



Notre Dame

R E P O R T

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February 5, 1993

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1992-93

Brokaw Named Commencement Speaker

NBC nightly news anchor Tom Brokaw will be the principal speaker and the recipient of an honorary doctor of laws degree at the 148th Commencement exercises on May 16.

The Emmy Award winner serves as both anchor and managing editor of "NBC Nightly News with Tom Brokaw" and also anchors "The Brokaw Report," a series of periodic prime-time specials examining critical issues. He conducted the first exclusive one-on-one interview with Mikhail Gorbachev, subsequently winning the Alfred I. duPont Award for the report. He was the only American news anchor on the scene as the Berlin Wall fell and was the first American news anchor to report on human rights abuses in Tibet, including an exclusive interview with the Dalai Lama.

NBC News' White House correspondent during the Watergate era, Brokaw has reported on every presidential election since 1968. In 1976 and 1980 he was a floor reporter for NBC's coverage of the national political conventions; in subsequent elections he has been the anchor for all of the network's coverage, from primaries to conventions to election nights. He also has twice served as moderator for debates among presidential candidates.

Brokaw has received numerous awards for his work. He and "Nightly News" received an Emmy for outstanding coverage of the Romanian revolution and he also received an Emmy for the NBC News special, "China in Crisis." In 1990 he received the National Headliner Award from the National Conference of Christians and Jews for advancing the understanding of religion, race and ethnicity. Brokaw has written for publications including *The New York Times*, *The Washington Post*, *The Los Angeles Times*, *Sports Illustrated* and *Outside*.

Prior to becoming nightly news anchor, Brokaw was the host of NBC's Today show. He joined NBC News in 1966, reporting from California and serving as anchor on KNBC in Los Angeles. Previously, he had been the late evening news anchor on WBS-TV, Atlanta. He began his career in 1962 at KMTV, Omaha.

The Webster, S.D., native was graduated from the University of South Dakota with a bachelor's degree in political science in 1962. Now a member of the board of trustees of his alma mater, he has received an honorary degree there, as well as from Syracuse, Hofstra, and Duke Universities, Washington University in St. Louis, Boston College, and Emerson and Simpson Colleges. He also is a member of the board of trustees of the Norton Simon Museum; a trustee of Columbia University's Freedom Forum, a journalism think tank; and an advisor to the Asia Society.

Keck Foundation Supports Clinical Studies in Legal Ethics

Notre Dame has received a grant of \$250,000 from the W.M. Keck Foundation of Los Angeles to support a new program of clinical studies in legal ethics in the Notre Dame Law School.

The new program, conceived by Thomas L. Shaffer, Short professor of law, will examine issues of legal ethics in the light of cases undertaken by the law school's Legal Aid Clinic.

The clinic, co-directed by Eileen M. Doran and Barbara S. Gasperetti, both associate professional specialists in the law school, provides a wide variety of free legal services to poor people in Michiana. Each year, some 40 law students serve in the clinic, which operates year-round both from its offices in the Law School and at the Center for the Homeless in South Bend. The clinic has some 200 open cases at any given time. By serving in the clinic and taking the legal aid course associated with it, a law student may earn up to eight semester hours of credit.

The W.M. Keck Foundation was established in 1954 by the late William Myron Keck, founder of the Superior Oil Company, one of the nation's largest and most successful independent oil companies. Originally created to support accredited colleges and universities with particular emphasis on the sciences, engineering and medical research, the foundation has grown considerably under the leadership of the founder's son, Howard B. Keck, its current chairman, and is now one of the nation's largest charitable organizations.

Novak Establishes Scholarship

The University has received a \$100,000 pledge from George P. Novak, a 1964 alumnus and executive vice president and director of institutional sales for the Robinson-Humphrey Company in Atlanta, to establish a scholarship fund in memory of his mother, Minnie Pignatelli-Novak.

The scholarship, when fully funded, will support deserving undergraduate students in need of financial assistance. Applicants will be considered by filing the standard application for financial aid as described in University publications.

Faculty Notes

Honors

Keith J. Egan, adjunct professor of theology, has been appointed to the planning committee for a conference on Catholic Higher Education in the Twenty-First Century (June 1994) to be sponsored by St. Thomas University in St. Paul, Minn., and the Association of Catholic Colleges and Universities. He has been appointed to the advisory board of Concilium: Revue Internationale de Théologie, Nijmegen, The Netherlands.

John F. O'Malley, adjunct associate professor of biological sciences, has been selected as an "Outstanding Professor" by the class of 1992 at the Indiana University School of Medicine.

Laura J. Pyrak-Nolte, assistant professor of civil engineering and geological sciences, was appointed associate editor of *Journal of Geophysical Research — Solid Earth* for 1993-96.

Norlin G. Rueschhoff, professor of accountancy, was recognized as the inaugural editor of *Cosmos Accountancy Chronicle* at the seventh international conference on Accounting Education held in Arlington, Va., Oct. 8-10.

Activities

Ani Aprahamian, assistant professor of physics, gave an invited talk on "Vibrational Degrees of Freedom in Deformed Nuclei" at the XVIth Nuclear Physics symposium in Oaxtepec, Mexico, Jan. 5.

Hsueh-Chia Chang, chair and professor of chemical engineering, gave the invited lecture "Spatio-Temporal Chaos and Control on a Catalytic Wafer" and "Heat Transfer Enhancement by Chaotic Mixing" at the National Taiwan University in Taipei, Taiwan, China, Dec. 22. He presented "Heat Transfer Enhancement by Chaotic Mixing" at the National Tsing Hua University in Hsinchu, Dec. 23. Chang lectured on "Interfacial Chaos" at Tunghai University in Taichung, Dec. 23. He presented "Instabilities in Free Convection Near a Heated Plane," "Displacement of Liquid by Air Bubbles in Capillaries" and "Spatio-Temporal Chaos and Control on a Catalytic Wafer" to the Chemical Engineering Department at the National Cheng Kung University in Tainan, Dec. 26, 28, 30. He gave the invited lecture "Heat-Transfer Enhancement by Chaotic Mixing" to the Aeronautical Department at that university, Dec. 29. He presented "Interfacial Chaos" to the Mechanical Engineering Department at that university, Dec. 31.

Michael J. Crowe, professor in the Program of Liberal Studies and Graduate Program in History and Philosophy of Science, chaired the session "Sir John Herschel: Two Hundred

Years after His Birth" at the History of Science Society meeting in Washington, D.C., Dec. 29. He served on the panel for a roundtable discussion on "Critical Problems in the History of Mathematics" at that meeting, Dec. 28.

Roberto A. DaMatta, professor of anthropology and faculty fellow in the Kellogg Institute, gave a conference on "The Culture of Democracy" to the symposium on "Sociology of the City" at the conference sponsored by the Porto Alegre Department of Cultural Affairs and the City Hall in Porto Alegre, Brazil, Dec. 12.

William G. Dwyer, professor of mathematics, gave the invited talk titled "Maps with Domain a Symmetric Product" to the Mathematics Department at the University of Washington in Seattle, Wash., Jan. 6. He gave an invited seminar talk titled "Maps from Symmetric Products" in the Purdue University Mathematics Department in West Lafayette, Ind., Jan. 14.

Keith J. Egan, adjunct professor of theology, lectured on "Eucharist and the Carmelite Tradition" at the Centro Internazionale Sant Alberto in Rome, Italy, Sept. 28-Oct. 2. He served as a consultant at the conference on "Spirituality and Higher Learning" of the Lilly Fellows Program in Humanities and the Arts at Valparaiso University in Valparaiso, Ind., Oct. 16-18. He lectured on "The Dark Nights of Pastoral Ministry" at the conference of Holy Cross Pastors at Moreau Seminary at the University of Notre Dame, Notre Dame, Ind., Oct. 22. Egan lectured on Medieval Carmelite Spirituality at the Washington Theological Union in Washington, D.C., Nov. 6.

J. Philip Gleason, professor of history, served as a commentator at a session on "Epistemic and Political Communities: Toward a Post-Ethnic Perspective" at the meeting of the American Historical Association in Washington, D.C., Dec. 29. He served as chair and commentator at a session on "The Secularization of America's Christian Universities and Colleges" at a joint session of the American Catholic Historical Association and the American Society of Church History in Washington, D.C., Dec. 29.

William J. Goralski, visiting assistant professor of art, art history and design, along with his class completed and presented a Product Design Project for a new market segment of a recreational vehicle sponsored by the Holiday Rambler Corporation (Division of Harley Davidson) at the corporate headquarters in Wakarusa, Ind., Dec. 10.

Lloyd H. Ketchum Jr., associate professor of civil engineering and geological sciences, presented "Wastewater Treatment Plant Sludges and Biosolids" at the Northern Indiana Operations Association monthly meeting in Elkhart, Ind., Jan. 6.

Faculty Notes

Scott P. Mainwaring, associate professor of government and international studies, wrote the paper "Political Institutions and Democratic Governance" and served as the rapporteur for the session on "Political Institutions" for "Brazil and the New World Order" which was sponsored by the Interamerican Dialogue in Washington, D.C., Dec. 14. He gave a lecture on "The Institutionalization of Party Systems in Latin America" at the Center for International Affairs at Harvard University in Cambridge, Mass., Dec. 15.

Richard R. Mendenhall, associate professor of finance and business economics, presented the invited paper "Naive Investors, Earnings Announcements, and Stock Price Movements" to the University of Chicago Graduate School of Business as part of the accounting research workshop series in Chicago, Ill., Jan. 7.

Anthony N. Michel, McCloskey dean and Freimann professor of electrical engineering, presented "Stability Preserving Mappings and Qualitative Equivalence of Dynamical Systems" at a workshop titled "Nonlinear and Stochastic Systems" held at Arizona State University in Tempe, Ariz., Dec. 14-16. He chaired a technical session titled "Stability" at the 31st IEEE conference on Decision and Control which was held in Tucson, Ariz., Dec. 16-18. Michel presented the papers "Robust Stability of a Class of Nonlinear Systems with Applications to Hopfield Neural Networks," "Qualitative Equivalence of Dynamical Systems with Applications to Discrete Event Systems," "Analysis and Synthesis of a Class of Discrete-Time Neural Networks with Nonlinear Interconnections," "Performance of Stochastic Adaptive Control in the Presence of Large High-Frequency Unmodelled Dynamics" and "Asymptotic Stability of Discrete-Time Systems with Saturation Nonlinearities" with K. Wang, D. Liu, J. Si and M. Radenkovic at the IEEE conference. Michel and Kaining Wang presented a paper titled "Qualitative Comparison Theory for Integro-Differential Equations: Results Involving Stability Preserving Mappings" at the joint Mathematics meeting of the AMS and MAA held in San Antonio, Tex., Jan. 13-16.

Jean Porter, associate professor of theology, delivered the paper "In the Wake of a Doctrine: A Reassessment of the Doctrine of the Natural Law as Developed in *We Hold These Truths*" at the second session of "Social Ethics in the Murray Tradition," a conference sponsored jointly by Notre Dame and the Woodstove Center, at Georgetown University in Washington, D.C., Oct. 31.

Frank K. Reilly, Hank professor of business administration, served as an advisor to the World Bank and the Government of Korea on liberalizing the Korean bond market for international investors in Seoul, Korea, Sept. 13-14. He presented a paper titled "Impact of a Global Capital Market on Measuring Systematic Risk and Evaluating Portfolio Performance" to the Korea Securities Research Institute in Seoul,

Korea, Sept. 15. Reilly presented the papers "An Analysis of the High Yield Bond Market" and the "Impact of a Dual Listing on the Tokyo Stock Exchange" at the University of Exeter, United Kingdom, Nov. 19-20.

Michael K. Sain, Freimann professor of electrical engineering, organized and chaired an invited session on "Algebraic and Geometric Methods in Generalized Linear and Nonlinear Systems" and presented the invited paper "Systems Singularity: The Module Theoretic Approach" at the international symposium on Implicit and Nonlinear Systems in Fort Worth, Tex., Dec. 14-15. As chair of the Axelby Award Committee, he presented the George S. Axelby Outstanding Paper Prize for the IEEE Transactions on Automatic Control at the conference on Decision and Control in Tucson, Ariz., Dec. 17.

Stephen C. Tegler, visiting faculty fellow in physics, and **Terrence W. Rettig**, associate professional specialist and concurrent associate professor of physics, presented the paper "Near-Infrared Spectroscopy and Imaging Polarimetry of RN091: Detection of Frozen H₂O, CO, and XCN in a Circumstellar Disk" at the national meeting of the American Astronomical Society in Phoenix, Ariz., Jan. 7.

Rev. Oliver F. Williams, C.S.C., associate provost and associate professor of management, presented "The Ethical Issues in New Investment in South Africa" at the J.L. Kellogg Graduate School of Management at Northwestern University in Evanston, Ill., Jan. 14.

Deaths

Francis M. Gregory Jr., Jan. 14. A member of the Law School Advisory Council, and a 1966 graduate of the Notre Dame Law School, Gregory was a partner in the Washington, D.C., law firm of Sutherland, Asbill and Brennan.

Suzanne Kelly, Jan. 18. A native of Tulsa, Okla., Kelly received a doctoral degree in history of science from the University of Oklahoma in 1964. In 1965 she joined the faculty of Notre Dame's General Program (now the Program of Liberal Studies), becoming one of the first two women to receive full-time faculty appointments in the University. She left Notre Dame in 1971 to teach at Carroll College in Helena, Mont., and at Stonehill College in North Easton, Mass. Kelly returned to Notre Dame in 1982 to direct the Religious Leaders Program, a course of academic and spiritual renewal for people in a variety of church ministries, remaining in that position until her retirement in 1991. During this period she also taught arts and letters core courses, was a consultant for the Master of Divinity program, and served at Logan Center as a guardian for several developmentally disabled people.

The Graduate School Research Division

Current Publications and Other Scholarly Works

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

COLLEGE OF ARTS AND LETTERS

American Studies

- Weber, H. Ronald
H.R. Weber. 1992. *The Midwestern Ascendancy in American Writing*. Indiana University Press, Bloomington, Indiana. xi + 252 pp.

Economics

- Kim, Kwan S.
E. Dussel and K.S. Kim. 1992. *De la Liberalización Comercial a la Integración Económica: El Caso de México*. *Investigación Económica*. 200(April-June):141-198.
K.S. Kim. 1992. *The Political Economy of Statism in South Korea*. Pages 234-256 in, Korea Economic Association, eds., *Economic Stabilization and Equity: 1992 Korea Economic Association Conference Proceedings*. Seoul, Korea.

English

- Kline, Edward A.
E.A. Kline. 1993. *The Guide to Teaching Writing*. Macmillan, New York, New York. iv + 128 pp.

Government and International Studies

- Dowty, Alan K.
A.K. Dowty. 1992. *The Political and Military Implications of the Gulf War in the Emerging New World Order*. Pages 13-33 in, B.-J. Lee and S.-C. Yang, eds., *The Changing World Order*. Korean Association of International Studies, Seoul, Korea.

History

- Gleason, J. Philip
J.P. Gleason. 1992. *The Jesuits and Modernity*. *Review of Politics* 54(Fall 1992):675-680.
Hamlin, Christopher S.
C.S. Hamlin and P.T. Shepard. 1993. *Deep Disagreement in U.S. Agriculture: Making Sense of Policy Conflict*. Westview, Boulder, Colorado. xvi + 319 pp.

Sociology

- Dasilva, Fabio B.
F.B. Dasilva and A. Hunchuck. 1992. *Everywhere and Nowhere: On John Cage and Maurice Merleau-Ponty*. *Music Review* 51(4):307-323.
F.B. Dasilva and A. Hunchuck. 1992. *Musical Spaces: A Phenomenological Analysis of John Cage's Variations IV*. *Music Review* 50(3/4):281-296.

Theology

- Page, Hugh R., Jr., Rev.
C.R. Ember, with the assistance of H.R. Page, Jr., M.M. Martin and T. O'Leary. 1992. *A Computerized Concordance of Cross-Cultural Samples*. Human Relations Area Files, New Haven, Connecticut.
Rev. H.R. Page, Jr. 1992. *Abor*. Pages 3-6 in, D. Levinson and P. Hockings, eds., *Encyclopedia of World Cultures*, Volume 3. G.K. Hall and Company, Boston, Massachusetts.
Rev. H.R. Page, Jr. 1992. *Baiga*. Pages 18-22 in, D. Levinson and P. Hockings, eds., *Encyclopedia of World Cultures*, Volume 3. G.K. Hall and Company, Boston, Massachusetts.
Rev. H.R. Page, Jr. 1992. *Bondo*. Pages 48-51 in, D. Levinson and P. Hockings, eds., *Encyclopedia of World Cultures*, Volume 3. G.K. Hall and Company, Boston, Massachusetts.
Rev. H.R. Page, Jr. 1992. *Burusho*. Pages 54-56 in, D. Levinson and P. Hockings, eds., *Encyclopedia of World Cultures*, Volume 3. G.K. Hall and Company, Boston, Massachusetts.
Rev. H.R. Page, Jr. 1992. *Kanbi*. Pages 117-118 in, D. Levinson and P. Hockings, eds., *Encyclopedia of World Cultures*, Volume 3. G.K. Hall and Company, Boston, Massachusetts.
Rev. H.R. Page, Jr. 1992. *Khasi*. Pages 122-126 in, D. Levinson and P. Hockings, eds., *Encyclopedia of World Cultures*, Volume 3. G.K. Hall and Company, Boston, Massachusetts.
Rev. H.R. Page, Jr. 1992. *Lakher*. Pages 144-148 in, D. Levinson and P. Hockings, eds., *Encyclopedia of World Cultures*, Volume 3. G.K. Hall and Company, Boston, Massachusetts.
Rev. H.R. Page, Jr. 1992. *Mikir*. Pages 174-176 in, D. Levinson and P. Hockings, eds., *Encyclopedia of World Cultures*, Volume 3. G.K. Hall and Company, Boston, Massachusetts.
Rev. H.R. Page, Jr. 1992. *Nagas*. Pages 186-192 in, D. Levinson and P. Hockings, eds., *Encyclopedia of World Cultures*, Volume 3. G.K. Hall and Company, Boston, Massachusetts.

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Rev. H.R. Page, Jr. 1992. Purum. Pages 242-245 in, D. Levinson and P. Hockings, eds., Encyclopedia of World Cultures, Volume 3. G.K. Hall and Company, Boston, Massachusetts.

Rev. H.R. Page, Jr. 1992 Sadhu. Pages 251-252 in, D. Levinson and P. Hockings, eds., Encyclopedia of World Cultures, Volume 3. G.K. Hall and Company, Boston, Massachusetts.

Rev. H.R. Page, Jr. 1992. Thadou. Pages 287-289 in, D. Levinson and P. Hockings, eds., Encyclopedia of World Cultures, Volume 3. G.K. Hall and Company, Boston, Massachusetts.

Yoder, John H.

J.H. Yoder. 1992. IESU No SEIJI, Translation of the Politics of Jesus 1972. Shinkyō Shuppansha, Tokyo, Japan. 349 pp.

COLLEGE OF SCIENCE

Biological Sciences

Adams, John H.

J.H. Adams, X. Fang, D.C. Kaslow and L.H. Miller. 1992. Identification of a Cryptic Intron in the *Plasmodium vivax* Duffy Binding Protein Gene. *Molecular and Biochemical Parasitology* 56:181-184.

Tweedell, Kenyon S.

K.S. Tweedell and K. Lazar. 1992. Protein Profiles of Embryonic, Adult and Transformed Frog Kidney Cells. *In Vitro Cell and Developmental Biology* 28A:588-590.

Chemistry and Biochemistry

Jacobs, Dennis C.

P.L. Stricklin and D.C. Jacobs. 1992. Long-Term Wavelength Stabilization of a Commercial Pulsed Dye Laser. *Applied Optics* 31(33):6983-6986.

Mozumder, Asokendu

A. Hitachi, T. Doke and A. Mozumder. 1992. Luminescence Quenching in Liquid Argon under Charged-Particle Impact: Relative Scintillation Yield at Different Linear Energy Transfers. *Physical Review B* 46(18):463-470.

Mathematics

Dwyer, William G.

W.G. Dwyer, E.M. Friedlander and S.A. Mitchell. 1992. The Generalized Burnside Ring and K-Theory of a Ring with Roots of Unity. *Kluwer Academic Publishers* 285-300.

Hu, Bei

A. Friedman and B. Hu. 1992. A Free Boundary Problem Arising in Superconductor Modeling. *Asymptotic Analysis* 6(2):109-133.

Stoll, Wilhelm F.

W.F. Stoll. 1992. Shiing-Shen Chern's Influence on Value Distribution. Pages 121-155 in, Chern - A Great Geometer of the Twentieth Century, International Press C. Ltd., Hong Kong.

COLLEGE OF ENGINEERING

Aerospace and Mechanical Engineering

Powers, Joseph M.

M.J. Grismer and J.M. Powers. 1992. Comparison of Numerical Oblique Detonation Solutions with an Asymptotic Benchmark. *American Institute of Aeronautics and Astronautics Journal* 30(12):2985-2987.

Yang, Kwang-tzu

K.-T. Yang and D. Mukutmoni. 1993. Computational Aspects of Studies of Buoyant Enclosure Flows. Pages 23-41 in, W. Nakayama and K.-T. Yang, eds., Computers and Computing in Heat Transfer Science and Engineering. Begell House, CRC Press, Inc., Boca Raton, Florida.

W. Nakayama and K.-T. Yang, eds. 1993. Computers and Computing in Heat Transfer Science and Engineering. Begell House, CRC Press, Inc., Boca Raton, Florida. 573 pp.

Civil Engineering and Geological Sciences

Halfman, John D.

J.D. Halfman. 1992. Review of Principles, Methods and Applications of Particle Size Analysis. *Journal of Paleolimnology* 7(3):257-258.

Ketchum, Lloyd H., Jr.

L.H. Ketchum, Jr. and G.A. Gilot. 1992. Retired Volunteers Protect Wellheads. *U.S. Water News* 9(6):21.

Electrical Engineering

Antsaklis, Panos J.

J.A. Stiver and P.J. Antsaklis. 1992. Modeling and Analysis of Hybrid Control Systems. *Proceedings of the 31st IEEE Conference on Decision and Control, Tucson, Arizona, December 16-18, 1992*, 3748-3751.

School of Architecture

Alhasani, Nadia M.

N.M. Alhasani. 1992. Reflections of Two Cultures: The Separating Wall as Signifier. Pages 13-16 in, A.N. Santos and M.S. Ubbelohde, eds., Making Environments: Technology and Design. ACSA.

The Graduate School Research Division

RADIATION LABORATORY

Kamat, Prashant V.

M. Gevaert and P.V. Kamat. 1992. Photochemistry of Fullerenes. Excited-State Behavior of C_{60} and C_{70} and Their Reduction in Poly (methyl methacrylate) Films. *Journal of Physical Chemistry* 96(24):9883-9888.

M. Gevaert and P.V. Kamat. 1992. Visible Laser-Induced Oxidation of C_{70} on Titanium Dioxide Particles. *Journal of the Chemical Society, Chemical Communications* (19):1470-1472.

Mozumder, Asokendu

See under Pimblott, Simon M. 1992. *Journal of the Chemical Society, Faraday Transactions* 88(20):2989-2994.

Pimblott, Simon M.

S.M. Pimblott and A. Mozumder. 1992. Geminate Ion Recombination in Anisotropic Media: Naphthalene. *Journal of the Chemical Society, Faraday Transactions* 88(20):2989-2994.

UNIVERSITY LIBRARIES

Ames, Charlotte A.

C.A. Ames. 1992. Catholic Pamphlets and Pamphleteers: A Guide to Indexes and Collections. *Records of the American Catholic Historical Society of Philadelphia* 103(1):1-16.

The Graduate School Research Division

Awards Received and Proposals Submitted

In the period November 1, 1992, through November 30, 1992

AWARDS RECEIVED

Category	Renewal		New		Total	
	No.	Amount	No.	Amount	No.	Amount
Research	10	842,188	14	607,331	24	1,449,519
Facilities and Equipment	2	32,722	0	0	2	32,722
Instructional Programs	1	17,903	0	0	1	17,903
Service Programs	0	0	0	0	0	0
Other Programs	<u>0</u>	<u>0</u>	<u>1</u>	<u>77,740</u>	<u>1</u>	<u>77,740</u>
Total	13	892,813	15	685,071	28	1,577,884

PROPOSALS SUBMITTED

Category	Renewal		New		Total	
	No.	Amount	No.	Amount	No.	Amount
Research	6	993,986	23	4,144,653	29	5,138,639
Facilities and Equipment	0	0	10	3,917,011	10	3,917,011
Instructional Programs	3	581,158	1	163,791	4	744,949
Service Programs	0	0	0	0	0	0
Other Programs	<u>0</u>	<u>0</u>	<u>2</u>	<u>282,843</u>	<u>2</u>	<u>282,843</u>
Total	9	1,575,144	36	8,508,298	45	10,083,442

The Graduate School Research Division

Awards Received

In the period November 1, 1992, through November 30, 1992

AWARDS FOR RESEARCH

Aerospace and Mechanical Engineering

- Batill, S.
Time Domain Parameter Identification
NASA - Ames Research Center
\$36,444 12 months
- Mueller, T.
Experimental Inversion and Simulation Propeller Blade
Department of the Navy
\$19,164 12 months
- Atassi, H.
Hydrodynamics and Acoustics in Nonuniform Flow
Department of the Navy
\$70,000 17 months
- Skaar, S.
Camera-Based Manufacturing Control
Department of the Navy
\$71,864 36 months
- Camera-Based Manufacturing Control
Department of the Navy
\$23,955 36 months
- Mueller, T.
Experimental Inversion and Simulation Propeller Blade
Department of the Navy
\$57,493 12 months

Biological Sciences

- Fuchs, M., Burns, J.
Use of a 'Model Bee' to Test the 'Dance Language Hypothesis'
Indiana Academy of Science
\$846 12 months
- Fuchs, M., Conklin, D.
Role of Arginine Vasotocin in Rainbow Trout
Indiana Academy of Science
\$1,109 12 months
- Fuchs, M., Runde, J.
Effects of Increased Suspended Sediments on Hydropsychids
Indiana Academy of Science
\$603 12 months

Chemical Engineering

- McCready, M., Chang, H., et al.
Study of Disturbances in Fluid-Fluid Flows
National Aero. Space Administration
\$99,687 12 months

Chemistry and Biochemistry

- Szmuszkovicz, J.
Unrestricted Research
Upjohn Co.
\$10,000 12 months
- Lappin, A.
Stereoselectivity in Electron Transfer
National Science Foundation
\$73,600 36 months
- Basu, S.
Glycolipid Metabolism in Normal and Pathological Tissues
National Institute of Health
\$169,046 12 months
- Tannor, D.
Control of Photochemical Reactions
Department of the Navy
\$124,499 30 months

Electrical Engineering

- Lent, C., Porod, W., et al.
Quantum Transport
Department of the Air Force
\$132,554 12 months
- Huang, Y., Liu, R.
Music and Esprit for Array Signal Processing
Department of the Navy
\$25,666 25 months
- Music and Esprit for Array Signal Processing
Department of the Navy
\$77,001 34 months

Government and International Studies

- Johansen, R.
Lilly Endowment Faculty Open Fellowship - 1992-1993
Lilly Endowment, Inc.
\$20,000 6 months

Mathematics

- Shaw, M., Himonas, A.
Partial Differential Equations and SCV
National Science Foundation
\$49,000 36 months

The Graduate School Research Division

Physics

Newman, K.
Studies of Ordering in Ternary and Multinary Semiconductors
Department of the Navy
\$19,997 27 months

Studies of Ordering in Ternary and Multinary Semiconductors
Department of the Navy
\$59,991 36 months

Bunker, B.
EXAFS Studies of Semiconductor Microstructure
Department of the Navy
\$30,000 60 months

EXAFS Studies of Semiconductor Microstructure
Department of the Navy
\$90,000 60 months

Lundeen, S.
Fast Beam Studies of Excited States of Atoms and Molecules
National Science Foundation
\$187,000 36 months

AWARDS FOR FACILITIES AND EQUIPMENT

Physics

Tomasch, W., Furdyna, J.
Magneto Dissipation in Superconductors
Purdue University
\$9,886 24 months

Blackstead, H.
Microwave Dissipation in High Temperature Superconductors
Purdue University
\$22,836 36 months

AWARDS FOR INSTRUCTIONAL PROGRAMS

Psychology

McCabe, S.
Student Experiential Program of Work with Homeless and Elderly
Retirement Resource Foundation
\$17,903 12 months

AWARDS FOR OTHER PROGRAMS

Government and International Studies

Kommers, D.
American Constitutionalism in Comparative Perspective
National Endowment for the Humanities
\$77,740 12 months

Proposals Submitted

In the period November 1, 1992, through November 30, 1992

PROPOSALS FOR RESEARCH

Aerospace and Mechanical Engineering

Atassi, H.
Aerodynamics and Aeroacoustics of Nonuniform Flows
NASA - Lewis Research Center
\$175,841 12 months

Renaud, J.
MDO Algorithm Development for Electronic Package Design
American Society of Mechanical Engineers
\$68,906 12 months

Gad-el-Hak, M.
Air Flow Characteristics of a Throttled Body
Chrysler Challenge Fund
\$63,565 12 months

Dunn, P., Thomas, F.
Flutter Exciter Response to Imposed Stochastic Forcing
NASA - Ames Research Center
\$38,561 21 months

School of Architecture

Younes, S.
Nineteenth Century Architectural Theory
Graham Foundation
\$11,055 12 months

Biological Sciences

McAbee, D.
Molecular Basis of Lactoferrin-Cell Interactions
National Science Foundation
\$903,334 60 months

Kulpa, C.
Biodesulfurization of Oil
Energy Biosys Corp.
\$116,024 12 months

Martin, V.
Hydra Embryogenesis
National Science Foundation
\$294,426 36 months

Saz, H.
Intermediary Metabolism of Helminths
National Institute of Health
\$227,465 12 months

The Graduate School Research Division

Biological Sciences

Lamberti, G.
Impact of Zebra Mussels on Unionid Clams
Indiana Department of Natural Resources
\$5,043 12 months

Civil Engineering and Geological Sciences

Makris, N.
Response of Pile Foundations under Seismic Excitation
American Society of Civil Engineers
\$48,510 12 months

Pyrak-Nolte, L.
Multiphase Flow through Cleats in Coal
Gas Research Institute
\$198,865 12 months

Interface Waves for Fracture Characterization
National Science Foundation
\$238,913 36 months

Chemical Engineering

Brennecke, J.
Spectroscopic Studies of Supercritical Fluids and Liquids
C. & H. Dreyfus Foundation, Inc.
\$121,644 36 months

Computer Science and Engineering

Cohn, D.
Distributed Computing Using Workstations/Personal Systems
International Business Machines
\$300,000 12 months

Bass, S.
CORDIC Array on a Single VLSI Chip
National Science Foundation
\$70,851 12 months

Center for the Study of Contemporary Society

Hallinan, M.
Longitudinal Study of Tracking in Middle and Secondary School
Spencer Foundation
\$179,521 24 months

Electrical Engineering

Alcock, C.
Corrosion Studies of Oxide Electrolytes in Molten Salts
Argonne National Laboratory
\$10,000 3 months

Development of Sulfur-Tolerant Electrode Materials
Argonne National Laboratory
\$19,999 4 months

Stevenson, R.
Discontinuity-Preserving Stochastic Models
Institute for Electric/Electronic Engineering
\$49,769 12 months

Lobund Laboratory

Pollard, M.
Soybeans in the Prevention of Prostate Cancer
Indiana Soybean Development Council
\$197,074 12 months

Mathematics

Wong, P.
Theory of Several Complex Variables
National Science Foundation
\$120,290 36 months

Knight, J.
Recursive Model Theory and Nested Priority Constructions
National Science Foundation
\$113,878 36 months

Physics

Tegler, S., Rettig, T.
Relative Abundance of Ices in Disks Around T Tauri Stars
NASA - Goddard Space Flight
\$45,000 36 months

Wayne, M.
A Scintillating Fiber Detector for DO
Department of Energy
\$818,745 60 months

LoSecco, J.
Study of Rare and Exotic Mesons
National Science Foundation
\$238,437 12 months

Ruggiero, S.
Single-Electron Tunneling
National Science Foundation
\$399,495 60 months

Single-Electron Tunneling
Department of Energy
\$60,778 12 months

Sociology

Aldous, J., Elston, T.
Doctoral Dissertation Research in Sociology
National Science Foundation
\$2,650 12 months

The Graduate School Research Division

PROPOSALS FOR FACILITIES AND EQUIPMENT

Aerospace and Mechanical Engineering

Batill, S., Renaud, J.
Development of a CAD/CAM Instructional Laboratory
National Science Foundation
\$196,440 12 months

Anthropology

Schurr, M., Bellis, J.
Geophysical Sensing Equipment for the Archaeology Field
School
National Science Foundation
\$39,200 30 months

Civil Engineering and Geological Sciences

Neal, C.
Interdisciplinary Microscopic Analysis
National Science Foundation
\$89,680 24 months
Halfman, J., Pyrak-Nolte, L., et al.
Field Equipment for Environmental Geology and Civil
Engineering
National Science Foundation
\$56,342 31 months
Gray, K., Gaillard, J.
ILI for Undergraduate Environmental Analytical
Chemistry
National Science Foundation
\$137,512 36 months

Chemical Engineering

Hill, D.
Undergraduate Experiments in Polymer Science
National Science Foundation
\$125,574 30 months

Chemistry and Biochemistry

Helquist, P.
Purchase of GCMS Instruments
National Science Foundation
\$103,593 12 months
Purchase of NMR Spectrometer
National Science Foundation
\$155,798 12 months

Computer Science and Engineering

Cohn, D., Lumsdaine, A., et al.
A High-Performance Multiprocessor Computing Research
Facility
National Science Foundation
\$2,949,517 60 months

Electrical Engineering

Stevenson, R., Bauer, P.
Real-Time Digital Signal Processing Laboratory
National Science Foundation
\$63,355 30 months

PROPOSALS FOR INSTRUCTIONAL PROGRAMS

Aerospace and Mechanical Engineering

Mueller, T.
NASA National Space Grant College and Fellowship
Program
Purdue University
\$109,050 12 months

Center for Educational Opportunity

Blake-Smith, D., Smith, R.
Upward Bound
Department of Education
\$467,108 12 months

Chemical Engineering

Varma, A.
REU Supplement
National Science Foundation
\$5,000 12 months

O.S.I.P.A.

Borelli, M.
P.W.M.E.G.S.
Department of Education
\$163,791 11 months

PROPOSALS FOR OTHER PROGRAMS

University Libraries

Miller, R., Jordan, L.
Nationally Accessible Records for University of Paris
Department of Education
\$159,890 12 months
Fuderer, L., Jordan, S.
The Eric Gill Collection
Department of Education
\$122,953 12 months

Notre Dame

R E P O R T

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Linda M. Diltz, Editor
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Publications and Graphic Services
415 Main Building
Notre Dame, IN 46556
(219) 239-5337

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