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the university

special notice

The copy deadline and publication date for Notre Dame Report #20 have been changed to June 29 and July 15, respectively. Please note these dates so that all year-end submissions make it into this last issue.

university endowment ranking

Notre Dame's \$203,767,000 endowment is the 18th largest among United States colleges and universities, according to a survey published in the Chronicle of Higher Education.

This is the highest position attained by the University since the trade publication started to rank endowments by their market value at the end of the most recent fiscal year.

Harvard University's \$1.7 billion leads all institutions of higher learning in the country, followed by the University of Texas system with \$1.6 billion, the only state school among endowment leaders. Seven members of the Ivy League are among those ahead of Notre Dame. The nearest Catholic institution to Notre Dame is Loyola University, Chicago, ranked 39th with an endowment of \$95 million.

Other Indiana institutions listed among the 194 institutions were Earlham College, 67th, \$46.3 million; Saint Mary's College, 119th, \$18 million; Indiana University, 142nd, \$14 million, and the University of Evansville, 174th, \$5.8 million.

administrators' notes section begun

A new section has been added to the <u>Notre Dame Report</u> -- "Administrators' Notes." Included in this section is a listing of administrative staff who have received University appointments, professional honors or awards, those involved in professional activities of a public nature, and those with current publications. The information required for each activity submitted will be the same as for "Faculty Notes": name, rank, title of presentation, workshop or lecture, place and date. The staff member must have actively participated in, not just attended, the meeting. Only those activities which have occurred within the last six months will be accepted.

Appointments, honors and activities should be mailed to Notre Dame Report, Room 415 Administration Building, Notre Dame.

<u>Current publications</u> of administrators should be mailed to the Division of Research and Sponsored Programs, Room 314, Administration Building, Notre Dame. See <u>Notre Dame Report #13</u> for the first listing of this new section.

greiner engineering graduate fellowships

A dual need for the expanded training of students interested in consulting engineering careers and replacement of reduced federal support has produced a two-year Notre Dame graduate fellowship program funded by Greiner Engineering Sciences, Inc., of Tampa, Fla.

The concept behind the fellowship benefits the University, the firm providing support and the students involved by adding one semester to a student's graduate program, allowing concentration in one particular field and extra courses in general engineering practices to prepare for a consulting career. Over two years, Greiner will provide \$28,800 for tuition, fees and living expenses.

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faculty motes

honors

Theodore M. Crovello, professor and chairman of biology, was elected to a three-year term on the Board of Directors of the Biological Sciences Curriculum Study. The organization creates books and computer programs used in schools throughout the nation.

Evelyn A. Early, assistant professor of anthropology, was recently appointed to the program committee for the 1983 National Meetings of the Middle East Studies Association.

<u>John J. Gilligan</u>, director of the White Center for Law and Government, was re-elected for a second three-year term to the National Governing Board of Common Cause.

Douglas W. Kmiec, associate professor of law, published a major study on land use deregulation (in Volume 130 of the University of Pennsylvania Law Review) which has recently been selected as one of the ten best articles of the year on property, land use, and environmental law. Kmiec's article was selected from over 170 articles by two review boards, consisting of 40 law professors from major academic institutions around the United States. The article will be reprinted in a special edition of the Land Use and Environment Law Review to be published later this year.

Rev. David T. Tyson, C.S.C., executive assistant to the President and assistant professor of management, was appointed to the Executive Board of Project Future, South Bend. Project Future is an economic development program established through the combined efforts of the South Bend-Mishawaka communities to promote the commercial and industrial expansion of the area.

activities

<u>Hafiz Atassi</u>, professor of aerospace and mechanical engineering, presented a paper entitled "Entropic and Vortical Disturbances of Potential Flows" at the 10th Annual Midwestern Fluid Mechanics Retreat held at Geneva Center, Rochester, Ind., April 7-9.

Stephen M. Battil, associate professor of aerospace and mechanical engineering, presented a paper entitled "High Contraction Ratio Wind Tunnel Inlet Design" at the 59th semi-annual Supersonic Tunnel Association Meeting held at the U.S. Air Force Academy, Colorado Springs, Col., April 5-8.

Harvey A. Bender, professor of biology, presented the Sigma Xi Regional Lectures at Denison University, Granville, Ohio, on Feb. 18. The two talks were entitled "Withholding of Medical Care to the Genetically Handicapped Newborn" and "Genetic Counseling: A Case Study Approach."

<u>Alan B. Cain</u>, assistant professor of aerospace and mechanical engineering, presented a paper entitled "A Model for Segregated Chemically Reacting Flows" at the 10th Annual Midwestern Fluid Mechanics Retreat held in Rochester, Ind., April 7-9.

Wendy Carlton, assistant professor of sociology, gave a talk entitled "Health, Humor and Hosannas: Managing Role Stress as a Wife, Mother, and Professional Woman" to the American Association of University Women, South Bend, Ind., on April 11.

Stephen Carpenter, assistant professor of biology, presented two seminars at the Department of Biological Sciences, State University of New York, Binghamton, April 20-25. The titles were "Spatial Pattern of Aquatic Plants: Ghosts of Fish Nests Past" and "Biotic Regulation of Lake Ecosystem Productivity."

<u>Dino S. Cervigni</u>, associate professor of modern and classical languages, read a paper entitled "Cellini's <u>Vita</u>: Renaissance Autobiography and the Emergence of the Modern Novel" at the Central Renaissance Conference, Indiana University, Bloomington, Ind., April 7-9.

George B. Craig, Jr., Clark professor of biology, presented a talk entitled "Mosquito Productivity in St. Joseph County, Indiana" at the Indiana Vector Control Association, Bloomington, Ind., March 7. He conducted a seminar, "Vector Competence for Arboviruses in Treehole Mosquitoes," at Oklahoma State University, Stillwater, on March 11.

Theodore J. Crovello, professor and chairman of biology, presented an invited paper at the Special Symposium of the Systematics Association in Southampton, England, on Dec. 17. The title of his paper was "BRASS BAND (The Brassicaceae Data Bank at the University of Notre Dame): An Example of Data Base Concepts in Systematics." He presented a seminar entitled "Computers in Biological Education" to the Department of Biological Sciences, Purdue University, W. Lafayette, Ind., Feb. 17. He conducted a workshop with the same title for about 60 science educators in Fort Wayne, Ind., on Feb. 23. "Computers and Society" was the topic of an invited address he delivered at Manchester College, Manchester, Ind., on March 7. Crovello presented the special Challenges in Science address entitled "Computers in Biological Education" at Wheaton College, Wheaton, Ill., on April 8.

Norman Crowe, associate professor of architecture, presented a paper entitled "International Values and the Architectural Treatise" to the Annual Symposium of the Association of Collegiate Schools of Architecture, Santa Fe, N.M., on March 21. The subject of the Symposium was "Architectural Values and World Issues."

Carson Daly, assistant professor of English, gave an invited lecture entitled "Secular Humanism and Catechesis" to a convention on Secular Humanism in Dallas, Tex., on April 16.

Bernard Doering, assistant professor of modern and classical languages, delivered a lecture entitled "Maritain, Bernanos and Green on the Problem of Evil and Suffering" at the faculty colloquium of the Modern and Classical Language Department on March 24. He delivered an invited lecture on "Jacques Maritain and Julien Green on the Problem of Suffering" at the American Maritain Association Convention in New York on April 8.

John G. Duman, associate professor of biology, presented a paper, "An Ice Nucleator Protein from a Freeze Tolerant Insect, Vespula maculata," at the FASEB (Federation of American Society for Experimental Biology) meetings in Chicago, Ill., April 11.

<u>Evelyn A. Early</u>, assistant professor of anthropology, joined two scholars from the French Institute in Damascus, Syria, in December and January in a collaborative research project on the history of Raqqa, Syria. They will report their findings at an International Symposium on Raqqa in the fall of 1985. Early co-chaired a meeting of the Midwest Middle East Faculty Consortium in Chicago, where she also presented a paper, "Syrian Popular Culture."

Harald E. Esch, professor of biology, demonstrated the "Use of Microcomputers as Physiological Recorders" in the teaching resources exhibition at the FASEB meetings in Chicago, Ill., April 10-14.

<u>Linda C. Ferguson</u>, assistant professor in the program of liberal studies, planned and performed in a program of baroque chamber music on March 25 in the Notre Dame Memorial Library Lounge, preceding the final lecture by Paul Weiss in his series "The Blessings of Liberty."

Richard F. Foley, associate professor of philosophy, read a paper entitled "Rationality, Reliability and Knowledge" at a conference on Rationality, Evidence and Human Limits, at the University of Rochester, N.Y., April 9.

Morton S. Fuchs, professor of biology and chairman of microbiology, presented an invited seminar, "Endocrine Regulation of Reproduction in Mosquitoes, to the Department of Biological Sciences at Bowling Green State University, Ohio, April 13.

Walter J. Gajda, Jr., associate professor of electrical engineering, presented a seminar entitled "Electromagnetic Properties of Joints in Graphite/Epoxy" at the Air Force Flight Dynamics Laboratory, Wright-Patterson Air Force Base, Ohio, on Feb. 23.

John J. Gilligan, director of the White Center for Law and Government, gave a series of lectures on "Intergovernmental Relations and the Crisis in Our Cities" at the College of Urban Studies, University of Delaware, Newark, on April 5-6.

<u>Denis Goulet</u>, O'Neill professor of education for justice, delivered a lecture entitled "A Developed World: Is the Vision Viable?" to the Francis Wayland Collegium for Liberal Learning, at Brown University, Providence, R.I., April 13.

Ronald A. Hellenthal, assistant professor of biology, presented an invited paper at the joint meeting of the Entomological Societies of America and Canada held in Toronto, Ontario, Canada, Nov. 30 - Dec. 3. His talk, entitled "Computers and Collection Management," was presented at a symposium on Growth and Management of Entomological Collections. He presented an invited talk, "Laboratory Applications of Computers in Science Teaching," at the regional meeting of the Indiana Council of Teachers of Mathematics, Purdue University, Northwest campus, Westville, Ind., Feb. 26.

Joseph C. Hogan, dean emeritus of engineering and professor of electrical engineering, spoke to the Senate Committee on Labor and Human Resources, Wash., D.C., on April 18, on the necessity of gaining pri-

vate sector and non-federal support for college engineering education through current proposed legislation.

<u>Kathleen Horwath</u>, visiting assistant professor of biology, presented a paper (coauthored by John G. Duman) entitled "Control of Photoperiodically Induced Antifreeze Protein Production in the Cold Hardy Beetle <u>Dendroides canadensis</u>" at the FASEB (Federation of American Society for Experimental Biology) meetings in Chicago, Ill., April 11.

<u>Aaron A. Jennings</u>, assistant professor of civil engineering, organized and chaired a symposium on "Hazardous Waste Management" at the American Institute of Chemical Engineers 1983 Spring National Meeting and Petrochemical and Refining Exposition, Houston, Tex., March 27-31.

Edward A. Kline, associate professor and chairman of English, and director of the Freshman Writing Program, presented a paper, "Use of the Microprocessor in Reviewing English Grammar," at the spring conference of the National Council of Teachers of English, Seattle, Wash., April 14-16.

Ronald T. Libby, visiting assistant professor of government and international studies, presented a paper entitled "Industrial Development Strategy and Political Divisions within the Zimbabwean State" at "Zimbabwe Day 1983" in Washington, D.C., sponsored by the African Studies Program and the Foreign Policy Institute of the School of Advanced International Studies of The Johns Hopkins University, on April 15.

A. Eugene Livingston, assistant professor of physics, presented an invited colloquium entitled "Spectroscopic Tests of Relativistic Effects in Highly-Ionized Atoms" at Western Michigan University, Kalamazoo, Mich., on March 31.

Lawrence C. Marsh, associate professor of economics, presented a paper entitled "Are Coal Miners Paid the Value of Their Marginal Products?" to the Midwest Economics Association in St. Louis, Mo., on April 8.

Ralph M. McInerny, Grace professor of medieval studies, director of the Medieval Institute and the Jacques Maritain Center, delivered a talk, "Fundamental Option: A Philosopher's Reflections," at the V Simposio Internacional de Teologia, the Universidad de Navarra I, Pamplona, Spain, on April 7. "Natural Law in St. Thomas" was his topic in an address to the Facultad de Filosofia, April 8. He spoke on "Natural Law as Starting Point in Ethics" at Wabash College, Crawfordsville, Ind., April 12.

Thomas J. Mueller, professor of aerospace and mechanical engineering, presented an invited lecture entitled "The Role of Flow Visualization in the Study of Afterbody and Base Flows," at the Symposium on Rocket Plume Fluid Dynamic Interactions sponsored by the Department of the Army, U.S. Army Research Office, Huntsville, Ala., April 5-7.

Kenneth M. Sayre, professor of philosophy, presented a paper entitled "Mathematics in Plato's Late Dia-

logues" at the University of London, Chelsea College, England, April 28.

Roger A. Schmitz, McCloskey dean of engineering, presented a graduate seminar entitled "Studies of Heterogeneous Catalytic Reactions" in the Department of Chemical Engineering at University of Southern California, Los Angeles, on April 8.

James H. Seckinger, professor of law and director of the National Institute for Trial Advocacy, was the team leader for the Advanced Trial Advocacy Workshop (sponsored by National Institute for Trial Advocacy, American College of Trial Lawyers, Section of Litigation of the American Bar Association, Trial Lawyers Section of the Florida Bar, and the University of Florida) held at the University of Florida at Gainesville, March 1-5. He served on the faculty of the National Institute for Trial Advocacy and in the Streich, Lang, Weeks & Cardon In-House Trial Advocacy Program, Phoenix, Ariz., March 24-27. Seckinger was a panel speaker at the American Bar Association Conference on In-House Continuing Education Workshops, Chicago, Ill., April 7-9. He was a faculty member at the Advocacy Teachers Training Session, Harvard Law School, Cambridge, Mass., April 9-10.

J. Kerry Thomas, professor of chemistry, presented an invited talk, "Photochemistry at Colloid Aluminosilicate Interfaces," to the Colloid Division of the American Chemical Society, Seattle, Wash., March 22. He presented an invited seminar, "Photochemistry on Clay Systems," at the Corning Research Center, Corning, N.Y., April 14.

Arvind Varma, professor and chairman of chemical engineering, coauthored a research paper presented at the NATO Workshop on Chemical Instabilities, held in Austin, Tex., March 14-18. The paper, entitled "Complex Dynamic Behavior in the Case of the CO-NO-O₂-H₂O Reaction System on Pt/ γ A ℓ _2O₃ Catalyst," was presented by B. Subramaniam, doctoral student in the department.

Robert P. Vecchio, associate professor of management, gave an invited lecture, "Consequences of Staffing Insufficiency," at the Krannert Graduate School of Management, Purdue University, W. Lafayette, Ind., April 8.

Rev. Oliver F. Williams, C.S.C., adjunct associate professor of management, served as a consultant on Values in Business Career-oriented Education for the Association of Catholic Colleges and Universities at the Catholic University of Puerto Rico, Ponce. He delivered a two-part lecture to the faculty at the Universidad Catolica De Puerto Rico, March 14-15: "Christian Values in the Business World: The Challenge and the Promise." Williams served on the Planning Committee and was an invited participant at the Conference of the Indiana Committee for the Humanities, "Capitalizing on Ideas: New Alliances for Business," at Nashville, Ind., April 10-11.

<u>Stephen T. Worland</u>, professor of economics, delivered a paper entitled "Adam Smith and the Contract Model of Justice" at the annual meeting of the Midwest Economics Association, St. Louis, Mo., April 9.



faculty senate journal march 23, 1983

The meeting was called to order at 7:35 p.m. in Room 202 of the Center for Continuing Education. Prof. Julian Pleasants offered the opening prayer.

The first order of business was approval of the minutes of the Senate meetings held Jan. 18 and Feb. 17. This was followed by the chairman's report. Prof. Vaughn McKim presented the following information in his report:

- 1. In a meeting with the Provost, McKim conveyed to O'Meara the resolutions pertaining to faculty compensation which the senate adopted at its February meeting. O'Meara agreed to present the resolutions to the officers of the University.
- 2. McKim also presented to the Provost the senate Executive Committee's Report on the Notre Dame/Saint Mary's Early Childhood Development Center. He explained to O'Meara the senate's concerns about the financial difficulties being experienced by the Center, and requested that the senate's recommendations pertaining to University funding for the ECDC be given prompt attention by the administration.
- 3. McKim then reported on a letter which he received from Tom Mason, University Vice President for Business Affairs, in response to a letter McKim sent to him in November regarding the question of extending the present tuition benefit for faculty children attending schools other than Notre Dame to non-T & R faculty. Mason has been conducting a study of the likely cost of extending this benefit. In doing a survey of administrators and higher level staff to whom the University feels an obligation to extend the benefit, if it is extended to non-T & R faculty, Mason determined that the rate of usage among that group would be roughly compared to that of non-T & R faculty as projected by the senate. Mason estimated the additional cost of extending the benefit to the two groups to be in the range of \$31,000 to \$51,000 next year. This, he argued, would represent a major budget item. In response, McKim has sent another letter to Mason suggesting that he may have overstated the impact on the budget of the new program by not taking into account the effect implementing the new benefit would have on usage of the far more expensive Notre Dame tuition benefits for which non-T & R faculty and administrator families are already eligible.
- 4. McKim then spoke of an item that had come up at the January meeting with the Provost regarding the rising cost of fringes, especially Blue Cross/Blue Shield. At that time, O'Meara indicated that no concrete steps had yet been taken to respond to this concern. There has, however, been a new development. The faculty subcommittee of the Budget Priorities Committee has been asked to investigate alternatives which would reduce University contributions to Blue Cross/Blue Shield. Subsequently, the Provost agreed that it would be appropriate to have the senate cooperate in this study. The Executive Committee has asked Profs. Donald Barrett and Peri Arnold to work with the faculty members of the Budget Priorities Committee on this issue. The Budget Priorities subcommittee will make its own report to the Provost. The senate will be free to make recommendations independent of that committee. Among the options being considered are:
 - a) that University pay part of the cost (e.g., 80%), with the faculty picking up the rest.
 - b) that a deductible on usage be established as is presently the case with Major Medical Insurance.
 - c) that the University would increase its support at the level of inflation; the faculty would pick up any costs over that.

McKim pointed out that another fringe, i.e., retirement benefits would most likely be an important issue for the senate next year especially in light of the strong possibility that new unisex benefit tables may soon be put into effect by TIAA/CREF.

As a point of information, McKim informed the senate that it had come to his attention that the Budget Priorities Committee has two new faculty members. Fr. Ernan McMullin (Philosophy) has been replaced by Prof. Nathan Hatch (History) and Prof. Walter Miller (Physics) has been replaced by Prof. John Kozak (Chemistry). These are the first changes in the committee's faculty membership since it was established in the early 1970s.

The next order of business was concerned with the letter drafted by Prof. Michael Crowe to be sent to Jim Frick on the occasion of his retirement. The letter was passed around for each member of the senate to sign.

McKim mentioned next that members of the senate would soon be receiving an invitation to an informal gathering with the elected members of the Academic Council. This meeting is intended to provide members of both bodies an opportunity to share views about how well their respective organizations presently are functioning, and how cooperative relations between the two bodies might be enhanced.

On a lighter note, McKim mentioned that this spring marked the fifteenth anniversary of the senate. He noted that it would be appropriate to celebrate the occasion in some fashion and requested "creative ideas" about what form such a celebration might take.

McKim then announced that Trustee chairman Tom Carney had declined the invitation of the senate to appear at the next Faculty Forum. McKim requested that any ideas for further Forum topics and speakers be sent on to Prof. Barrett.

McKim next mentioned a letter he had received from James Powell of the Center for Continuing Education regarding plans by the Center to institutionalize an annual program of faculty seminars on the model of this spring's Jung seminar. Powell has asked the senate if it wished to cooperate in this matter. McKim encouraged senators to share with him any ideas for attractive seminar topics.

The senate then had some discussion of the length of the break between semesters which, though originally a month long, has gradually been cut back to barely three weeks this year. Among the arguments presented for going back to a full four-week break were:

- a) that professional society meetings are often scheduled during this time;
- b) that it would give faculty more needed time to prepare grant proposals with spring deadlines and to catch up on research;
- c) that it would save energy costs to have much of the University's physical plant shut down for another week or so duing the cold winter months.

One objection made was that it would, perhaps, be more advantageous to have the extra time in May since four weeks was not really long enough to get anything accomplished. McKim called for a straw vote on the issue; there were 16 votes for and 3 against returning to the previous system. Another issue discussed was the possibility of returning to a post-Labor Day start with a shortened fall semester break. In the straw vote on this issue, there were 19 votes for and 4 against beginning after Labor Day. McKim indicated that he would convey the senate's views on this matter to Leo Corbaci, Dean of Administration.

McKim then announced that the April meeting would be held on Monday, April 18.

McKim then called to the attention of the members a sheet distributed earlier in the meeting regarding membership quotas on the senate. (See Appendix I.) McKim indicated that a

recently completed study of the present distribution of Notre Dame faculty revealed that some changes were required in Senate membership quotas to ensure that all represented constituencies had equally proportional representation. Elections for senators this spring will be used to bring the membership into line with the newly established membership quotas.

McKim then moved on to another agenda item -- a consideration of a formal set of procedures to govern the election of senate officers. (See Appendix II.) The new rules being proposed are intended to ensure strong senate leadership, while yet underscoring the democratic nature of this body. After some discussion, it was moved to accept the proposal with a friendly amendment to item #5; namely, that to be nominated from the floor a member should have given prior consent, and that a nomination and a second would be sufficient to place the nominee(s) on the ballot. It was then moved and seconded that the proposed election rules be adopted. The motion carried without dissenting vote.

McKim then called attention to the list of candidates for nomination to the Academic and Faculty Affairs Committee of the Board of Trustees compiled from the senate survey of faculty conducted in January. The senate's task is to select a small group of official nominees from whom the faculty as a whole then elects representatives to the committee. It was agreed that the ballot would be conducted in two stages during the remainder of the meeting.

The meeting recessed at 8:45 p.m. The meeting resumed at 9 p.m.

The first order of business after the break was the Standing Committee Reports. Barrett presented the report of the Faculty Affairs Committee. Among the points mentioned were:

- The appointment of a Faculty Chaplain, a move recommended by the senate Faculty Affairs Committee, has received administration approval. The role of the Chaplain in the context of Campus Ministry has yet to be worked out in detail.
- Reference was made to the Forum on Athletics and to the importance of our maintaining an ongoing interest in the role of athletics at Notre Dame.
- 3. The suggestion has been made that a senate "white paper" be prepared on retirement. Among the issues to be considered would be the new legal issues affecting mandatory retirement, and the adequacy of present retirement benefits. It will also be important to determine how new unisex life tables would affect future TIAA/CREF retirement benefits.

Crowe, reporting for the Committee on Administration, indicated that he had so far received answers from 7 of 9 Peer Institutions in response to his questionnaire regarding their leave policies and provisions for faculty development. A preliminary report on this data will be presented at the next meeting of the senate.

At this point in the meeting the results of the first ballot for the AFACBT were presented. Profs. Donald Barrett and William Eagan were selected as nominees on the first ballot by virtue of receiving far more votes than any other candidates. A second ballot was then made up to nominate four additional faculty members from the ten who received the next largest number of votes in the first round.

The next order of business was a discussion of the Financial Aid Report prepared by McKim. The report points out that the three-fold increase in scholarship endowment by 1990 recommended in PACE may not be sufficient to sustain an adequate scholarship policy. The University must begin to investigate other sources of scholarship support such as modest tuition surcharges and annual alumni contribution earmarked for direct scholarship support. After some discussion, it was moved and seconded that the senate approve the Report. The motion carried unanimously.

Attention then turned to three recommendations which had been approved by the Executive Committee for presentation to the senate in conjunction with the Report on Undergraduate Financial Aid:

- To ensure the rapid growth in endowment needed to underwrite any significant improvement in undergraduate scholarship support, the Faculty Senate urges the administration to adopt the recommendation of the PACE Report that endowment for undergraduate student aid be increased three-fold by 1990.
- 2. The Faculty Senate recommends that the administration respond to the pressing need to increase the number of University-supported scholarships now being

awarded to undergraduates by adopting a 25% scholarship plan as official University policy to be implemented at the earliest date possible.

3. The Faculty Senate recommends to the administration that additional funds required to support an improved scholarship policy be sought from alumni through requests for annual gifts in support of scholarship aid, and from other miscellaneous sources of annual income including, if necessary, very modest annual tuition surcharges.

It was moved and seconded that these recommendations be endorsed by the senate for presentation to the University administration, and that they be appended to the final version of the Financial Aid Report when it is made public. Following a brief discussion the motion passed without dissenting vote.

Crowe then called on the senate to express its appreciation to McKim with a round of applause for the work he put into the report.

The next order of business was a report from Prof. Mario Borelli on behalf of the senate \underline{ad} \underline{hoc} committee formed to study the issue of the Catholic character of the University as it is $\underline{portrayed}$ in the PACE Report. The purpose of this committee is not to criticize PACE, but to formulate the range of faculty concerns which have arisen in regard to this issue. The committee requested comments and suggestions from the members before the April meeting.

McKim requested members to turn in their second round ballots for AFACBT nominations at the conclusion of the meeting. The meeting adjourned at 9:45~p.m.

Absent but not excused: Subhash Basu, chemistry; Rudolph Bottei, chemistry; Gary Burleson, microbiology; Wendy Carlton, sociology; Eugene Marshalek, physics; William Slowey, accountancy; Thomas Swartz, economics; James Tabor, theology; Thomas Theis, civil engineering.

Absent but excused: Gerald Arnold, physics; James Bellis, sociology; Fred Dallmayr, government; Carson Daly, English; Vincent DeSantis, history; David Dodge, sociology; Jay Dolan, history; Michael Francis, government; Teresa Phelps, law; Barth Pollak, mathematics; Niels Rasmussen, theology; George Sereiko, library; William Strieder, chemical engineering; John Uhran, electrical engineering; Robert Vacca, modern languages.

Respectfully submitted,

Sandra J. Harmatiuk

APPENDIX I

Membership Quotas for the Faculty Senate

	Present	Effective Fall 1983
Arts and Letters	20 + 1 ex officio	19 + 1 ex officio
Science	10 + 1 ex officio	9 + 1 ex officio
Business	4 + 1 ex officio	5 + 1 ex officio
Engineering	6 + 1 ex officio	6 + 1 ex officio
Law	2	1
Library	2	2
Professional Specialists	2	4
ROTC	1	1
Emeritus '	2	2
TOTAL	49 + 4 ex officio	49 + 4 ex officio

APPENDIX II

Proposed Rules and Procedures to Govern The Election of Senate Officers

- Nominations for Senate officers may be made by any member of the Senate, whether elected or ex officio. The names of proposed nominees are to be submitted to the chairman in writing on or before the date of the April Senate meeting.
- 2. A Nominating Committee will have the responsibility of presenting a slate of candidates to the membership for election at the May meeting of the Senate. The official slate of nominees will be listed along with the agenda for the May meeting in a mailing to be sent to all Senators at least one week prior to the date of election.
- 3. The Nominating Committee will consist of the members of the Senate Executive Committee and of a representative from each of the Senate's major constituencies not otherwise represented on the committee. A Major Constituency is here defined as one having a membership quota of more than two (2) elected Senate representatives. The faculty Senators comprising each constituency from which a representative needs to be selected will caucus for the purpose of choosing their representative. The chairman will be notified of the names of such representatives no later than March 31.
- 4. The outgoing Senate chairman will serve as chairman of the Nominating Committee.
- 5. At the May meeting an opportunity will be provided to place in nomination for any Senate office the names of Senators not included on the Nominating Committee's slate of candidates. Such nominations will take the form of a motion requiring a second. Candidates for Senate office nominated from the floor must have given prior consent to serve, if elected to the position for which they are being nominated.

Adopted by the Faculty Senate, meeting on March 23, 1983.

faculty committee for university libraries minutes march 7, 1983

Present: Harvey A. Bender, James L. Cullather, Gerald L. Jones, Lloyd H. Ketchum, Robert C. Miller, James E. Robinson, Andrew J. Sommese.

Bender called the meeting to order and turned the meeting over to Timothy O'Meara who had requested a few minutes of the committee's time. O'Meara requested that two members of the teaching and research faculty be elected by members of the Faculty Committee for University Libraries to form a part of the committee to review the Director of Libraries. He quoted from the Academic Manual the required membership of the review committee. When the three members of the library faculty have been elected to serve on the review committee, the Provost will be advised of the committee membership and will convene the initial meeting and present the charge to the committee. It is his hope that the review can be completed before the end of the current semester.

The minutes of the Jan. 17 and Feb. 14 meetings were amended and approved for publication.

Bender and John Malone were elected from the teaching and research faculty to serve on the review committee.

The following policy statement, proposed by Robinson, was presented for consideration as response to Father Burtchaell's inquiry about collection development responsibility:

The development of the Libraries' collections is effected via a cooperative process involving professional librarians and faculty, a process arranged and overseen by the Director of Libraries. Within this process the principal responsibility for the selection of books and serials is that of the teaching and research faculty.

It was motioned, seconded and unanimously agreed that this policy statement be accepted.

Miller reported that the Friends organization has been working on a proposal for fee-based services to the local business community including database services, circulation privileges, interlibrary loan services, general and advance reference assistance. An ad hoc committee of library staff has been appointed to work with a representative of the Friends group and the recommendations which are submitted will be brought before the Faculty Committee.

There was a brief discussion of space needs in the Memorial Library. Miller indicated that he expects a report from J. Neal covering space needs for collections, users and staff and should be able to get back to the committee with the hard data at the April meeting, and with a more definitive statement available for the May meeting.

Nominations for committee representaives from the College of Arts and Letters and Engineering were made. Bender will contact the Faculty Senate to determine the availability of their listing of interested nominees. A notice of election will be distributed within the next couple of weeks.

The April meeting was rescheduled from the 4th to April 18th at 4 p.m.

library hours intersession: may 10-june 20

	•	J	
	<u>Memori</u>	al Library	Science & Engineering
	<u>Building</u>	Public Services	Libraries
Tues., May 10 through	8 a.m 10 p.m.	8 a.m 5 p.m.	8 a.m 5 p.m.
Fri., May 13 Sat., May 14 Sun., May 15	9 a.m 10 p.m. 1 p.m 10 p.m.	*9 a.m 5 p.m. Closed	Closed Closed
Mon., May 16 through Fri., May 20	8 a.m 10 p.m.	8 a.m 5 p.m.	8 a.m 5 p.m.
Sat., May 21 Sun., May 22	9 a.m 10 p.m. 1 p.m 10 p.m.	*9 a.m 5 p.m. Closed	Closed Closed
Mon., May 23 through Fri., May 27	8 a.m 10 p.m.	8 a.m 5 p.m.	8 a.m 5 p.m.
Sat., May 28 Sun., May 29	9 a.m 10 p.m. 1 p.m 10 p.m.	*9 a.m 5 p.m. Closed	Closed Closed
Mon., May 30 (Memorial Day)	Closed	Closed	Closed
Tues., May 31 through Fri., June 3	8 a.m 10 p.m.	8 a.m 5 p.m.	8 a.m 5 p.m.
Sat., June 4	9 a.m 10 p.m.	*9 a.m 5 p.m.	Closed
Sun., June 5 Mon., June 6	1 p.m 10 p.m. 8 a.m 10 p.m.	Closed 8 a.m 5 p.m.	Closed 8 a.m 5 p.m.
through Fri., June 10	0 u m 20 p m	o deme o peme	o arms o prims
Sat., June 11 Sun., June 12	9 a.m 10 p.m.	*9 a.m 5 p.m. Closed	Closed Closed
Mon., June 13 through	1 p.m 10 p.m. 8 a.m 10 p.m.	8 a.m 5 p.m.	8 a.m 5 p.m.
Fri., June 17 Sat., June 18	0.2 m . 10 n m	*0 2 m 10 n m	Closed
Sun., June 19	9 a.m 10 p.m. 1 p.m 10 p.m.	*9 a.m10 p.m. Closed	Closed Closed
Mon., June 20	8 a.m 10 p.m.	8 a.m 5 p.m.	8 a.m 5 p.m.
Tues., June 21 '	Return to Summer	Session Schednie	

^{*}Only Reference Department, Circulation Department, and Periodical Center open.

advanced studies

special notices

The Jesse H. Jones Faculty Research Equipment Fund for 1982-83

The University Committee on Research and Sponsored Programs announces the Jesse H. Jones Faculty Research Fund awards made for 1982-83.

- * Prof. Stephen R. Carpenter, Department of Biology. Quantitative Measures Herbivory Preserved in Lake Sediments. \$10,000.
- * Prof. Yuk-Lun L. Chan, Department of Aerospace and Mechanical Engineering. Natural Convection and Boiling Heat Transfer in Porous Media. \$5,069.
- * Prof. Mary J. Clancy, Department of Microbiology. Mutational Analysis of Three Developmentally-Regulated Genes of Saccharomyces cerevisiae. \$8.030.
- Saccharomyces cerevisiae. \$8,030.

 * Prof. Gary M. Gutting, Department of Philosophy. The Limits of Reason. \$4,621.
- * Prof. Alexander G. Lappin, Department of Chemistry. Stereoselectivity in Electron Transfer Reactions. \$8,292.
- * Prof. A. Edward Manier, Department of Philosophy. Possible Transformations of Social Values Resulting from Recent Discoveries Concerning the Organic Bases of Mental Disorder \$6.138
- Mental Disorder. \$6,138.

 * Prof. Karamjit S. Rai, Department of Biology. Nuclear DNA Content and Its Variation in Mosquitoes. \$7,471.
- * Prof. Anthony S. Serianni, Department of Chemistry. A Dynamic Multinuclear NMR Study of Carbohydrate Conformation and Motion in Solution. \$3,933.
- * Prof. William E. Stanchina, Department of Electrical Engineering. Electro-CVD of AI₂O₃ on InGaAs for Integrated Photoreceivers. \$7,074.

There were 33 proposals submitted for consideration for this year's competition.

The Jesse H. Jones Faculty Research Fund for 1982-83

The University Committee on Research and Sponsored Programs announces the Jesse H. Jones Faculty Research Equipment Fund awards made for 1982-83.

- * Prof. Charles R. Crowell, Prof. Scott E. Maxwell and Prof. Charles W. Snyder, Department of Psychology. Research Computing in Psychology. \$10,200.
- * Prof. Robert H. Dunikoski, Department of Management, and Prof. Bernard J. Kilbride, Department of Finance and Business Economics. Business Micro-Processor Research Laboratory. \$33,650.
- * Prof. William J. Davisson, Department of Economics. Computer Literacy and Faculty Research. \$32,000.

There were 12 proposals submitted for consideration for this year's competition.

information circulars

Additional information on all circulars listed may be obtained by calling Extension 7432. Please refer to the circular number.

science and engineering

National Science Foundation U.S.-China Cooperative Science Program

No. FY83-522

Background of the Program:
The U.S.-China Cooperative Science Program was established on December 10, 1980 through the signing of the Protocol on Cooperation in the Basic Sciences by the National Science Foundation (NSF), and by the Chinese Academy of Sciences (CAS) and the Chinese Academy of Social Sciences (CASS). This Protocol is in accordance with the overall Agreement Between the Government of the United States of America and the Government of the People's Republic of China on Cooperation in Science and Technology, signed in Washington, D.C. on January 31, 1979.

The NSF-CAS-CASS Protocol is implemented under the overall guidance of the U.S.-PRC Joint Commission on Scientific and Technological Cooperation established by the 1979 Science and Technology Agreement. All activities under the Protocol are closely coordinated by a U.S.-China Joint Working Group for the Basic Sciences. The U.S. members of the Group represent the NSF. The Chinese members include representatives of the CAS, the CASS, and the Ministry of Education (MOE). This multiple representation is intended to facilitate participation in the Program by scientists from Chinese institutions of higher education as well as scientists from the two Academies. The Joint Working Group meets annually.

Objectives of the Program: The purpose of the U.S.-China Cooperative Science Program is to promote opportunities for cooperation in basic science between scientists of the United States and of the People's Republic of China on projects of mutual interest and benefit to both coun-The underlying rationale of the Program is that scientific cooperation on the basis of equality, reciprocity, and mutual benefit can strengthen the scientific capabilities of both countries, advance world scientific knowledge, promote understanding be-tween the United States and China, establish enduring relationships between American and Chinese scientists and institutions, and, in general, contribute to broad national goals on both sides.

Scope of the Program: Currently the Program supports two principal types of cooperative activity:

- Joint research projects, of up to two years' duration. Visits under such projects are normally under six months' duration and are generally limited to one visit in each direction within one year.
- Jointly organized seminars fostering opportunities for U.S. and Chinese scientists to discuss possible future research collaboration. Because the number of seminars supported by the Program is small, proposals in areas already covered by seminars in recent years are generally not considered.

Support for both types of cooperative activities is currently limited to certain fields of science agreed to annually by the Joint Working Group.

Current Fields of Research in Research Program: Archaeology Astronomy Chemistry of Natural Products Earth Sciences: geophysics and geochemistry Engineering Sciences: heat transfer, fluid mechanics and applied mathematics related to these two areas

Information Sciences: artificial intelligence, pattern recognition, basic computer science, numerical analysis and scientific computation theory

International Studies: (seminars preferred) Linguistics

Materials Science: ceramics, metallurgy and polymers

Plant Sciences: plant cell biology, plant physiology, and systematic botany in selected areas subject to availability of resources

Systems Analysis: decision and management sciences and operations research.

current publications and other scholarly works

Current publications should be mailed to the Division of Research and Sponsored Programs, Room 314, Administration Building.

ADMINISTRATION

Weldon, Donald J. D.J. Weldon. 1982. M.B.O.: Success or Failure? Leadership and Organization Development Journal 3(4):2-7.

COLLEGE OF ARTS AND LETTERS

Communication and Theatre

Leff, Thomas P.

T.P. Leff. 1982. Review of the Stratford Shakespeare Festival Season. Theatre

Journal 34(2):195-198.
T.P. Leff. 1982. Dance Theatre work. The Descent Beckons. O'Laughlin Auditorium, Saint Mary's College, Notre Dame, Indiana.

T.P. Leff. 1982. Dance Theatre work. Prague Dumka. O'Laughlin Auditorium, Saint Mary's College, Notre Dame, Indiana.

T.P. Leff. 1982. Dance Theatre work. On Reflection. Snite Museum of Art, Notre Dame, Indiana. T.P. Leff. 1983. Dance Theatre work.

Homage to Isadora. Toledo Museum of Art, Toledo, Ohio.

English

Schirmer, Gregory A. G.A. Schirmer. 1982. Becoming Interpreters: The Importance of Tone in Crane's 'The Open Boat.' American American Literary Realism 1870-1910 15(2):221-231.

Modern and Classical Languages

DellaNeva, JoAnn J. DellaNeva. 1982. Poetry, Metamorphosis and the Laurel: Ovid, Petrarch and Scéve. French Forum 7(3):197-209.

Philosophy

Delaney, Cornelius F. C.F. Delaney. 1982. "Peirce on 'Simplicity' and the Conditions of Possibility of Science." Pages 177-195 in, L.T. Washington, ed., History of Philosophy in the Making.

C.F. Delaney. 1983. "Rawls and Indualism." The Modern Schoolman 60: "Rawls and Individ-

Program of Liberal Studies

112-122.

Ferguson, Linda C.

L.C. Ferguson. 1983. An Evening of Computer-Generated Music. Cimarron Review 63:11-19. Schindler, David L. D.L. Schindler. 1983. Introduction, "Religion and Politics." Communio: International Catholic Review 9(4):291.
D.L. Schindler. 1983. David Bohm on Contemporary Physics and the Overcoming of Fragmentation. International Philosophical Quarterly $\overline{22(4):315-327}$.

Sociology

Welch, Michael R. C.R. Tittle and M.R. Welch. 1983. Religiosity and Deviance: Toward a Contingency Theory of Constraining Effects. Social Forces 61:653-682.

Theology

Malloy, CSC, Edward A. E.A. Malloy, CSC. 1983. Friendship. Pastoral Life 32(4):25-27.

COLLEGE OF SCIENCE

Biology

Beier, John C. L.B. Leiser, J.C. Beier and G.B. Craig, Jr. 1982. The Efficacy of Malathion ULV Spraying for Urban Culex Control in South Bend, Indiana. Mosquito News 42 (4):617-618. Craig, Jr., George B. L.B. Leiser, J.C. Beier and G.B. Craig, Jr. 1982. The Efficacy of Malathion ULV Spraying for Urban Culex Control in South Bend, Indiana, Mosquito News 42 (4):617-618.

Castellino, Francis J.

J.R. Powell and F.J. Castellino. 1983. Amino Acid Sequence Analysis of the Asparagine-288 Region of the Carbohydrate Variants of Human Plasminogen. Bio-Chemistry 22(4):923-927.

Fehlmer, Thomas P.

R.L. DeKock, P. Deshmukh, T.P. Fehlner C.E. Housecroft, J.S. Plotkin and S.G. Shore. 1983. UV Photoelectron Spectra and Electronic Structure of $(n^5-C_5H_5)$ (CO)₂FeB₂H₅. Comparison of the Fe-B Bonding with the Fe-C Bonding with (CO)4 FeC₂H₄. Journal of the American Chemical Society 105(4):815-822.

Housecroft, Catherine E.

R.L. DeKock, P. Deshmukh, T.P. Fehlner, C.E. Housecroft, J.S. Plotkin and S.G. Shore. 1983. UV Photoelectron Spectra and Electronic Structure of (η^5 -C $_5H_5$) (CO)2FeB $_2H_5$. Comparison of the Fe-B Bonding with the Fe-C Bonding with (CO) 4 FeC₂H₄. Journal of the American Chemical Society 105(4):815-822.

Lee, Young J.

W.R. Scheidt, Y.J. Lee, S. Tamai and K. Hatano. 1983. Preparation and Molecular Stereochemistry of Anionic Difluoro (meso-tetraphenylporphinato)iron(III), a High-Spin Six-Coordinate Iron(III) Porphyrinate with an Unusually Expanded Core and a Hydrogen-Bonded "Distal" Imidazole. Journal of the American Chemical Society 105(4):778-782.

Levanon, Haim

*O. Gonen and H. Levanon. 1983. EPR Study of Oriented Photoexcited Triplets of Zinc Porphyrin in a Discotic Liquid Crystal: Evidence for Axial Symmetry in the Condensed Phase. Journal of Chemical Physics 78(5):2214-2218.

Scheidt, W. Robert
W.R. Scheidt, Y.J. Lee, S. Tamai and K. Hatano. 1983. Preparation and Molecular Stereochemistry of Anionic Difluoro (meso-tetraphenylporphinato)iron(III), a High-Spin Six-Coordinate Iron(III) Porphyrinate with an Unusually Expanded Core and a Hydrogen-Bonded "Distal" Imidazole. Journal of the American Chemical Society 105(4):778-782.

Thomas, J. Kerry

B.H. Milosavljevic and J.K. Thomas. 1983. Photochemistry of Compounds Adsorbed into Cellulose. 1. Decay of Excited Tris (2,2'-bipyridine)ruthenium(II). Journal of Physical Chemistry 87(4):616-621.

*Under the Radiation Laboratory

COLLEGE OF ENGINEERING

Aerospace and Mechanical Engineering

Kanury, A. Murty J.R. Lloyd, A.M. Kanury and K.T. Yang. 1982. Cabin Fires in Survivable Airplane Crashes. Perspectives in Computing 2(4): 12-23.

K. Satoh, J.R. Lloyd, K.T. Yang and A.M. Kanury. 1983. A Numerical Finite-Difference Study of the Oscillatory Behavior of Vertically Vented Compartments. Pages 517-528 in, T.M. Shih, ed., Proceedings of the Second National Symposium. Hemisphere Publishing Corp.

Lloyd, John R.

L.C. Chang, K.T. Yang and J.R. Lloyd. 1983. Radiation-Natural Convection Interactions in Two-Dimensional Complex Enclosures. Journal of Heat Transfer 105:89-95.

J.R. Lloyd, A.M. Kanury and K.T. Yang. 1982. Cabin Fires in Survivable Airplane Crashes. Perspectives in Computing 2(4):

K. Satoh, J.R. Lloyd, K.T. Yang and A.M. Kanury. 1983. A Numerical Finite-Difference Study of the Oscillatory Behavior of Vertically Vented Compartments. Pages 517-528 in, T.M. Shih, ed., Proceedings of the Second National Symposium. Hemisphere Publishing Corp.

McClain, Rodney L. R.L. McClain and K.T. Yang. 1983. An Analytical Study of a Two-Phase Thermosiphon for Ice Production in Long-Term Cold Storage. Proceedings of the ASME-JSME Joint Thermal Engineering

Conference 2:387-394.

Yang, Kwang-tzu
L.C. Chang, K.T. Yang and J.R. Lloyd. 1983. Radiation-Natural Convection Interactions in Two-Dimensional Complex Enclosures. Journal of Heat Transfer 105:89-95.

J.R. Lloyd, A.M. Kanury and K.T. Yang. 1982. Cabin Fires in Survivable Airplane Crashes. Perspectives in Computing 2(4):

K. Satoh, J.R. Lloyd, K.T. Yang and A.M. Kanury. 1983. A Numerical Finite-Difference Study of the Oscillatory Behavior of Vertically Vented Compartments. Pages 517-528 in, T.M. Shih, ed., Proceedings of the Second National Symposium. Hemisphere Publishing Corp.

R.L. McClain and K.T. Yang. 1983. An Analytical Study of a Two-Phase Thermosiphon for Ice Production in Long-Term Cold Storage. Proceedings of the ASME-JSME Joint Thermal Engineering Conference 2:387-394.

COLLEGE OF BUSINESS ADMINISTRATION

Accountancy

Ricchiute, David N. D.N. Ricchiute. 1983. Overauditing: The State of the Art? The CPA Journal 53(3): 9-15.

Finance and Business Economics

Tavis, Lee A. L.A. Tavis. 1982. Multinational Corporate

Responsibility for Third World Development. Review of Social Economy 40(3):

LAW SCHOOL

Lashbrooke, Jr., Elvin C. E.C. Lashbrooke, Jr. 1982. Recapture of Past Foreign Branch Losses on Transfer of Branch Assets to a Foreign Corporation. Northwestern Journal of International Law and Business 4(2):359-373.

RADIATION LABORATORY

Chipman, Daniel M. D.M. Chipman. 1983. Theoretical Study of the Properties of Methyl Radical Journal of Chemical Physics 78(6):3112-3132.

Ebbesen, Thomas W.

G. Levey and T.W. Ebbesen. 1983. Methyl Viologen Radical Reactions with Several Oxidizing Agents. <u>Journal of Physical</u> Chemistry 87(5):829-832.

Ferraudi, Guillermo J.

S. Muralidharan, G.J. Ferraudi, M.A. Green and K.C. Caulton. 1983. The Photochemistry of Rhenium Hydrides. A Flash Photolytic Investigation of the Transients in the Photochemistry of Tris (Dimethylphenylphosphine) Pentahydridorhenium(V). Journal of Organometallic Chemistry 244:47-59. Muralidharan, Subramaniam

S. Muralidharan, G.J. Ferraudi, M.A. Green and K.C. Caulton. 1983. The Photochemistry of Rhenium Hydrides. A Flash Photolytic Investigation of the Transients in the Photochemistry of Tris (Dimethylphenylphosphine) Pentahydridorhenium(V). Journal of Organometallic Chemistry 244:47-59.

closing dates for selected sponsored programs

Proposals must be submitted to the Office of Research and Sponsored Programs seven calendar days prior to the deadline dates listed below.

Agency	Programs	Application Closing Dates
Damon Runyon-Walter Winchell Cancer Fund	Postdoctoral Fellowship Grant in Cancer Research	August 15, 1983
National Science Foundation	Ethics and Values in Science and Technology Program	August 1, 1983
Helen Hay Whitney Foundation	Postdoctoral Research Fellowships	August 15, 1983

notre dame report

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