

notre dame report

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number 2

the university

scholars appointed to theology, philosophy chairs

The University has announced a number of appointments to chair positions in theology and philosophy.

Four scholars have been appointed visiting John A. O'Brien professors in the department of theology: Rev. Avery Dulles, S.J., of The Catholic University of America, Washington, D.C.; Rev. Roland Murphy, O. Carm., of Duke University; Rev. Balthasar Fischer, professor emeritus at Trier, West Germany, and Rev. Gerald McCool, S.J., of Fordham University.

Father Dulles is a specialist in ecclesiology and fundamental theology. The author of many books, he is former president of the Catholic Theological Society of America and of the American Theological Society.

Father Murphy, an Old Testament scholar, has served as editor-in-chief of the prestigious Catholic Biblical Quarterly, co-editor of the Jerome Biblical Commentary, and as president of the Catholic Biblical Association and the Society of Biblical Literature.

Father Fischer, a liturgical scholar, has lectured for many years in the faculty at Trier. He was a consultant in the Second Vatican Council and had a hand in the production of the council's Constitution on the Sacred Liturgy and in the restoration of the Rite of Christian Initiation of Adults.

Father McCool has been a member of the faculty at Fordham University since 1955 and is an expert on Catholic philosophy and theology in the 19th and early 20th centuries. He is the author of "Catholic Theology in the Nineteenth Century."

In addition, Prof. O.C. Edwards of Seabury-Western Theological Seminary, Evanston, Ill., will serve as visiting John S. Marten professor of Homiletics and Liturgics.

Philip L. Quinn, professor of philosophy at Brown University, has been appointed to the John A. O'Brien Chair in philosophy. A specialist in the philosophy of religion and the philosophy of science, Quinn was graduated from Georgetown University in 1962, after which he studied for a year at the University of Louvain in Belgium. He holds a master's degree in physics from the University of Delaware, and master's and doctoral degrees in philosophy from the University of Pittsburgh. He joined the faculty at Brown University in 1969 and in 1982 was appointed to Brown's William Herbert Perry Faunce Professorship. He has contributed articles to numerous scholarly publications and has lectured at several academic institutions in the United States and Canada. He has been visiting professor at several American universities, including Notre Dame in 1982.

personnel department expands hours

Personnel department hours have been extended to include coverage during the lunch hour (12 noon - 1:00 p.m.), according to personnel director Roger V. Mullins. The expanded coverage is designed to improve the department's accessibility for faculty and staff.

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faculty notes

honors

Joseph Blenkinsopp, O'Brien professor of Old Testament Studies, has been appointed to the editorial board of the new Harper Bible Commentary.

David A. Cowan, assistant professor of management, received the Academy of Management Organizational Behavior Division Award for the Outstanding Paper Based on a Dissertation for 1985. The paper, "Empirical Development of a Theoretical Model of the Problem Recognition Process," was presented at the National Academy of Management meeting in San Diego, Calif., Aug. 12.

Thomas P. Fehlner, chairman and professor of chemistry, has been appointed to a three-year term as a member of the Committee on Recommendations for U.S. Army Basic Scientific Research, effective July 4.

George S. Howard, chairman and associate professor of psychology, has been elected a Fellow in the division of counseling psychology of the American Psychological Association.

Thomas F. O'Meara, O.P., Warren professor of Catholic theology, has been elected to the provincial council of the Dominican Province of St. Albert the Great (Central Province, U.S.A.).

Leonard M. Savoie, chairman and professor of accounting, has been appointed to the board of governors of the Administrators of Accounting Programs group of the American Accounting Association.

James H. Seckinger, director of the National Institute for Trial Advocacy and professor of law, has been elected a Fellow of the Section of Litigation for the American Bar Association.

James L. Wittenbach, professor of accountancy, has been elected to the American Taxation Association's board of trustees for a two-year period.

activities

Joseph Blenkinsopp, O'Brien Professor of Old Testament Studies, read an invited paper on "The Mission of Ezra and that of Udgahorresnet" at the annual international meeting of the Society of Biblical Literature, Amsterdam, the Netherlands, Aug. 15.

Stephen R. Carpenter, associate professor of biological sciences, delivered an invited plenary address titled "Effects of Submersed Macrophytes on Ecosystem Processes" to the International Symposium on Aquatic Macrophytes, Silkeborg, Denmark, Aug. 30. He also presented a seminar on "Food Web Dynamics: Evidence from the Sediments of Manipulated Lakes" at The Freshwater Laboratory, Silkeborg, Denmark, Sept. 4, and one on "Cascading Trophic Interactions and Lake Ecosystem Productivity" at the Botanical Institute, University of Aarhus, Denmark, Sept. 5 and at The Freshwater Biological Laboratory, University of Copenhagen, Denmark, Sept. 6.

Kevin J. Christiano, assistant professor of sociology, was part of a panel of critics invited to review "A Theory of Religion," a forthcoming book by Rodney Stark (University of Washington) and William Sims Bainbridge (Harvard University), in a plenary session at the annual meeting of the Association for the Sociology of Religion in Washington, D.C., Aug. 23-26. He also served as discussant in a session on "Secularization: Progression and Paradox" at that meeting.

Adela Yarbrow Collins, professor of theology, presented "Apocalypse and Politics," the Thirteenth Annual Theology Lecture sponsored by the Religious Studies Department of DePaul University, Chicago, Ill., May 9.

John J. Collins, professor of theology, presented a paper, "Was the Dead Sea Sect an Apocalyptic Community?" at a conference on the Dead Sea Scrolls, in commemoration of Yigael Yadin, at New York University, May 7-9.

Frederick J. Crosson, Cavanaugh professor of humanities in the Program of Liberal Studies, was a panel member on "Religion and Politics" at the annual meeting of the American Political Science Association, New Orleans, La., Aug. 31.

Astrik L. Gabriel, director of the Folsom Ambrosiana Collection and professor emeritus in the Medieval Institute, presided over the two-day meeting of the International Commission for History of Universities Aug. 29-30 in Stuttgart, West Germany. He reviewed the 25-year history of the commission, of which he is president, in an opening address, and presented a paper on the English-German nation at the University of Paris in the late 15th and early 16th centuries.

Sonia G. Gernes, associate professor of English, received a \$3,000 Master Artist Fellowship for the summer of 1985 from the Indiana Arts Commission, and was a featured writer at the South Dakota Writers Conference, University of South Dakota, June 12-13, where she lectured, participated in symposia and read from her own poetry and fiction.

André Goddu, assistant professor in the Program of Liberal Studies, presented a paper titled "William of Ockham's Covenantal Voluntarism and the Status of Natural Laws" at the 17th International Congress for the History of Science, July 31-Aug. 8.

William G. Gray, chairman and professor of civil engineering, presented a lecture titled "Implications of Averaging Theory for Groundwater Flow and Transport" at Pacific Northwest Laboratories, Richland, Wash., Aug. 13. He also presented an invited paper titled "Tidal Modeling on IBM Microcomputers" at the American Society of Civil Engineers Hydraulics Division Specialty Conference on Hydraulics and Hydrology in the Small Computer Age, held in Orlando, Fla., Aug. 16.

Anastasia F. Gutting, visiting assistant professor in the Arts and Letters Core Course; Peri E. Arnold, associate professor of government and international studies, and Robert A. Vacca, assistant professor of modern and classical languages, represented the College of Arts and Letters at the Lilly Foundation-sponsored Conference on Curriculum in the Liberal Arts, held at Colorado College, Colorado Springs, June 15-29. Teams from 25 colleges and universities in the United States were invited to participate. The visit was the culmination of a review of the Arts and Letters Core Course carried out as part of a project funded by the National Endowment for the Humanities and directed by Dr. Gutting. Earlier in the year, members of the Review Committee visited interdisciplinary programs at Columbia University and the University of Chicago.

Ronald A. Hellenenthal, associate professor of biological sciences, conducted a demonstration of a computerized retrieval and analysis system for environmental information developed as part of a cooperative agreement with the U.S. Environmental Protection Agency at Chicago, Ill., Aug. 21.

George S. Howard, chairman and associate professor of psychology, presented papers on "The Counseling

Practitioner as Personal Historian: Research Aimed at Understanding" and "Philosophy of Science and Counseling Research" at the annual meeting of the American Psychological Association, Los Angeles, Calif.

George Kolettis, professor of mathematics, gave a talk, "Almost p-maps with an application to abelian p-groups" at a conference on abelian groups held at the Mathematisches Forschungsinstitut in Oberwolfach, West Germany, Aug. 11-17.

Charles Kulpa, associate professor of biological sciences, was an invited participant in an EPA-sponsored workshop on Biological Degradation of Hazardous Wastes, held in Cincinnati, Ohio, Aug. 21-22.

Gilbert D. Loescher, associate professor of government and international studies, presented two papers titled "The Politics of Escape: U.S. Policy towards East European Refugees 1945-56" and "The Granting of Refugee Status in Belgium and the Role of the UNHCR" at an international symposium on "Twentieth Century Refugees in Europe and the Middle East" at Somerville College, Oxford, England, Aug. 17-23. Dr. Loescher received a travel grant from the British Economic and Social Research Council to participate in this conference.

Scott Mainwaring, assistant professor of government and faculty fellow in the Kellogg Institute, gave the following presentations: "New Social Movements, Political Culture, and Democracy: Brazil and Argentina" at the Center for the Study of Contemporary Culture, Sao Paulo, Brazil, June 18; "Urban Grass Roots Movements, Identity, and Democracy in Brazil," at the Center for Rural and Urban Studies, Sao Paulo, June 27; "Transitions through Transaction: Democratization in Brazil and Spain," at the International Political Science Association meeting, Paris, France, July 17. (Paper read in absentia.)

John Matthias, professor of English, gave a reading from his poetry at the National Poetry Center, London, England, June 20.

Robert C. Nelson, associate professor of aerospace and mechanical engineering, presented a seminar titled "Visualization and Velocity Measurements of the Flow Structure in Leading Edge Vortices at Large Angles of Attack" to the research staff at the NASA Ames Research Center, Moffett Field, Calif., Aug. 15.

Walter Nugent, Tackes professor of history, served as a commentator at a session on American Indian religion at a conference on Religion in American Life held at Indiana University-Purdue University, Indianapolis, March 29. He was a panelist on the improvement of graduate education in history at the annual meeting of the Organization of American Historians, Minneapolis, Minn., April 18, and gave a paper on "City-Country Conflict in the Populist Movement" at the annual Seminario of the Comitato Italiano per la Storia Nordamericana in Rome May 14. He spoke on "Academic Exchange: The View from America" at the board meeting of the U.S.-Israel Educational Foundation (the Fulbright Commission),

held at Caesarea, Israel, May 17, and consulted on faculty and student exchange at Uniwersytet Warszawski, Poland, May 28. He also participated in the orientation of outbound Fulbright Scholars sponsored by the U.S. Information Agency, Washington, D.C., June 13-14.

Rev. Edward D. O'Connor, C.S.C., associate professor of theology, conducted a pilgrimage to the Holy Land July 17-29.

Daniel J. Pasto, professor of chemistry, presented a series of five plenary lectures July 8-20 as Rickover Professor at the Admiral H.G. Rickover Science Institute in Washington, D.C. His topics included "Introduction to Chemistry and Chemical Dynamics"; "Introduction to the General Principles and Methods of Molecular Orbital Theory"; "Introduction to the Concepts and Applications of Symmetry to Structure"; "Applications of Molecular Orbital Calculations in Research," and "The Adverse Effects of Chemicals on Our Environment and Society: Whose Responsibility?"

Vera B. Profit, associate professor of modern and classical languages, presented an invited lecture titled "Karl Krolows Robinson I: Versuch einer Interpretation" for the German Department of the University of Innsbruck, Austria, June 3.

Karamjit S. Rai, professor of biological sciences, presented a paper on "Use of the Mosquito Aedes aegypti as an Experimental Model to Study Electropollution" at a symposium titled "Biological Effects of Electropollution" held at Howard University, Washington, D.C., Sept. 9.

Nageshwara P. Rao, graduate student in biological sciences, presented a paper titled "Genome size variation in mosquitoes" at the 54th annual meeting of the Genetics Society of America, held in Boston, Mass., Aug. 12-16.

James H. Seckinger, professor of law and director of the National Institute for Trial Advocacy (NITA), served as a faculty member at the Indiana/NITA Trial Advocacy Program, Indianapolis, May 7-8. He was a speaker at the annual North American Special Services Program of Arthur Andersen & Co., Washington, D.C., May 8-10, and spoke at the induction of Hon. Ann C. Williams as a United States District Court Judge for the Northern District of Illinois, Chicago, June 14. He was a faculty member for the NITA Advanced Trial Advocacy Program, Boulder, Colo., June 29-July 9, and was a speaker and special faculty member for the Courtroom Presentation Program, Arthur Andersen & Co., London, England, July 18-19. He was a faculty member for the NITA National Session in Boulder, Colo., July 22-26, and served as director of the Teacher Training Program for the faculty of the Detroit (Mich.) College of Law, Aug. 9.

B.F. Spencer, Jr., assistant professor of civil engineering, presented a paper titled "On the First Passage Problem in Random Vibration for Simple Non-linear Oscillators" (co-authored by L.A. Bergman) at the eighth International Conference on Structural Mechanics in Reactor Technology, held in Brussels, Belgium, August 19-23. The paper was published in Volume M of the Conference Proceedings.

Eugene C. Ulrich, associate professor of theology, presented two papers, "The Textual History of the Book of Daniel" and "Fragments and Variants from 4QDan^a and 4QDan^b," while convening the three-day Task Force on "Old Testament Textual Criticism" at the Catholic Biblical Association meeting in San Francisco, Calif., Aug. 12-15.

Rev. Oliver F. Williams, C.S.C., assistant professor of management, chaired a session and presented one of the papers at a symposium on "The U.S. Catholic Bishops' Letter on the Economy" at the 45th annual meeting of the Academy of Management, San Diego, Calif., Aug. 12, and presented a paper on "The Ethics of U.S. Investment in South Africa" at the Business Ethics Research Workshop, Stanford University, Palo Alto, Calif., Aug. 15.

administrators' notes

appointments

Rex J. Rakow, assistant director of security, has been appointed associate director of security effective Aug. 1. Rakow holds the B.A. degree from Indiana University, an M.S.A. from Notre Dame, is a 1983 graduate of the Federal Bureau of Investigation National Academy and serves on the board of directors of the International Association of Campus Law Enforcement Administrators. In addition to his current duties he will have more direct supervision of the security operation of the Snite Museum, Athletic and Convocation Center, special events, scheduling, and internal discipline matters.

Kerry Temple has been appointed managing editor of Notre Dame Magazine, effective September 1. Formerly he carried the title associate editor. James Winters, Temple's predecessor as managing editor, left the publication at the end of August to become an articles editor for Chicago Magazine.

honors

The University Relations division's efforts in several areas were honored in this year's national competition sponsored by the Council for Advancement and Support of Education (CASE). They include:

--Alumni Association: A silver medal in the Alumni Relations Program category for "1984 Reunion." Marie Gerencer, assistant director, coordinator; Charles F. Lennon, Jr., executive director.

--Development: A gold medal in the Special Constituency Giving category for "fly-ins" (A Day at Notre Dame). William P. Sexton, vice-president for university relations, and James V. Gibbons, director of special events and protocol, coordinators.

--Notre Dame Magazine: A gold medal as one of the 13 best university magazines in the nation; three gold medals and one silver medal in the Best Article category, including two articles by Kerry Temple, managing editor, which were awarded gold and silver medals, and a bronze medal in the Illustration in Print category for the magazine's illustration program. Don Nelson, art director; Walton R. Collins, editor.

--Publications and Graphic Services: A gold medal in the Special Program Publications category for the Decio Faculty Hall Dedication materials, and a silver medal in the Individual Special Program Publications category for the Endowed Chairs Celebration brochure. Paul Wieber designed both sets of publications. In addition, the District V CASE Conference in Chicago, chaired by Carl Magel, director of publications and graphic services, received a gold medal for its publicity and registration materials in competition with the seven other CASE districts.

--Public Relations and Information: A grand gold medal in the Electronic Media category for "Notre Dame in Review, 1983-84." Richard W. Conklin, assistant vice president for university relations, and Bruce Harlan, director of photography, coordinators.

activities

William J. Hickey, Jr., director of University Food Services, was appointed as a consultant and evaluator of food service and housing for the University of Illinois at Chicago in June. He also spoke on "Food Service and Its Future" at the National Food Brokers 1985 Management Conference in Washington, D.C., June 14.

document- tation

final report of the provost's committee on teacher/course evaluation

In the spring of 1982, the current Teacher/Course Evaluation (TCE) form came into use for a three-year experimental period. At that time the Provost appointed a University Committee on the TCE to oversee its use, monitor problems and complaints, conduct studies on its strengths and weaknesses, and suggest modifications. The Committee was originally chaired by Assistant Provost Katherine Tillman. When she went on leave in the fall of 1982, David Leege became chairman, and Isabel Charles joined the Committee as representative of the Provost's office.

The Committee has since produced three reports on the TCE and has reviewed and revised the Teaching Activity Report (TAR). The full reports are appended, and we give here a very brief summary of them.

The first report, which appeared in Notre Dame Report #5, 82-83, pp. 179-180, described an experiment whose purpose was to measure the effects of class size, student motivation and mode of administration of the TCE on the scores faculty members received on each TCE item. We found that teacher ratings at Notre Dame show very little sensitivity to these variables; thus, it would be unnecessary to develop specific norms for comparing ratings based, for example, on class size, major field, required course, etc.

Our second study was a comparison of student ratings, colleague ratings, student observer ratings, self-ratings and alumni ratings of teaching effectiveness. This report indicated that student ratings and alumni ratings have about the same validity, and are far superior to the other types of ratings, particularly those done by peers.

The last report concerned the results of a questionnaire about the TCE process sent to each person teaching a course in the fall of 1984. The results are too diverse to summarize and the report should be read in its entirety. We can give a few highlights: more than 80% of the respondents believe that the TCE results accurately reflect their own teaching performance most of the time or often; yet, the perception lingers that the TCE measures popularity more than teaching effectiveness. A modest amount of grade inflation can be attributed to the TCE but this negative feature is offset by the TCE's impact on course improvement, particularly among younger faculty. More than 75% of the respondents find the summary TAR satisfactory. Almost 75% find the current TCE form as good or better than the previous form, and almost 70% want the TCE retained.

As a result of these studies and our other activities, we make the following recommendations:

1. All nontutorial undergraduate courses should continue to be monitored through both the evaluative and diagnostic sections of the TCE. The TCE is less appropriate and, therefore, optional for graduate and professional courses.

Provost Action: continue TCE's for undergraduate, graduate and professional non-tutorial courses.

-
2. The basic form of the TCE should be retained. In particular, percentage distributions should continue to be used to report the results of each item.

Provost Action: Approved.

3. Item 4 (on course requirements) should be deleted, and a new item added: "The instructor stimulates creative or analytical thinking."

Provost Action: Approved.

4. Two additional items, which were used experimentally two years ago, should be included:

- I. Among the goals listed below, choose the one most important in this course (blacken the appropriate box):

- A) Gaining factual knowledge (terminology, classifications, methods, trends).
- B) Learning fundamental principles, generalizations or theories to improve rational thinking, problem-solving and decision-making.
- C) Developing specific skills, competencies and points of view needed in this field.
- D) Developing creative capacities.
- E) Developing skill in expressing myself orally or in writing.

- II. How would you rate your progress toward this goal as a result of this course? (Blacken appropriate box)

- A) Excellent
- B) Good
- C) Average
- D) Poor
- E) Very Poor

Provost Action: Approved.

5. This report and its appendages (minus Report 1 which has already appeared in Notre Dame Report) should be made available to the entire faculty, perhaps by publication in the Notre Dame Report.

Provost Action: Approved.

Nancy Carter
Isabel Charles
John Derwent
George Howard
David Legee, Chair
Charles McCollester
Robert Vacca

June 20, 1985

Study Report #2. Comparison of Techniques for Rating Effective Teaching: Summary of a Study

With the active encouragement of the Provost's Committee on Teacher/Course Evaluation, Prof. George Howard and Christine Godshall conducted a study designed to compare the utility of several techniques for rating teaching effectiveness. Conducted in Fall, 1982, the study focused on 43 faculty members in eight departments of three colleges of the University of Notre Dame who volunteered as subjects for the study. The range of undergraduate courses evaluated covered all levels but, in general, lower-level classes predominated.

Ratings were sought from present students, former students, and the faculty member. In addition, ratings by colleagues and non-colleague observers were collected. The ratings covered not only the typical domains of TCE-type instruments, but also focused on the teacher's overall teaching ability and a hypothetically unrelated trait. The research design permitted the comparison of different techniques for measuring teaching effectiveness at the same time that it discriminated teaching effectiveness from another unrelated characteristic of an instructor. The COFAMM analytic procedure was used to estimate the model.

The results indicate that current student ratings and former student ratings are techniques for evaluating teaching effectiveness decidedly superior to self-ratings, non-colleague ratings and colleague ratings, in that order. When one considers whatever is being measured as 'teaching effectiveness' across all five techniques, about 80% of that characteristic is adequately captured by either current or former students' ratings alone, while only 9% would be measured by peer ratings alone. The study could not address whether any unique information outside 'teaching effectiveness' is introduced by using peer ratings. It also does not address the impact such ratings have on the peer rater, e.g., making the rater more aware of good teaching techniques used by colleagues.

Based on discussion of Study 1 and Study 2, the Committee concluded that the University would not be amiss in relying on students' TCE ratings as a valid measure of teaching effectiveness, or in encouraging systematic ratings by course alumni. The Committee expressed concern that peer ratings, the second most widely used measure of teaching effectiveness within the University, predicted so erratically to 'teaching effectiveness' and discriminated so poorly from a hypothetically unrelated trait.

The Study was recently published by Profs. Howard and Maxwell and Ms. Godshall in the principal journal for this subfield, The Journal of Educational Psychology, and is available for further examination.

Study Report #3. Faculty Evaluation of the TCE

The Provost's Committee on Teacher/Course Evaluation has been in existence for over three years. During that time the Committee has not only received reactions and suggestions from faculty and administrators, but it has also conducted studies designed to assess the utility of specific items, to evaluate the trustworthiness of the University's current TCE instrument, and to compare the quality of information about teaching effectiveness derived from this instrument as opposed to several other methods for evaluating teaching effectiveness. In its final study, the Committee has asked the general faculty and the personnel committees to provide reactions to the current TCE instrument, the Teaching Activity Report (TAR), and related aspects of teacher evaluation.

This final study utilized a questionnaire sent to all persons responsible for teaching a course in the fall semester 1984. The same questionnaire and an additional sheet of questions were sent to all members of departmental or school committees on appointments and promotions for 1984-85. The materials were mailed in early February 1985 and returns were accepted until mid-March 1985. The response rates for virtually all the tenured or tenure-track faculty were above 35%. With the exception of a professional school, Law, the colleges yielded response rates roughly in the 30-40% range. Only the initial mailing of the survey instruments was made. Thus, the response rate is satisfactory for a survey without follow-up reminders. The response rate is quite high when contrasted with surveys conducted by other faculty or student organizations interested in the TCE. We have no reason to believe there is a systematic bias in non-response among the members of the regular teaching and research faculty.

The study permits us to pose several questions. Some have to do with general reactions to the TCE, its trustworthiness, and its utility as an evaluative instrument. Others have to do with its utility as a diagnostic tool and possible improvements that could be made in it. Our data analyses and interpretations are grouped by such questions. We have also presented many of our findings by important analysis groups: all faculty, tenured faculty, sometime A&P committee members, and untenured assistant professors. The appointments and promotions committee members are those most in need of TCE and other results for the evaluation of teaching effectiveness, and the untenured assistant professors are the group most "at risk" in the evaluation process.

1. Is the TCE seen as valid?

Critics of the TCE maintain that it is a poor measure of teaching effectiveness on the grounds that high scores reflect little more than the personal popularity of the instructor. Their response to our question on this topic indicates that faculty feel students respond more to the manner than the matter of teaching, and this fact counts against the perceived validity of the TCE. The perception is strongest among untenured assistant professors.

Item 051. TCE measures:

	<u>Total</u>	<u>Tenured Faculty</u>	<u>Untenured Asst. Profs.</u>
mainly popularity	42%	38%	55%
mainly effectiveness	20%	20%	17%
about half-and-half	38%	42%	28%

On the other hand, response to a general evaluation question shows clearly that TCE results are seen as accurately reflecting the individual's own teaching performance, and this fact counts in favor of the perceived validity of the TCE. Curiously, the strongest perception of accuracy is among the untenured assistant professors.

Item 025. TCE results accurately reflect my teaching performance:

	<u>Total</u>	<u>Tenured Faculty</u>	<u>Untenured Asst. Profs.</u>
most of the time			
or often	81%	76%	84%
seldom or never	19%	24%	16%

The response of CAP members give additional evidence that TCE results are seen as broadly reliable. 65% of the CAP respondents to item 062 stated that TCE results tend to converge on the results obtained from other methods of measuring teaching effectiveness, while only 15% said the results tended to diverge. And while no one said in answer to 066 that TCE's allow a rank ordering of all teachers, only 9% said they were of no use in assessing teaching. 91% said that at least the broad categories of good and poor teachers could be identified by TCE.

2. Does the TCE have harmful effects?

Detractors claim that the TCE causes grade inflation and lowered course standards as the faculty seek the high ratings ascribed to popularity. But the results on items 043 and 044 indicate that this does not happen on anything like the scale charged by the critics.

Item 043. Has TCE caused you to give higher grades?

	<u>Total</u>	<u>Tenured Faculty</u>	<u>Untenured Asst. Profs.</u>
no	81%	87%	80%
somewhat	6%	4%	11%
yes	6%	9%	9%

Item 044. Has TCE caused you to assign less work?

	<u>Total</u>	<u>Tenured Faculty</u>	<u>Untenured Asst. Profs.</u>
no	89%	88%	80%
somewhat	4%	4%	5%
yes	7%	8%	14%

These results indicate that the TCE does have a modest negative effect on teaching standards, and rather more so for untenured assistant professors than for tenured faculty. Some grade inflation and watered-down requirements can be attributed to student evaluation of faculty. Whether or not that influence lies within the bounds of what is acceptable depends on offsetting positive effects.

3. Does the TCE have beneficial effects?

The computerized TCE is universally held to be of less diagnostic value than the essay questions and individualized evaluations developed for use by the various colleges and departments. Still, far more faculty members find even the computerized TCE diagnostically valuable than report that TCE causes them to lower teaching standards.

Item 026 asked how useful the student responses are in providing information that could be used to improve teaching.

	<u>Total</u>	<u>Tenured Faculty</u>	<u>Untenured Asst. Profs.</u>
generally useful	33%	30%	30%
generally not useful	67%	70%	70%

Item 045 asked if the TCE has stimulated efforts for specific improvements in teaching.

	<u>Total</u>	<u>Tenured Faculty</u>	<u>Untenured Asst. Profs.</u>
considerable influence	22%	17%	27%
moderate influence	43%	45%	38%
little influence	36%	38%	35%

These two items show that even though the diagnostic value of the TCE is limited at best, it is considerably higher than the degree of influence TCE has on lowered course standards and grade inflation. And item 045 indicates that although the untenured assistant professors are the more likely to raise grades and decrease workloads, they are also more likely to use TCE results to locate personal weaknesses and attempt improvements.

We conclude that the beneficial effects of the TCE offset the most serious harmful ones.

4. Are TCE results presented effectively?

The committee that devised the current TCE form held that the old format of a single GPA number for each question oversimplified the complexities of teaching performance. The current system of distributed percentages has, however, met some opposition on the part of those who use TCE results to evaluate the teaching of others. There are too many numbers; the results are hard to digest.

The present committee addressed this problem by developing a new summary Teaching Activity Report. Item 042 indicates that 77% of the faculty as a whole finds the new TAR satisfactory; 78% of CAP members endorse it.

Item 041 asked if the current format of distributed percentages is preferable to a GPA format. A majority says it is, but there are enough dissenters, especially among CAP members, to show that the current format is, indeed, more laborious to use.

Item 041.

	<u>Total</u>	<u>CAP</u>	<u>Assistant Professors</u>
prefer current format	63%	57%	66%
prefer GPA format	37%	42%	34%

At the same time, item 038 shows that many individuals who do find the results rather more difficult to interpret also appreciate the position of the original TCE committee that letter grades oversimplify teaching performance. 038 asked what set of response categories the faculty would prefer to see used on the TCE, and GPA categories were chosen by only 14% of the faculty as a whole, 17% of the CAP members, and 8% of the untenured assistant professors.

In addition, there is evidence that A&P committees are making the transition to use of the new format. Item 063 asked how often these committees convert the distributed percentages back into GPA scores. 64% reported that it was not done or was done infrequently, 9% that

it was done about half the time. 26% reported that it was done commonly. Thus, the Committee's hopes that personnel committees will move away from misleading precision are partially realized, but about 1/4 to 1/3 of CAP members (and deans) still run a risk of misusing TCE evaluation scores -- this despite the fact that no CAP members felt that a precise rank-ordering from best to worst was possible.

5. Should the University retain TCE?

Item 053 asked directly if TCE should be retained or discontinued, in light of the University's responsibility to evaluate teaching. The answer was plainly: It should be retained.

	<u>Total</u>	<u>CAP Members</u>	<u>Tenured Faculty</u>	<u>Untenured Asst. Profs.</u>
Retain TCE	69%	74%	69%	64%
Discontinue TCE	31%	26%	31%	36%

Cross-tabulation of this item with item 051 (popularity vs. teaching effectiveness) brings out the fact that it is those persons who believe the TCE is fundamentally nothing more than a personality contest who encourage its discontinuance: 53 of 95 individuals (56%) recommend dropping TCE. But among those who hold that teaching effectiveness is at least equal to popularity in determining TCE scores or is more important, only 17 of 131 individuals (13%) would drop it.

Those faculty members who have used both the old and the current TCE forms tend to prefer the current one. Item 052 results:

	<u>Total</u>	<u>CAP Members</u>
Current form better than old one	36%	40%
Both about the same	38%	35%
Current form worse than old one	25%	25%

Finally, item 065 bears on the University's retention or discontinuance of TCE. That question asked CAP members how influential TCE's actually are in determining committee decisions on teaching quality. If we had learned that the TCE's were of little account, there would be an argument in favor of eliminating them as a meaningless ritual. But that is not the case. 80% of the CAP respondents stated TCE's were either the most important factor or one of several more or less equally important factors. 13% assigned them a minor but still useful influence. Only 7% reported that the CAP gave only lip service to TCE results.

6. What other instruments are used for faculty evaluation?

On the questionnaire addressed to CAP members, 85% of the respondents listed other methods besides the TCE through which their department acquired information on teaching effectiveness. Table 2 lists these methods by frequency of mention. Since there was not always a consensus within a department's CAP on the methods used, we have used all CAP respondents as the base for calculating percentages. This means that departments with large committees -- e.g., Mathematics -- are slightly overrepresented, but the college distribution is not grossly disproportionate. Multiple mentions are possible.

TABLE 2

Additional Methods for Evaluating Teaching

<u>Methods</u>	<u>Percent (%)</u>
Faculty visit, peer visits	44%
Informal surveys of current students, hearsay from students, counselors, course registration staff	42%
Faculty interactions, collegial contacts	20%
Examination of syllabi, exams, courseware, teaching innovations	18%
Informal surveys of alumni	8%
Colloquia, presentation of papers	8%
Formal surveys of current students	6%

It is reasonable to conclude that most departments are using one or more other methods of teaching evaluation to supplement the information gained from the TCE. It is also reasonable to conclude that this search for information is not very systematic. Much of the collection is quite informal. One of our earlier studies pointed out that formal surveys of former students was second in validity only to the TCE scores of current students. Yet only 8% of respondents mentioned surveys of alumni, and even that is done informally. Further, the previous study showed that peer visits yielded the least valid information about teaching effectiveness, yet almost half of the responding CAP members said that their department used such data.

The Committee feels that the University has given substantial attention to improvements in the TCE, but needs to devote more effort to supplemental methods for evaluating teaching effectiveness.

7. What improvements in the current TCE are desirable?

Only about one-third of the faculty felt that the diagnostic portion of the TCE was particularly helpful. For feedback useful in adjusting future courses, most preferred the written evaluation. The notable exception was A & P members in Engineering who found the diagnostic items for their own courses somewhat useful (73%).

The following is representative of the comments received:

"To be honest, the computerized TCE form is not very helpful for putting together or teaching a course. However, the written evaluations that go along with it are enormously helpful. Why not give the written evaluations out sooner in the semester so that changes can be made to benefit current students and their courses?"

Despite the general sentiments, when the respondents were asked which of the specific items they would recommend deleting, only three of the eleven (4-20%, 5-16%, and 11-17%) were mentioned with any consistency and even here, the rate of objection was quite low. The greatest objection to Item Four--course requirements and course objectives--was raised by members of the Business College. The faculty indicated that, "Students are in no position to evaluate course requirements," or that "...students can't tell (in a subject unfamiliar to them) whether the requirements are helping meet the objectives set of the course or not." A & P members in Engineering were the strongest supporters for the deleting Item Five--appropriate examinations. Item 11--time demands-- received the greatest criticism from Business A & P members and faculty in the Engineering College.

As a follow-up question, the respondents were asked whether the diagnostic items were effective in making students consider course content and teaching separately. Their responses differed considerably across rank and college. Whereas Assistant Professors in Science (89%) found the items to be somewhat, to very effective in making the distinction, their A & P members (57%) found them slightly, to not effective. Conversely, Assistant Professors in Business (88%) found them ineffective, while 63% of their A & P found them slightly effective. Assistant Professors in Science (78%) and Engineering (63%) found the information obtained from these items quite useful, whereas their counterparts in Business (66%) found them of little or no use. A & P in Arts and Letters (69%) also felt the items contained useful information.

In an attempt to ascertain the usefulness of additional information, five items were presented for consideration. The results follow:

1. "Have students indicate the strength of their interest in taking course."

Overall, 50% of the faculty would find such an item useful. Assistant Professors in Business (63%) and Engineering (77%), as well as 73% of the A & P in Business and 63% in Arts and Letters, would find inclusion of this item useful.

2. "Have students report whether the course experience exceeded, matched, or fell short of initial interest."

Overall 43% of the faculty would find this item useful. The figure is highest in Arts and Letters but lowest in Business and Engineering.

3. "Have students evaluate instructor's ability to stimulate independent (critical/analytical) thinking, beyond mastery of facts or techniques."

This item clearly is of interest to faculty with 61% arguing that it would be useful and

another 14% seeing some use in it. Respondents in all colleges would find the item helpful, particularly faculty in Arts and Letters (Assistant Professors, 90%) and Science (Assistant Professors, 89%).

4. "Have students indicate how much they have learned."

This too is an item of considerable interest in that 58% of the faculty would find it useful. In general, Assistant Professors expressed the greatest interest in this item, Business and Arts & Letters marginally more so than the other two colleges.

5. "Have students indicate if they have worked as hard as they should have."

Overall, 53% of the faculty are interested in this item. Assistant Professors in Science (88%) expressed the most interest for including this item. Similarly, members of the Arts and Letters faculty found it appealing.

A number of the respondents suggested items similar to the following be considered for inclusion:

"I have made a point of going to every class so that I don't miss something important."

"This course has motivated me to want to take another one in the same general area of study if I could fit it into my schedule."

"Did this course stimulate you to reconsider/reject opinions or ideas you held before enrolling in the course?"

"Would you recommend this course as taught to others?"

"Would you recommend this teacher to others?"

"Did you have a choice of sections for this class?"

In addition to the diagnostic questions, the faculty were asked whether the demographic items on the TCE were helpful. There was little consensus across rank or college in the responses. Since they seem to provide help to some constituent groups, retaining these items on the TCE seems advisable.

To summarize, certain improvements of the TCE are desirable. Item 4 should be deleted, and a new item dealing with analytical/independent thinking should be added; e.g., "The instructor stimulates creative or analytical thinking."

8. Where and how often is it appropriate to administer the TCE?

Although the Committee did not offer structured options on these matters, many faculty volunteered suggestions on the appropriateness and frequency of TCE administration. The low response rate out of the Law School, along with other comments from respondents suggest that professional-school classes at the postbaccalaureate level are not well-suited to a standardized instrument used University-wide. Most graduate seminars fall in the same category; in that instance, the quality of student papers is a better measure of teaching effectiveness than is the standardized TCE. Finally, course offerings that are tutorial in nature--e.g., music lessons--are ill-suited to the TCE.

Some faculty expressed concern about the frequency of administering the TCE. This quote captures a common expression:

"Personally, I believe TCE's should be mandatory for new and untenured faculty. After a person has tenure, TCE should be optional and required only for new courses and/or promotion to higher level."

The committee is concerned that the frequency of measurement might contaminate the quality of evaluation. It considered alternatives such as frequent evaluation of all assistant professors and episodic evaluation of tenured faculty. However, none of those alternatives met standards of fairness, ease of administration, and completeness of record. Therefore, the Committee recommends that for the present all nontutorial undergraduate courses continue to be monitored through both the diagnostic and evaluative sections of the TCE.

Finally, we are concerned that only current students are used in systematic evaluation of courses and teachers. Several faculty members expressed a preference for time-lagged evaluation. Their concern is captured in this quotation:

"Good teaching takes a while to sink in -- why not send evaluation forms to postgrads and compare them to TCE's for the course when given. The comparison may prove (or disprove) value of the TCEs."

The Committee encourages the University to consider a standardized form for surveying "alumni of courses" about the effectiveness of teachers they took two or more years earlier. This instrument would be preferable to hearsay evaluation from former students.

(NOTE: If faculty members want to see a more complete breakdown of the responses to this survey, they can contact a member of the Committee.)

May 16, 1985

addenda to faculty senate journal of may 7, 1985

[Editor's Note: Appendix 1, Report of Faculty Senate Benefits Committee; Appendix 2, Report on the University's Contribution to TIAA-CREF (discussion draft), and Appendix 3, Report of the Chairman of the Faculty Senate 1984-85, were published in NDR Vol. 15, No. 1.]

Appendix 4. The Junior Faculty at Notre Dame: A report prepared by the Committee on Faculty Affairs of the Faculty Senate, May 1985

Faculty development at all ranks has been the Senate's principal concern throughout 1984-85. The Committee on Faculty Affairs undertook a study of development issues as they bear on the junior faculty (JF), making the reappointment of JF in the third year the focal point of the enquiry. The Committee set out to learn if the requirements for reappointment were well-received and clearly understood throughout the University, and if there were any problems or ambiguities that the University might properly address in order to assist the JF in their pursuit of excellence in scholarship and teaching. This report states the Senate's findings and recommendations.

I. Three general considerations play a large part in defining the situation of the JF and have, accordingly, guided the development of this report. They must be set out first.

a) The Single Faculty Policy. Section 3a of the PACE Report lays great emphasis on the principle that each member of the faculty be strong in both research and teaching. PACE states, "...a policy in which some are teachers and some are scholars can only lead to the undesirable result of two classes of faculty, a teaching class and a research class, with teaching in second place." This rule raises the question of how strength in scholarship and in teaching are understood and what the current relationship between them is.

b) The JF within a university in transition. Notre Dame's systematic transition to teaching and research status places a special burden on the JF. Although some departments in the University made that transition years ago, it is still true that for the University as a whole the transition is at a critical point; and even in the departments with established traditions of research standards continue to rise. The 1984 North Central Association Accreditation Report observes, "The most notable recent development affecting the quality of the faculty's life at Notre Dame is a dramatic increase in emphasis on scholarship and research.... Of the many ways in which the research and scholarship policy affects the faculty, two seem particularly worth considering. The first concerns junior faculty members for whom standards for tenure and promotion have been sharply escalated. It is commonly the case that these standards are now much higher than they were when the faculty member originally agreed to work at Notre Dame." [The text of the North Central Report can be found in Notre Dame Report Vol.14, No. 9 (1984-85), pages 346-364.] This point suggests a number of issues, including whether or not the JF have the resources they need to meet research expectations and find here a climate supportive of scholarship and sensitive to their needs.

c) The JF and the University's commitment to undergraduate teaching. The "old" Notre Dame was essentially an undergraduate teaching institution. Inevitably, given the fact of transition, some strains and ambiguities will arise concerning how excellence in undergraduate teaching is to be preserved. The North Central Report comments, "There are questions, of course, about how this emphasis (on research and scholarship) can be reconciled with the University's traditional commitment to undergraduate teaching. The history of Notre Dame in the near future will be the working out of this problem, but the community seems tacitly confident of the outcome." This question bears directly on the JF. More than any other segment of the faculty, they are called on to maintain in practice the tradition of teaching while at the same time meeting the rising demands for scholarly production. This report will look at how they are meeting the challenge.

II. It is appropriate at this point to make a general observation. Our meetings with members of the JF, department chairmen, and members of CAP's have impressed the Senate with what a strong group of faculty the JF are. They understand and accept the requirement that they demonstrate clear promise of significant scholarly achievement in order to gain reappointment. The persons appointed in recent years have excellent research potential and are confident that they will do well in the national competition for grants and space in leading journals and will be successful at Notre Dame. The Provost's letter to the faculty on reappointment, promotion and tenure (October 31, 1984) serves to confirm the strength of the JF for, despite the rigor of the standards, reappointment is usually gained. With an average of 21 candidates per year, in 1979 75% were successful, and for 1980-84 the rates were 76%, 85%, 84%, 76%, and 94% respectively.

There is no crisis among the JF. But that is not to say that they unequivocally endorse the generally laudatory tone of the North Central Report. From their perspective, the conditions for gaining reappointment and tenure could be improved in several ways. It is not just a self-centered question of whether or not one will be reappointed; the JF look beyond that to broader aspects of faculty life at Notre Dame and call attention to ways whereby the growth of the University itself can be enhanced. The following sections of this report discuss some of their problems and suggestions.

III. Research.

The JF share the University's commitment to significant scholarly achievement, and no evidence has come to light suggesting that there is confusion about what constitutes good research from department to department or college to college. But other research-related matters deserve comment.

1) The problem mentioned most often--both by JF and department chairmen--is that Notre Dame expects the same quality of research produced by the most prominent universities but does not provide comparable resources. The specifics most commonly singled out are excessive teaching loads, lack of graduate research assistants, deficient library holdings and inadequate computer resources. Section 3e of the PACE Report calls for "a slight and gradual overall reduction of teaching load during the 1980's... this reduction to be applied to those individuals with proven records or clear potential in research." That would be a step in the right direction; but in view of the frequency with which difficulties are reported in this sector, a more vigorous policy is to be encouraged. We will return to this point below.

2) A number of JF report frustration and apprehension lest the scholarly significance of their research not be properly appreciated by members of the administration or even their own CAP's. Some individuals assert that they have been denied funding by committees where no member was conversant with their specialty. This complaint should probably be understood in conjunction with a more diffuse, but common, perception that the climate for research here could be better than it is -- this seen, on the most basic level, as people not talking to each other about their work often enough. Some individuals feel quite isolated and would welcome more opportunities to talk about their work with senior members of their departments for the sake of intellectual stimulation and an enhanced sense of collegiality.

3) There is a certain amount of concern, both on the departmental level and among some members of the JF, that late-developers are filtered out and that unconventional lines of research are discouraged by the current conditions of publication. In some disciplines, a demand to "publish a lot" at the beginning of a career overlooks the need to develop and mature as a thinker. And in the long run, an insistence that one aim for publication mainly in one set of prestigious journals might prove to be an oppressive constraint on scholarly creativity.

4) A final point bearing on the research requirement is that there is a movement in a number of departments away from appointing persons directly out of graduate school. Postdoctoral work or prior employment is a plus, for the two years available to the beginner before the reappointment process begins is not long enough to establish good evidence of scholarly promise. There is some support for postponing reappointment until the fourth year as another way to address this problem.

IV. Teaching.

A number of ambiguities surround the teaching requirement, leading us to the conclusion that it is less clearly understood and less easily applied than the research requirement. We shall argue that the University ought to develop a more comprehensive and uniform policy for teaching than it has at present.

We take it as established that Notre Dame has an institutional commitment to maintain excellence in undergraduate teaching and that strength in teaching is required of each member of the faculty by the single faculty policy. And it is also true that the transition to research must inevitably lead to some kind of reformulation of the kind and amount of teaching expected of the faculty. But it seems that that reformulation is not being planned and monitored as well as it might be.

A reduction in course loads must certainly be considered an indispensable part of the effort to find a proper balance between teaching and research. We have already referred to the PACE recommendation that a certain reduction of overall teaching loads be achieved over the next few years and our survey of the departments indicates that almost everywhere throughout the University chairmen are making efforts to reduce the number of courses taught by the JF. This is, however, happening very unevenly, and the claim that teaching loads are excessive is one of the most common complaints raised by the JF. We find, at one end of the spectrum, that JF in some departments of the College of Science teach only one course in each of their first four semesters. At the other extreme, there are departments whose volume of required undergraduate teaching routinely requires JF to teach three courses per semester. There, five courses per year is spoken of as a goal yet to be achieved, if it is entertained as a possibility at all. The chairmen agree that the loads are too high, but point to the fact that they do not have the money to hire additional faculty. Such expedients as assigning mini-courses, convenient scheduling, and requiring not more than two preparations are of only limited value. It is also worth pointing out that a kind of one-sided thinking is associated with course reductions. They are invariably seen as freeing up time for research but never spoken of as ways to ensure that the teaching one does do can be done with excellence. We typically speak of teaching "loads" but research "opportunities."

The Senate recommends, then, that the University come to a more clearly articulated and uniformly applied policy on course reductions, especially for the JF. Such a policy could still take into account the special needs of the individual colleges and departments, but it should begin with a more formal study of the diverse departmental responses to the question of course load and research that are now in place, for that would provide the evidence for understanding the specific and multiple ambiguities at issue between teaching and research throughout the University.

Apart from course reductions, there is no evidence that the question of teaching in the context of Notre Dame's transition to emphasis on scholarship and research is subject to guidance by policy at all. An invisible hand directs the transition; all the emphasis is on research, and teaching is left to find its own level. Despite the official declaration that Notre Dame requires a balance between teaching and research, the JF believe overwhelmingly that the rewards of reappointment, tenure, promotion and good raises depend almost entirely on research (and many, if not most, of the tenured faculty share this belief). There are virtually no incentives for excellent and innovative teaching. Members of the JF report frequently that they have been told (off the record) by deans and senior members of their departments that research is the name of the game, that the simple maxim "publish or perish" does indeed apply. Teaching must be adequate -- really poor teaching will not be tolerated -- but it need not be more than that. Time spent improving adequate teaching to make it excellent is time misspent, for the research one could do in that time will count much more than an improved teaching evaluation. Teaching loads as low as one course per semester are given on the implicit assumption that demonstrated teaching strength is not a crucial consideration in the career of a JF member: the argument is that those who can generate productive scholarship and are articulate enough to win external funding are capable of developing as teachers later, after tenure, and that TCE scores tend to confirm it.

The real issue here is not whether research should or should not be the more heavily weighted factor. It is a strong argument to say that the advancement of knowledge is the

principal task of a mature institution, so that recognition ought to be given chiefly for scholarly excellence. The question is how to avoid paying only lip service to teaching, particularly undergraduate teaching, while in practice creating a set of conditions that make "adequate" teaching perfunctory. The Senate study did not reveal a full-blown crisis in undergraduate teaching. But it did turn up unmistakable signs of an emerging problem. One part of the evidence deals with direct efforts to decrease interaction with students. Faculty are less available to students: some schedule all teaching on two days a week and "disappear" the rest of the time; others schedule their courses back-to-back to minimize availability; others have office hours by appointment only ("and you know," says the respondent, "that they never make appointments"). A number of senior faculty reported the impression (this is soft data) that JF in their departments are cutting back on undergraduate papers and essay exams as being too time-consuming. Some JF complain about having to teach large classes--not for pedagogical reasons, but because they take too much time. Minimizing the number of preparations is a plus, for the same reason.

Other evidence concerns the morale and attitudes of members of the JF. Particularly (but not exclusively) in the College of Arts and Letters JF feel that they are expected somehow to be simultaneously all that the "old" Notre Dame faculty was and all that the "new" should be, and that the University is not being honest with them or with the students about their situation. Consider this description of their role taken from the Admissions Office brochure for prospective students:

Professors here spend the majority of their time teaching and meeting with undergraduates. Over ninety percent of all undergraduate courses are taught by professors, and some of the most notable professors teach freshman courses. Faculty members schedule weekly office hours and encourage you to visit with them to discuss course material, future plans or simply to enjoy casual conversation.

This statement meets with derision. Not because the JF have no regard for teaching -- many of them feel teaching is a very real part of their vocation -- but because it seriously misrepresents the reality of their situation. The cynicism prompted by this and similar statements is a bad sign. These members of the JF feel that teaching does make great demands on their time and energy, and that the University is reaping the benefits of their efforts, but that their ultimate success depends almost wholly on the research they are hard-pressed to do. From this kind of source a general attitude of mistrust of stated University policy arises. "I am ready to believe," says one respondent, "that they are willing to use us up and throw us away." But neither the JF nor the University as a whole will thrive in such a climate.

We observe finally that the students report some decline in the quality of teaching. Although the student-written appendix to the final report of the University Curriculum Committee presents matters in terms rather more black-and-white than the Senate study indicates is the case, the problems the students say warrant attention do tend to converge with what we have observed, and help to define the emerging problem. Their report called attention to three issues:

1. Large, almost unmanageable class sizes in all disciplines. This often results in an intimidating environment and reduces student-teacher interaction.
2. The attitude of simply getting through the material and fulfilling the requirements often prevails among the faculty. This results in a dictating environment rather than a healthy, learning atmosphere, and students soon develop the "9 to 5" mentality towards their education, living from requirement to requirement.
3. The University emphasis on faculty research seems to minimize the faculty's commitment to the students and to education. This jeopardizes the ideal students seek in the faculty as role models who are highly committed to education and to the students, rather than to what appears to be projects motivated by self-interest and University insistence.

All these considerations lead to the conclusion that strength in teaching is not well-defined within University policy, and that the whole notion of balance between teaching and research needs considerably more discussion and attention than it has received. We suggest that all members of the University community think seriously about questions like these:

- a) We speak easily of preserving Notre Dame's tradition of excellence in undergraduate teaching, but what, precisely, is it that we wish to

preserve? Extensive faculty-student interaction? A sense of moral and religious commitment? Small classes? Or some wholly different set of items?

- b) What should a Notre Dame education look like today? What kinds of teaching must it contain, and how shall we define excellence, or even adequacy, in teaching? TCE scores that do not depart far from the norm -- which some JF are told are all they need achieve -- are not a penetrating measure.
- c) Should we develop incentives and honors for excellence in undergraduate teaching, particularly for the JF? Does our present system make it reasonable for faculty at any rank to teach as well as they think they are able?
- d) Within the real constraints of the budget, how can we best apportion teaching loads so that scholarship may thrive and teaching not be perfunctory?

V. The Role of the Administration.

The North Central Report notes that at Notre Dame "the administration seems to be the dominant force in some areas of traditional faculty responsibility, such as the rank and tenure processes." That fact makes the relationship between the administration and the JF, the administration and the departments, a sensitive matter. The Senate study brought to light several issues pertaining to that relationship.

Some of these questions were raised by the departments themselves. We heard from departments in several different colleges that while the CAP itself has a clear sense of what it wants in a candidate, it is unsure if that is what the administration wants. This point is raised in connection with hiring and tenure, as well as reappointment. Criteria are in some sense unclear to the departments themselves. One CAP is pictured as having a session devoted to trying to guess what the administration wants to hear, so that a candidate, already approved in the department's own terms, can be presented successfully. Another claims that it is forced into black-and-white language: it fears that nuances and qualifications in its recommendation will be read as grounds for rejection. Again, a department states that JF performance evaluations are difficult because that department is not clear about what the administration is going to find acceptable.

Many departments would like to see more flexibility on the part of the administration in interpreting the single faculty rule. In general, where departments have heavy lower division undergraduate teaching responsibilities, they would welcome an arrangement where especially good teachers with lesser research records are retained. Some observe that overall scholarly production would increase, as those who are especially productive would have more time to devote to research. One respondent comments that the talents of research professors are wasted on introductory courses, and that Notre Dame would profit from a more European form of organization, where introductory courses are taught by skilled lecturers.

The JF occasionally report the impression that their own departments have little power of decision in personnel matters. What matters is what the administration decides, but the administration is felt to be remote. The JF deplore their lack of communication with the upper level of University administration and the aura of secrecy that surrounds its deliberations. Some senior faculty members, on the other hand, stress that departmental authority is much greater than these members of the JF suppose. But what may be only a perceived problem can still constitute a real problem of morale, and steps should be considered for reducing this communications gap.

Another JF concern -- frequently expressed and sometimes with vehemence -- is how the administration understands and applies the principle of preserving the Catholic character of the University at reappointment and tenure. PACE states, "If Notre Dame is to remain a Catholic university, dedicated and committed Catholics must clearly predominate on the faculty...." Members of the JF, both Catholic and non-Catholic, told the Senate of their fears lest this principle be understood narrowly and rigidly and be used against candidates whose scholarship and teaching qualifies them for advancement.

Every department responding to the Senate's enquiry stated that religious affiliation played no role in decisions relating to reappointment and tenure, and the Provost's office, too, has assured members of the JF during individual meetings that it was not a

factor at that level of the administration. Nevertheless, no one seems to think that being a Catholic can hurt at any point in the career of a JF member, and some JF believe that since certain academic disciplines have a very small pool of Catholics to draw on, others, where Catholics are more numerous, are going to have to make up the balance. Furthermore, there are recurrent suspicions that certain individuals who in recent years have failed to be reappointed despite departmental support were unsuccessful, at least in part, because they were not Catholics or practicing Catholics. The Senate was told that there have been several cases in recent years of very strong JF who have voluntarily left the University, citing concern about the religious question as a major factor in their decisions.

As a related point, some members of the JF called attention to what they see as an improper degree of interest on the administration's part in the private life of faculty members. They allege that the real reason some departmental recommendations have been overturned is that the administration disapproved of the marital arrangements of the faculty members in question. The question is controversial. Other faculty members believe that if private affairs remain private the University administration takes no interest in them. And there appears to be a question here of conflict of principles warranting more discussion. Rights of privacy are serious and important considerations, but on the other hand the University's commitment to moral as well as intellectual excellence is also serious and important. The relationship between the two principles deserves to be addressed.

VI. Recapitulation.

These are the main points where the circumstances of the JF appear to need further discussion and improvement.

1) The JF want clearer statements of policy and more candor about the weight of teaching and about the importance of moral and religious factors in reappointment. As we have indicated, a broad discussion of the whole teaching requirement is of the highest priority here, not only for the sake of the JF, but for the well-being of the University as a whole.

2) The JF want consistency. If research is their principal task, they want teaching loads small enough to make that research possible. And they want the kinds of research support needed to do the research expected of them, in terms of library resources, computing facilities, graduate and undergraduate student assistance, summer funding, and so forth.

3) The JF would like a greater role in departmental and University policy planning, to ensure that their own research interests and support needs are taken into account at all levels during the University's transition to stronger research status. The JF often feel isolated under the present arrangements. Decisions affecting them are made without their participation. This point widens out to become a general concern for the intellectual climate at Notre Dame. Greater collegiality and shared enthusiasm for the work of scholarship should be one of our goals.

4) A point not previously discussed, but commonly raised by the JF, is their wish for annual performance evaluations by their departments. Most JF do want such an evaluation, but only about half report getting the kind of response from the departments they would like. The departments are uneven in this regard. Some make vigorous and regular efforts to provide such reviews; others stated that the chairman and CAP's do not have the time or other resources needed for the task. One respondent notes that annual evaluations can be seriously misleading when the decisive evaluation of scholarship will be made by outside reviewers. It seems clear to the Senate, however, that if a JF member takes the initiative in seeking an evaluation, it will be forthcoming from any department, and that should be considered a recommendation of this report for the JF.

VII. General Recommendations.

1) The Faculty Senate recommends to the Academic Council that it appoint a University Committee on Teaching charged with making recommendations concerning how the University might best meet the challenge presented by the North Central Report of maintaining excellence in undergraduate teaching during the transition to greater standing in research and scholarship.

2) The Senate recommends to the Provost that he write a letter to the faculty outlining administration policy on religious considerations as they affect reappointment and tenure.

3) The Senate recommends that annual meetings be established between JF and deans for candid and informal discussion of JF concerns in that college. This would be done at the appropriate level given the size of the college and departments--possibly once a year at the department level and once with the dean. These meetings would be intended to allay the sense of isolation and mistrust of stated administrative policy reported by the JF.

4) The Senate also recommends to the deans of the colleges that there be an annual meeting of the college council to discuss the fit between research expectations and research support and to review that college's efforts to enlarge research opportunities. The JF would be given advance notice of these meetings and be invited to attend and participate.

Appendix 5. Faculty Development Study

History of the Study

Several years ago members of the subcommittee on Faculty Administration from the Faculty Senate looked into the possibility of University Professorships to complement the existing endowed chair program. This study revealed that a number of universities use University Professorships in a variety of ways. Endowed chairs are not a significant phenomenon in the public sector; they appear to be more generally used in the private domain. On the other hand different universities use professorships in a variety of ways both for faculty recognition and for developing programs and faculty.

Results of 1984-85 Study

Three dimensions of an integrated program for faculty development include:

- 1) a variegated and comprehensive program of faculty development at all levels;
- 2) a procedure for recognizing faculty achievements, and
- 3) the endowed chair program.

This report will concentrate mainly on the first item which is at the heart of our efforts. Item 2 will be mentioned briefly with some suggestions as to what can be done in this area. Item 3 will be discussed only in the context of the overall development process. Each of the areas represents a comprehensive view of the situation as articulated by deans and faculty who contributed to this process.

1. A Variegated and Comprehensive Program of Faculty Development

At the heart of our proposal is a program designed to assure ample opportunities for all faculty to excel at all points in their careers so that they and our students can be better served. This program should increase the intellectual life of the University. It is varied because it will differ from college to college as the demands of research and methods of teaching differ and also because the needs of the faculty differ at different times in their lives.

Junior faculty have the specific goals of becoming recognized by their peers and achieving promotion with tenure so that they may devote themselves to a life of scholarship. Tenured faculty, in turn, must continue to renew themselves in ways particular to each person, so that their life of inquiry will stimulate their students.

Over time the cultural life of the University and the needs of students change. The faculty must be able to adapt to these changes, and the University must give them the time to develop themselves commensurately. No single member of this community should be made to feel left out, for we recognize that every person has a unique contribution to make. However that contribution may change, fulfilling it remains crucial to the persons themselves and to those with whom they come into contact. If this University professes to recognize the worth of every individual, then it is our obligation to see that no one lacks a constructive role.

Furthermore, we recognize that teaching and research go hand in hand; that research not only can stimulate one's teaching, but can make it more wholesome and complete for each student. Yet teaching and research engage different dimensions of a person, and these evolve over time. All of these factors must be integrated in the diverse and unique environment of a university. Being true to its purpose requires that the institution provide the catalyst for faculty development by supporting various means of renewal. Yet development and renewal of faculty will vary from college to college and even from discipline to discipline. Moreover, faculty at different stages of their career must be handled differently.

A commitment to development entails both time and funding: Time in which the development process can take place, and funding in order to project an orderly process. What we are going to discuss will differ from college to college because the demands of research and the methods of teaching differ. We should also recognize the distinct needs of the junior faculty who look forward to obtaining tenure, a middle-term faculty member who needs time to develop fresh perspectives or may want to move into a new field, and senior faculty who need to be refreshed to continue meeting students in a creative way. Again we emphasize that whatever we propose must be attuned to the University's goal of integrating teaching with research. Mindful of the obligations that most faculty have to their own families and many to the wider community, efforts to maximize the intellectual atmosphere on campus will respect the manner in which faculty members belong to their proper families as well as to the University community.

1.1 Procedures

Many creative ways can be found to accomplish these goals. We can extend colloquia to include not only the more traditional topics of area of specialization each faculty member is part of, but also to cross disciplinary boundaries to produce cooperative efforts. Models for this exist in the Kellogg Institute colloquia, the White Center lectures, and seminars of the Center for Social Concerns. The topics broached cut across departments and colleges to stimulate thinking in ways which affect the lives of us all. Such colloquia could involve more faculty. One example could be the continuation of a series started by the Provost several years ago in which handicapped researchers were brought in to discuss their fields as well as offer encouragement to ourselves and our students.

Team teaching should also be encouraged, involving individuals from the same or different disciplines. Such an exchange of ideas can often stimulate significant research. Interdisciplinary courses of study should be encouraged across departmental lines. Our students do this constantly when they partake in a 3/2 program, a foreign studies program or a double major. Encouraging joint appointments would also allow scholars with expertise in different areas to enrich both departments.

Programs should be developed to create periodic opportunities for renewal, including study leaves in place or elsewhere. Start-up projects can be offered for faculty returning to teaching after having served in administrative capacities. Professional disciplines should be alert to industrial and government programs for interaction among colleagues. Learning industry's view of a discipline not only enhances one's teaching but also helps direct the research which results from it. Finally, all faculty need to know what support for the improvement of teaching will be forthcoming, to show how critical it is that teaching be integrated with research in a person's development.

Some people need help with teaching, and those new to the University may require specific attention. We propose that a workshop for teaching be made available to faculty in conjunction with summer research support, staffed by senior colleagues from different colleges. Such a package would underscore the University's commitment to integrating teaching with research as well as create an environment for fruitful exchanges among colleagues--a celebrated feature of the Arts and Letters Core Course. Workshops could also be instituted at the beginning of each semester, as proposed in the appendix. In fact programs involving teaching with professional activities could be organized in cooperation with the Center for Continuing Education, not only to promote such interaction, but also to enhance the breadth and scope of teaching that takes place at Notre Dame.

To assure that opportunities for leaves, renewal in teaching, and other programs be expedited in an equitable and competitive manner, each college should see that an appropriate individual be specifically charged with faculty development, monitoring and expediting plans submitted by respective departments regarding the particular needs of this faculty. To oversee joint programs, faculty development should be a collateral responsibility of an appropriate member of the Provost's Office, preferably the Associate Provost.

1.2 University Professorships

We propose University Professorships as a way to honor outstanding faculty in our midst. The University Professorship (or Distinguished Service Professorship) would be awarded to colleagues who have distinguished themselves in scholarship, artistic or literary work, or creative teaching. We propose this strategy as a way of recognizing past achievements as well as enhancing one's contribution to the University community. University Professorships could be assigned to each college in a proportionate way, for fixed terms or permanently, as a way of acknowledging distinguished academic service as well as calling it forth. How they should be distributed, and the procedure by which they should be assigned, represents a policy decision appropriate to individual colleges. To implement this proposal, a joint faculty-administration committee should be appointed to clarify procedures.

1.3 Funding

Consonant with University accounting, funding for faculty development, including leaves, start-up and renewal projects, as well as University Professorships, should be named and proposed as specific goals for the Office of University Development. In this way, leave monies, including released time for research as well as funded participation in programs for improving one's teaching, could be distributed in a fair and competitive way among colleges and departments. Endowed Assistant Professorships could be employed to assure sufficient time and space for junior faculty to meet tenure demands, and a Fund for the Improvement of Teaching could support faculty participating in summer workshops. In this way, both those whose research more easily meets the criteria for outside funding, as well as others whose contributions are less amenable to external programs, could be assured the opportunity for periodic renewal.

University Professorships are conceived here as providing a modest discretionary fund for those designated, which could be used to facilitate their participation in conferences, remunerate part-time assistance, or other ways of enhancing their contribution. The principal sum to realize such an endowment could usefully be promoted, we believe, among our alumni as a way of honoring noted professors in Notre Dame's history. Since the monies involved would not be so grand as an endowed chair, neither would a single donor's name need to be honored. Class gifts might also be utilized in this way.

2. Procedure for Recognizing Faculty Achievement

What we are proposing here will not be costly but should significantly enhance interest across the University in the work which the people do, as well as boost morale among faculty and students dedicated to the life of the mind. We recommend an annual honors convocation, with student and faculty participation, where particular faculty will be recognized for achievements in both research and teaching. Currently such awards are bestowed in individual colleges, at the President's dinner, or not at all. An annual convocation would celebrate collegiate achievements in a University-wide ceremony together with students selected for recognition as well. While some student awards are best reserved for graduation, others could be bestowed at this time as well so that students and faculty alike might celebrate the activities of research and teaching which distinguish this University.

3. Endowed Chairs

This University has so far concentrated on endowed chairs as the engine for achieving our commitment to excellence. There are clear and obvious reasons for such a choice. Without prejudice to those reasons, and counting on the strength of this component, the present proposal argues for an endowed chair policy as one leg of a stable policy for faculty and university development. It also recognizes that our stage of growth urges us to use these positions both to attract faculty to Notre Dame and incorporate present members. Since we all profit from the endowed chair program, and since its mechanisms are largely in place, this report has addressed the other dimensions in greater detail to elaborate a realistic and comprehensive policy for university development.

4.0 Recommendations

The Faculty Senate presents this report for public discussion, as part of an ongoing process allowing faculty to look at their respective departments to determine ways in which our common goals can be achieved. These specific recommendations are presented for action by the Academic Council to be included in the "Academic Articles."

4.1 Faculty Development

In the interest of developing the best possible teaching and research faculty at Notre Dame, a variegated and comprehensive program of faculty development is required. Deans will advise the respective departments of their colleges to prepare a plan for development which attends to faculty needs in improving teaching and enhancing research, with special attention to the distinctive requirements for junior and senior faculty. Revisable triennially, these plans will form the basis for a college policy in faculty development. Moreover, each dean should, on the advice of the College Council, charge an appropriate individual with monitoring and expediting departmental plans, with regard to the needs of particular faculty. In addition, faculty development should be the collateral responsibility of an appropriate member of the Provost's office, preferably the Associate Provost.

4.2 University Professorships

University Professorships to recognize colleagues at Notre Dame who have distinguished themselves in scholarship, artistic or literary work, or creative teaching, will be awarded by the President, upon recommendation of deans and Provost, as advised by a committee of elected and appointed faculty. Appointment to such a position will include a modest discretionary fund, offering the recipients enhanced opportunities to continue in the paths in which they have attained distinction, as well as enhancing their contribution to the University community.

4.3 Honors Convocation

It is recommended that distinguished faculty appointments, together with teaching awards and other academic honors, be made at an annual honors convocation especially called for this purpose.

summary annual report for tiaa/cref retirement annuity for faculty and administrators

This is a summary of the annual report for TIAA/CREF Retirement Annuity for Faculty and Administrators, employer number, 35-0868188, for Jan. 1, 1984 through Dec. 31, 1984. The annual report has been filed with the Internal Revenue Service, as required under the Employee Retirement Income Security Act of 1974 (ERISA).

BASIC FINANCIAL STATEMENT

Benefits under the plan are provided by individually owned, fully vested annuity contracts issued by Teachers Insurance and Annuity Association and College Retirement Equities Fund. The total payments paid for the plan year ending Dec. 31, 1984 were \$3,485,914.72.

YOUR RIGHT TO ADDITIONAL INFORMATION

You have the right to receive a copy of the full annual report or any part thereof, including insurance information, on request. To obtain a copy of the full annual report, or any part thereof, write or call the office of the Director of Personnel, Personnel Department, Notre Dame, IN (219) 239-5900.

You also have the legally protected right to examine the annual report at the main office of the plan which is the Personnel Department, Notre Dame, IN and at the U.S. Department of Labor in Washington, D.C., or to obtain a copy from the U.S. Department of Labor upon payment of copying costs. Requests to the Department should be addressed to: Public Disclosure Room, N4677, Pension and Welfare Benefit Programs, Department of Labor, 200 Constitution Avenue, N.W., Washington, D.C., 20216.

summary annual report for tiaa/cref tax deferred annuity for faculty and administrators

This is a summary of the annual report for TIAA/CREF Tax Deferred Annuity Plan for Faculty and Administrators, employer number 35-0868188, for Jan. 1, 1984 through Dec. 31, 1984. The annual report has been filed with the Internal Revenue Service, as required under the Employee Retirement Income Security Act of 1974 (ERISA).

BASIC FINANCIAL STATEMENT

Benefits under the plan are provided by individually owned, fully vested annuity contracts issued by Teachers Insurance and Annuity Association and College Retirement Equities Fund. The total premiums paid for the plan year ending Dec. 31, 1984 were \$525,235.

YOUR RIGHT TO ADDITIONAL INFORMATION

You have the right to receive a copy of the full annual report or any part thereof, including insurance information, on request. To obtain a copy of the full annual report, or any part thereof, write or call the office of the Director of Personnel, Personnel Department, Notre Dame, IN (219) 239-5900.

You may also have the legally protected right to examine the annual report at the main office of the plan which is the Personnel Department, Notre Dame, IN and at the U.S. Department of Labor in Washington, D.C., or to obtain a copy from the U.S. Department of Labor upon payment of copying costs. Requests to the Department should be addressed to: Public Disclosure Room, N4677, Pension and Welfare Benefit Programs, Department of Labor, 200 Constitution Avenue, N.W., Washington, D.C., 20216.

advanced studies

current publications and other scholarly works

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

COLLEGE OF ARTS AND LETTERS

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- Klugherz, Laura J.
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awards received

IN THE MONTH OF AUGUST, 1985

Department or Office	Principal	Short title	Sponsor	Dollars Months
AWARDS FOR RESEARCH				
Mathematics	A. Sommes	Transcendental Algebraic Geometry	Natl. Sci. Fdn.	37,800 12
Physics	J. Poirier	Research in Elementary Particle Physics	Natl. Sci. Fdn.	154,869 12
Aerospace Mech. Eng.	K.T. Yang	Fellowship in Engineering	Whirlpool Corp.	9,075 5
Chemistry	F. Castellino	Interaction of Plasmin with Macroglobulin, Antiplasmin	Amer. Heart Assocn.	62,260 24
Physics	J. Dow	Auger Recombination	Honeywell Corp. Tech. Center	18,500 10
Civil Eng.	A. Jennings	Automated Environmental Review	Environ. Prot. Agency	40,343 8
Physics	K. Newman	Theory of Correlations in (III-V) IV Alloys	Grad. Wom. Sci. Sigma Delta Eps.	1,500 9
Inst. Past. Soc. Min.	J. Gremillion	Phase III; ND Study of Parish Life	St. Mary's Cath. Fdn.	12,500 17
History	C. Hamlin	Values in Agricultural Research Agendas: A Comparative Analysis	Mich. State Univ.	8,669 9.2
Civil Eng.	L. Ketchum	Anaerobic SBR Treatment of Coal Conversion Wastewaters	Dept. Energy	165,033 36
Aerospace Mech. Eng.	P. Dunn	Light Water Reactor Aerosol Research	Argonne Natl. Lab.	62,000 12
Physics	W. Johnson	Relativistic Random-Phase Approximation	Natl. Sci. Fdn.	70,912 12
Physics	B. Bunker	EXAFS and XANES Studies in Semiconductors	Dept. Navy	101,313 12
Physics	J. Dow	Vibrational Properties of III-V's	Dept. Air Force	85,000 12

<u>Department or Office</u>	<u>Principal</u>	<u>Short title</u>	<u>Sponsor</u>	<u>Dollars Months</u>
Chemistry	T. Nowak	NMR Studies of Metals in Kinases and Related Enzymes	Natl. Inst. Health	121,082 12
AWARDS FOR FACILITIES AND EQUIPMENT				
Physics	W. Shephard, N. Cason, R. Ruchti	Equipment for Fermilab E687	Natl. Sci. Fdn.	30,000 6
AWARDS FOR INSTRUCTIONAL PROGRAMS				
Civil Eng.	L. Ketchum	Wastewater Academic Training Grants	Environ. Prot. Agency	8,423 12
Psychology	J. Borkowski, T. Whitman	Research Training in Mental Retardation	Natl. Inst. Health	72,724 12
Earth Sciences	M. Murphy	Attract More Minority Students to Major in Geology	Mobil Fdn., Inc.	5,000 9
AWARDS FOR SERVICE PROGRAMS				
Inst. Past. Soc. Min.	R. Pelton	Notre Dame Institute for Clergy Education	---	3,773 --
Inst. Past. Soc. Min.	E. Bernstein	Notre Dame Center for Pastoral Liturgy	---	1,523 --
Inst. Past. Soc. Min.	E. Bernstein	Notre Dame Center for Pastoral Liturgy-Publications	---	1,377 --
Inst. Past. Soc. Min.	S. Kelly	Programs for Church Leaders	---	1,532 --
Inst. Past. Soc. Min.	S. Kelly	Parish Leadership Conference	---	1,025 --
Inst. Past. Soc. Min.	S. Kelly	Third Age Workshop	---	1,300 --
AWARDS FOR OTHER PROGRAMS				
Earth Sciences	E. Winkler	International Congress of Dete- rioration, Conservation of Stone	Ger. Marshall Fund, U.S.	1,000 2.5
Aerospace Mech. Eng.	K.T. Yang	NAVSEA Research Chair Professor	Dept. Navy	101,325 11
Chemistry	A. Trozzolo	US-China Binational Conference on Photochemistry	Natl. Sci. Fdn.	19,194 6

proposals submitted

IN THE MONTH OF AUGUST, 1985

<u>Department or Office</u>	<u>Principal</u>	<u>Short title</u>	<u>Sponsor</u>	<u>Dollars Months</u>
PROPOSALS FOR RESEARCH				
Physics	J. Cushing	Scientific Knowledge: Its Generation and Content	Natl. Sci. Fdn.	23,650 15
Microbiology	C. Kulpa	Reconstruction of Anaerobic Consortium	Amoco Chemicals Res. Center	35,373 12

Department or Office	Principal	Short title	Sponsor	Dollars Months
Physics	U. Garg	Gamma-ray Facility	Argonne Univ. Trust Fund	20,146 6
Sociology	M. Hallinan	Differentiation of Students in the Middle School	Univ. Chicago	129,197 12
Biology	K. Tweedell	Primary Tumors and Control of Metastasis	United Canc. Council	44,329 12
Mathematics	W. Wong	Maps on Linear Transformations	Natl. Sci. Fdn.	120,862 24
College Eng.	M. Zeller, W. Berry	Materials Development of Electrical Contacts for β -SiC	Natl. Aero. Space Admin.	50,000 12
Aerospace Mech. Eng.	R. Nelson, T. Ng	Leading Edge Vortex Structure	Natl. Aero. Space Admin.	65,844 12
Biology	V. Martin	Planular Nervous System	Whitehall Fdn., Inc.	114,141 41
PROPOSALS FOR FACILITIES AND EQUIPMENT				
Chemistry	T. Fehlner	Purchase of a Mass Spectrometer System	Natl. Sci. Fdn.	265,600 12
PROPOSALS FOR INSTRUCTIONAL PROGRAMS				
Aerospace Mech. Eng.	R. Brach, S. McComas	Engineering for Minorities and Women	Corning Glass Works Fdn.	55,940 9
PROPOSALS FOR OTHER PROGRAMS				
Chemistry	A. Trozzolo	US-China Binational Conference on Photochemistry	Natl. Sci. Fdn.	29,428 6

summary of awards received and proposals submitted

IN THE MONTH OF AUGUST, 1985

AWARDS RECEIVED

Category	Renewal		New		Total	
	No.	Amount	No.	Amount	No.	Amount
Research	5	393,738	10	557,118	15	950,856
Facilities and Equipment	0	0	1	30,000	1	30,000
Instructional Programs	2	77,724	1	8,423	3	86,147
Service Programs	0	0	6	10,530	6	10,530
Other Programs	0	0	3	121,519	3	121,519
Total	7	471,462	21	727,590	28	1,199,052

PROPOSALS SUBMITTED

Category	Renewal		New		Total	
	No.	Amount	No.	Amount	No.	Amount
Research	3	151,217	6	452,325	9	603,542
Facilities and Equipment	0	0	1	265,600	1	265,600
Instructional Programs	1	55,940	0	0	1	55,940
Service Programs	0	0	0	0	0	0
Other Programs	0	0	1	29,428	1	29,428
Total	4	207,157	8	747,353	12	954,510

notre dame report

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