board of Trustees that we enter into negotiations to become a member of the Committee on Institutional Cooperation.

Appendix One

NRC Rankings of the Twenty-Two Ph.D. Programs at Notre Dame and CIC Institutions

	Aerospace	Biochem. & Molecular Bio.	Cell & Dev. Bio.	Chemical Eng.
Total Number of Programs Ranked	33	194	179	93
University of Chicago		23.515		
University of Illinois (Urb.-Cham.)	14	34	27	5
University of Illinois (Chicago)		85	55	61
Indiana University		42.5	32	
University of Iowa		47	50	66.5
University of Michigan	5	23.5	30	18
Michigan State University		52.5	40	45
University of Minnesota	12	39	34	1
Northwestern		31	31	15
University of Notre Dame	25	183	135	24
Ohio State University	24	59.5	61	41
Pennsylvania State University	17.5	45	56	23
Purdue University	7	56	46	16
University of Wisconsin (Mad.)		8	16	4

	Chemistry	Civil Eng.	Ecology, Evolution, & Behavior	Economics	Elec. Eng.
Total Number of Programs Ranked	168	86	129	107	126
University of Chicago	10		1.5	1.5	
University of Illinois (Urb.-Cham.)	8	5	29	28	3
University of Illinois (Chicago)	63	63.5		71	65
Indiana University	16		30	44	
University of Iowa	76	29	61.5	30	53
University of Michigan	35	10	12	13	6
Michigan State University	39	41	34	27	44
University of Minnesota	21	13	15	10	18
Northwestern	14	9		9	39
University of Notre Dame	62	36.5	98	81.5	45
Ohio State University	22	40	46	34	22
Pennsylvania State University	18.5	32	26	45	28.5
Purdue University	24	11	51.5	50.5	8
University of Wisconsin (Mad.)	10	22	9	15	16

	English	History	Materials Science	Mathematics	Mechanical Engineering	Molecular & General Genetics
Total Number of Programs Ranked	127	111	65	139	110	103
University of Chicago	10	8		5		11
University of Illinois (Urb.-Cham.)	28	25	5	21	9	
University of Illinois (Chicago)	64	53		33	45	64
Indiana University	18.5	24		34.5		24
University of Iowa	45	29.5		62	53.5	42.5
University of Michigan	16	11	14.5	9.5	5	21
Michigan State University	60	48.5	50	48	43	36.5
University of Minnesota	36	21.5	17	14	8	39
Northwestern	29	16	2	28	12	
University of Notre Dame	63	59	60	46	37	73
Ohio State University	33	37.5	21	29	25	54
Pennsylvania State University	42	73.5	9	37	17	32.5
Purdue University	57	68	32	24.5	10.5	
University of Wisconsin (Mad.)	22	10	14.5	13	20.5	7

	Philosophy	Physics	Physiology	Political Science	Psychology	Religion	Sociology
Total Number of Programs Ranked	72	147	140	98	185	38	95
University of Chicago	12	7	11	6	18	1	1
University of Illinois (Urb.-Cham.)	36	8	20.5	30	5		29
University of Illinois (Chicago)	18	87.5	64		68		45
Indiana University	30	33.5	130	20	19.5		12
University of Iowa	51	73	12	25	36	26.5	40.5
University of Michigan	8	19	15.5	3.5	2		4
Michigan State University	59.5	32	47	27	46		42
University of Minnesota	32	22.5	72.5	13	7		24
Northwestern	25	37	26.5	22	24	23	9
University of Notre Dame	16	56	115	44.5	87.5	12	46
Ohio State University	24	24	41.5	17	21		25.5
Pennsylvania State University	55	55	37.5	69	32		18
Purdue University		31		58	29.5		52
University of Wisconsin (Mad.)	22.5	21	25	10	15		2

Appendix Two

NRC Rankings of the Nineteen Ph.D. Programs in CIC Institutions But Not at Notre Dame

	Anthropology	Art History	Astrophysics and Astronomy	Biomedical Engineering	Classics
Total Number of Programs Ranked	69	38	33	38	29
University of Chicago	1.5	10	5		7
University of Illinois (Urb.-Cham.)	14	26	13		17
University of Illinois (Chicago)				35	
Indiana University	29	24.5	28		
University of Iowa	43.5			24	
University of Michigan	1.5	11	25	11	3
Michigan State University	46				
University of Minnesota	50	30	24	17.5	24
Northwestern	34	8		14	
Ohio State University	66	29	23	26	21
Pennsylvania State University	32	34	21	19.5	
Purdue University					
University of Wisconsin (Mad.)	18.5	35	14		19

	Comparative Literature	Computer Sciences	French Language & Literature	Geography	Geosciences	German Language & Literature
Total Number of Programs Ranked	44	108	45	36	100	30
University of Chicago	12	24.5	16		7	
University of Illinois (Urb.-Cham.)	33	8	30.5	16	34	20
University of Illinois (Chicago)		51				
Indiana University	19	36	25	25	45	14.5
University of Iowa	30	62	26.5	17	68	
University of Michigan	15	21	9	21	18	
Michigan State University		53	39		82	21
University of Minnesota	28	47	26.5	3	31	11
Northwestern	17	38	29		21	
Ohio State University		39	30.5	5	45	17
Pennsylvania State University	27	54.5	33	1	12	27
Purdue University		26			40.5	
University of Wisconsin (Mad.)	37	10	11	2	22	10
	Industrial Engineering	Linguistics	Music	Neurosciences	Oceanography	
Total Number of Programs Ranked	37	41	65	102	26	
University of Chicago		6.5	2	22		
University of Illinois (Champaign)	13	18	10	41		
University of Illinois (Chicago)						
Indiana University		27	20			
University of Iowa	24		26	31		
University of Michigan	4	31	9	18		
Michigan State University		38	45	64.5		
University of Minnesota			30.5	34		
Northwestern	6		23.5	23		
Ohio State University	12	8	28	55		
Pennsylvania State University	9			67		
Purdue University	3			72		
University of Wisconsin (Mad.)	10	32	32	25	16	
	Pharmacology	Spanish Language & Literature		Statistics & Biostatistics		
Total Number of Programs Ranked	127	54		65		
University of Chicago	26	42		5		
University of Illinois (Champaign)		22		26		
University of Illinois (Chicago)	58.5			53.5		
Indiana University	122	20.5				
University of Iowa	19.5			35		
University of Michigan	13	13		24.5		
Michigan State University	36	36.5		30		
University of Minnesota	21	27.5		13		
Northwestern				33		
Ohio State University	53.5	33		29		
Pennsylvania State University	75	24.5		19		
Purdue University	90			10		
University of Wisconsin (Mad.)	12	7		8		

Appendix Three

Schools of Law

Rankings of Professional Programs at Notre Dame and the Schools of the CIC in *U.S. News & World Report* (1998)

Schools of Business

Institution	Rank
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Top Fifty

University of Chicago	6
Northwestern University	6
University of Michigan	10
Indiana University	21
Purdue University	24
Ohio State University	25
Michigan State University	27
University of Minnesota	27
Pennsylvania State University	31
University of Notre Dame	43

No Ranked School

University of Illinois (Urbana-Champaign)
 University of Illinois (Chicago)
 University of Iowa
 University of Wisconsin (Madison)

Schools of Engineering

Institution	Rank
-------------	------

Top Fifty

University of Illinois (Urbana-Champaign)	4
University of Michigan	4
Purdue University	8
University of Wisconsin (Madison)	12
Northwestern University	13
University of Minnesota	18
Pennsylvania State University	18
Ohio State University	25
Michigan State University	39
University of Iowa	46

No Ranked School

University of Chicago
 University of Illinois (Chicago)
 Indiana University
 University of Notre Dame

Institution	Rank
-------------	------

First Tier

	1-50
University of Chicago	4
University of Michigan	8
Northwestern University	12
University of Minnesota	18
University of Illinois (Urbana-Champaign)	20
University of Iowa	24
University of Notre Dame	25
Indiana University	37
University of Wisconsin (Madison)	37
Ohio State University	42

Second Tier

Pennsylvania State University	51-89
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Fourth Tier

Michigan State University	136-173
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No Ranked School

University of Illinois (Chicago)
 Purdue University

Awards Received and Proposals Submitted

In the period December 1, 1998, through December 31, 1998.

AWARDS RECEIVED

Category	Renewal		New		Total	
	No.	Amount	No.	Amount	No.	Amount
Research	6	4,357,192	8	700,853	14	5,058,045
Facilities and Equipment	0	0	0	0	0	0
Instructional Programs	0	0	0	0	0	0
Service Programs	0	0	2	5,104	2	5,104
Other Programs	0	0	5	67,950	5	67,950
Total	6	4,357,192	15	773,907	21	5,131,099

PROPOSALS SUBMITTED

Category	Renewal		New		Total	
	No.	Amount	No.	Amount	No.	Amount
Research	8	730,473	37	4,054,278	45	4,784,751
Facilities and Equipment	0	0	0	0	0	0
Instructional Programs	0	0	0	0	0	0
Service Programs	0	0	0	0	0	0
Other Programs	0	0	0	0	0	0
Total	8	730,473	37	4,054,278	45	4,784,751

Awards Received

In the period December 1, 1998, through December 31, 1998.

AWARDS FOR RESEARCH

Accountancy

H. Fred Mittelstaedt and John C. Olsen

The Investment Performance of the Chilean Pension System

TIAA-CREF

\$26,734 8 months

Aerospace and Mechanical Engineering

Hafiz M. Atassi

Hydrodynamics and Acoustics in Nonuniform Flows
Department of the Navy

\$26,877 12 months

Biological Sciences

Nora J. Besansky

Species Boundaries in the *Anopheles gambiae* complex
National Institutes of Health

\$186,970 12 months

David R. Hyde, Vecheslav A. Elagin, et al.

Mechanisms of Retinal Degeneration
National Institutes of Health

\$216,518 12 months

Charles F. Kulpa Jr.

Application of Molecular Tools to ID Microbial Activities
Chevron Oil Company

\$67,000 12 months

Civil Engineering and Geological Sciences

Clive R. Neal

Ocean Drilling Program

TAMRF

\$33,021 6 months

Chemical Engineering

Paul J. McGinn

Superconducting Micro Laminates
Purdue University

\$34,415 84 months

Chemistry and Biochemistry

Olaf G. Wiest

Mechanism and Models of DNA Photolyase
National Institutes of Health

\$93,483 12 months

Chemistry and Biochemistry

Seth N. Brown

Trimetallic Complexes as Mechanistically Novel Reductants

National Science Foundation

\$80,000 24 months

Graduate School

Peter Diffley

Fellowship for Kimberly Anne Wallace

Dolores Zohrab Liebmann Fund

\$19,400 12 months

Physics

Albert-László Barabási

Spatial Ordering of Self-Assembled Quantum Dots

Department of the Navy

\$100,000 36 months

David P. Bennett and Sun Hong Rhie

Detection of Extra-Solar Planets

National Aeronautical Space Administration

\$35,417 12 months

Jonathan R. Sapirstein

Weak and QED Radiative Corrections in Atomic Physics

National Science Foundation

\$38,210 12 months

Radiation Laboratory

Dan Meisel, John J. Bentley Jr., et al.

Effects of Radiation on Condensed Matter

Department of Energy

\$4,100,000 36 months

AWARDS FOR SERVICE PROGRAMS

Center for Pastoral Liturgy

Sr. Eleanor Bernstein, C.S.J.

Center for Pastoral Liturgy

Various Others

\$3,254 1 month

Center for Pastoral Liturgy

Various Others

\$1,850 1 month

AWARDS FOR OTHER PROGRAMS

Graduate School

Peter Diffley

Fellowship for John L. Linantud
Institute Study of World Politics
\$4,750 12 months

Fellowship for Elizabeth Groppe-Sniegocki
Dolores Zohrab Liebmann Fund
\$19,400 12 months

Fellowship for Christine Caldwell
Dolores Zohrab Liebmann Fund
\$19,400 12 months

Fellowship for Rachel Koopmans
Dolores Zohrab Liebmann Fund
\$19,400 12 months

James L. Merz

McGee Fellowship Program in Economics
McGee Foundation
\$5,000 12 months

Proposals Submitted

In the period December 1, 1998, through December 31, 1998.

PROPOSALS FOR RESEARCH

Aerospace and Mechanical Engineering

Mohamed Gad-el-Hak

Multimedia-Based Educational Courseware
National Science Foundation
\$54,341 24 months

Thomas J. Mueller

Propeller Blade Response to Inflow Distortion
Department of the Navy
\$84,996 12 months

John E. Renaud

Advanced Information Technology in Design
National Aeronautical and Space Administration
\$198,852 36 months

Art, Art History and Design

Jean A. Dibble

The Life in Physics
J.S. Guggenheim Memorial Foundation
\$30,000 12 months

The Life in Physics
American Academy in Rome
\$17,800 12 months

Robert Haywood

Intervention: Art, Happenings & Cultural Politics (1958-1970)
The Getty Grant Program
\$35,000 12 months

Robin F. Rhodes

The Early Temple of Apollo on Temple Hill in Corinth
American Council of Learned Societies
\$30,000 12 months

The Early Temple of Apollo on Temple Hill in Corinth
J.S. Guggenheim Memorial Foundation
\$30,000 12 months

Study of the Early Temple of Apollo at Corinth
National Humanities Center
\$30,000 12 months

Biological Sciences

Scott D. Bridgman

Retention of Soluble Organic Nutrients in Succession
University of Nevada
\$225,685 36 months

Jeffrey L. Feder

Molecular Systematics of *Rhagoletis pomonella*
National Science Foundation
\$182,875 36 months
Bioluminescence Color in Jamaican Click Beetles
National Science Foundation
\$323,557 36 months

Paul R. Grimstad

Arbovirus Surveillance Laboratory Service
Indiana State Department of Health
\$31,822 12 months

Alison F. Hunter

Dynamics of Outbreaking and Non-Outbreaking
Lepidoptera
National Science Foundation
\$287,097 36 months

Vicki J. Martin

Simple Neural Networks
National Science Foundation
\$349,106 36 months

Martin Tenniswood

Apoptosis and Tumor Invasion in Breast Cancer
Department of the Army
\$76,076 12 months

Civil Engineering and Geological Sciences

Ahsan Kareem

Directional Seas in Bay of Campeche
Ocean Engineering Service
\$15,000 12 months

Chemical Engineering

Joan F. Brennecke

Pan-American Cooperation Supplement to CTS95-22835.001
National Science Foundation
\$12,900 12 months

Hsueh-Chia Chang

Wave Enhanced Heat and Mass Transfer
National Science Foundation
\$10,000 12 months

Albert E. Miller

- Chalcogenide Quantum Dots as DNA Probe
Echem Innovations, Inc.
\$42,427 12 months
- Chalcogenide Quantum Dots - Fabrication of a Waveguide
Echem Innovations, Inc.
\$42,427 12 months

Eduardo E. Wolf

- STM and AXAFS Studies of Supported Catalysts
National Science Foundation
\$349,589 36 months

Chemistry and Biochemistry**Francis J. Castellino**

- Blood Coagulation Protein-Metal Ion-Lipid Interactions
National Institutes of Health
\$292,067 12 months

Paul M. Helquist

- Development of Virginiamycin-Based Antibiotics
National Institutes of Health
\$340,044 12 months

Marya Lieberman

- Bond Scission in Mono- and Multilayers
National Science Foundation
\$74,759 18 months

Marvin J. Miller

- Versatile Methodology for Asymmetric Synthesis
NSC Technologies
\$46,231 12 months

Victoria Ploplis

- Pathological Consequences of the Plasminogen System
National Institutes of Health
\$259,405 12 months

Bradley D. Smith

- Carboxylate Salt Receptors
National Science Foundation
\$355,069 36 months

Film, Television and Theatre**Donald Crafton**

- Joseph P. Kennedy Sr.'s Career in Film
J.S. Guggenheim Memorial Foundation
\$30,000 12 months

Economics**Teresa Ghilarducci**

- Making Retirement Work: The many Faces of Paternalism
J.S. Guggenheim Memorial Foundation
\$30,000 12 months

English**William A. O'Rourke**

- Edmund Wilson's Elbow
J.S. Guggenheim Memorial Foundation
\$30,000 12 months

Government and International Studies**Alan Dowty**

- The Thunderous Silence: Reaction to Iraqi Chemical Warfare
U.S. Institute of Peace
\$45,000 7 months

L. John Roos

- Three Women's Voices
National Humanities Center
\$30,000 12 months

A. Peter Walshe

- Removing the Wreckage of Apartheid
J.D. and C.T. MacArthur Foundation
\$70,016 12 months

History**Gail Bederman**

- Gender, Citizenship and Morality
J.S. Guggenheim Memorial Foundation
\$30,000 12 months

Classics**Asma Afsaruddin**

- Defining Leadership of the Muslim Polity
American Council of Learned Societies
\$20,000 12 months
- Defining Leadership of the Muslim Polity
American Research Center in Egypt, Inc.
\$30,000 9 months

Mathematics**Amarjit S. Budhiraja**

- Infinite Time Horizon Problems in Nonlinear Filtering
Department of the Army
\$74,922 36 months

Pit-Mann Wong

- Complex Analysis and Complex Geometry
National Science Foundation
\$118,505 36 months

Physics**Neal M. Cason, John M. LoSecco, et al.**

- Support for Brookhaven Experiment E-852
Brookhaven National Laboratory
\$116,574 16 months

Steven T. Ruggiero

- Single Electron Tunneling
Department of Energy
\$149,928 36 months
- Transport Properties of YBCO Thin Films
Purdue University
\$32,186 12 months

Ulyana I. Safronova

Relativity and Correlation for Atomic Systems

National Science Foundation

\$74,998

12 months

Radiation Laboratory**Dan Meisel**

Theoretical Characterization of Organic Reaction

Intermediates

William Wiley Environmental Molecular Laboratory

\$0

36 months

Sociology**Patricia Mei Yin Chang**

The Structuration of Denominational Labor Market

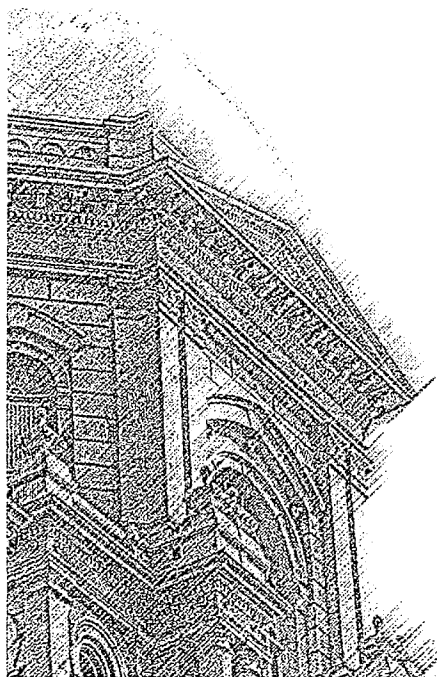
Processes

National Science Foundation

\$74,957

12 months

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