

NOTRE DAME REPORT



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President's Address to the Faculty

Rev. Edward A. Malloy, C.S.C., president of the University of Notre Dame, will deliver an address to the faculty on Tuesday, October 4, at 4:30 p.m. in 101 DeBartolo. The talk will be followed by a reception in the concourse outside the auditorium.

Phi Beta Kappa Information

Members of the faculty who are also members of Phi Beta Kappa are invited to affiliate with the Notre Dame Chapter, Epsilon of Indiana. Faculty members currently not in communication with the chapter who are interested in affiliating are asked to contact the secretary of the Notre Dame Chapter, Prof. John Derwent, Department of Mathematics. Interested faculty are asked to provide the secretary with the year of their initiation and the name of the college or university where they were initiated.

University Receives NSF Award

Notre Dame has been granted a National Science Foundation award of \$68,756 for new laboratory equipment to teach environmental analytical chemistry to undergraduates and another award of \$62,787 for new laboratory equipment to teach polymer science, also to undergraduates.

The grants were awarded to the University as a part of a highly competitive NSF program, which funded only 25 percent of all proposals submitted in 1993. NSF requires that the funds used to purchase instrumentation be matched by at least an equal amount from other sources within 30 months.

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Appointments

Terrence J. Akai, assistant dean of the Graduate School.
Reginald Bain, acting chair of communication and theatre.

Henry K.B. Harbury, director of the College of Science computing facilities.

George S. Howard, chair of psychology.

Patricia C. Leonard, assistant dean for administration of the Law School.

William McGlinn, assistant chair of physics.

Garth Meintjes, associate director of the Center for Civil and Human Rights.

Patrick E. Murphy, chair of marketing.

Capt. Russell Ames Pickett, chair of naval science.

Janice Poorman, assistant dean for graduate admissions in the Graduate School.

Rev. Timothy R. Scully, C.S.C., vice president and associate provost.

Timothy L. Sweeney, assistant vice president for research and director of the Office of Research in the Graduate School.

Edward Trubac, associate dean in the College of Business Administration.

Richard A. Williams, chair of sociology.

Honors

Michael Detlefsen, professor of philosophy, has been invited to join the editorial board of the *Journal of Universal Computer Science*.

George S. Howard, chairperson and professor of psychology and director of the Laboratory for Social Research, has been elected president of the Division of Theoretical and Philosophical Psychology and president of the Division of Humanistic Psychology of the American Psychological Association.

Trai T.T. Le, professor of law, was named to the international advisory board of the *International Trade and Law Journal* published by the T.C. Beirne School of Law, University of Queensland, Australia.

Gilbert Loescher, professor of government and international studies, has been appointed chairperson of the advisory committee of International Experts for UNHCR's Biennial Report *State of the World's Refugees* by Sadako Ogata, the U.N. High Commissioner for Refugees.

John E. Matthias, professor of English, has been named contributing editor to *Another Chicago Magazine*, the journal in which his column on contemporary British poetry, "Not For Sale in USA," has been published for the past 10 years.

J. Kerry Thomas, Nieuwland professor of chemistry, was honored on his 60th birthday by the InterAmerican photochemical faculty. A description of his contributions to photochemistry was written for the May 1994 publication of the society by Professor Kalyanansundaram of the Swiss Federal Institute of Physical Chemistry in Lausanne, Switzerland.


Eugene Ulrich, professor of theology, has been elected a member of the board of advisors of the Ancient Biblical Manuscript Center in Claremont, Calif.

Activities


Mark S. Alber, assistant professor of mathematics, gave the invited talk titled "Asymptotic Reduction of the New Representations for Optical Solutions" at the European Science Foundation Study Center and Euroconference on Nonlinear Optics and Guided Waves held at the International Center for Mathematical Sciences at the University of Edinburgh, Scotland, Aug. 2. He presented a poster "Asymptotic Reduction and Soliton Geometric Phases" at the International Congress of Mathematicians in Zurich, Switzerland, Aug 3-11. He gave the invited talk "Geometric Phases and Billiard Solutions for Nonlinear Equations" at the Basic Research Institute in the Mathematical Sciences, Bristol, United States, a joint undertaking between Hewlett-Packard Laboratory, Bristol, and the Isaac Newton Institute, Cambridge, England, Aug. 16.

Kathleen A. Biddick, associate professor of history, was a Rockefeller Fellow at the Center for Cultural Studies at the University of California in Santa Cruz, Calif., during the spring. She gave a plenary talk titled "Wood Cuts, Photos Graph, Figures Disfigure: Crafting the Visible in Late Medieval Witchcraft Texts" and a plenary comment titled "Towards a History of Abjection" at the Illinois Medieval Association meeting in Chicago, Ill., Feb. 19. She was an invited participant at the medieval seminar in History and Visual Culture at the University of California in Berkeley, Calif., March 10. She spoke on "The Devil's Anal Eye: Inquisitorial Optics and Ethnographic Authority" at the second annual Medieval Lecture at the University of Maryland in College Park, Md., March 25. Her work was the subject of a seminar at the Center for Hermeneutics in Berkeley, Calif., April 10. She gave a paper titled "Problems of Alterity in Medieval Studies: Feminist and Post-Colonial Readings" at the University of California in Riverside, Calif., April 14. She gave a seminar on her work as the guest of the Medieval Seminar in Art History at the University of Chicago in Chicago, Ill., April 22. She conducted a seminar on her work at the University of California in Davis, Calif., May 31. She organized and moderated a Medieval Feminist roundtable


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 on the *Speculum* special issue: *Studying Medieval Women* at the International Medieval Congress at Kalamazoo, Mich., May 5.

Edward J. Conlon, chairperson and professor of management, presented three papers at the Academy of Management meetings in Dallas, Tex., Aug. 14-17: "The Effect of Trust on Principal-Agent Dyads: An Empirical Investigation of Stewardship and Agency" co-authored with Roger C. Mayer, assistant professor of management, "A Meta-Analysis of the Relationship Between Organizational Citizenship Behaviors and Job Satisfaction, Commitment, Procedural and Distributive Justice and Conscientiousness" with Paramasivam Manogran, and "Leader-Member Exchange as a Key Mediating Variable Between Employees' Perceptions of Fairness and Organizational Citizenship Behavior" co-authored with Manogran, Conlon and Joseph M. Stauffer.

 Roberto A. DaMatta, professor of anthropology, lectured on "Modernity Reconsidered" at the Brazilian School for Diplomats, Instituto Rio Branco, in Brasilia, Brazil, May 19. He gave the paper "Modernity: A Naked Statement" at a meeting organized by the American Academy of Science and the Swedish Collegium for Advanced Study in the Social Sciences in Uppsala, Sweden, May 27-29. He gave the main conference at the inauguration of the new Center for the Arts of the Catholic University of Peru in Lima, Peru, June 25. He was invited by the National Association of Merchants in Brazil to lecture on "Brazilian Heroes" in Santos, Brazil, Aug. 17. He lectured on "Citizenship and Work in Brazil" at the Institute of Nutritional Studies, Federal Fluminense University, Brazil, Aug. 18. He gave the main conference for the British Culture in Brazil during the events that were part of the 60th anniversary of that institution of learning in Brazil, Aug. 20.

Leo A. Despres, professor of anthropology and Helen Kellogg fellow, presented a paper titled "The Economic and Political Context of Ethnic Group Relations: Some Implications for Development Policy" by invitation of the United Nations Research Institute for Social Development, Geneva, to participate in an international seminar on Ethnic Diversity and Public Policies in New York, N.Y., Aug. 17-19.

 Michael Detlefsen, professor of philosophy, gave the invited talk "Poincare's Conception of Mathematical Induction" at the recent International Poincare Congress at the University of Nancy, May 13-18. He gave a talk on Constructivist Conceptions of Proof at a joint colloquium of the Department of Philosophy and the Institute for Logic and the Philosophy of Science of the University of Salzburg, June 30.

Keith J. Egan, professor of theology, presented the lecture "The Way We Die" to Hospice of St. Joseph County in South Bend, Ind., June 8. He gave five lectures on "Dark Night: Education for Beauty" in a seminar on Carmelite Spirituality at Saint Mary's College, Notre Dame, Ind., June 10-19. He presented five lectures on "The Eucharist: A Way of Life" at Retreats International at the University of Notre Dame, Notre Dame, Ind., July 3-8. He gave five lectures on "Solitude and Community: Carmelite Spirituality" in Horizons of the Spirit Symposium at the Oratory in Rock Hill, S.C., July 17-22.

Mohamed Gad-el-Hak, professor of aerospace and mechanical engineering, delivered an invited talk titled "Does a Turbulent Boundary Layer Ever Achieve Self-Preservation?" at Université de Grenoble in Grenoble, France, July 5.

Barbara S. Gasperetti, associate professional specialist in law, gave a presentation at the American Immigration Lawyers Association's annual conference on Teaching Lawyering Skills in Immigration Law Courses and through the Clinic in San Francisco, Calif., June 4. She gave a presentation on the Legal Aspects of Dissolution to New Hope in South Bend, Ind., July 22.

George S. Howard, chairperson and professor of psychology, delivered the keynote address "Psychology in the First-person" at the ninth annual congress of the North American Constructivist Psychology Association in Indianapolis, Ind., July 14. He delivered the talks "Toward a Theory of Knowledge for Psychological Science and Practice," "Psychotherapy and Free Will," "Humanistic Approaches to Scientific Inquiry: Questions of Relevance and Validity" and "Religion and the Science and Profession of Psychology: Contours of a Constructive Relationship" at the American Psychological Association Convention in Los Angeles, Calif., Aug. 12-15.

Nai-Chien Huang, professor of aerospace and mechanical engineering, presented a paper "A Model Study of Debonding and Pull-Out of Fibers-Reinforced Composites" and co-chaired a session on composite materials at the third world congress on Computational Mechanics in Chiba, Japan, Aug. 1-5.

Gordon L. Hug, associate professional specialist in the Radiation Laboratory, gave the invited lectures "Quenching of the Triplet States of Aromatic Hydrocarbons by Ketyl Radicals" to the faculty of chemistry at A. Mickiewicz University in Pozan, Poland, July 26, and at the Institute of Nuclear Chemistry and Technology in Warsaw, Poland, July 28. He presented "Recent Work Conducted at Notre Dame Concerning the Photo- and Radiation-Chemical Generation of Radicals" at the Hahn-Meitner Institute in Berlin, Germany, Aug. 1.

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Carlos Jerez-Farrán, associate professor of Romance languages and literatures, presented "Jesucristo, Buster Keaton y el payaso: Una revalorización de *El paseo de Buster Keaton* de García Lorca" at the Asociación de Licenciados y Doctores Españoles en Los Estados Unidos at the Universidad de Santiago de Compostela in Santiago de Compostela, Spain, July 15.

Catherine Mowry LaCugna, professor of theology, gave the lecture "God for Us: The Trinity in Contemporary Theology" to the Cambridge University faculty of divinity in Cambridge, England, May 23. She presented seven lectures on the trinity at the Carmelite Monastery in Quidenham, England, May 25-29. She delivered the commencement address at Holy Names Academy in Seattle, Wash., June 4. She gave the paper "Jesus in Trinitarian Perspective" to the Catholic Theological Society of America meeting in Baltimore, Md., June 10. She was a visiting professor at the Boston College Summer School in Chestnut Hill, Mass., June 27-July 8.

Jay A. LaVerne, professional specialist in the Radiation Laboratory, presented the paper "Contribution of Excited States in the Heavy Ion Radiolysis of Cyclooctane" co-authored with Laszlo Wojnarovits, associate professional specialist in the Radiation Laboratory, at the eighth Tihany symposium on Radiation Chemistry in Balatonszeplak, Hungary, Sept. 3-8. He presented "Magnetic Field Effects on the Luminescence of Alkane Solutions Irradiated with Helium Ions" at the PULS '94 Symposium in Zakopane, Poland, Sept. 10-16.

Trai T.T. Le, professor of law, chaired the session on "The Legal Status of the Refugee" at the XIVth international congress of Comparative Law held in Athens, Greece, July 31-Aug. 6. She was the national rapporteur for the United States on this topic and her report was published in the *American Journal of Comparative Law*, Supplement 1994.

John M. LoSecco, professor of physics, gave the invited talk "Neutrino Astrophysics, A Review of Observations of the 1987 Supernova" at the AAPT summer meeting at the University of Notre Dame, Notre Dame, Ind. Aug. 11.

Gerard Misiolek, assistant professor of mathematics, gave an invited lecture "Hydrodynamic Stability and Diffeomorphism Groups" at a special session titled "Dynamical Systems and Fluid Dynamics" of the regional meeting of the AMS in Manhattan, Kans., April 26.

Anand Pillay, professor of mathematics, was one of the four logicians worldwide selected to address the 25th International Congress of Mathematicians in Zurich, Switzerland, Aug. 3-11. He discussed his work in the lecture titled "Model Theory, Differential Algebra and Number Theory: Some Recent Interactions."

Joachim Rosenthal, assistant professor of mathematics, gave the invited talk "Grassmannians, a Link between Linear Algebra, Linear Systems Theory and Geometry" at the fourth conference of the International Linear Algebra Society (ILAS) in Rotterdam, The Netherlands, Aug. 15-19.

Robert H. Schuler, Zahm professor of radiation chemistry and director of the Radiation Laboratory, presented the paper "Oxidation of Benzoquinone by Radiolytically Produced OH Radicals" at the eighth Tihany symposium on Radiation Chemistry in Balatonszeplak, Hungary, Sept. 3-8.

Rev. Timothy R. Scully, C.S.C., vice president and associate provost, associate professor of government and international studies and fellow in the Kellogg Institute, gave a lecture on the emerging shape of party politics in Chile during the concluding session at a meeting of Chilean party leaders, political scientists and government officials in Santiago, Chile, Aug. 29-31.


Michael M. Stanisic, associate professor of aerospace and mechanical engineering, served as a member of the international scientific committee for Advances in Robot Kinematics, chaired the session "Computational Geometry," and presented two papers titled "Third-Order Control of a Planar System Tracking Constant Curvature Paths" and "A Comparison of Two Minimally-Singular Articulated Arm-Subassemblies" at the international workshop on Advances in Robot Kinematics in Ljubljana, Slovenia, July 2-6.

Stephen Stolz, professor of mathematics, delivered a talk titled "Manifolds of Positive Scalar Curvature" as one of eight topologists invited to the 25th International Congress of Mathematicians, Zurich, Switzerland, Aug. 3-11.

Rafael Tenorio, assistant professor of finance and business economics, presented the paper "On Financing the Internal Enforcement of Illegal Immigration Policies" at the 1994 meetings of the European Society of Population Economics at Tilburg University, The Netherlands, June 4.

Eugene Ulrich, professor of theology, hosted a symposium on "Current Issues in the Dead Sea Scrolls" with James C. VanderKam, professor of theology, at the Ecumenical Institute for Theological Studies in Tantur, Jerusalem, May 25-26. Ulrich presented a paper to the seminar titled "The Isaiah Manuscripts from Qumran Cave 4" at the Qumran Seminar at the Institute for Advanced Studies at the Hebrew University, Jerusalem, July 4-13. He delivered the keynote address titled "The Context for a Revision of Field's *Origenis Hexaplorum* . . .


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Fragmenta in Light of Recent Hebrew and Greek Biblical Scholarship" and the paper titled "The Implications of the Dead Sea Scrolls for the Hexaplaric Studies" at a two-week seminar on the Greek Bible and Origen's Hexapla at the Oxford Center for Hebrew and Jewish Studies in Oxford, England, July 25–Aug. 4.

Raimo Väyrynen, professor of government and international studies and Regan director of the Kroc Institute, convened a set of panels in the 16th world congress of the International Political Science Association in Berlin, Germany, Aug. 21–25. He chaired a panel on "Economic Rivalries between Industrialized Countries and Democracy" and presented a paper on "The Impact of Global Political and Economic Changes on the Prospects for Democracy" at that congress.

Dariusz M. Wilczynski, assistant professor of mathematics, gave a talk titled "Zanurzenia sfer i innych powierzchni w rozmaitości 4-wymiarowe" in the Institute of Mathematics at Gdańsk University in Gdańsk, Poland, May 16. He lectured on "Działania grup na rozmaitościach nisko wymiarowych" to the same department, May 17. He presented the colloquium "Embedded Surfaces in Four Manifolds" in the Department of Mathematics at A. Mickiewicz University in Poznań, Poland, May 24.



Laszlo Wojnarovits, associate professional specialist in the Radiation Laboratory, presented the paper "Iodine as a Radical Scavenger in the Radiolysis of Cyclopentane" co-authored with Jay A. LaVerne, professional specialist in the Radiation Laboratory, at the eighth Tihany symposium on Radiation Chemistry in Balatonszeplak, Hungary, Sept. 3–8. He presented "Rates of Alkyl Radical-Iodine Scavenging Reactions in Normal and Cycloalkanes" co-authored with LaVerne at the PULS '94 Symposium in Zakopane, Poland, Sept. 10–16.

Academic Council Minutes April 6, 1994

Members in Attendance: Edward A. Malloy, C.S.C., Timothy O'Meara, E. William Beauchamp, C.S.C., Roger Schmitz, Patricia O'Hara, Nathan Hatch, Harold Attridge, Francis Castellino, John Keane, Eileen Kolman, David Link, Anthony Michel, Richard Sheehan, Lynn Friedewald, Frank Bonello, Cornelius Delaney, Paula Higgins, Mark Pilkinton, John Roos, Thomas Werge, Mario Borelli, William Shephard, Hafiz Atassi, Arvind Varma, Edward Conlon, Carol Mooney, Lorry Zeugner, Kenneth DeBoer, Kathleen Maas Weigert and Maren Schulte

Observers in Attendance: Douglass Hemphill and Dennis Moore

Prof. O'Meara opened the meeting at 3:05 p.m. with a prayer.

1. Recommendation for the establishment of a University Committee on Women (See Attachment A.)

Fr. Malloy noted that he personally brought this recommendation to the Executive Committee for referral to the Academic Council out of concern that the busy council schedule for the remainder of the semester might otherwise preclude its being heard. He recalled for the council that Notre Dame's "Year of Women" generated several discussions and led, among other things, to the establishment of a Faculty-Student Committee on Women. He emphasized that this committee, working under the capable leadership of Associate Provost Sr. Kathleen Cannon, did an outstanding job of working to develop a focused agenda and a context in which issues related to women at Notre Dame could be examined. The committee included both students and faculty as members and constituencies, though lines of administrative support and oversight had not been made clear. The proposal before the council responds to a Faculty Senate concern over the structure of the Faculty-Student Committee on Women and that committee's consequent ability to respond to issues on campus.


The proposal establishes a University Committee on Women with a specific mandate and agenda, a formal organization and structure, and the ability to make policy recommendations to the Academic Council and to the officers of the University. The proposed committee includes elected faculty, students and staff as well as appointed representatives, with the committee chair elected by the membership. The committee serves in an advisory role to the president of the University. In bringing the proposal forward, Fr. Malloy seeks counsel as to whether the new committee is the best way to respond to this very important dimension of the common life of the University.

Prof. Sheehan informed the council that he had asked Ms. Louise Litzinger, associate professional specialist in the Freshman Year of Studies, to chair an ad hoc committee of the Faculty Senate which would address two questions: What concerns do women members of the University have which are not adequately addressed within the current structures? How, given their limited numbers in senior positions, can women gain an effective voice in dealing with the administration. He reiterated that this ad hoc committee was not established to denigrate the efforts of the Faculty-Student Committee, but rather to investigate ways to improve upon the institutional structure of that committee. Although the two committees did not meet together formally to discuss these issues, four members of the ad hoc committee — Laura Bayard, Paul Conway, Louise Litzinger and Margaret Porter — were also current or prior members of the Faculty-Student Committee on Women.


Dean Attridge supported in general the establishment of a University Committee on Women, but felt that the Faculty-Student Committee should be consulted formally before the recommendation is taken further. Dean Castellino agreed, arguing that the recommendation should be brought forward jointly by the two groups. Prof. Mooney felt that such a joint effort could do much to clarify the existing problems and promote development of the most effective organizational structure. Mr. Zeugner noted that he has spoken with two of the members of both committees, each of whom felt that the proposal was a fine step forward.

Speaking as a former member of the Faculty-Student Committee, Dean Kolman emphasized that the goal is to make things better for women at Notre Dame. The important thing is to address that issue in the best possible way. Much of what is in the proposal, she said, comes out of frustrations that have existed within the Faculty-Student Committee since its inception.

Noting that the proposed committee is assigned an advisory role, Prof. Varma wondered whether it should have the policy-setting charter of other University committees such as the Graduate Council and the University Committee on Research. Fr. Malloy responded that in many cases recommendations from University committees proceed to the Academic Council for approval. The important thing, he said, is to ensure that a mechanism exists to respond to concerns raised by the committee. Given the advisory role of the proposed committee, Dean Attridge and Prof. Mooney thought it important that the relationship and lines of communication between the proposed committee and the Academic Council be clarified, perhaps through discussion with the standing committees of the council.

 Prof. Varma asked what kinds of matters the committee would discuss. By way of example, Ms. Friedewald said that the subcommittee concerning undergraduate women has been meeting with women from the senior class in each college to develop positive and negative issues that merit examination. Prof. O'Meara added that other concerns include sexual harassment policies and the timely response to sexual harassment complaints, the development of the child care center, the possibility of a women's resource center, the lower retention rate of women faculty, the lack of sufficient role models and mentors for women among senior faculty, and gender equity in athletics.

Dean Link questioned the wisdom of creating committees with a narrow range of priorities rather than a University-wide focus. It may be, he said, that we are attempting to treat a complex substantive issue with a structural solution that does not respond to the problem and consequently leads to greater frustration. He expressed concern that development of so many committees makes administrative gridlock a real possibility. Fr. Malloy shared that concern, but felt it important that enough representative bodies be constituted to explore the common life of the University. Dr. Weigert argued that the issues at hand are not restricted to women. Correctly stated, they are issues of gender equity and should be addressed by a University Committee on Gender Equity.

 Prof. Roos felt it most important that the question of problem coordination be explored before the proposed committee is established. Specifically, the council needs to think about the implications of the advisory role of the committee and the way in which it would refer issues to the appropriate decision-making bodies. The issue, he said, is whether the proposed committee would in fact have a more effective voice for representing the concerns of women at Notre Dame. If not, forming such a committee would simply increase frustration.

Prof. Higgins worried that grouping the concerns of all female constituencies at the University under one committee might create an impossibly complicated bureaucratic nightmare. Much of the frustration expressed by faculty women, she said, was not with the efforts of the chair of the Faculty-Student Committee but with the conflicting constituencies within the committee. Problems specific to faculty women were not common to graduate and undergraduate students, and did not therefore receive the emphasis faculty women felt they should have been granted. By including even more groups, the proposed committee could be that much more problematic.

Prof. Varma wondered whether, rather than creating a new committee to examine problems which are well known, we should simply move forward to resolve them. Fr. Malloy responded that by giving women a "voice," the proposed committee would not only articulate their con-

cerns but also persuade others at the University to open their minds or do things differently.

In addition to defining the relationship between the proposed University committee and the Academic Council, Fr. Malloy noted that the committee's relationship with departments and colleges must also be considered. Very few organizations, he said, like to be dictated to by other committees in areas for which they feel responsible. Prof. O'Meara agreed, observing that departments have a tendency to be especially sensitive and to "dig in" when questioned. This being true, he argued, a good deal more thought must go into the role of the proposed committee.

Discussion followed concerning how best to evaluate the proposed committee and develop a recommendation for council action. Some members felt the Faculty Affairs Committee of the Academic Council was the best vehicle, while others argued that the multiple constituencies addressed by the proposed University committee made the Executive Committee of the council a more appropriate forum. Still others argued that the Executive Committee functions best as a means by which recommendations and other business are channeled to the Academic Council, and suggested instead that an ad hoc committee be formed within the council. A motion was ultimately brought to the floor which would remand the proposal to the Faculty Affairs Committee for evaluation. This evaluation will seek input from both the Faculty-Student Committee on Women and the ad hoc Faculty Senate Committee on Women, and will include the question of committee title and the merits and pitfalls inherent in combining faculty, student and staff constituencies within one organization. The motion was approved by a majority of the council members.

Fr. Malloy and Prof. Sheehan expressed the hope that the proposal could be evaluated and a recommendation returned to the Academic Council before the end of the academic year.

2. Report on Graduate Council action regarding policies and practices of the Graduate School.

Prof. Hatch introduced the Final Report on the Review of the *Graduate Bulletin* as an information item for the council on which he would be pleased to accept feedback. The report, prepared over the past two years by a committee of the Graduate Council tasked with reviewing the *Graduate Bulletin* and advanced degree requirements, was reviewed by the academic departments before the present version was given final approval by the Graduate Council. It proposes not a radical change, he said, but rather slight modifications to the existing system. (The minutes of the Graduate Council meeting of March 2, 1994, published in *Notre Dame Report*, Number 16, April 29, 1994, recount the earlier presentation and discussion of this report and contain the eight recommendations cited below.)

The first recommendation, Prof. Hatch continued, retains the basic residency, course work, examination and thesis/dissertation requirements of graduate work. Recommendation 2 proposes deleting the formal 30 and 72 credit hour requirements for Master's and Ph.D. degrees from the *Bulletin* and replacing them with emphasis on departmental course work. To keep Notre Dame aligned with graduate programs elsewhere, Recommendation 3 raises the minimum GPA for good academic standing to 3.0.

Recommendation 4 updates existing procedures governing academic integrity to include description of a departmental process for reporting, adjudicating and appealing violations. Recommendation 5 replaces policies in the *Bulletin* regarding student life and behavior, including harassment, with references to existing University policies.

Recommendation 6 emphasizes the importance of advising by stipulating that each graduate student should have an advisor from the time of enrollment through completion of studies.

Recommendation 7 has to do with who can actually direct dissertations. It represents a compromise which, with the approval of the department and the Graduate School, allows a co-director to be chosen from faculty outside of a student's department. Dean Castellino argued that even this compromise presents a potentially significant problem within the College of Science. Requiring senior people, faculty fellows who are research faculty in areas such as the Radiation Laboratory and the South Bend Center for Medical Education (SBCME), to have a teaching and research faculty member cosign a dissertation will be taken by some as an affront to their credentials. This may have a significant effect on Notre Dame's ability to attract the best researchers for the Radiation Laboratory and on our attempts to build stronger relations with the SBCME. Dean Attridge suggested that language stating that thesis advisors and dissertation directors must be members of the regular teaching and research or research faculty could be added to Recommendation 1. Such language would be in accord with the underlying principle that Notre Dame degrees should be approved by Notre Dame faculty. Dean Castellino agreed that this language would solve the issues he had raised. Prof. Hatch said that the Graduate Council would look at the issue again.

Recommendation 8 proposes that each department prepare and annually update a "Guide to Graduate Studies" that specifies its requirements. Responding to a question from Prof. Borelli, Prof. Hatch said that the committee did not feel it helpful to stipulate minimum requirements for admission to the graduate programs.

3. Reports from standing committees

a. Undergraduate Studies Committee

Prof. Delaney presented the findings of the Undergraduate Studies Committee concerning the student proposal that the University fund production of *The Guide*. The initial reception given *The Guide* by faculty, he said, has been positive. Further, contact with 18 of the *U.S. News & World Report* top 25 universities disclosed that the administrations of at least one-third of these schools provide substantial support to student publications similar to *The Guide*. Those findings, he said, persuaded the committee that continuation of *The Guide* would contribute to undergraduate education at Notre Dame. The committee therefore recommends that the University provide "seed monies" to support publication of *The Guide* for not more than two years. Such seed monies should be not more than one half of the current cost of publishing *The Guide*, with the remainder to be funded by Student Government. This level of support would be sufficient to allow time for the publication to either prove its value and achieve self-sustainment or demonstrate that it cannot succeed on its own. Half the current cost, he said, is \$8,000.

Mr. DeBoer suggested changing the language of the proposal to specify that the appropriate academic authorities will match Student Government funds in support of *The Guide*. This would emphasize the responsibility incumbent upon Student Government

Responding to a question from Prof. Hatch, Ms. Friedewald said that the current Student Government feels constrained by their campaign promises to pursue "fun" things. A pledge of matching support from the Academic Council, she said, would underscore for them the significance of this opportunity. This way *The Guide* will have the chance to develop into something really useful and appreciated.

Fr. Beauchamp questioned whether it is appropriate for the University to come up with money to entice the students to do something. If the students think something is important, he said, they have a budget of more than \$400,000 to cover it. By providing additional funds so that they can spend more on "fun" things, the University sends a poor message. At the same time, it precludes us from spending that money on something else.

Prof. Delaney argued that the issue of seed money does not have to be seen as a response to the current Student Government's failure to support *The Guide*. The University can instead take the approach that other schools have taken, and approve this level of funding because the publication is an important instrument for undergraduate information.

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Prof. Varma questioned why the seed money should be granted for two years rather than one. Prof. O'Meara responded that a limit of two years both gives *The Guide* enough time to develop and makes it clear that the funding process will not continue past that limit.

Fr. Malloy observed that an oral rating of faculty and classes has existed on this residential campus for years, probably to a far greater extent than at other schools. He clarified that when the proceeds of "The Shirt" project are included (less the one-half that goes to charity), Student Government has a discretionary budget of approximately \$470,000.

There being no further discussion, the resolution as modified to stipulate matching funds for two years was approved.

b. Faculty Affairs Committee

Prof. Atassi said that the committee has ascertained that approximately 85 percent of the 200 part-time faculty members are content with their positions and compensation. The remainder are adjuncts, for whom the committee is working to develop a proposal that can be presented at the next council meeting. Prof. O'Meara cautioned that the cost of fringe benefits is significant, and recommended that the implications of that cost be considered before a proposal is drafted.

c. Graduate Studies Committee

Professors Werge and Roos began discussion of the committee's Report on Graduate Student Teaching Preparation (see Attachment B) by noting the context within which it arose: the national debate over the quality of undergraduate education, the accountability of university educators for that quality, and the "Back to Basics" report by Notre Dame undergraduates. Given that context, the Report on Graduate Student Teaching Preparation was developed in response to two questions: What is the extent of graduate student teaching of undergraduates at Notre Dame? How well are those graduate students prepared, supervised and evaluated by departments and faculty?

Because the great majority of graduate student teaching at Notre Dame occurs within the colleges of science and arts and letters, departments in those two colleges were surveyed on their use of graduate students to teach courses for which those students are completely and solely responsible. The departments were also asked about the effect on their programs of stricter requirements for the appointment of students to those positions.

Two important facts emerged from the survey. First, very little uniformity was apparent among departments with respect to the practices governing appointment, preparation, supervision and evaluation of graduate student teachers. Second, the use of graduate students in under-

graduate teaching at Notre Dame is substantial: Within any given semester, approximately 15 percent of arts and letters courses, including Freshman Composition and Freshman Seminar, are taught by graduate students. While this practice reflects a national trend, and while it may well benefit both the graduate and undergraduate students, the essential question it raises is whether this University is using those graduate student teachers for the most inherently good reasons and whether their preparation and supervision is all that it must be.

The report indicates that our record is uneven. Departmental practices in appointing graduate students vary widely, and the processes for preparation, supervision and evaluation range from the serious and formal to no process at all. And while most departments approve the virtues of using CAPs for appointments and appointing only ABD students to teach, many argue that particular departmental exigencies compel their exclusion from such a University-wide standard.

As a first step toward addressing this issue, the report proposes an amendment to Academic Article III.3 (e). Since in every other case faculty members are required to have "demonstrated teaching ability," the proposed language amends the article to read (added language underlined) "a Graduate Assistant duly appointed to teach the course by the Chairperson of the Department and approved by the Dean. Such Graduate Assistants should have demonstrated preparation for teaching." Further, the report asks the Academic Council to endorse the following resolution:

At the beginning of the 1994-95 academic year the Graduate Council and each College Council review the procedures of each department for the appointment of graduate students to teach and for their teaching preparation, supervision, and evaluation. By the end of the academic year each College Council will submit a report to its respective Dean on the status of this issue. The Graduate Council will in turn bring an overall assessment, with any appropriate recommendations, to the Academic Council at its first meeting of the 1995-96 academic year.

Prof. Roos noted that the committee did not anticipate a vote on the amendment or the resolution at this meeting. The report was presented, he said, in the hope of beginning the discussion process and perhaps voting at the next council meeting.

Prof. Bonello wondered how graduate students would be chosen to teach Freshman Seminar and Freshman Writing, since those courses seem to require some unique qualifications which may not be reflected in other graduate student teaching experiences. Prof. Roos said that the competition conducted by Prof. Hatch to determine the best graduate student candidates to teach those courses has been helpful.

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Prof. Hatch expressed concern that the report stopped short of making ABD status, or at least completion of coursework or comprehensive exams, the norm for graduate students having sole responsibility for a course. Prof. Roos responded that such a requirement would mean very different things in the two colleges. Even within arts and letters, he said, it would severely strain departments like Freshman Writing, Romance languages and art which use substantial numbers of students. He suggested that language could be written which would make ABD/completion of coursework the standard but allowed for exceptions to be made by the deans. Speaking as a member of the Graduate Studies Committee, Prof. Shephard noted that a general approach rather than micromanagement was felt to be more effective at this point.

Prof. Varma argued that departmental CAPs be included in the appointment process as a way of ensuring faculty input. Prof. Shephard said that time constraints frequently made CAP participation impractical. Dean Michel thought that including the CAP would serve as a check on hasty departmental decisions. Prof. Roos observed that a committee composed of the department chair and the directors of undergraduate and graduate studies might have greater expertise in this area. Dean Kolman expressed appreciation for the emphasis on preparation, supervision and evaluation, which emphasizes that teaching is an intrinsic part of graduate student education rather than a response to staffing requirements. What is critical, she said, is not the role of departmental CAPs in graduate teaching appointments but the serious involvement of departments in the entire process.

Dean Attridge suggested that the intent of reviewing the report had been realized, and moved that the council reserve any further discussion and action on this item until the next meeting. Fr. Malloy expressed appreciation for the hard work the committee had done. He noted that discussion of the post-Colloquy committees' efforts would be best left to subsequent meetings also, since those committees would be making full reports at that time. Two meetings have been scheduled, for April 26 and May 16.

4. With respect to the proposed ordinances concerning *Ex Corde Ecclesiae*, Fr. Malloy informed the council that the point of view expressed by the University was widely shared. The consensus on the Bishops and Presidents Committee was to table discussion of the mandate, perhaps indefinitely, and fund a two-year or more research effort which would develop material for further committee deliberations. He felt that the process had worked positively, and that the feedback resulting from it had been very beneficial.

There being no further business, the meeting was adjourned at 5:10 p.m.

Respectfully submitted,

Roger A. Schmitz
Secretary of the Academic Council

Attachment A

Charter for the University Committee on Women

The University Committee on Women will consist of eighteen (18) elected and appointed representatives from among the faculty, staff and student body. Thirteen committee members will be elected; five will be appointed by the President. Of the thirteen, seven will be elected from among the faculty of the College of Arts and Letters (2), the College of Business Administration (1), the College of Engineering (1), the Law School (1), the College of Science (1), and the Library Faculty (1). Two students, one undergraduate and one graduate, will be selected to serve by the appropriate elected representatives (Student Government and Graduate Student Union). One committee member will be elected from among professional specialists and one from among the rectors. Two members of the staff will be elected through a process developed by the department of Human Resources. The remaining committee members will be appointed by the President. Elected committee members will serve staggered three-year terms. Appointed members serve one-year renewable terms. The committee chair will be elected by the members of the committee.

The University Committee on Women will consider policies, practices and the general environment at the University as they relate to women. The committee will serve in an advisory capacity for the President and based on its deliberations may make recommendations for action to the President and Officers of the University. The committee should meet regularly and a record of its deliberations should be published in *Notre Dame Report*.

Attachment B

Report on Graduate Student Teaching Preparation

Our report's context is the "Back to Basics" report by Notre Dame undergraduates and the discussion of and responses to that report by the Undergraduate Studies Committee and the Academic Council as a whole. Our larger context is the debate over the quality of undergraduate education in America and the accountability of

university educators for ensuring that quality at a high level. In light of this national debate and the several Carnegie reports addressing these issues, the Graduate Studies Committee posed these two questions: 1) What is the extent of graduate student teaching of undergraduates at Notre Dame? and 2) How well are we as departments and faculty preparing, supervising, and evaluating those graduate students we appoint to do such teaching?

We surveyed the individual departments in the Arts and Letters and Science Colleges and posed to them a series of specific questions on their use of graduate students to teach courses for which these students are completely and solely responsible. That is, we did not include graduate students who assist in courses or labs for which faculty members are responsible. We also asked how two projected university-wide requirements would affect their programs: 1) Requiring departments to appoint graduate students for teaching positions through a formal process involving the Appointments and Promotions committee as well as the Chairperson; and 2) Requiring departments to appoint only ABD students to these positions.

The percentage response to our survey was high, and our findings indicate that the range of practices in departments with respect to appointing, preparing, supervising, and evaluating graduate students who teach is wide and uneven. What remains clear and consistent, however, is that our utilizing of graduate students in undergraduate teaching is substantial. In Arts and Letters in any given semester — and Arts and Letters is primarily where such teaching takes place — some 15% of all courses are taught by graduate students. These courses include Freshman Composition and Freshman Seminar. Our increasing use of graduate students at its best serves their experience and development in our profession, our staffing and curricular needs, and in many instances our undergraduates — many graduate students are fine teachers. The real questions are whether we are using them for the best and most inherently good reasons and whether we are preparing and supervising them seriously and attentively. Although the trend in the university has moved toward some kind of preparation for graduate students about to teach, our record is uneven. We cannot today assure the parents of undergraduates that we will appoint only graduate student teachers who have been prepared and who are supervised and evaluated to teach their sons and daughters. Yet this is precisely the claim we ought to be able to make and to fulfill, concretely and consistently.

Appointments. Departmental practices in appointing graduate students vary widely. Some departments make such appointments through the Chairperson; some utilize the A & P Committee; some use both; and still others utilize a committee comprising the Chair, the Director of Graduate Studies, and the Director of Undergraduate Studies.

Preparation, Supervision, Evaluation. This same lack of pattern and occasional presence of idiosyncrasy mark departmental processes in preparing and mentoring graduate students who teach. Certain departments, including Romance Languages, Government, and English, have in place serious preparatory sessions, faculty mentoring, and consistent reviews and evaluations. Others have informal and sketchy processes. Some utilize no preparation, monitoring, or evaluation, and on occasion — happily, rare occasion — reflected in their responses a rather cavalier tone suggesting the relative unimportance of this entire issue.

University-wide Standards. On the question of the two projected standards — utilizing the A & P Committees for appointments and appointing only ABD students — departmental responses were consistent and in many respects wholly understandable: They approve the virtues of such standards but in many instances did not wish them to apply to their particular departments. Individual departments clearly do make arrangements for appointments according to their own needs and histories. Further, departments define the ABD status in varied ways. In the desire to avoid the obvious dangers of micromanagement, then, and recalling Emerson's admonition that a foolish consistency is the hobgoblin of little minds, we decided not to follow through on recommending these standards as requirements. Instead, we turned to a recommendation that we amend the *Faculty Handbook* as the first step — but only the first step — in providing greater attentiveness, consistency, and accountability toward this serious and central question.

Proposed Amendment to the Academic Articles. Article III.3 is titled "Faculty Qualifications and Periods of Service." Its first four subsections (a-d) list qualifications for appointment to the Teaching and Research, Special Research, Library, and Special Professional faculty, respectively. In Section (e) it outlines qualifications for conducting courses, stating that in order to teach, one must be appointed to the Teaching and Research Faculty or be a member of another faculty who goes through the appointment process for the Teaching and Research Faculty. Article III.3.(e) also refers to "a Graduate Assistant duly appointed to teach the course by the Chairperson of the Department."

This reference is the only mention of a graduate student given responsibility for a course in the entire Handbook. In other words, members of particular faculties must be recommended by an A & P Committee; recommended by the Chairperson; and approved by the Dean, Provost, and President. They also must meet the criterion cited for the Teaching and Research faculty in Article III.3.(a): "demonstrated teaching ability." Graduate students are the only persons at the University who can be appointed to teach a course without any mention of their teaching

ability or preparation for teaching in the terms of the appointment.

We believe that no one should be appointed to teach a course unless the relevant decision makers provide assurance that the graduate student is prepared and able to teach the course. We also believe that it is appropriate for the Deans to review such appointments to ensure that sufficient and high standards are met. Hence we recommend the following amendment:

Article III.3.(e) be changed to read (added language in caps): "a Graduate Assistant duly appointed to teach the course by the Chairperson of the Department AND APPROVED BY THE DEAN. SUCH GRADUATE ASSISTANTS SHOULD HAVE DEMONSTRATED PREPARATION FOR TEACHING."

This language is able to deal with appointments and qualifications in one section and so avoids greater complexity. By involving the Deans in the process, it also seeks to ensure that the Chairperson of the Department will not only make each appointment with the seriousness it deserves but will review the performance of each Graduate Assistant in recommending — or not recommending — his or her further reappointment for the Dean's purview and decision.

In the awareness that this recommended change has symbolic as well as practical importance but that it is a first step in providing greater attentiveness, consistency, and accountability in the way we utilize our graduate students as teachers of our undergraduates, we also ask the members of the Academic Council to endorse the following resolution: "At the beginning of the 1994-95 academic year the Graduate Council and each College Council review the procedures of each department for the appointment of graduate students to teach and for their teaching preparation, supervision, and evaluation. By the end of the academic year each College Council will submit a report to their respective Deans on the status of this issue. The Graduate Council will in turn bring an overall assessment, with any appropriate recommendations, to the Academic Council at its first meeting of the 1995-96 academic year."

Respectfully submitted,

John Roos and Thomas Werge, Co-Chairs
For the Graduate Studies Committee of the Academic Council
April 1994

Academic Council Minutes April 26, 1994

Members in Attendance: Edward A. Malloy, C.S.C., Timothy O'Meara, E. William Beauchamp, C.S.C., Roger Schmitz, Patricia O'Hara, Nathan Hatch, Harold Attridge, Francis Castellino, John Keane, Eileen Kolman, Anthony Michel, Robert C. Miller, Richard Sheehan, Lynn Friedewald, Frank Bonello, Paula Higgins, Mark Pilkinton, John Roos, Thomas Werge, Mario Borelli, Robert Hayes, William Shephard, Hafiz Atassi, Arvind Varma, Carolyn Callahan, Edward Conlon, Lorry Zeugner, Kenneth DeBoer, Kathleen Maas Weigert and Maren Schulte
Observers in Attendance: Douglass Hemphill, Thomas Moe and Dennis Moore

Guests: Several members of the University Committee on International Studies and the University Committee on Architecture and the Fine and Performing Arts

The meeting was opened at 3:07 p.m. with a prayer by Prof. O'Meara.

Fr. Malloy began by telling the council that he had learned of unnecessary concerns on campus over a report in the *National Catholic Reporter* regarding the role of the local bishop in hiring decisions at Notre Dame. He stated unequivocally that Bishop John D'Arcy has never attempted to influence, or to have any role in, hiring decisions at Notre Dame during his seven years as president. This conforms with the University's autonomy in such matters and with the position that has been clearly articulated in Notre Dame's official response to the proposed Ordinances on Catholic Higher Education.

Fr. Malloy went on to say that on one occasion, early in his presidency, some faculty members attempted to circumvent the normal hiring process to gain episcopal support at the national level for a particular appointment. This was after he had told those faculty that he would not approve the appointment. Subsequently, Bishop D'Arcy, having learned of the attempt through the episcopal network, contacted Fr. Malloy who related what had happened and how the decision against the appointment was reached.

Emphasizing that he has enjoyed a very positive and open relationship with the local ordinary, Fr. Malloy stated that in a meeting early in his presidency the two conversed about mutual expectations, lines of responsibility and autonomy. The understandings have never been violated, he added.

1. Minutes

The minutes of the council meetings of February 14 and March 15 were approved.

2. Recommendations by the Graduate Studies Committee Regarding Graduate Student Teaching

Prof. Roos reminded the council of a preliminary discussion of this subject at the previous meeting, and he referred to two specific recommendations in the report that was distributed at that time. (The report is in Attachment B of the minutes of the council meeting of April 6, 1994.) Referring to the proposed change in Article III.3(e), he pointed out that some council members suggested that the approval of an appropriate committee be required in order for a graduate student to be appointed to teach — that is, in addition to approvals by the chairperson and the dean. The Graduate Studies Committee, he said, did not reach a consensus on that matter.

Dean Castellino, referring to the condition that graduate assistants appointed to teach “should have demonstrated preparation for teaching,” questioned the purpose of the word “demonstrated.” Prof. Roos acknowledged that specificity is lacking, but he added that the statement deliberately allows latitude for departments to select from a number of experiences those which most appropriately constitute preparation for teaching. Prof. Borelli suggested that “satisfactory” be used in place of “demonstrated.” Prof. Werge defended the use of “demonstrated.” He pointed out that the word implies that there is empirical evidence of some mentoring or monitoring.

Prof. Varma returned to the question about including a requirement that a faculty committee approve such appointments. He suggested that it be the departmental CAP or another committee appropriate to the unit. Through considerable discussion of wording, the following amended version of the proposed change in Article III.3(e) was crafted. (Insertions are enclosed in brackets [].)

Article III, Section 3/Faculty Qualifications and Periods of Service

Subsection (e) Qualifications for Conducting Courses

Anyone having general responsibility for the conduct of a course carrying academic credit must be (1) a member of the Teaching-and-Research Faculty; (2) a member of any other faculty category whose appointment has been approved for that purpose pursuant to procedures set out in Article III, Section 4(a); or (3) a Graduate Assistant duly appointed to teach the course by the Chairperson of the Department, [acting with the departmental Committee on Appointments and Promotions (or by the head of any appropriate academic unit, acting with an appropriate committee of that unit), and approved by the Dean. Such Graduate Assistants should have demonstrated preparation for teaching.]

A motion for approval was passed without dissent.

Prof. Roos then directed the council's attention to the resolution in the last paragraph of the report. Prof. Bonello questioned the timing of the action. Inasmuch as a teaching center is to be established, he felt that the review of procedures, called for in the resolution, would be best conducted under the aegis of the center. Others felt that the collection of information from the reviews would be a helpful starting point for the center.

A motion to endorse the resolution was approved without dissent.

3. Reports by Post-Colloquy Committees

a. University Committee on Research, Scholarship and Infrastructure

In introducing this report, Prof. Hatch, chair of the committee, pointed out that the committee is still at work. He described this then as a provisional report, but one that should at least give a fairly clear sense of some of the major forthcoming recommendations. In the general context of the University's goal of becoming one of the premier private institutions in the country, this committee, he noted, was asked to develop a plan for improving research and scholarship.

He said the committee deliberately avoided getting into a major study that would require much longer than a year to complete. Instead it set objectives that were achievable within a year, and it built on previous Notre Dame studies and reports. Among these were the so-called “Project 19” report on equipment submitted in 1989, and a report of a task force on research systems completed in 1991. He commented that the overall sense of the committee was that matters within its purview were subordinate priorities — the primary priority for upgrading a research university is hiring the best faculty who can attract the best graduate students. Nevertheless, since the hiring of faculty is addressed in other ways, this committee saw its task as addressing other topics that are relevant to supporting a research infrastructure. He likened infrastructure support to the maintenance of buildings in the sense that funding is too easily deferred, and the accumulated effects of deferrals cause serious problems eventually.

Next, Prof. Hatch described the organization of the committee. It consisted of four subcommittees dealing with the following subjects: (1) research infrastructure, including research administration, accounting, computing and organization of research endeavors, (2) research development with focus on the central issues that could improve a research environment, (3) research equipment, and (4) graduate education. He emphasized that the committee assumed from the start that the need for an endowment for graduate fellowships had already been articulated. The focus was on other essentials for building an environment for graduate education and research.

Noting that work to date has produced reports from the four subcommittees, he summarized the content by way of the following statements that will likely form the framework of the final report of the committee.

- The most critical need is capitalization funds for new faculty. In many instances, notably in science and engineering, the provision of funds for laboratory equipment is more crucial than the salary level in recruiting faculty. A department-by-department study by the committee of science and engineering needs suggested that a \$2 million annual budget is required to meet capitalization needs.
- Library needs are paramount, particularly with arts and letters faculty.
- In order to be competitive in recruiting faculty, the College of Business Administration and the Law School, must be able to provide summer support for research. The annual need amounts to about \$200,000 in the former and about \$120,000 in the latter. Needed also in the College of Business Administration is about \$120,000 per year to support important research data bases, and in the Law School about \$500,000 per year for library support.
- Several issues pertain to the administration of research. One of these concerns the need to be more proactive in attaining industrial support for research inasmuch as support from the federal government is becoming tighter. Another has to do with the University's new accounting system — specifically with the need to evaluate it carefully after it has been implemented and to compare it with systems at other research universities. One other issue relates to seed money and the general subject of research development.
- Office and library carrel space for graduate students is inadequate, particularly in the College of Arts and Letters, affecting as many as 700 of the 1,200 graduate students. When facilities expansions in arts and letters are planned for additional faculty offices, they should include office space for graduate students.
- As recommended in the aforementioned previous reports, a fund should be established for the maintenance and replacement of major research equipment.
- Computing support for graduate research does not match the expectations and needs, in some disciplines at least.
- Attention needs to be given to the status and role of the special research and special professional faculty.

In addition, Prof. Hatch said the committee will recommend that the Graduate School help to coordinate the placement of graduate students and to track their whereabouts.

In concluding his presentation, he noted that the committee had discussed the desirability of combined multi-user research service facilities (e.g., machine and electronic shops) for the colleges of science and engineering, but there was no strong support for centralizing the services.


In response to a question from Dean Castellino about the committee's attention to computing needs, Prof. Hatch stated that the subject is being addressed by one of the subcommittees.

Dean Attridge asked if the committee's recommendations and the costs involved were within the bounds envisioned in the Colloquy study. Prof. Hatch replied in the affirmative. Pursuing this question further, Prof. O'Meara asked if the \$2 million per year recommended for capitalization was new money — that is, in addition to that already provided for capitalizations. Prof. Hatch answered that the figure was the estimate of the total need partially already met by funds currently provided for capitalization.

Dean Attridge observed that the committee seemed to be identifying needs with certain units. For example, capitalization was identified with science and engineering, and so on. He asked if the committee was taking into account also that needs may be present to some extent in all units. Prof. Hatch stated that the committee recognized the breadth of some needs, but the intent was to focus on the most pressing matters where a difference can be made. Dean Attridge, calling attention to the diversity among departments in arts and letters, cited specifically the need for summer support for faculty research in the social sciences, similar to the need identified by the committee for business and law. Prof. Hatch agreed, but noted that the existing culture in the arts and letters fields is unlike that in business and law regarding summer support for research. In any case, he said, while the magnitude of most needs is determined by certain units, there is no intention to ignore those needs in others.

In response to a question by Dean Keane, Prof. Hatch stated that the opportunity for starting a doctoral program in business had been discussed, but with its focus on infrastructure, the committee did not consider the subject within its purview.

Fr. Malloy observed that the variation in research among disciplines is a consequence of the history of the development of academic research — particularly since World War II when major support from the federal government became available to some fields and not others. The key is to be competitive with the market place — as is the case with salaries, teaching loads and other matters. In hiring new faculty, he said, we must attend to the infrastructure needs of that particular faculty person and his


 or her area. For some that will mean laboratory equipment, for others a library collection or data bases.

Prof. O'Meara commented that once summer salaries are provided by the University for one college, others will want the same provision — similar to what is happening already with capitalizations. For some decades, science and engineering faculty have had opportunities for external support for summer salaries, but that might not continue. Some rationale will have to be given for the University's providing faculty salaries for summer research. It will be worth inquiring into the sources other universities have for summer salaries, he added. Prof. Hatch said that for some the resources come from entrepreneurial activities and professional programs that yield a profit.


Prof. Hatch concluded the discussion by saying that the committee's report will be completed early this summer.

b. University Committee on International Studies

Associate Provost Dr. Isabel Charles, chair of this committee, appeared before the council to present this report. The following is the text of her remarks.

 The University Committee on International Studies is composed of 17 elected members and seven persons appointed by the president. Dr. Claudia Kselman, my assistant, served as secretary and, frequently, consultant to the committee. The entire committee is in agreement that the University of Notre Dame must be committed to providing Notre Dame students with opportunities to enlarge their understanding and vision beyond the borders of this campus and this country. Furthermore, we believe that the global nature of all enterprises today — religion, science, business, politics, education, technology — mandates an international, intercultural dimension to the broad-based liberal education essential for graduates of this University. Chief among the means to accomplish this end are international programs where students study and live for a year or a semester in a culture not their own.

In order to fulfill the charge of Recommendation 16 of the Final Report of the Colloquy for the Year 2000 regarding international programs, the committee focussed its work in three major areas: Current Programs, Future Programs and Reorganization. The chairs of these three subcommittees who are here this afternoon will speak to you, summarizing their findings. My final report will include a Mission statement, a distillation of their reports and a number of recommendations which, according to our judgment, form a sound foundation for strengthening Notre Dame's future international efforts in a coherent, effective fashion.

 All three subcommittees, of course, centered their attention primarily on the undergraduate international experi-

ence, fully recognizing that internationalization of the campus must also acknowledge the impact graduate students and their programs have on this focal area.

Though the work of the three committees covered specific, different aspects of international programs, their reports revealed a clear consensus of concerns:

- 1) the academic quality of international programs must be high;
- 2) programs should be regularly evaluated;
- 3) involvement of faculty in current and future programs is an essential element in creating student demand; thus departments and colleges must form an integral part of program monitoring and development;
- 4) curricular support for all programs is vital for maximization of the experience both before and after the period of study abroad;
- 5) greater advantage must be taken of the multiple international resources available on this campus.

The committee on current programs, chaired by Sonia Gernes, faced the monumental task of evaluating the 10 Notre Dame-operated undergraduate programs, three Saint Mary's College programs in which Notre Dame students participate, and three facilitated programs which our office has approved and for which we currently assist Notre Dame students in their applications. The committee's job was all the more formidable because of the short time span in which to prepare and distribute a good survey instrument and then study and report on the returns. The report you received prior to this meeting contained a summary of the survey results as well as evaluations of separate programs. In addition to commenting on these results, Sonia will also discuss some overall recommendations the committee has formulated.

The committee on future programs, under Mike Francis' leadership, recommended a sizeable increase in the number of Notre Dame students experiencing a period of study abroad. At the same time, they recognized that such a change will impact the entire campus operation — from curriculum, to housing, to financing, and thus requires careful study and planning. They also make recommendations which assure academic quality and point out the importance of faculty involvement through department and college participation in program development.

The committee on reorganization, headed by Joe Guiltinan, studied the current operation and its effectiveness in administering programs and contributing to international consciousness at the University. As a result, they offered a number of suggestions for administrative structures which will academically strengthen current and future programs, increase dissemination of information, and encourage further faculty, department and col-

lege participation. Most importantly, given the expanded vision developed in the course of the committee's deliberations, they proposed the appointment of an additional officer who would be responsible to the provost for the coordination and supervision of the varied international programs and services now offered on this campus. The kind of centralization they propose will allow for stronger evidence of University commitment to internationalization, greater visibility on campus, better cooperation among units, and, indeed the eventual fostering of a strategic plan to make the University truly international in its scope.

Finally, before turning over the podium to the subcommittee chairs, let me say that it has been very rewarding for me to work with this group of dedicated people. Discussions have been informative and valuable. The subcommittee chairs have shown creative leadership and much hard work. I have been extremely pleased with the quality of their reports and the degree of consensus they drew from the entire committee. As a result of all this effort, I believe our final report will be a blueprint for making Notre Dame of the future a truly internationalized campus.

Prof. Sonia Gernes then summarized the work of the subcommittee on current programs. She began by reiterating that the subcommittee's first concern was that the programs have a solid academic base. She added that responses to surveys and questionnaires give strong evidence that the base is solid in most cases. There are concerns about the Mexico City program in this regard. The subcommittee was not concerned about workloads possibly being a bit less than on the Notre Dame campus because time available therefore would be for students to explore and experience the local culture.

Prof. Gernes went on to present and elaborate briefly on the following subcommittee recommendations.

1. In order to ensure a solid academic base:
 - a. All programs administered by Notre Dame should use some form of Teacher/Course Evaluations for all classes. The results should be made available not only to on-site administrators but to the Office of International Programs and other campus administrators.
 - b. Wherever possible, language program students should be required to take at least one mainstream course with host country students in a local university.
 - c. All Notre Dame programs which do not have a system of rotating Notre Dame faculty (on a semester or academic year basis) should give serious consideration to implementing such a system. This is especially needed in the language programs. (1) Duties of the faculty member will be stated in writing. (2) Clearly stated procedures and criteria for selecting Notre Dame faculty for each location will be publicized.

2. Regarding support structures, all programs administered by Notre Dame have in place:

- a. A counselling referral system so that students in need of counselling can obtain it with a minimum of difficulty.
- b. A basic library, computer and e-mail facilities. (Library facilities might take the form of borrowing or user privileges at another library that is reasonably convenient.)
- c. A structured follow-up program which includes a liaison advisor in each academic department who is available to advise majors about problems with course selection prior to going abroad and after returning.

3. In the area of recruitment and orientation:

- a. Consideration should be given to more effective recruitment practices especially for those programs where students must make a decision as freshmen. We recommend an "International Studies Day" at the beginning of Notre Dame's fall semester, something akin to "Activities Night," where students can discover and discuss programs offered them.
- b. More orientation information should be provided on the host country. We recommend greater use of returnee students and faculty in the orientation sessions, and we recommend that students be apprised of the fact that life styles and living conditions may not be the equivalent of U.S. standards.

4. In order to maximize opportunities to meet and make friends in the local culture:

- a. Students should be housed with families whenever feasible.
- b. Students should be encouraged by structured means such as field trips to travel in the host country as well as in neighboring countries.

5. In order to encourage greater participation by students in the colleges of business, science and engineering, more spaces should be created in the popular programs. This should be accomplished without taking away spaces from arts and letters students.

6. External reviews of the international programs should be conducted at regular intervals.

Referring to the recommendation that students be housed with families, Fr. Malloy pointed out that while students report very positive benefits of such arrangements, they are difficult to work out. The difficulty will be much worse with larger numbers of students in the programs. Prof. Gernes agreed that such arrangements simply would not be feasible in some situations.

In response to a question from Prof. Varma, Dr. Charles and Prof. Gernes stated that there is a limit placed on the number of students who can participate in some of the programs owing to limited availability of housing.

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Prof. Borelli asked if the subcommittee had looked into the content of science courses that students in the programs might take. Prof. Gernes said that much more faculty and department involvement is required in order to accommodate various curricular needs into programs — and most science courses are cases in point.

Prof. Sheehan asked if there are sufficient opportunities in the programs for interaction with the local populace. Responding, Prof. Gernes said that the interaction varies among the programs. As an example she cited the London program, which is very successful in most respects, but provides little interaction with the British people. Dr. Charles cited the program in Toledo, where students live with local families, as one that provides opportunities for extensive interaction.

The next presenter was Prof. Michael Francis who chaired the subcommittee on future programs. He began by noting that Fr. Malloy once said that in an ideal world all Notre Dame students would enroll in at least one foreign study program during their stay at Notre Dame. His subcommittee agrees. However, he added, the current student demand is actually being met by the existing programs, with the exception of the London program. The subcommittee felt that a realistic goal would be a doubling of the percentage of students enrolled in foreign programs over the next 10 years. He noted that the current percentage is about 20 percent.



He offered the following possible explanations for the relatively small demand: (1) Some students do not want to study the necessary foreign language. (2) "Advertising" and general communication about the programs needs improvement. (3) The sequencing of department requirements in some cases causes a delay in progress toward a degree for a student who opts for a foreign study semester or year.

As one remedy, a major recommendation of the subcommittee is that departments be drawn more closely into the construction of foreign study programs. In that way the programs can better serve department goals, and departments will encourage, if not require, their majors to participate in the programs.

Continuing, Prof. Francis reported that part of the subcommittee's charge was to consider locations where new programs might flourish. Good possibilities are China, Africa and Russia. Among others were South Korea, Singapore and Thailand.



The subcommittee felt that more extensive offerings in foreign languages were needed at Notre Dame, including Arabic, Chinese, Japanese and Russian. It felt also that there should be courses offered that would enable students to build on their experiences abroad when they return.

He expressed the subcommittee's feeling that there should be a strong effort to get students abroad more involved in activities pertaining to local social concerns. Presently, he said, it is quite possible for the students to spend time in western European countries and see very little of the social problems that exist there.

Prof. Francis concluded his presentation by expressing the subcommittee's concern about the fate of the London facility when the sub-lease on the third and fourth floors expires in two years. He noted that in any case the amount of space in the Albemarle Street building may not be adequate for future programs, and that a larger facility would likely attract a larger applicant pool for the existing arts and letters program.

Prof. Higgins asked about the faculty attitude regarding students studying abroad. Prof. Francis answered that some faculty apparently are under the impression, sometimes with justification, that programs abroad are not always sufficiently demanding academically. Prof. Higgins wondered if the culture of undergraduate life at Notre Dame might discourage some students from leaving the campus for a period of time. She commented that students sometimes express reluctance to miss part of the Notre Dame experience.

Dean Castellino added that students may be concerned about losing their residence hall assignment, and if so, he felt that a way should be found to alleviate that concern. Prof. Francis noted that one of the subcommittee's recommendations is to correct this matter. Dr. Charles stated that arrangements are in place for students to return to their original residence hall, if they wish, after one full year away. However, students who are away in the fall only may encounter a problem returning to the same hall in the spring. Prof. O'Hara stated that while there can be no absolute guarantee of getting back in the same hall, she is certain that an analysis would show that in nearly all instances this is the case.

Prof. Varma asked if consideration had been given to starting a program in India. In most of the large cities, he said, language would not be a problem, the base of educated people is large, and the culture different and interesting. Prof. Francis said that he was surprised to find relatively little interest in a program in India. He pointed out that there is currently a program to India through Saint Mary's, but very few students are attracted to it. Dr. Charles added that Notre Dame currently does not offer enough courses relevant to Indian culture to arouse the interest of students.

Prof. Bonello commented that the faculty concerns about the lack of academic rigor in programs abroad may be reinforced by the student response to an item on the committee's questionnaire. Only 8 percent of the respon-

dents rated the workload of programs abroad as greater or much greater than that on the Notre Dame campus. Fifty-eight percent rated it as less or much less. He suggested that attention be paid to strengthening the programs academically.

Dr. Weigert asked if there are problems regarding students studying abroad on programs not sponsored by Notre Dame. Prof. Francis commented first that the subcommittee would favor student participation in programs that are not sponsored or facilitated by Notre Dame because it would broaden our offerings. He pointed out, however, that such students are not *guaranteed* on-campus housing upon return, and their financial aid is suspended while they are away.

Noting that part of the problem with science students studying abroad is the laboratory situation, Dean Castellino wondered if having students enrolled for special laboratory courses in universities at the abroad sites might be feasible. Prof. Francis responded that consultations with departments on campus should explore such possibilities.

Prof. O'Meara asked about the foreign language proficiency of students upon their return from a program in which the language used is not English. Prof. Gernes said that it varies from program to program. There is a noticeable gain in proficiency by those students who enroll in the local university's courses and/or take up residence with a local family. Fr. Malloy and Dr. Charles commented that many students over the years have gained proficiency in Japanese through our program there and are employed in American foreign service and various Japanese companies.

Dean Kolman asked if consideration has been given to moving the focus of the programs from the sophomore to the junior year. She noted that it is often difficult for students to go through the necessary processes, including taking a foreign language, during their first year on campus. Prof. Francis said that the subcommittee is strongly in favor of using the junior year — as most American universities do.

Prof. Varma and Dean Castellino felt that the programs were not fully meeting their purpose if our students were not enrolled in courses with students of the host country. Dr. Charles explained that in some programs our students are in international centers with other international students. Classes are taught in the foreign language, but the students in these centers are not sufficiently equipped with the language to enroll and compete with native students. In some cases, as in Mexico City, students are equipped to enroll in the regular course offerings.

The next presenter was Prof. Joseph Gultinan, who chaired the subcommittee on reorganization. His presentation covered the following material, excerpted from the subcommittee's report that was distributed to the council in advance of this meeting.

The subcommittee identified the following problems:

- The assistant or associate deans who have primary responsibility for advising undergraduate students believe they lack adequate information to advise students effectively about foreign study programs.
- International programs lack widespread visibility on campus, and faculty are not generally knowledgeable about them. They are rarely topics of discussion, particularly in the colleges of science, engineering and business administration.
- Resource constraints limit the ability to gather and disseminate information. The International Studies Office operates with only 1.75 FTE positions.
- Oversight on staffing for instruction in the programs is inconsistent.
- There is a lack of understanding about the division of responsibilities between departments and the central office, particularly with language-based programs.

The subcommittee made the following recommendations:

1. Establish a position, under the provost, of vice president for international studies and programs. This person would serve as the primary emissary (after the president) to international organizations; devise contractual agreements with foreign organizations; promote international/intercultural events on campus; develop programs to organize and involve international alumni; pursue external sources of funding; supervise budgets and recommend tuition levels for the various programs; and administer the Office of International Studies and Programs.
2. Create a fully funded Office of International Studies and Programs that would oversee the academic and support functions associated with international faculty and students. The office would also serve as a liaison with other units on campus involved with international education and research.
3. Establish an international programs advisory committee. This would be similar to the existing committee but expanded in size with a broadened set of responsibilities.
4. Assign formal responsibility to someone in each college for advising students on international study programs and communicate this designation to students and faculty.

5. The Office of International Studies and Programs should be located in the Main Building, and advising space for international studies should be made available in each of the colleges and schools. In addition, language and culture community centers should be established to promote global awareness and to encourage the use of foreign languages on campus.

Prof. Roos asked if consideration was given to establishing language floors on sections in residence halls. Prof. Guiltinan answered that the establishment of such locations might be an alternative to the language center concept, but subcommittee discussions did not delve into specific ways to meet the general objective.

In response to a request by Dean Attridge for further clarification of the role of colleges vis-à-vis the central office, Prof. Guiltinan said that colleges would be mainly concerned with the design, content and standards of the academic portion. The central office would mainly serve to coordinate programs and work out arrangements.

Fr. Malloy reminded the council that the full final report of the committee will be published in *Notre Dame Report* when it is available.

c. The University Committee on Architecture and the Fine and Performing Arts

This report was presented by Dean Attridge who chaired the committee. (The final report of this committee's work was distributed to council members in advance. It is published in its entirety elsewhere in this issue of *Notre Dame Report*. The repetitive description of its content, therefore, is held to a minimum in these minutes.)

Dean Attridge began by pointing out that the committee's charge was fourfold: (1) to construct a mission statement for the disciplines of architecture and the fine and performing arts, (2) to review the curricular structure of their programs, (3) to consider their possible reorganization and representation on campus, and (4) to plan for their future growth at the University. He referred to the mission statement in the committee's report as striking a balance among the three dimensions of the life of these disciplines: their curricular responsibilities, their involvement in the public presentation of art, and their research and creative endeavors.

Regarding organization, he continued, the committee's major concern was whether there should be a new unit of the University — for example, a school of fine arts and architecture. Considering arguments pro and con, the committee decided against recommending such a unit.

He reviewed the three recommendations (in Section II of the report) made by the committee regarding organization.

Dean Attridge continued by reviewing the committee's discussion and the four recommendations on curriculum in Section III of the report.

He then directed attention to Section IV, the last section of the report, on needs and initiatives for development. These he summarized in five categories: (1) facilities (the most prominent recommendation is that the University move forward to complete the Marie DeBartolo Center for the Performing Arts); (2) faculty and staff; (3) students; (4) programs; (5) infrastructure, including library and equipment needs.

Dean Attridge concluded his presentation by commenting that the arts at Notre Dame have not been appropriately fostered through the years. The committee's work, he added, sketches a plan whereby such fostering would take place and a base would be provided from which all of the arts units can achieve national, if not international, stature.

Mr. DeBoer asked if the statement in the report to the effect that courses in basic performance would not ordinarily fulfill the art requirement is a reversal of earlier Academic Council action on that matter. Dean Attridge responded that the spirit of the requirement has always been that the course have a history or theory component. The Academic Council voted to leave it at the dean's discretion to ascertain whether a given course met the spirit of that requirement. The present committee reaffirmed that position.

Prof. O'Meara asked if the recommendations in this report are consistent with those in the Colloquy report. Dean Attridge replied affirmatively that the recommendations and their estimated costs are encompassed by Colloquy recommendations.

Fr. Beauchamp, asked by Fr. Malloy to review the status of the DeBartolo gift, pointed out that two of the three main projects intended to be funded by the gift have been completed. These are the DeBartolo classroom building and the development of the new quad. As publicly known, the DeBartolo's have had cash flow problems recently, causing the remaining portion of the gift, that for the performing arts center, to be delayed. Schematic designs have been completed, but Fr. Beauchamp estimated that if funding were to materialize immediately, completion of the project would require about four years.

Fr. Malloy reaffirmed the University's intention to proceed as fast as possible with the performing arts center, but proceeding requires that a substantial portion of the cost be in hand.

4. Other Business

Fr. Malloy informed the council that he and Prof. O'Meara will soon meet with the Faculty Affairs Committee of the council regarding the proposed University Committee on Women. He noted that there is some disagreement between that committee and the Faculty Senate regarding the structure of the proposed committee. In due course, the matter will come to the council's Executive Committee for further disposition, but he thought it unlikely that there will be a resolution before next fall.

Fr. Malloy informed the council also that a report has been received from the Faculty Affairs Committee regarding the employment of part-time faculty at Notre Dame. That report is now in the hands of the Executive Committee.

The meeting was adjourned at 5:27 p.m.

Respectfully submitted,

Roger A. Schmitz
Secretary of the Academic Council

Academic Council Minutes May 16, 1994

Members in Attendance: Edward A. Malloy, C.S.C., Timothy O'Meara, E. William Beauchamp, C.S.C., Roger Schmitz, Patricia O'Hara, Nathan Hatch, Harold Attridge, Francis Castellino, John Keane, Eileen Kolman, David Link, Anthony Michel, Robert C. Miller, Richard Sheehan, Frank Bonello, Cornelius Delaney, Paula Higgins, John Roos, Mario Borelli, William Shephard, Hafiz Atassi, Arvind Varma, Carolyn Callahan, Carol Mooney, Lorry Zeugner, Kenneth DeBoer and Kathleen Maas Weigert
Observers in Attendance: Douglass Hemphill, Thomas Moe, Dennis Moore and Dennis Brown

Guests: Sr. Helen Lombard, O.S.B., and several members of the University Curriculum Committee and of the Ad Hoc Committee on University Libraries.

The meeting was opened at 2:05 p.m. with a prayer by Prof. O'Meara.

1. Fr. Malloy informed the council that, as has been announced publicly, the Board of Trustees, at its meeting on May 5, elected a new officer, Fr. Timothy Scully, C.S.C., to be a second vice president and associate provost. He cited two principal reasons for this action. First, the board desires, as it has in the past, to give opportunities to Holy Cross religious for administrative experience at

the University. Second, it adds to the representation of the academic units among the University's officers. In carrying out this action, he continued, the fellows of the University voted to change the bylaws to include the new officer position, and the council's Executive Committee was asked subsequently to propose changes to the Academic Articles that would accommodate the position.

Fr. Malloy went on to emphasize that the appointment of Fr. Scully to the new position should not be interpreted as having already designated him or anyone else for higher positions in the future. Rather the intention over the next five years or so is to give opportunities for others also to have administrative responsibilities.

Fr. Malloy then asked Prof. O'Meara to explain the Executive Committee's proposed changes in the Academic Articles. Prof. O'Meara first pointed out that inasmuch as there now are two officers with the title vice president and associate provost, one will be distinguished from the other by identifying one as vice president and senior associate provost. He then gave the following proposed article changes.

- (1) In Articles I.3, II.1 (4th paragraph), and IV.3(a) (first paragraph), the words "the Vice President and Senior Associate Provost" are inserted before "Vice President and Associate Provost."
- (2) The number of elected members to the Academic Council is changed in Article IV.3(a) from 18 to 19 to retain the balance of ex-officio and elected members.
- (3) In the second paragraph of Article IV.3(a), "the School of Architecture" is inserted after "respective Colleges."
- (4) The changes indicated below are made in Article II.2. (~~Strike throughs~~ indicate deletions; brackets [], insertions.)

Section 2/The Vice President[s] and Associate Provost[s]
The [Vice President and Senior Associate Provost and the Vice President and Associate Provost ~~is~~ [are] elected by the Board of Trustees to assist the Provost in the work of academic administration in whatever way the Provost may desire. In the absence of the Provost, the Vice President and [Senior] Associate Provost acts as Provost. [In the absence of the Provost and the Vice President and Senior Associate Provost, the Vice President and Associate Provost acts as Provost.]

Prof. O'Meara noted that the change in Article I.3 in (1) above establishes the rank order of officers, specifically placing the vice president and senior associate provost and the vice president and associate provost fourth and fifth, respectively. He noted also that change (3) gives council membership for the first time to a representative from the School of Architecture.

Prof. O'Meara pointed out that no change is proposed for the membership of the Executive Committee of the council. Therefore, the vice president and senior associate provost will not be an ex-officio member of that committee. He added that the vice president and associate provost will be responsible for council arrangements and minutes.

Fr. Malloy then opened the proposal for discussion and questions.

Prof. Sheehan expressed two concerns. The first was the lack of consultation with the faculty about what appears to be a substantial reorganization of the provost's office. The second was the statement about similar opportunities for other Holy Cross religious. Specifically, he asked if that statement meant that others would be elected to the rank of vice president or if this new position is envisioned to be a rotating one. Fr. Malloy responded that he had no specific plan for appointments or positions in mind but that possibilities could be provided under the provost, the executive vice president, vice president for student affairs, and perhaps others. He stated that his personal plan at this time, subject always to board approval, is to remain in his position through the next fund-raising campaign.

In response to further questions and requests for clarification, Fr. Malloy stated that Prof. Schmitz, who earlier announced his plan to step out of his administrative position after next year, will be the senior associate provost through 1994-95.

Fr. Malloy then called for a vote on the proposed Article changes. By voice vote, the ayes carried; the changes were approved.

2. Reports by Post-Colloquy Committees

a. University Curriculum Committee

Prof. O'Meara, chair of this committee, told the council that this is an interim report; the committee's work continues. Regarding organization, he said that a steering committee was formed and several subcommittees were appointed in the earlier stages to search out the issues for discussion.

He explained that the curriculum of interest is the general University curriculum that is common to all students, not the specific curriculum of a college. He gave the following examples of questions that have been discussed: Is the curriculum too rigid or too liberal? Should we have fewer requirements or more? Should we have fewer courses with more credits per course so that the total number of credits remains constant? There was discussion also, he said, of the writing experience of students generally, of the desirability of more small classes, and of the availability of classes.

On the subject of class size, he stated that the committee members from the colleges of science, engineering and business administration generally had no real qualms about large classes. Those in the humanities fields, on the other hand, generally favored small classes.

Prof. O'Meara reported that the freshman seminar was discussed at great length. As it now stands, the committee's recommendation is that the freshman seminar requirement be eliminated in favor of some other course that would accomplish the same purpose.

The freshman writing course was also discussed at length with a conclusion that a study should be conducted in the fall of the writing proficiency of incoming freshmen.

There was very little discussion of the required two courses in philosophy and theology. The committee felt they were essential requirements.

Prof. O'Meara went on to describe the committee's discussions of the possibility of reducing the number of required courses in the general University curriculum. Members in arts and letters generally favored the concept; those in engineering and science opposed. The notion was presented also of reducing the number of courses but increasing the credit per course. The committee concluded that little, if anything, would be gained by this change.

Next Prof. O'Meara summarized the committee's discussions about offering integrated courses. These may be, for example, a set of four courses taught by a single individual or a set of individuals who would not necessarily be teaching material in their specialty. In the end the committee concluded that this was not a practical approach and decided not to pursue the idea further.

He then reported the committee's deliberations about the math/science requirement. One idea proposed was that every student be required to take a calculus course followed by a science course that uses calculus. The committee generally felt that this would be too restrictive. He said that most members, especially those representing the colleges of science, engineering and business administration and the fields of social science, felt that the present math/science requirement is important. The committee recognized, however, that those in the humanities have a different viewpoint about its importance for their majors. The most recent vote of the committee favored retaining the existing requirement.

Prof. O'Meara then returned to the idea of eliminating the freshman seminar. The seminar would be replaced by a course selected from a set which, for the purposes of the discussion at hand, he called X courses. The set would be from arts and letters offerings. X courses would be taught

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by regular members of the teaching-and-research faculty; section sizes would be small; and the courses would incorporate a significant writing component and an introduction to the methodology of the discipline. He commented that the addition of new faculty positions, as recommended in the Colloquy report, would probably provide sufficient faculty resources. He noted that the campus culture would have to change so that large numbers of faculty would be (and would want to be) engaged in freshman courses of this type.

In response to questions, Prof. O'Meara explained that the introduction of an X course in place of freshman seminar would reduce the number of required courses. For example, an X course in theology would satisfy half of the theology requirement.

Returning next to the freshman writing, or composition and literature, course, Prof. O'Meara reported that the committee was critical of the course as it now stands. Some members felt it was a technique course; some felt it should be dropped as a requirement. The committee's intention is to conduct an experiment in the fall to determine the number of students who need such a course. If the number is small, the course will be considered a remedial one; if large, it should be retained as a requirement.

Responding to a question by Fr. Beauchamp about the nature of the experiment, Dean Kolman, co-chair of the committee, said that the first matter to be settled is the purpose of the course. She noted that presently the balance of content between composition and literature varies. Once the goals of the course are clearly established, methods would be established for testing. Presently about 250 students per year earn advanced credit.

There ensued a number of questions from council members about X courses. Prof. O'Meara repeated the essential elements, emphasizing that they differ from the present freshman seminar offerings in that they would be taught by regular faculty, and they would be in a discipline such that they would apply to a University requirement. Prof. Roos expressed strong doubts that attempts to get regular faculty to teach freshman courses in sufficient numbers would be successful. He described past attempts to do so as "massive failures." Prof. Varma, commenting that Berkeley seems to have been successful in attracting the best senior professors to teach freshmen, said that he is surprised that professors at Notre Dame might not be receptive to the idea.

Prof. O'Meara said that the committee will continue its discussion of this topic. He then elaborated further on the mathematics and science requirements. After considering various viewpoints, the committee felt that the math/science requirement should stand at four courses through a three-year trial period, at least. During that pe-

riod, courses would be developed by the mathematics department in consultation with other departments of the University.

Prof. O'Meara said that the committee also discussed the possibility of a technology requirement. The suggestion was made that a technology course be developed and evaluated. Its appropriateness as a requirement, perhaps toward the science requirement, would then be evaluated.

Prof. O'Meara concluded by repeating the major points of his presentation and reiterating that this is an interim report. He expects the final report of the committee to be ready by the middle of the fall semester. He then asked the members of the steering committee who were present to add their comments.

Dean Kolman commented on two matters. First, she felt that there is a need to involve students more actively in the learning process. Presently, at the freshman level particularly, too often students are sitting passively in large sections and being tested in multiple choice fashion. The aforementioned X courses may address that need. Second, she noted that a proposal has come forth about having a requirement for either research or a thesis in order to graduate with honors but so far has had only limited committee discussion.

Prof. Michael Stanic pointed out that students felt that the mathematics courses should include more applications to the physical world. He pointed out also that a curriculum oversight committee would exercise control of the X courses insofar as determining which courses should be so designated. He added that some members of the committee felt that students should take at least two X courses, maybe three.

Prof. Barry Keating noted that a crucial item is the availability of courses. He added that one of the next items on the committee's agenda is the advising process, which most members feel is not now up to par.

Prof. David O'Connor commented that having members of the teaching-and-research faculty teaching small sections at the freshman level in required courses is a much more important change for the University than it may first appear.

Prof. Graham Lappin commented on the lack of dramatic changes likely to come from the committee's work. He felt that it reflects the fact that our present curriculum works well and successfully with the type of students we have at Notre Dame.

Prof. Delaney expressed his disappointment that while there seemed to be a consensus among committee members to reduce the general requirements, no noteworthy

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reduction actually materialized. He felt that in the course of committee discussions, people became reluctant to favor reductions of requirements in their own areas of interest. He emphasized that one point on which there seems to be a committee consensus is that all students take at least two writing intensive courses in small sections taught by teaching-and-research faculty. He added that approving such a requirement would imply a University obligation to provide the necessary resources.

In the general discussion that followed, Dean Castellino expressed his concern that there has not been enough input from the colleges and his hope that there will be opportunities for such before the committee completes its work. Dean Michel echoed those sentiments saying that he had not been informed before this meeting of the committee's deliberations. Prof. O'Meara said that the interim report given here was essentially based on the discussions within the 25-member committee. Prof. Delaney said that as a representative of the College of Arts and Letters elected to the Curriculum Committee, he received inquiries and comments frequently from his colleagues. Dean Attridge commented that while it may be worthwhile to have more conversation broadly, the sentiments expressed by the arts and letters faculty on the Curriculum Committee reflect a fairly broad consensus within the college. The feeling is that the present curriculum is too tight and that we ought to have a little more flexibility. Prof. O'Meara added that the committee has not operated in isolation; there has been input and fierce discussions of the type going on at this meeting.

Fr. Malloy addressed the following question to Dean Kolman: If there were no specific course requirements, which of the courses required currently would students be least likely to take? In her opinion the least likely would be mathematics, followed by science. She added that course availability affects the pattern of selection. Fr. Malloy agreed except that he would insert foreign language in second place if it were a requirement. He went on to say that these would be avoided by many students because of their concerns about grades — concerns that a failing grade might harm their career plans. Therefore, he said, a curriculum with sufficient requirements can be broad; a curriculum with few or no requirements may provide too narrow an education owing to student selections.

Dean Attridge commented and queried about the implementation of the X courses as follows. Currently there are about 15 such courses at the freshman level taught by regular teaching-and-research faculty. Resources would be needed for about 45 if the suggested requirement is to be implemented. How will these courses be made known to students? How will selections be made? Prof. O'Meara answered that the courses would be clearly identified. Not all details have been worked out yet, but preliminary estimates indicate that one X course could be required

with no additional faculty resources. Dean Kolman added that, as is done presently with freshman seminar, students would be asked to list choices of *categories* of courses, not of specific topics.

Dean Link spoke of his experiences in reviewing applicants for admission to the Law School. He observed that too often applicants had narrowed their reasoning power by selecting all courses that involve intuitive reasoning. They lacked the cognitive powers necessary for a professional course. He emphasized the need to have a breadth of required courses so that students would not take only courses in which they are comfortable.

Dean Kolman mentioned that discussions of curriculum matters at Duke have been publicized. It seems that a reduction in the number of required courses from five to four some time ago has had an opposite effect to that intended. While it was felt that freedom from a large course requirement would lead to a more self-motivated intellectual student life, it instead had led to an increase in non-academic pursuits.

Prof. Borelli commented that there has not been sufficient consultation with the mathematics department. He was concerned that, as a consequence, some faculty in the department may be putting efforts into developing the wrong type of courses.

In response to a question by Prof. Varma, Prof. O'Meara said that team-taught courses had been discussed but generally the committee did not favor them.

Dr. Weigert commented further about input to the committee. She thought the committee should consider sending its members out to various units as was done in the Colloquy process. She asked also if there was any support by the committee for reducing the theology and philosophy requirements. Prof. O'Meara replied that there has been no discussion of those subject areas.

Referring to the X courses, Prof. Bonello felt that students and faculty both benefit by having a non-expert teach freshman courses in small sections — that is, in situations where both teacher and student are learning.

Mr. Zeugner expressed his feeling that a liberal education is one that includes liberal arts and sciences including mathematics. Any curriculum that allows students to avoid a subject category because they fear taking it is not providing a liberal education. Mr. DeBoer agreed, adding that having teaching-and-research faculty teaching required courses in the curriculum is vitally important.

Commenting on the process employed by the committee, Prof. Callahan felt that there was ample opportunity for everyone to give input. She noted that all colleges were

represented, and the membership was well publicized. She felt that individuals should take the initiative to bring their comments and suggestions to their representatives on the committee.

Prof. Varma commented again that it is disturbing to him that faculty generally do not want to teach freshman courses. Prof. Roos reiterated that the freshman seminar is bankrupt for teachers, and he added that Math 104-105 seemed to be in a similar situation.

Dean Castellino emphasized again the importance of the committee to communicate its deliberations to the colleges.

Prof. Higgins asked if the X courses would be restricted to freshmen. Prof. O'Meara said that the committee had not discussed the matter to that extent. His own feeling was that they should not be so restricted except insofar as resources might not be available for broader enrollment as first.

Prof. O'Meara stated his feeling that it will be difficult to change the culture of teachers of mathematics to the extent of having them heavily involved in teaching freshmen. Doing so, he felt, would be a bigger challenge than getting regular faculty to teach freshman seminar.

Prof. O'Meara concluded the discussion by saying that he intended to consult with individuals at Duke to get more inside information about Duke's experiences, described earlier by Dean Kolman, with curriculum changes. He added that the discussion here would be helpful to the committee as it proceeds.

b. Ad Hoc Committee on University Libraries

Prof. Schmitz, chair of this committee, presented this report. He began by describing the organization of the committee as consisting of a nine-member steering committee, each member of which was the chair or co-chair of a subcommittee. He pointed out that the study covered both the University Libraries and the Kresge Law Library, which are independent entities. He added that his presentation will be devoted principally to the former and that Prof. Roger Jacobs of the Law School will follow with a presentation on the latter.

Prof. Schmitz stated that resources available to the committee included a vast amount of current and historical quantitative library and institutional data on the 108 university members of the Association of Research Libraries (ARL). In addition, the subcommittee on the book collection obtained data by discipline on the collections of the University of Chicago, the Library of Congress and selected others. The committee also obtained input from library users and library personnel.

He said the committee's goal was to follow through on Colloquy recommendation 21 by analyzing information, assessing needs, setting goal, and making recommendations.

Prof. Schmitz went on to give a summary of the contents of the report. (The report was distributed to council members in advance. Since it is published in full elsewhere in this issue of *Notre Dame Report*, his description of the content is abbreviated in these minutes.)

He cited the following key statements in the report: The committee finds that while the library has made significant progress through recent years in many respects, given the University's academic aspirations, it falls short by a large measure of the level of support necessary to fulfill the present needs of the faculty and students and to move the library forward with changing technologies. This reiterates what has been recognized in the Colloquy reports and by other groups, internal and external. Matters in need of attention fall in two broad categories that are not entirely separable: (1) **Present status.** The library has been beset by problems of insufficient funding to build and maintain an adequate core of book collections and journal subscriptions and insufficient numbers of personnel to provide common library services adequately. In addition, the lack of sufficient space for storage of materials and reading areas has reached a crisis level. (2) **Future prospects.** Changes, primarily related to electronic media and computer-based technologies, are bringing new resources, capabilities and opportunities to library users. The library lacks the depth and breadth of staff necessary to lead the University in selecting and securing the most critical of these resources and to guide undergraduates, graduate students, and faculty in identifying and exploiting them. He commented that underlying both categories is the need for personnel — a need that the committee strongly emphasizes because it is inextricably linked to nearly every recommendation in this report. Some problems, he said, are local; others are national.

Prof. Schmitz then referred to tables and charts in the report which compare data on Notre Dame's library with that of other institutions. He noted that comparisons with individual institutions are not generally informative because no two institutions are alike in all of the important characteristics. The committee felt that comparisons with the averages of peer groups were more meaningful. Four such groups were identified. In short, he pointed out that comparisons show that Notre Dame's book collections, serial subscriptions, annual expenditures and number of personnel are all on the low side.

Next he outlined the needs from user perspectives. The extremes among faculty vary from those who rely principally on books in print form to those whose library needs are practically met by electronic access to information

and data bases. Undergraduate students express their needs mainly as adequate library reading and study space, audio-visual equipment in adequate quantities and good working condition, and access to a core of material to support their course work. Graduate student needs are similar to those of the faculty.

Speaking about the role of technologies and prospects for the future, Prof. Schmitz stated that until recently, technologies in libraries were addressed mainly to such internal functions as cataloging, acquisitions, circulation and interlibrary loan services. The range is rapidly becoming broader as materials and information are becoming increasingly available in electronic format. However, no one foresees the demise of the printed book; so the library of the future will be a blend of traditional print-based and electronic material. No one can predict the eventual balance between various material formats, the timing, the shifting trends, and the cost implications of these shifts. Only fuller experience will enable the library to analyze these developments. He added that since electronic access allows sharing of materials without owning them, there is a potential for financial gains in the long run. Further, the press for more library space may be mitigated.

As a consequence of these developments, he said, libraries are destined to be in an indefinite state of transition. Now that computer-based technologies are involved, there will be no steady state. The library must be prepared for new and changing roles on campus in (1) its own adoption of technology, (2) the education of users about the technology and (3) planning and guiding change. In filling these roles, librarians will need to work closely with teaching-and-research faculty and become more intimately involved with academic programs. In addition, the continuing development and education of library personnel will be vital.

The committee concluded that there are three important actions for the library to take at this time for the range of matters likely to be of concern for the future library: (1) strengthen staffing by increasing its numbers and recruiting and retaining the highest caliber library faculty, (2) ensure the continuing education and professional development for library faculty and staff, and (3) participate actively in organizations and networks where alliances form for exploring new directions and sharing resources.

Prof. Schmitz described the national problem of the high rate of inflation on the costs of library materials compounded by the increasing amount of material and information available each year. He said that in order to preserve the purchasing power of the library's acquisition budget, it would have to be increased by more than 10 percent annually at this time.

He then gave a brief statement about each of the 14 recommendations in the committee's report, and he concluded by summarizing the estimated costs. The estimate of one-time costs is \$29.2 million. In addition, the estimate of recurring costs is \$3.9 million over and above the present annual budget. He emphasized that these should not be taken as inflexible numbers. While the committee feels that they are reasonable and realistic, they must be refined by library faculty working with teaching-and-research faculty or committees. At this stage, he said, the estimates can be used as a framework for the planning of future budgets and for fund raising. Finally, he said, the committee suggests that a five-year program be designed for implementing the recommendations.

Prof. Roger Jacobs, associate dean and director of the Kresge Law Library, followed with a presentation on the Law Library. The text of his presentation follows.

I think it was Robert Hutchins, then president of the University of Chicago when asked what was required to build a great university said, "Give me a great student body, a great faculty, and a great library and I'll give you a great university." This observation, I contend, is particularly applicable to Law Schools.

You know the high order of faculty and students in the Law School, but it is clear that the Law Library is not of comparable quality. The report before you points out a number of the Law Library deficiencies that result from a long history of much modest interests and means, as well as several current developments impeding further progress.

While it was the task of the committee to review the half empty portion of the library glass, I would be remiss if I did not spend a moment recalling how, with much support, we have reached a point where the glass may be half full. When Dean Link brought me to Notre Dame from the library of the Supreme Court of the United States, we realized that it would take the better part of a generation to build a law library collection appropriate to a leadership school. In the meantime, we thought, by recruiting a superior library faculty, we might best take advantage of the resources we owned as well as those that could be accessed through the interlibrary networking and the application of new technologies. Consequently, the law library faculty, with five law-trained librarians, has achieved a place in the Law School and in the national professional community which supports the collegialship and coordination between the scholar, the student and interlibrary networking.

Members of the law library faculty have been largely integrated in the greater Law School faculty and have assumed major responsibilities for bibliographic and research instruction in both formal classes and informal lectures. For several years the implementation and appli-

cation of computer-assisted legal research technologies has been superior, if not the national leader. With the great cooperation with the Hesburgh Library, almost complete automated bibliographic control of the collection has been established. Interlibrary loan support has been given the highest priority and proves to be a major asset, albeit not a panacea for a weak collection. We have now moved to trying to establish imaging technology as the next step in the process in the interlibrary loan technology. Even in collection development, the substantial benefaction of the Sandner Chicago Bar Association collection and continuing Murphy Foundation support as well as the gifts from many others have underwritten special initiatives. In short, the law library today is, as required by the standards of the American Bar Association, "a responsive and active force within the educational life of the Law School."

With all of these positives, what are the shortcomings? They are set out before you in Part II of the report. We have never had a collection that would support the research of a leadership Law School. We think we need 60,000 titles to achieve that, and a recommendation in the report suggests we move toward a retrospective effort to collect those titles. We are not now acquiring a collection that matches the acquisitions of the leadership schools much less makes up for past efficiencies. We had special income for a number of years. The loss of that special income suggests a declining trend in our acquisitions activity. So, we are not moving in conjunction with the better schools in the country. We are starting to move back toward mediocrity.

The costs and production of legal information, like that of information generally, have increased faster than acquisitions resources, and as a consequence, we are spending more money for a declining percentage of available material. In one of our recommendations, we urge the University to pay particular attention to that phenomenon — as does one of the recommendations for the Hesburgh Library.

We have insufficient resources to move toward or support the next level of technology for hardware, software and staff. This is an every growing portion of our budget, and we have several recommendations that suggest how we might in a special way and a continuing way support those particular activities.

We, like the Hesburgh Library, face an impending crisis in law library space without any accepted responses in the offing. Unlike Hesburgh Library, however, in 1985 when we built a new addition, we already used intensive space management in terms of compact shelving. We will within 3 1/2 years reach effective capacity of all the library shelving and within 5 years, we won't have an inch of shelf space. We have to respond in some way to

that need. We suggest a number of alternatives that might be considered, each one with certain costs. I think we have to give serious consideration to that effort.

Finally, if you'll allow one personal note: I have had the opportunity to direct the library of several schools that we consider to be among our peer group schools. But attracted by the goals articulated by the recruiting speeches of the former President Hesburgh, Provost O'Meara and Dean Link of the Law School, I came and have stayed at Notre Dame in hopes of contributing to the library of a leadership Law School in the Catholic tradition. While the library is not yet what I believe it must be, the recommendations before you would provide the agenda for approaching that goal.

In the discussion that followed, Prof. Jacobs was first asked if the large acquisition of the Chicago Bar Association's collection had been incorporated into the Law Library collection. He answered that it is nearly all incorporated and that it caused a large spike in the curve of chart 2 in Part II of the report.

Mr. Miller noted that while the needs, as stated in the report, appear large, they are somewhat tempered. For example, it calls for 5,000 new serials subscriptions — a number that one department alone suggested it could use.

Dean Castellino commented that the increasing availability of materials in electronic form should mitigate the space problem eventually, if not lowering costs. Prof. Jacobs commented that the development of such materials so far has not saved anything. The associated costs for training and machines, including space for them, have more than offset gains. He added that a project is underway at Columbia to put a good percentage of its legal treatise material in image format. If that happens, he said, we could conceivably eliminate most of the books if the faculty would commit to read everything on line.

Prof. Sheehan asked about the committee's consideration of branch libraries, specifically their space problems and their future. Prof. Schmitz said the committee discussed the branches and saw no workable solution to the space problem in the foreseeable future other than to store more material in the Hesburgh Library — in other words, focusing the space problem there. An alternative is the capturing of more space within the home buildings of the branches — an unlikely event given the campus-wide space shortages in academic buildings. Some members of the committee felt that a consolidation of some of the branches would make sense for a number of reasons. There seemed to be a consensus that the number of branch libraries should not be enlarged beyond those already planned for music (in the performing arts center) and for the College of Business Administration in its new building.

Answering a question from Fr. Malloy, Mr. Miller said that the collection in the Architecture Library will be squeezed temporarily in the Hesburgh Library while the architecture building is under renovation.

Dr. Weigert noted that according to recommendation 6, the library would be the collecting agent for visual materials. She asked about Educational Media's role. Prof. Schmitz said that the need is for a coordination of acquisitions and a common catalog so that duplication can be minimized and materials can be shared. There is now a general agreement in this regard between the library and Educational Media that may need to be refreshed and formalized to a greater extent.

Prof. Varma commented that according to charts in the report, the student-to-faculty ratio at Notre Dame is much higher than that at peers. He asked how library expenditures compared when normalized in an appropriate way. Prof. Schmitz responded first that two factors affect the relatively high ratio of students to faculty here. One is the fact that Notre Dame's percentage of undergraduate students is high relative to peers. The other is our relatively low number of full-time instructional faculty — a matter addressed in the Colloquy report. Regarding library expenditures, he referred to charts in the report which showed them to be relatively low. He cautioned against using a normalizing factor, such as the number of faculty, unless the *target* number is used — which for the faculty count would be 150 more than we now have.

Prof. Varma noted also that recommendation 4 for the law library aims only at reaching the mean of the lower half of peer schools in terms of collection size. Prof. Jacobs responded that to reach the mean of the peer group would be unattainable realistically, inasmuch as it would require doubling the cost. He equated it to the University Libraries trying to match the collection at the University of Chicago or Yale.

Dean Attridge asked if the committee considered the strategy for implementing and prioritizing the retrospective purchases. Prof. Schmitz said that some guiding information on weaknesses and strengths of collections by discipline had been obtained by the subcommittee on book collections. A table in the appendices of the report shows some of this information. Aside from that, the committee felt that specific assessments and priorities should be worked out by the library faculty working closely with faculty in the disciplines.

In response to a question by Dean Attridge about fund raising, Fr. Malloy said that some successes with the strategizing by the Development Office has been encouraging. He added that attracting the largest benefactions to library needs has been difficult — as has been the case

with scholarships. He felt that the realism, specificity and detail of this report will help the effort.

Prof. Sheehan, referring to Table 2 of the report, claimed that while Notre Dame's *percentage* change in volumes held was greater than others, the actual increase in volumes held was less. In other words, we are slipping further behind. Prof. Schmitz agreed, noting that percentage changes can be deceiving if the starting point is low. He pointed out that Figure 7 shows that our volumes added per year is lower than peer averages. Therefore, our collection grows at a slower rate, even though that rate has improved notably over the past decade. In other words, the slippage of our collection has been decelerated, but not halted.

Dr. Donald Spicer, a member of the ad hoc committee, pointed out the need to recognize certain hidden costs. While the committee's report notes the increasing availability of electronic materials and the need to acquire data bases for example, it mentions but does not specifically address the ancillary need for increased disk space on network servers. Such needs, he added, were not within the purview of the committee but should be recognized and assessed when the recommendations are implemented.

Fr. Malloy concluded this discussion by telling the council that the reports of the five post-Colloquy committees will be published in *Notre Dame Report*. Presently two final reports are available — those from the Committee on Architecture and the Fine and Performing Arts and the Ad Hoc Committee on University Libraries. For the others, the interim reporting will be in the council minutes and the final reports will be published in *Notre Dame Report* when they are available. Fr. Malloy stated that the reports will receive attention at the officers' retreat this summer and that he would like the Provost's Advisory Committee to give significant attention to them as well. In due course they will be made available to members of the Board of Trustees.

3. Other Items

Fr. Malloy told the council that the accrediting report from the North Central Association will be published in *Notre Dame Report* when it is finalized. Prof. O'Meara added that he expected the final report to be the same as the interim report that was produced by the review team because our response to it did not request any changes.

Prof. Bonello reported that the Trustee committee on Academic and Faculty Affairs considered the council's recommended change in representation on that committee but has not yet reached a conclusion. Prof. O'Meara added that the discussion will continue at the next trustee meeting.

Prof. O'Meara also noted that a report from the council's Faculty Affairs Committee on issues surrounding part-time faculty is still under discussion by the Executive Committee. It will be brought forth again in the fall.

The meeting adjourned at 4:50 p.m. with Fr. Malloy thanking the members for their work through the year and extending his best wishes for the summer.

Respectfully submitted,

Roger A. Schmitz
Secretary of the Academic Council

Committee on Architecture and the Fine and Performing Arts

Final Report
April 22, 1994

Introduction: The Committee and its Work

In the fall of 1993 President Malloy appointed the Committee on the Fine and Performing Arts and Architecture as one of the five ad hoc committees designed to extend the work of the *Colloquy for the Year 2000*.

The members of the committee were William Beauchamp, C.S.C., executive vice president; Stephen Gersh, Medieval Institute; Ethan Haimo, music; William Kremer, art, art history and design; Thomas O'Meara, O.P., theology; Mark Pilkinton, communication and theatre; Dean Porter, Snite Museum; Thomas Gordon Smith, School of Architecture. Harold Attridge, dean, arts and letters) served as chair. The committee thus contained representatives of the five units of the University dealing with the fine and performing arts and architecture as well as representatives from the faculty and administration of the College of Arts and Letters and from the central administration.

The charge of the committee was derived from the *Colloquy for the Year 2000*:

A University Committee on Architecture and the Fine and Performing Arts should be formed to construct a mission statement for these disciplines, to review the curricular structure of their programs, to consider their possible reorganization and representation on campus, and to plan for their future growth at the University.

The committee met monthly during the current (1993-94) academic year. It reviewed the extensive materials generated during the process of the *Colloquy* relevant to the fine and performing arts at Notre Dame, analyzed the

work of the arts units, prepared a series of position papers on matters related to its mandate and achieved consensus on a series of recommendations as explained in this report. The committee believes that the arts at Notre Dame have not been developed to the same extent as other disciplines, either in terms of facilities, senior faculty appointments or infrastructure. The committee is nonetheless convinced that the arts should play a dynamic role in a major Catholic university and that this is a propitious time to make a significant advance in the area of the arts at Notre Dame. The committee hopes that this report will be instrumental in that advance.

I. MISSION STATEMENT

The Department of Art, Art History and Design, the Department of Communication and Theatre, and the Department of Music, the School of Architecture, and the Snite Museum form an essential part of the University, contributing to its life in three areas: (1) curriculum, (2) public presentations of works of art, and (3) research and creative endeavors. The three dimensions of the work of the arts units are intimately interrelated and mutually reinforcing.

I. Curriculum

A. General Education

1. A balanced liberal arts education must include exposure to the arts. The arts departments should provide that exposure to undergraduates through courses in the core curriculum designed to acquaint students with the nature of artistic thought and the history of artistic expressions. The Snite Museum, through its educational activities, should continue to support the curricular efforts of the arts departments.

2. The optimum educational environment must include ample opportunities for students to receive advanced training in artistic disciplines given by competent professionals. The arts units should provide non-majors, as well as majors, the opportunity to pursue the study of the arts to the extent of their interests and abilities.

B. Undergraduate Majors

1. The arts units should offer rigorous programs at the undergraduate level for students who wish to pursue a major in the arts. The degree programs must be of such quality as to attract artistically talented students to Notre Dame and to train them appropriately in their course of study. A variety of degree programs should be available, providing educational opportunities for different kinds of students in the arts (architects, performers, actors, artists, composers, historians, directors, etc.).

2. Since artists of all sorts cannot work in a vacuum but require an environment conducive to interactive efforts,

it is essential that there be a critical mass of talented students in the arts. To achieve such a critical mass, it will be necessary to attract students to the University with merit scholarships.

C. Graduate Education

The University should offer rigorous degree programs in the arts at the graduate level. The nature and level of those programs will vary among departments, but the presence of advanced students in the arts is essential if the arts are to be cultivated at a high level.

II. Public Presentations of Art

In a university setting, public presentations of works of art address three constituencies: students, as part of their general and special educational formation; the University community at large, as part of its overall cultural life; and the local community, as part of the University's efforts to serve its greater community. The arts units, therefore, should cultivate public presentations of several types:

A. Student Presentations

Students at Notre Dame, majors and non-majors alike, should have the opportunity to participate in the public presentation of works of art. Participation in orchestras, choruses, plays, art exhibitions, and other forms of artistic expression, should be an accessible option for all students who have the interest and ability. They should have the opportunity to engage in these activities under the expert guidance of highly qualified professionals.

B. Faculty Presentations

Faculty members in the areas of studio and performance must themselves be active professionals. It is therefore essential that they have ample opportunity to present their work to the public. This vital part of their professional life thus has complementary benefits for the community.

C. Guest Presentations

An integral part of the artistic environment is the presence of significant guest artists. Such artists offer opportunities to present a diverse spectrum of events essential for pedagogical and cultural enhancement.

D. The Institutional Presentation of the Arts

The general environment of the University should become a venue for the constant presentation of the arts. Institutions such as the Snite Museum provide a central locus for such presentation and will continue to be important for enhancing the artistic environment for all the University's constituencies.

III. Research and Creative Endeavors

The arts units of the University should seek to attain a high level of research and creative production of new works of art. For some disciplines (musicology; history of architecture, art, music and theatre; critical study of film and video, etc.), publication and research are comparable with that of other academic disciplines in the humanities and the products of such research are evaluated according to the canons of humanistic scholarship. The work of creative artists, in the form of designs, paintings, sculptures, stage, film and video productions, is the equivalent of research. Artistic products in these areas are judged by standards appropriate to the various artistic disciplines. Both scholarship and creative artistry are recognized as essential to the overall mission of the arts units in the setting of a major university.

II. ORGANIZATION

Findings: Responsibility for the arts at Notre Dame currently rests in the hands of three departments in the College of Arts and Letters, in the School of Architecture, which reports to the vice president and associate provost, and in the Snite Museum, which reports to the provost.

The internal organization of the units is appropriate to their discrete missions. The committee recognized that good working relationships are developing between the Snite Museum and the Department of Art, Art History and Design. There was also general agreement that some improvement in the structures for coordinating and supporting the work of the arts units was necessary. The major concern of the committee was to determine whether any larger organizational structure(s) should be created for the arts units.

The most radical option considered by the committee was the creation of an overarching unit, a College or School of Fine Arts and Architecture, to house all the arts units. The advantages of such a unit would be (1) an administrative structure dedicated to and knowledgeable in arts administration and (2) greater visibility and stature of the arts units within the University. A major disadvantage would be the creation of an expensive administrative structure and the possible curtailing of appropriate autonomy on the part of the Snite Museum and the School of Architecture. Some members of the committee also believed that creation of the structure of a school or college for the arts units could exacerbate rather than diminish tensions between the creative and theoretical wings of each department. They believed, furthermore, that creation of such a school or college could isolate history and theory wings of the arts units from their colleagues in humanities disciplines. After weighing such considerations, the committee decided not to recommend creation of a new collegiate structure at this time. As the arts units

mature at Notre Dame, it may well be appropriate to revisit the issue and the institutional organization of the arts units should be reconsidered as part of the University's next self-study.

The committee then considered the specific functions that some central administrative structure would perform. The most important were: coordinating and publicizing the performance and exhibition dimensions of the arts units; supporting the arts by an advisory council; fostering internal collaboration and planning among the arts units. The committee agreed that the most important need was for more adequate and coordinated efforts in publicity and audience development for performances and exhibitions by students, faculty and visiting artists. It was the judgment of the committee that this need could be met by a minimal increase in support personnel, who would be trained in arts management. The second most pressing need was for improved coordination among arts units in the development of programs. The committee believed that this coordination could be enhanced by the continuation of a committee such as the current ad hoc body.

Recommendations:

To achieve the ends of more effective administration of the arts units the committee recommends:

1. Creation of an office for the promotion and coordination of cultural and artistic events. The office would be staffed by a professional with experience in arts management and publicity assisted by appropriate support staff, probably a professional specialist and a secretary. The new office should (1) build audiences for the arts through effective publicity to the University and local communities; (2) act as a liaison to local and regional arts organizations; (3) serve as source of information from the departments to the University's public relations and development offices; (4) assist the arts units in the preparation of grants from public agencies that support the arts. This office would be appropriately associated with the new Marie DeBartolo Center for the Performing Arts, and when that facility is in operation, such an office will be essential. Creation of the office should not, however, be delayed until the construction of the building.
2. Creation of an Advisory Council for the fine arts, to be composed of individuals knowledgeable in the arts and supportive of the University's efforts to expand its presence in the arts. This committee would not replace the advisory committees already in existence for the Snite Museum and the School of Architecture. Its activity would need appropriate coordination with those existing committees.
3. Establishment of a permanent University Committee on Architecture and the Fine Arts. This committee should

consist of the chairs of the arts departments in arts and letters, the director of the Snite Museum, the chair of the School of Architecture, two non-arts faculty, and the dean of arts and letters or a designated representative. This committee would coordinate the curricular and programs of the arts units and advise appropriate administrators about matters pertaining to the arts at Notre Dame.

III. CURRICULUM

Findings:

At present, the following degrees are offered by arts units: Architecture: B.Arch., M.Arch.

Art, Art History and Design: B.A., B.F.A., M.A., M.F.A. Communication and Theatre: B.A., M.A. (in communication)

Music: B.A., M.A., M.M. (in performance or performance and literature)

In addition to these degree programs, the arts units in the College of Arts and Letters are responsible for the required course in fine arts in the core curriculum. Although the Snite Museum is not directly responsible for curriculum, members of the museum staff contribute significantly to the educational effort of the University, either through concurrent appointments in the Department of Art, Art History and Design, through internships for students in art and art history, and through the support of courses in many departments of the University.

There are curricular issues that departments need to resolve, such as the relationship between the theatre, film/video, and critical studies areas in communication and theatre or the shape of the design program and the other components of art, art history and design. The committee, however, found that the range and structure of current degree programs were adequately supervised by the appropriate collegiate and University authorities. For example, the college council of the College of Arts and Letters, on the recommendation of its Committee on Undergraduate Affairs, had recently reviewed and brought into closer conformity the requirements for the B.F.A. in studio art and musical performance. Similarly, the School of Architecture has reformulated its curriculum within the past year. Ordinary curricular matters should therefore be left in the hands of appropriate departmental and collegiate bodies.

The committee found several areas where closer collaboration on curricular matters could be developed among arts units. The School of Architecture, for example, would welcome more non-architects enrolling in courses in architectural history. The Snite Museum, which already provides excellent support for the overall educational mission of the University, could find new ways of educating faculty about the possibilities it provides for general education. Provision of an added number of in-

ternships in the Snite could enhance the specific mission of the art department. Collaboration between arts units and other departments of the University needs to be fostered on a continuing basis. This is particularly true in light of the multi-media capabilities of DeBartolo Hall, which provide new opportunities for incorporation of artistic materials into courses in the humanities and social sciences.

It was noted that at least two new doctoral programs in the arts areas, specifically music and art history, were contemplated during the consultative process that led to the *Colloquy for the Year 2000*. To mount either program will require new faculty and significantly enhanced support systems, particularly in the library. The committee found that of the programs that have been proposed, the ones nearest to possible realization are the Ph.D. in musicology/theory and the D.M.A. in performance. In addition to a Ph.D. in art history, further curricular options at the postbaccalaureate level, such as an M.F.A. in theatre, are possibilities for future consideration.

The committee reviewed the general requirement of a fine arts course for undergraduates. Many members of the committee were of the opinion that elimination of the requirement would not adversely affect the offerings of the departments. The committee was also convinced that, as long as the University required a strong core curriculum, it is appropriate that a requirement in the fine arts be a part of it.

The committee reviewed the character of the requirement and endorsed the principles underlying its original definition: that courses in the fine arts meeting the requirement should have a strong component of history and theory. Therefore, courses in basic performance would not ordinarily fulfill the requirement. Discretion over what courses would appropriately count should, however, continue to rest with the dean of arts and letters.

Recommendations:

1. Undergraduate and master's-level programs in the arts units should continue to be monitored and enhanced through the established mechanisms at the college and University levels.
2. Unless there is a major reduction of the University's core curriculum for undergraduates, the current fine arts requirement should remain in place.
3. Planning should proceed, at the level of the college and the graduate school, for the proposed advanced degree programs. The highest priority should be given to the establishment of doctoral studies in music.
4. The proposed University Committee on the Arts (see Organization, recommendation 3) should strive to en-

hance cooperative curricular arrangements among the arts departments, between them and the Snite Museum, and between the arts units and other departments in the University.

IV. NEEDS AND INITIATIVES FOR DEVELOPMENT

The committee reviewed departmental and collegiate plans for development of the arts units. Needs and opportunities were treated in five broad areas: facilities, faculty and staff, student support, programs, and library and equipment. Recommendations to meet these needs are compatible with the general recommendations for the arts context made in the *Colloquy for the Year 2000*.

A. Facilities

Findings:

The facilities for the arts units currently include the School of Architecture Building, Crowley Hall (music), Riley Hall (studio art and design), and Washington Hall, (theatre, shared with student affairs), the Loft of O'Shaughnessy Hall (film and video) and the Snite Museum (general exhibitions, communication and theatre and music programs in the Annenberg auditorium).

The arts units are, as one member of the committee insisted "facility driven." Yet the inadequacy of Crowley, Washington and the Loft in O'Shaughnessy has long been recognized. The University has sought to remedy that situation by planning for a new performing arts center. Mr. Edward DeBartolo has pledged the majority of funding for Marie DeBartolo Center for the Performing Arts. Both the development of the departments of music and communication and theatre and the overall health of the performing arts at Notre Dame are dependent upon completion of this project. By freeing space in O'Shaughnessy, Crowley and Washington Halls, construction of the performing arts center will also facilitate much needed expansion of space for other units in the College of Arts and Letters.

The Snite Museum needs more space for offices, for educational programs, and for conservation functions. Some of this added office space could also serve for expansion needs of the Department of Art, Art History and Design, particularly its art history wing. Some funding for this project is already in place. Further detailed planning is necessary in order to achieve maximal usage of any new space constructed for the Snite.

Riley Hall is generally adequate for the studio art and design programs that it currently houses, although individual studio areas will need regular updating and refurbishing. The major need for new space in the studio area at present is for a new storage facility at an appropriate place on campus. Such space would alleviate congestion

between Riley Hall and Nieuwland Hall and would permit more appropriate use of sculpture studios in Riley Hall. In the long term, the studio arts will need significantly improved facilities. A review of the needs in the studio and design area should be a major part of the next self study by the University.

The need for a thorough renovation of the School of Architecture has been recognized. Funding is in place and work will commence within the next year.

Recommendations:

1. The University should assign the highest priority in the area of facilities to the completion of the funding for the Marie Debartolo Center for the Performing Arts and to an early inauguration of its construction.

2. The planned expansion of the Snite Museum should be conducted in such a way as to facilitate the cooperation that has been developing between the museum and the Department of Art, Art History and Design.

3. The studio facilities of the Department of Art should be enhanced by the construction of suitable storage space.

4. Long-range planning for the space needs of the University should take into account the eventual need to replace and expand the studio facilities now housed in Riley Hall.

B. Faculty and Staff

Findings:

The committee reaffirms the finding of the *Colloquy for the Year 2000* that an enlarged faculty will be necessary for the arts units to perform their functions within the University. The committee notes, as an indication of the state of development of the arts, that there are currently no endowed chairs in architecture or the arts departments of the College of Arts and Letters. The *Colloquy for the Year 2000* recommended that new faculty be added in architecture and that approximately 80 new faculty be added within arts and letters. The following recommendations are consistent with those guidelines.

Recommendations:

1. Six endowed chairs should be funded in the following areas:

- In architecture: a chair in architectural design.
- In art: one in art history, possibly in medieval or modern art, and one in studio art.
- In communication and theatre: one in communication history or theory.
- In music: one in musicology and one in music theory, in support of the proposed doctoral program.

2. Twelve junior (or junior endowed) positions should be funded in the following areas:

- In architecture: one in architectural history/theory and one in architectural practice.
- In art history, three in art history: in ancient, Asian, and either medieval or modern; two in studio: one in sculpture or ceramics and one in printmaking.
- In communication and theatre: one in film/video production and one in acting.
- In music: two in performance areas not currently represented on the faculty, one in either music history or theory.

3. Support staff positions should be created in the following areas:

- In architecture: one administrative assistant.
- In art history: a slide librarian.
- In communication and theatre: a technical director for theatre, an electronic technician for film and video production and an upgrading to full-time of the secretarial support position in theatre.
- In music: four to six part-time adjuncts in performance areas not covered by regular faculty.
- In the Snite: one librarian, one additional curator, and one specialist in art education.

C. Students

Findings:

The committee endorsed the recommendation of the *Colloquy for the Year 2000* that merit scholarships be used to enhance and diversify the student body with students of exceptional artistic ability. It noted that merit scholarships need not meet the total cost of a Notre Dame education in order to perform their function as recruiting devices.

At the graduate level additional stipend packages should be made available for students in studio arts and for musical performers. The creation of a Ph.D. program in the arts areas will require the provision of new stipends. If stipends in the amount of \$10,000 per year are provided to doctoral students, and the stipend packages are provided for four years of study, it will eventually be necessary to provide \$40,000 (in 1994 dollars) to support each new doctoral student in the arts programs.

Recommendations:

1. *Undergraduate:* The University should seek endowment that would provide partial tuition scholarships, in amounts of up to \$5,000, for students in the arts. Four to six such scholarships should be created for each unit per year. A total of 64 such tuition scholarships, or \$6.4M in endowment, should be sought.

2. Graduate:

a. In architecture: Four additional stipend packages for M.A. students should be provided. The current annual

cost would be \$32,000. \$640,000 in endowment should be sought to provide that support.

b. In art: Ten additional stipend packages for M.A. and M.F.A. students should be provided. The current annual cost would be \$80,000. \$1.6M in endowment should be sought to provide that support.

c. In music: To establish a doctoral program, it will be necessary to offer a minimum of four tuition and stipend packages per year or 16 in total. The eventual annual cost will be \$160,000; endowment of \$3.2M will be necessary to provide this level of support.

d. In the Snite Museum: Six additional internship positions. The current annual cost would be \$48,000. \$1M in endowment should be sought to provide that support.

D. Programs

Findings:

The *Colloquy for the Year 2000* called for the University to seek endowment funds to support performances, exhibitions and visiting artists in the arts units. Small amounts in the regular departmental budgets currently support visiting scholars and artists. The one case of fuller funding is the Artist's Series in the music department, which permits the department to bring leading musical performers to campus on a regular basis. The committee considered two categories of special funding. First, budgets, analogous to the Artist's Series in Music, should be available for visiting studio artists in the art department and for such visiting troupes of theatre professionals as the Actors from the London Stage in communication and theatre. Funds for visiting artists in communication and theatre would also make it possible to bring leading cinematographers to campus. Second, a major performance endowment fund should be available to make it possible to bring to campus major performance events, such as operas, major symphonies, theatre performances, etc.

The committee also explored the idea of instituting a fee for the fine arts to be charged to students. Proceeds from that fee would be distributed to the arts departments for the purpose of bringing visiting artists to campus. In return for their arts fee, students would receive "arts dollars" to be spent on an array of artistic performances.

Recommendations:

To ensure the provision of significant artistic programming on campus, the committee recommends:

1. Seeking an endowment of \$1,500,000 to support new visiting artist programs in architecture, art and communication and theatre; and endowment of \$500,000 to support the visiting artist series in music.

2. Seeking an endowment of \$3,000,000 to support major performance events and exhibitions.

3. Exploration of an "arts fee" for all students, the proceeds of which would be used to support significant visiting artists.

E. Infrastructure: Library and Equipment Needs

Findings:

1. Library: All of the arts units operate programs that depend, like disciplines in the humanities, on a strong library. Yet the holdings of the library are extremely weak in the artistic disciplines. Current acquisitions budgets are severely inadequate in all areas. Moreover, in order to support the needs of a faculty increasingly oriented toward research and to mount advanced studies programs, a major effort will be necessary to enhance the library collections with retrospective purchases, particularly in music (\$1M necessary), art history (\$250,000 necessary), and communication and theatre (\$50,000 necessary).

2. Major equipment needs: Each unit has needs for upgrade and replacement of current equipment. The Department of Art, Art History and Design requires a one-time outlay of \$325,000 for the purchase of equipment for art history's slide library, for computers for the program in design, and for new equipment in the studio areas. The Department of Communication and Theatre requires \$40,000 of new computer equipment for stage design and lighting and an equal amount for new video production equipment. To furnish the new studio facilities in the performing arts building, the Department of Music will need a one-time outlay of \$1.6M. The largest item in this category of need will be a new organ for the major organ rehearsal space. The Snite Museum will require \$100,000 in new computer equipment to permit the use of new technologies in the storage, retrieval and presentation of visual arts. The School of Architecture will require \$70,000 in equipment for electronic image processing and three-dimensional design.

3. Ongoing needs: The most pressing need appears in communication and theatre, which currently maintains \$500,000 in film and video equipment without adequate provisions for modernization and replacement. A depreciation allowance of \$50,000 per year would be appropriate for that department. Smaller amounts are required for art, especially for computers, and for music, for replacement of instruments.

Recommendations:

In order to meet the needs for significantly enhanced library and equipment, the committee recommends:

1. An increase in annual expenditures for the library in the arts areas in the amount of \$75,000 (art, \$25,000; communication and theatre, \$10,000; music \$25,000; architecture \$15,000). If this increase is to be funded through endowment, \$1.5M will be necessary.

2. Funding of \$1.9M for retrospective purchases in the arts areas of the library, necessary to provide the basis for serious doctoral programs in arts and letters and to support advanced research in architecture. This sum could be divided into packages that would present opportunities for special gifts in particular areas.

3. Funding of \$2.8M for new equipment and instruments, including equipment to be used in the Marie Debartolo Center for the Performing Arts. The funding needs are most acute in music (\$1.6M), art (\$320,000), Snite (\$100,000), communication and theatre (\$80,000), and architecture (\$70,000).

4. An increase in the equipment budgets of the arts units in the amount of \$110,000 per year (art, \$25,000; communication and theatre, \$50,000; music, \$25,000; \$10,000 architecture) for the maintenance and replacement of existing equipment.

Report of the Ad Hoc Committee on University Libraries

to Provost Timothy O'Meara and the Academic Council
May 1994

Membership, Ad Hoc Committee on University Libraries: Heather A. Arnold, junior, College of Business Administration; Joanne M. Bessler, associate librarian, assistant director, University Libraries; Maureen B. Boulton, associate professor of Romance languages and literatures*; Joan F. Brennecke, assistant professor of chemical engineering; Christopher J. Butler, graduate student, American studies; Sheila R. Curl, engineering/architecture librarian; Kathryn J. Deck, graduate student, chemistry and biochemistry; Sue A. Dietl, University Libraries, head of Access Services; Dennis Doordan, associate professor of architecture*; Linda M. Eannell, law student; Thomas P. Fehlner, Grace professor of chemistry and biochemistry*; Christopher B. Fox, associate professor of English, department chair; Ethan T. Haimo, professor of music, department chair; John A. Halloran, associate professor of finance; Ronald A. Hellenthal, professor of biological sciences, director of UNDERC; Roger F. Jacobs, professor of law, associate dean, director, Law Library*; Alan D. Krieger, associate librarian; Howard P. Lanser, associate professor of finance; Robert C. Miller, director, University Libraries*; John Christian Olsen III, professor of accountancy*; Daniel G. Reagan, director of development; Robert E. Rodes Jr., professor of law; Roger A. Schmitz, vice president and associate provost, committee chair*; Daniel J. Sheerin, professor of classical and Oriental languages and literatures, department chair; Stephen E. Silliman, associate professor of civil engineering and geological sciences*; Donald Z. Spicer, assistant provost for University computing*; Thomas L. Whitman, professor of psychology

* Indicates members of the steering committee

EXECUTIVE SUMMARY

The final report of the Colloquy for the Year 2000 noted that *the academic aspirations of Notre Dame in teaching, learning and research depend on high quality library resources and services, or more broadly put, the University's information resources. There is no other area of the University which demands more immediate attention.* Recommendation 21 of that report called for the establishment of an Ad Hoc Committee (called hereafter the *committee*) on University Libraries which would *review the present reality of the Notre Dame libraries,¹ initiate a study of trends and developments in peer research libraries, and issue a report with recommendations to the Provost and to the Academic Council.*


Presented here is the final report of the committee's study. This two-part *Executive Summary* gives an abbreviated account of key observations along with a list of recommendations for the University Libraries in Part I, and for the Kresge Law Library in Part II. (In most instances hereafter the University Libraries will be called the *library*, and the Kresge Law Library, the *law library*.)

Part I. The University Libraries

Supported at length in other sections of this report, the material that follows may be simply stated: The committee finds that while the library has made significant progress through recent years in many respects, given the University's academic aspirations, it falls short by a large measure of the level of support necessary to fulfill the present needs of the faculty and students and to move the library forward with changing technologies. This reiterates what has been recognized by users, the director of libraries, and by internal and external review committees for some time. Matters in need of attention fall in two broad categories that are not entirely separable.

(1) **Present Status.** The library has been beset by problems of insufficient funding to build and maintain an adequate core of book collections and journal subscriptions and insufficient numbers of personnel to provide common library services adequately. In addition, the lack of sufficient space for storage of materials and reading areas has reached a crisis level.

¹ An explanation about "University libraries" at Notre Dame — the entity University Libraries includes the Hesburgh Library and the following branch libraries: Architecture, Chemistry/Physics, Engineering, Life Sciences, Mathematics, Radiation Laboratory and the Kellogg Information Center. Through its director, this entity reports directly to the Office of the Provost. In addition a Kresge Law Library, which reports through the dean of the Law School to the provost, functions independently from the University Libraries. The committee's study included both, but while the needs of the two are parallel, there is distinction in detail and more so in the process for following through on recommendations. Therefore, except for some inclusive statements and data here and there, the two are treated in separate parts of the report, both in the Executive Summary and in the main body — the University Libraries in Part I, and the Kresge Law Library in Part II.

 (2) **Future Prospects.** Changes, primarily related to electronic media and computer-based technologies, are bringing new resources, capabilities and opportunities to library users. The library lacks the depth and breadth of staff necessary to lead the University in selecting and securing the most critical of these resources and to guide undergraduates, graduate students and faculty in identifying and exploiting them.


Underlying both categories is the need for personnel. Emphasized strongly by the committee, this need is inextricably linked to nearly every recommendation in this report. For example, the book and journal collection can not be improved simply by purchasing materials without at the same time adding bibliographers, catalogers, support staff and so on. Likewise, improvements in interlibrary loan services and stepped-up material preservation work require additional personnel. In addition, the only way to ensure the right steps with the changing role of technologies and to guide the library to the future is to have a sufficient number of well-qualified library faculty to address the issues and to educate the users.

As it stands today, the library is inadequately staffed at all levels and practically across the entire range of existing and emerging functions. The quality of the collections and services is affected, not to mention the stress on present personnel and the effect on their morale. The committee recommends that additions over a five-year period include 15 faculty and 42 support staff.

Present Status

While the library has some outstanding book collections, the materials, including back issues of journals, are woefully inadequate in most areas for scholarly research, and in some cases even for advanced undergraduate work. The total collection presently of 2,036,007 books (mostly scholarly monographs) plus 216,022 in the law library is small relative to the collections at comparable institutions. An analysis of collections in different disciplines led the committee to a recommendation for the retrospective acquisition of some 300,000 volumes, in print or other format, for catch-up over a five-year period.

Annual subscriptions to journals and acquisitions of books have increased over recent years. Nevertheless, the budget for annual purchases is too small and unless increased, the gains accomplished through retrospective acquisitions will be short-lived. Increasingly, data bases, usually in electronic form, and video materials are part of the acquisitions list.

 Exacerbating the problems of materials acquisitions at Notre Dame and elsewhere is excessive price inflation, especially for journals, compounded by the incessant increases in available material and information. The committee estimates that a 10.5 percent annual increase in

the acquisitions budget will be necessary, at least in the short run, to preserve purchasing power. There is hope, but no promise, that a greater sharing of resources, particularly in electronic format, will curb this and other acquisitions-related problems.

Since no library will ever be able to own all materials needed by its users, even in a single discipline, institutions must share resources — that is provide access to users without ownership. To serve the users satisfactorily, access to shared materials must be convenient and fast. The traditional means of sharing is the interlibrary loan (ILL) service. Improvements, requiring additional personnel and equipment, must be made at Notre Dame to achieve a goal of delivering routine journal articles (and special book orders) within two working days and books within seven to 10 working days. The increasing production of materials in electronic form is likely to bring new and better opportunities for inter-institutional sharing.

In addition to serving as a repository for materials, the library has a responsibility for the preservation of permanently valuable material. Deterioration occurs in several ways, but the major threat to the print collection is the embrittlement of paper — and the treatment is all too easily deferred when budgets are tight. Some 68 percent of the library's holdings are affected to some extent by embrittlement, and of those only about half can be saved by deacidification. Others must be preserved in non-print formats including filming and digitization. A preservation facility will be established next year in the Reyniers building. Additional personnel and equipment are needed to ensure maximum value of this facility.

The library's inventory of equipment for users and staff is quantitatively inadequate, obsolete and too frequently out-of-order. There is a need for a plan and a budget for regular maintenance, upgrades and replacements. The equipment, which is increasingly the subject of complaints by students, includes audio-video, microform, desktop computers and the library's on-line catalog terminals.

Inadequate space is a continual library problem, not only in providing shelf space for a growing collection, but also in making room for reader workstations and other equipment. A hope for the future is that the increasing availability of electronic materials will make this need less severe. However, printed materials will be acquired for the foreseeable future, and the library currently is facing a space crisis. Both the Hesburgh Library and the branches are practically out of space for collections, and study and reading space is inadequate. A solution, adequate for a maximum of about 20 years, is to relocate the various non-library units that are occupying space in the Hesburgh Library, and to undertake an extensive renovation project. Long-range plans must be developed.

Future Prospects

Until recently, technologies in libraries were addressed mainly to such internal functions as cataloging, acquisitions, circulation and ILL services, but the range is rapidly becoming broader as materials and information are becoming increasingly available in electronic format. Eventually, most new materials (text, audio, still images, films and videos) will be available in digitized form, and much of the world's existing literature will be available in that form. As such, it will be accessible over a network instantaneously 24 hours a day, located by, seen and heard through a desktop computer. Nonetheless, no one foresees the demise of the printed book, so this library of the future will be a blend of traditional print-based and electronic material. The latter, often available from remote sources over the Internet, will offer advantages to all users for searching and accessing journals and data bases, and it may be virtually *the* library for many. Unpredictable now are the eventual balance between various material formats, the timing, the shifting trends and the cost implications of these shifts. Only fuller experience will enable the library to analyze these developments.

At the present time some electronic journals, reference sources and indexes are available over the Internet, and an increasing amount of material is available in CD-ROM. The early stages of the continuing evolution to new formats undoubtedly will be heavily weighted toward journals and data bases.

Regarding the economics, one hopes that new technologies portend cost savings. The track record for savings through technology in other arenas gives little reason for optimism. Nevertheless, since electronic access allows sharing of, and virtually immediate access to, materials without owning them, there is a potential for financial gains in the long run. With electronic access, the double-digit inflation of materials costs may abate, and the press for more library space may be mitigated.

Libraries are destined to be in an indefinite state of transition. In five years or so when the problems in the first category will have been ameliorated, the library-in-transition will still be a matter for close attention. The library must be prepared for new and changing roles on campus in (1) its own adoption of technology, (2) the education of users about the technology, (3) collaborating in the pedagogical employment of these same technologies, and (4) planning and guiding change. In filling these roles, librarians will need to work closely with teaching-and-research faculty and become more intimately involved with academic programs. In addition, the continuing development and education of library personnel will be vital.

The committee concluded that there are three important actions for the library to take at this time for the range of matters likely to be of concern for the *future library*: (1)

strengthen staffing by increasing its numbers and recruiting and retaining the highest caliber library faculty, (2) ensure the continuing education and professional development for library faculty and staff, and (3) participate actively in organizations and networks where alliances form for exploring new directions and sharing resources.

The committee was concerned that the library has not been given adequate early notification when changes in academic programs and the hiring of new faculty have an impact on library resources. There is a need for closer library involvement with the Graduate and Academic Councils, college councils and other committees.

Follow-up actions on this committee's recommendations will require coordinating and planning specific steps and strategies. In addition, there will be a continuing need to foster initiatives and dialogue between library personnel and library patrons. The existing University Committee on Libraries is the appropriate entity for these roles, but it should be restructured for more extensive representation.

Finally, the committee estimates the total cost of the recommendations to be \$29.2 million for one-time (non-recurring) developments and \$3.9 million for annual (recurring) expenditures. The latter would increase the library's annual expenditures by 53 percent. The committee suggests that a five-year program be initiated during which the one-time costs would be met and budget adjustments phased. (Table 4 lists the costs in broad categories.)


The committee feels unanimously and strongly that implementing the recommendations in this report would amount simply to taking the right steps, the necessary steps, to ensuring a library that befits the academic aspirations of Notre Dame now and into the future — a library that supports and enhances the academic work of faculty and students at all levels.

List of Recommendations for the University Libraries:

1. *The library's faculty and staff should be increased in number: (a) to meet the persistent understaffing in functions related to acquiring and processing materials and providing services to users; (b) to educate student and faculty users in modern library tools, techniques and resources; and (c) to bring about changes in library functions and services as new technologies emerge. The number of required permanent positions is approximately 57, 15 of which should be for library faculty, the others for support staff. In addition, temporary slots should be provided through the period of large retrospective purchasing.*

2. *Inasmuch as attracting and retaining the highest caliber library faculty requires that conditions be nationally competitive with peer institutions, the University should:*


- *set a specific goal of achieving salary levels significantly above the median of peer institutions;*

- 
- replace the present term contracts with indefinite contracts that would have appropriate provisions for performance reviews and employment security; and
 - provide adequate annual funding for professional development and continuing education.

3. Library bibliographers and liaison officers should work with faculty in the colleges to assess specific needs and to develop a program for retrospective acquisitions. The complete program will amount to adding about 300,000 volumes to the present collection.

4. Book acquisition strategies in general, and the approvals system in particular, should be reviewed by discipline with the intention of assessing needs and establishing allocations. The anticipated need is for a 20 percent increase in current book acquisitions, or an increase of about 12,000 volumes per year.


5. Current journal subscriptions should be reviewed with the aim of identifying and prioritizing specific areas where expansions are needed. The anticipated need is for an additional 5,000 subscriptions.



6. The library should take steps to become the University's principal collecting agency for data base and visual materials of campus-wide interest. This will entail costs of acquiring and storing materials and providing the necessary user services. As a first step, staffing and the acquisition of data bases for the Business Information Center will be necessary in 1995-96.

7. In addition to the enhancement programs for retrospective purchases and annual acquisitions, the University should increase the library's acquisition budget annually in keeping with the actual cost increases of materials. Recognizing the magnitude of these cost increases, the rate of which currently might be more than 10 percent annually, library personnel and faculty in the colleges should regularly review acquisition practices for their cost effectiveness and weigh alternative approaches to providing necessary materials for library users.

8. The interlibrary loan service should be made as effective as possible for obtaining materials and information not stored at Notre Dame. Specifically this requires expanding staff, expanding and improving equipment, and extending the service to branch libraries. The library's goal should be to achieve normal turn-around times for journal articles and similar materials (and special book orders) of two working days; for books of seven to 10 working days. For the time being, at least, the service should not be limited and costs should be borne by the library, but policies in this regard should be reviewed regularly.



9. The library should participate in, and aggressively pursue, resource sharing arrangements with other institutions when appropriate opportunities arise. For this purpose, as well as

for the continuing development and education of library personnel, formal membership in library organizations is important. The library should continue its memberships, and it should initiate membership in the Research Libraries Group (RLG). Active participation will require an increase in the budget for travel to attend meetings and for participation in programs.

10. The library should significantly expand its preservation program, including the deacidification, reformatting, binding and repair of materials. Reformatting activities should include digitization of materials, perhaps cooperatively with other institutions, when advantageous.

11. The library should be provided with a revolving fund for the support of its entire inventory of equipment. The annual budget for the fund should be sufficient to cover the average annual costs of maintenance, upgrades and replacements. In addition, the fund should be initiated with a one-time allocation for the purpose of upgrading the present equipment and facilities.

12. Planning should begin immediately to move the non-library units and classrooms from the Hesburgh Library to new or reused space elsewhere on the campus. The movement should begin as soon as possible and be completed within about six years, at which time a major renovation and restructuring of the space in the Hesburgh Library should be undertaken. At the same time, the University should begin long-range planning for future library space.

13. In order that required library resources and support may be provided in a timely manner for new or altered academic programs, the library must be informed and involved in early planning stages. The library should explore the means of accomplishing this with the individual colleges. Among the means are closer interactions with college councils and with appropriate college and department committees. As a routine procedure, the Graduate Council and Academic Council should require that library impact statements be included in any proposals for new or altered programs. Also routinely, start-up support for new faculty should include funds for library materials when necessary. In addition, membership of the director of University Libraries on the Provost's Advisory Committee should be considered.

14. The University Committee on Libraries should be restructured to include undergraduate and graduate students, the director of the Law Library, and representatives of allied entities such as University Computing and Educational Media. The restructured committee should be an essential interface between the library and other academic units and between library personnel and library users for promoting and coordinating initiatives and communication. Specifically, it should assist the library in refining the recommendations in this report and overseeing their implementation. The committee should report annually to the Academic Council.

Part II. The Kresge Law Library

Like the University library, the law library suffered years of undernourishment. During the past decade, enhanced support, through the annual budget process and several special benefactions, the law library has made significant progress. The collection and particularly the services of the law library can no longer be described as "disgraceful" or worse. But yet, the law library today is in a position that is analogous to the findings about the University library.

The challenge for the law library is to match and anticipate the mission of the law school — a mission that contemplates, in short, a domestic and international leadership position in both teaching and scholarship. To help define the law library resources necessary to meet the challenge of leadership, the library efforts of schools that are nationally recognized for their law programs and approximate the faculty and student body size of Notre Dame (peer schools, several of which compete directly with us for students) were examined. This examination reveals that the overall research power of the Notre Dame collection, as represented by the number of titles held by the law library, is substantially weaker than these peers. This weakness, largely the result of historical budgetary shortcomings and the evolving mission of the law school, cannot be overcome and is actually being exacerbated because current funding levels are insufficient to acquire books and serials at an annual rate that matches inflation or continuing peer practices. Recommendations are made to overcome these deficiencies. Anticipating the allocation of additional resources for both remedial collection development and current rate of acquisitions, recommendations for essential staff augmentations are proffered. Failure to respond to these needs will undermine the progress of the recent years and return the law library to its former mediocrity.

Like the University library, the law library can look at the future of legal information and competing delivery technologies only through the opaque lenses of recent experience and a panoply of conflicting predictions. Immense use has been made of microform technology, interlibrary sharing, on-line legal research services and automation of library activities. Yet, as is noted in the report, effective application of new technologies requires special and continuing efforts to enhance hardware, software and staff resources. Failure to respond to these requirements will place the law library in a position where meeting the requirements of evolving legal education and scholarship will be, if not impossible, at least inconsistent with the mission of leadership.

Our appeal to anticipate an impending "crisis" in law library space is also similar to that of the University library.

A number of alternatives may be available. Each of the alternatives carries with it benefits that must be explored. The cost of every alternative is substantial. But if responsive plans are not developed the long term costs will only increase and the short term costs of reduced institutional morale and operational inefficiencies will plague the law library's future.

Finally we note that like publishing generally, the publication of legal information has risen annually in cost and volume at a rate in excess of general University inflation. If Notre Dame wishes a law library with research power to serve the growing interests of faculty and students it must be fiscally responsive to these realities.

List of Recommendations for the Kresge Law Library

1. *Acquire an additional 1200 monograph titles per year to reach parity with peer group mean. [Additional annual cost \$60,000]*
2. *Add 1630 additional serial titles to those currently received to reach parity with peer group mean. [Additional annual cost \$183,000]*
3. *Add one librarian position and three support staff to respond to the increased processing requirements of recommendations 1 and 2. [Additional annual cost \$122,000]*
4. *Double number of titles in collection over five years to increase holdings to a level of parity with mean of lower half of peer schools. [Estimated five year cost \$4.2 million or \$840,000 per year]*
5. *Enhance computer research technologies by acquiring sixty (60) PC workstations. [Estimated one time cost \$200,000]*
6. *Establish revolving fund for annual support of hardware and software maintenance, upgrades and replacements. [Estimated annual cost \$70,000]*
7. *Add one librarian and one support staff to provide instruction and service in new technologies. [Estimated annual cost \$73,000]*
8. *Acquire modules missing from current automated library system. [One time cost \$100,000; annual cost \$10,000]*
9. *Add one librarian and one support staff member to provide additional strength to research services. [Estimated annual cost \$73,000]*
10. *Anticipate impending "crisis" in collection storage, particularly if development recommendations above are funded, as well as evolutionary longer term law library requirements. [Est. space required 39,900 s.f.]*



11. Increase law library budget annually in keeping with the actual cost increases of materials. [Over the past decade this figure has averaged over 10 percent per year]

Total estimated cost of recommendations:

Annually: \$591,000

One time: \$4,470,000

Space: 39,900 s.f.

PART I. THE UNIVERSITY LIBRARIES

INTRODUCTION

The Ad Hoc Committee on University Libraries, formed in the fall of 1993, was charged by Recommendation 21 of the report of the Colloquy for the Year 2000 to *review the present reality of the Notre Dame libraries, initiate a study of trends and developments in peer research libraries, and issue a report with recommendations to the provost and to the Academic Council.*

The committee, composed of faculty, student and staff representatives from throughout the University, was organized with a steering committee and five subcommittees. In the course of its work, the committee reviewed a collection of articles, reports and data on university libraries generally and on Notre Dame's libraries particularly. Through a series of meetings, including one with the Advisory Council for University Libraries, and interim reports at the subcommittee and full committee levels, the committee produced this final report.

In essence the report confirms and further defines the Colloquy statement that a major infusion of new funds is necessary to bring the resources and services of the library to a level befitting the University's academic aspirations. Most important in the long run is the need for the library to be in a better position to move forward — and given the rapid changes and new opportunities that technologies are offering, moving forward means changing. As important as it is, that need defies specificity, and the definition of it seems to require far less space in the report than does the wide range of important short-term needs that have existed for some years — although the short- and long-term needs are not entirely separable. Whatever imbalance there may be in written length, the report is intended to be a blend of discussions and recommendations about both bringing the library up to par with short-range goals and preparing for change and the future. It is emphasized that vital to both is the need for top caliber library personnel in adequate numbers.

The committee unanimously supports the recommendations, along with the suggestion that they be implemented over five years, and fully concurs with the content of this report — granted, of course, that some mem-

bers may have preferred a greater emphasis on one aspect or another.

Included at the end of this part of the report is a table summarizing the committee's estimate of costs associated with the recommendations. These estimates are intended to serve as a starting point for budget planning, fund raising and implementation of the recommendations — not as firm, inflexible quantities. Clearly the committee was not in a position to work out quantitatively accurate costs. While we feel that the estimates reasonably and realistically represent the needs, they require further analysis and refinement.

SOME INTRODUCTORY DATA AND COMPARISONS

The ultimate criterion for evaluating the library is the adequacy of its service to the Notre Dame community. However, the comparisons with other libraries give background information and help to refine our understanding of the existing condition of our library. In advance of comparisons made throughout this report, this section identifies the peer groups, describes the type of data that was available to the committee, and presents some general information about other institutions and their libraries.

The principal source was a data base supplied by the Association of Research Libraries (ARL) of which Notre Dame has been a member since 1963. That organization, now including 108 research university libraries, has annually collected quantitative information on libraries and universities for several decades. The most recent complete set of data available during the course of our study was for 1991-92.

We chose four *Peer Groups* for comparisons: (1) the set of *Library Peers*, comprised of 14 private universities used by the library for comparisons in recent years, (2) the 108 university members of the ARL, (3) those 21 private institutions in the American Association of Universities (AAU) that are also members of ARL, and (4) those 50 members of the AAU, public and private, that are also members of ARL. The data cited in this report for any of these groups are averages over the member institutions. We excluded Harvard from the AAU list when computing averages because its large collection and library expenditures place it in a category of its own, and it would skew the averages. Appendix I gives a list of the institutions in each of the groups. The list also indicates whether the data includes that of medical and law schools. The Notre Dame data reported to ARL, and employed throughout the report unless otherwise noted, includes that of the law library.

The charts in Appendices II and III show size characteristics of the Peer Groups and of the individual members of the Library Peers. (We included the University of Chicago on the charts in Appendix III because some specific



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comparisons are cited later with that institution's library data.) As the charts in Appendix II show, Notre Dame is small relative to Peer Group averages by these measures except in the total enrollment of the private groups.

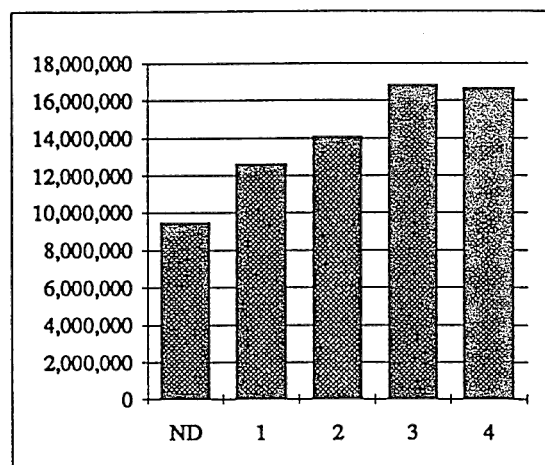
The charts in Appendix III show that no institution among the Library Peers resembles Notre Dame in all of these size characteristics. For example, Chicago is similar in full-time enrollment, but greatly different in full-time faculty, graduate enrollment and Ph.D.s awarded. Princeton is similar in graduate enrollment and full-time faculty, but very different in Ph.D.s awarded.

We should expect that Notre Dame's graduate and professional enrollment will increase appreciably in the years ahead, and if the goals of the Colloquy for the Year 2000 are achieved, the number of full-time instructional faculty at Notre Dame will increase by 150.

Early in our study we used the ARL data to identify a number of other peer sets and to make comparisons. We reached a conclusion that these were of limited value at the institutional level because, as pointed out above for the Library Peers, there are always significant differences in one important characteristic or another. Comparisons with groups, where institutional distinctions are blurred by averaging, seem more meaningful. For example, if our aforementioned goals are achieved, Notre Dame's size characteristics would resemble those of the average of the Library Peers, but not those of any of the individual members. Therefore, while data are presented for both the Peer Groups and the Library Peers in this report for information, we call attention mainly to the former.

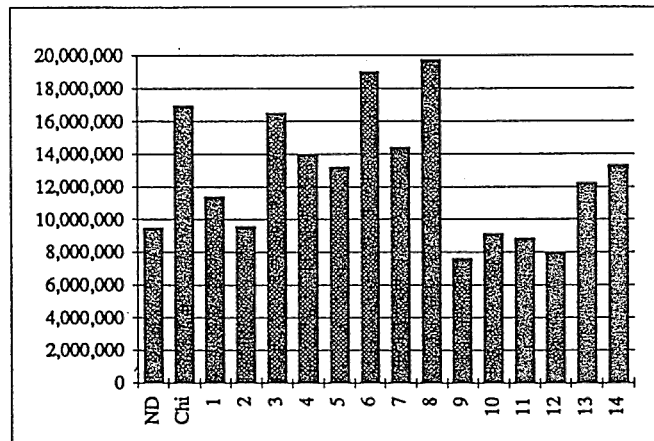
An oft-cited indicator of a library's status and its priority within an institution is the total annual library expenditure, in particular the trends in the library's share of the university's total Education and General (E&G) expenditures. The charts in Figures 1 and 2 show that library expenditures at Notre Dame are far below those of the Peer Groups and on the low side relative to those of the members of the Library Peers.

Figure 1 — Total Library Expenditures, 1991-92, Comparison with Peer Groups



ND Notre Dame (incl Law)
1 Library Peers 3 AAU Privates
2 ARL 4 AAU

Figure 2 — Total Library Expenditures, 1991-92, Comparison with Library Peers



ND N.D. (incl Law) Chi Chicago
1 Brown 8 Princeton
2 Dartmouth 9 Rice
3 Duke 10 Rochester
4 Emory 11 Syracuse
5 Georgetown 12 Tulane
6 Johns Hopkins 13 Vanderbilt
7 Northwestern 14 Wash. St. L.

Table 1 — Library Share of E&G Expenditures, Comparisons and Trends

| | Library's Percent of E&G Expenditures | |
|---------------|---------------------------------------|---------|
| | 1981-82 | 1991-92 |
| Notre Dame | 4.63 | 4.33 |
| Library Peers | 4.40 | 3.47 |
| ARL | 3.92 | 3.32 |
| AAU privates | 3.84 | 3.11 |
| AAU | 3.67 | 3.01 |

The data in Table 1 show the trends in the percentage of E&G expenditures over 10 years for Notre Dame and the Peer Groups. All have experienced declines in this regard; Notre Dame's decline is less than that of the others. These trends support what is often said and written about the recent plight of university libraries in this country. Generally support for them has waned at a time when there are increasing stresses on library budgets caused by excess inflation, increased volume of materials, and the onslaught of new media and technologies — and the need for new services. (While comparison of *trends* in the percentage of E&G expenditures may be informative, the actual values of the percentages can be misleading. For example, the high value for Notre Dame in Table 1 is due to the low level of E&G expenditures here — probably caused mainly by the low level of sponsored research.)

A final item for this section is the *ARL index*, a numerical quantity computed from the following formula.

$$\text{Index} = 0.44009 \ln V + 0.42578 \ln A + 0.37942 \ln S + 0.48798 \ln E + 0.49357 \ln P - 26.57196$$

where \ln is the natural logarithm; V , the total volumes held; A , the gross volumes added; S , the total current serials subscriptions; E , total library expenditures; P , total full-time staff. (The coefficients as given in the above formula are for 1991-92.)

Whatever the origin of the formula, or the justification for the coefficients, which change each year, ARL uses this index to determine an institution's qualifications for membership. It has also been used (actually misused) outside the ARL to rank university libraries; a larger index means a higher rank. By this measure, Notre Dame's ranking improved steadily over recent years, then dropped in 1993. Our rank was 97 of 101 in 1983; 74 of 107 in 1988; 55 of 108 in 1992, and 66 of 108 in 1993 (with a computed index of -1.28). The average ranks of the Peer Groups in 1992 were 59 for the Library Peers, 43 for the private institutions of the AAU, and 38 for all AAU institutions. The rankings of the members of the Library Peers ranged from 107 for Rice to 16 for Princeton. The University of Chicago ranked 17th in 1993.

LIBRARY PERSONNEL

In all sections of this report, there is either the stated or implied need for additional library personnel and for library personnel in different roles than in the past. The importance of the needs in this regard can hardly be overstated. Through the years ahead, library faculty and staff will be under considerable pressure to provide traditional services and also those for emerging technologies. Since the library is already understaffed for today's services, personnel needs are most critical. Unless they are addressed, significant improvements are not possible, and the library will not be able to move forward.

Certainly additional personnel are required to lead and support a changing and expanding menu of library services. They include also a more active librarian role in the intellectual interchange with users, particularly with teaching-and-research faculty. Questions about alternative media, about what to own, share or select from an expanding sea of materials and information require that librarians and faculty work together more closely than in the past. Moreover, librarians must have the expertise and time to organize for the users what is rapidly becoming an immense corpus of disorganized electronic information over the network. As it now stands, the time of the librarians is stretched too thin for regular engagement in such efforts.

With the rapid changes that are occurring in scholarly communication and information technologies, it is easy for students, and some faculty members, to become lost in a range of new and rapidly changing information resources and services. Gopher, Mosaic, WWW and a host of other products and services are becoming available, but the typical user has little way of knowing what these mean, much less how they can be utilized effectively. It is therefore incumbent on the library to take a proactive stance in the education of users, especially students at all levels, in the most current tools and resources for accessing and utilizing information regardless of its format.

Further, the profile of users will continue to change, and to meet user expectations, library personnel will need to upgrade knowledge and skills continually. Before long the typical user will have grown up in environments filled with electronic games, CD-ROMs and e-mail. They will expect library personnel to be at least as knowledgeable as they in the use of applicable technologies. Faculty and students will expect librarians to be more intimately involved with shaping pedagogical and research programs.

The need, therefore, is for additional library personnel with appropriate backgrounds and experiences who are on top of their field and can bring new ideas and innovations into library services at Notre Dame.

Even aside from the staffing needs associated with library services of new and changing types, the need for additional library faculty and staff for traditional services is critical. Neglected for some time, the shortage of library personnel has reached a point where the work of faculty and students is often hampered. This has been exacerbated by changes in the teaching-and-research faculty, not only by increases in their number but also by increases in their involvement in research and other scholarly endeavors. Simply stated, the number of library personnel is inadequate to support the needs of the teaching-and-research faculty — even without the extra demands created by new technologies. Consider the following situations.

- Notre Dame presently has only six full- or part-time bibliographers, some of whom are responsible for impossibly broad areas. For example, one person is responsible for theology, philosophy, and European and American history. In some cases, bibliography is an extra duty added to a full-time job in another sector of the library. Any program of increased acquisition of books, retrospective or otherwise, will require additional personnel, including more highly-trained personnel. (In contrast, the University of Chicago has 20 full-time bibliographers, called "selectors." They hold Ph.D. degrees in addition to library degrees, and they were recruited for their expertise in special fields.)

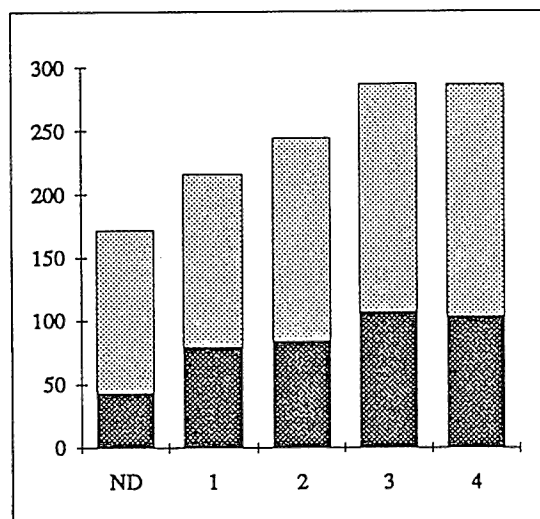
- Typically there is a long backlog of material in the library waiting to be cataloged. The backlog has been reduced significantly in the last five years, but still those materials requiring original catalog processing may have a total time lag of two years or more before routine processing brings the material to the shelves. The lag is due in part to understaffing.

- UNLOC, despite its many attractive features, has problems in need of attention — problems resulting from chronic understaffing, including an insufficient number of library faculty for supervision. For example, changes in bibliographic standards have been applied to new acquisitions but were not made retrospectively, and inaccuracies in records and incomplete records obtained from OCLC are not always corrected. As a consequence, finding records in UNLOC is often difficult — to the extent that interlibrary loan and the acquisitions department regularly receive requests from faculty and students for material already in the collection.

The need for expanded and improved interlibrary loan services, presented in a later section along with other library endeavors toward the sharing of resources, calls for additional staff support. Likewise, expanded materials preservation activities, also described in a later section, calls for additional staff. Other services and activities in need of improvement or expansion also have staff implications.

For the sake of comparing numbers, the two charts in Figures 3 and 4 show staff sizes for the Peer Groups and the Peer Institutions for 1991–92. For the former, the chart shows that Notre Dame's total library staff and professional staff numbers are considerably lower than those of any of the groups. For the latter, notice that the number of professional librarians at Notre Dame is below that of all others except Rice. At the University of Chicago, the total number of library personnel in 1991–92 was 299, 78 of whom were professional librarians. The corresponding numbers for Notre Dame in that year were 172, including 43 professionals.

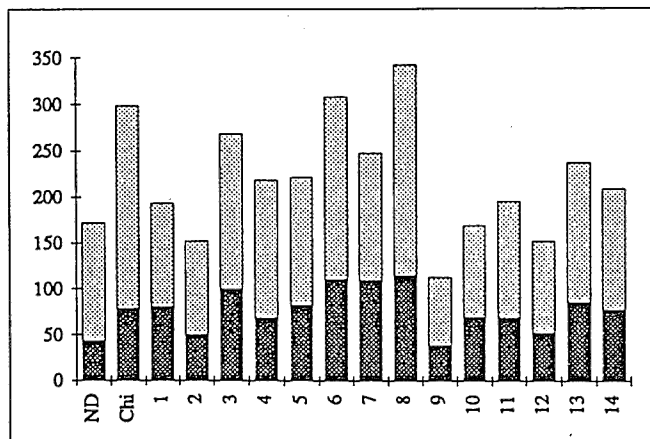
Figure 3 — Library Personnel, 1991–92, Comparison with Peer Groups




ND Notre Dame (incl Law)
 1 Library Peers 3 AAU Privates
 2 ARL 4 AAU

Professional staff (library faculty) are represented by the lower portion of the bars

Figure 4 — Library Personnel, 1991–92, Comparison with Library Peers



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| | | | |
|----|-----------------|-----|--------------|
| ND | N.D. (incl Law) | Chi | Chicago |
| 1 | Brown | 8 | Princeton |
| 2 | Dartmouth | 9 | Rice |
| 3 | Duke | 10 | Rochester |
| 4 | Emory | 11 | Syracuse |
| 5 | Georgetown | 12 | Tulane |
| 6 | Johns Hopkins | 13 | Vanderbilt |
| 7 | Northwestern | 14 | Wash. St. L. |

Professional staff (library faculty) are represented by the lower portion of the bars

Without a more detailed analysis of all library operations, future changes and expansions — a task beyond the means of the committee — it is not possible to identify precisely the positions that will be required in the different areas. However, the committee was able to make some estimates of the numbers that would be needed to support the various recommendations in this report. We estimate that a total of 57 additional library positions will be needed, 15 of which should be for library faculty; that is, for professional personnel. A specific plan should be worked out for the staging of these positions over a five-year period during which other library developments occur. The committee generally felt that indeed the first step to be taken toward improving the library is the addition of personnel who can extend and refine this committee's work and guide the implementation of recommendations.



RECOMMENDATION 1

The library's faculty and staff should be increased in number: (a) to meet the persistent understaffing in functions related to acquiring and processing materials and providing services to users; b) to educate student and faculty users in modern library tools, techniques and resources; and (c) to bring about changes in library functions and services as new technologies emerge. The number of required permanent positions is approximately 57, 15 of which should be for library faculty, the others for support staff. In addition, temporary slots should be provided through the period of large retrospective purchasing.

Attracting and retaining the highest caliber personnel will require that conditions at Notre Dame be competitive in all respects. Of greatest concern in this regard are the salary levels and the types of appointments offered. There is evidence that increases in the salaries of library faculty have not kept pace with those of the teaching-and-research faculty, though the committee did not attempt to make a definitive analysis or comparisons with competing institutions. Evidence includes the observation that between 1988 and 1993, Notre Dame's ranking for mean library faculty salaries dropped from 54 to 62 among the 108 ARL institutions. (It is worth noting that a three-year program is under way to bring the salaries of non-faculty library personnel to a locally competitive level.) The University should establish a goal of achieving a salary level for library faculty that is well above the median of peer institutions.

The appointments of library faculty are by term contracts for one- to three-year appointments. The process for renewal at the end of each term, as stipulated in the Academic Articles, involves a recommendation from the director of libraries to the provost and, upon approval by the provost and the president, the issuance of a new contract requiring the faculty member's signature. Many, if not all, library faculty find this process obtrusive. They perceive it as a periodic reminder that they are *temporary employees*, that there is no long-term institutional commitment — even though the term contract was probably instituted originally as a guarantee of employment at least for a certain period. A more suitable practice, one that seems to be in place at many other institutions, is to issue indefinite, non-tenured, appointments for library professionals with the conditions for continuing employment specified in a contract at the time of hiring.

In addition, it is important to ensure an opportunity for library personnel to stay on top of their field. This requires an adequate budget for their professional development and continuing education. An area seriously underfunded at the present time, this need will increase in importance as library services change with evolving technologies.

RECOMMENDATION 2

Inasmuch as attracting and retaining the highest caliber library faculty requires that conditions be nationally competitive with peer institutions, the University should:

- set a specific goal of achieving salary levels significantly above the median of peer institutions;
- replace the present term contracts with indefinite contracts that would have appropriate provisions for performance reviews and employment security; and
- provide adequate annual funding for professional development and continuing education.

MATERIALS AND INFORMATION RESOURCES

Books and Journal Collections

Historically, collections of printed materials have been the principal record of, and resource for, scholarly research in most disciplines and the basis for scholarly instruction. Despite the current changes in methods and media for scholarly communication, this will undoubtedly continue for many years to come.

Currently the University owns several outstanding collections which are known nationally and even internationally. Particularly notable are the Medieval Institute Library and the Dante Collection. Other major collections are in early printed books, Byzantine studies, American Catholic history, Roman Catholic theology, history of philosophy, historical botany, some areas of chemistry, and sports. In some cases these prominent collections

represent institutional priorities or the interests and energy of particular scholars during the history of the University. However, in many of Notre Dame's book and journal collections, even in some that may have been adequate at one time, weaknesses and gaps abound today for a number of reasons: interest languished through the years in areas where research activities and interdisciplinary work were low; new faculty were hired and programs begun in fields where little material had previously been collected; annual acquisitions were limited by budgetary constraints.

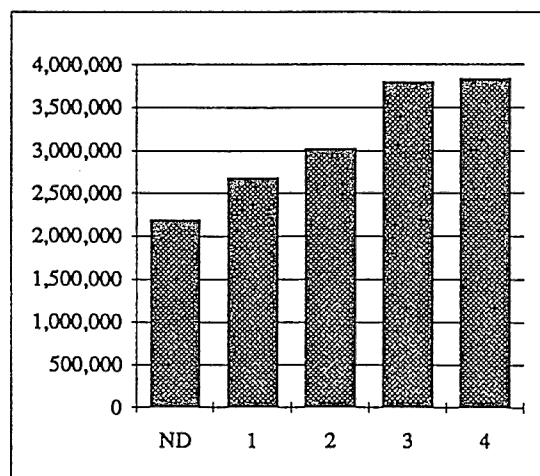
Different universities will certainly develop different academic strengths and priorities, and therefore different strengths in their library collections. But since scholarly work is increasingly interdisciplinary, even the best specialized collection is of limited utility if there is not at least a core of material in surrounding disciplines. Classics can serve as an illustration. Despite the central importance of Latin and Classical culture in the history of the Catholic Church, this department was for a long time mainly a service department, and even now has no graduate program. For these reasons its library budget has been small, as reflected by its collection. This weakness has a significant negative impact on areas of traditional Notre Dame strength. With a weak classics collection, research in Medieval studies, Renaissance studies, modern literature, religious thought, philosophy, history of science, art and architecture is seriously impeded. Other examples can be cited. The Dante Collection is undermined by the scanty holdings in Italian. These and similar points have been made repeatedly by external evaluators in graduate reviews.

Gaps and erosions have arisen even in some of the strong collections due to an inadequate acquisitions budget. The Medieval Institute library was handicapped by approximately 20 years of insufficient funding. Some recent recovery has been made possible by increased University funding and a new endowment, but the cumulative damage is still apparent.

For 1992-93, the library reported a total collection of 2,252,029 books, and journal titles (including 216,022 in the law library), which ranks it 59th among the 108 university members of the ARL.

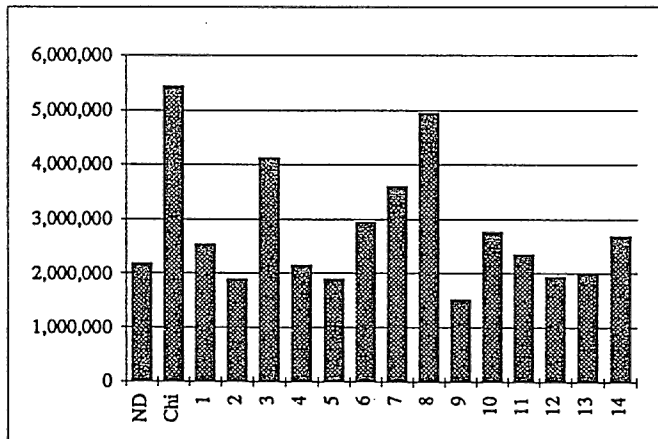
The charts in Figures 5 and 6 provide comparisons for 1991-92 with the Peer Groups and with the members of the Library Peers. The size of Notre Dame's collection is nearly one-half million volumes behind that of the Library Peers, the lowest of the Peer Groups.

Figure 5 — Volumes Held, 1991-92, Comparison with Peer Groups



ND Notre Dame (incl Law)
 1 Library Peers 3 AAU Privates
 2 ARL 4 AAU

Figure 6 — Volumes Held, 1991-92, Comparison with Library Peers



ND N.D. (incl Law) Chi Chicago
 1 Brown 8 Princeton
 2 Dartmouth 9 Rice
 3 Duke 10 Rochester
 4 Emory 11 Syracuse
 5 Georgetown 12 Tulane
 6 Johns Hopkins 13 Vanderbilt
 7 Northwestern 14 Wash. St. L.



Table 2 — Volumes Held, Comparisons and Trends

| | Volumes Held | | |
|------------------|--------------|-----------|----------|
| | 1985-86 | 1991-92 | % change |
| ND (excl Law) | 1,608,604 | 1,985,234 | 23.4 |
| Library Peers | 2,261,167 | 2,683,026 | 18.7 |
| ARL Institutions | 2,591,944 | 3,021,762 | 16.6 |
| AAU privates | 3,225,266 | 3,807,752 | 18.1 |
| AAU | 3,302,328 | 3,847,798 | 16.5 |

On the favorable side, the trend at Notre Dame, albeit from a low starting point, has been positive relative to others. Fifteen years ago the library was near the bottom of the ARL in nearly every collection-related category. Table 2 that the number of volumes held has increased by 23.4 percent over a recent seven-year period. (Numbers from the law library are excluded in the table because a large purchase in 1991 of the Chicago Bar Association collection would skew the information.) The average increase by the Library Peers over the same period was 18.7 percent.

In order to create a more nuanced picture of our collection's strengths and weaknesses, we compared the library's holdings by discipline with those of the library at the University of Chicago. We chose the University of Chicago for several reasons. One is the fact that comparisons with that library come naturally to the many humanists at Notre Dame who make regular trips there. There is no suggestion that we set a goal of matching Chicago's collection of more than five million total volumes. However, comparisons with a first-rate library, such as Chicago's, in areas where Notre Dame has aspiring programs can give an appreciation for magnitudes at the higher end and reveal which areas are in greatest need of attention here. The list in Appendix IV shows comparisons for a number of areas. (Since Chicago has no engineering programs, Notre Dame's holdings in those disciplines are compared to those of the University of Pennsylvania and Johns Hopkins University.) The table shows holdings of the Library of Congress for further comparison.

Comparisons suggest that while collections in a number of areas at Notre Dame need attention, the worst by far are those in the humanities and arts. They reveal also that Chicago's holdings generally are only a fraction of those of the Library of Congress. Chicago clearly has not "purchased everything" and yet its reputation as a research library is very high. The need is for a combination of an appropriate level of funding, a clear plan for acquisition, and qualified library personnel in adequate numbers working with faculty to make selective acquisitions.

In order to estimate the magnitude of what would be required to remedy the weaknesses and gaps in Notre Dame's collections, we asked for an assessment of needs

from the library's bibliographers and liaison officers. Answering the question of "what is required to bring a collection to a good level" is difficult and requires an extensive analysis. We were given preliminary estimates, to serve as a starting point for planning and action, on the basis of unfilled requests from recent years and a rough assessment of needs in certain key areas. The information will require further review and refinement, but it is clear that retrospective purchases of about 300,000 volumes, requiring an expenditure of about \$12.5 million, are necessary to provide the University with sound collections in all areas of interest. In addition, temporary staff, or some type of outsourcing, will be needed to process these materials.

RECOMMENDATION 3

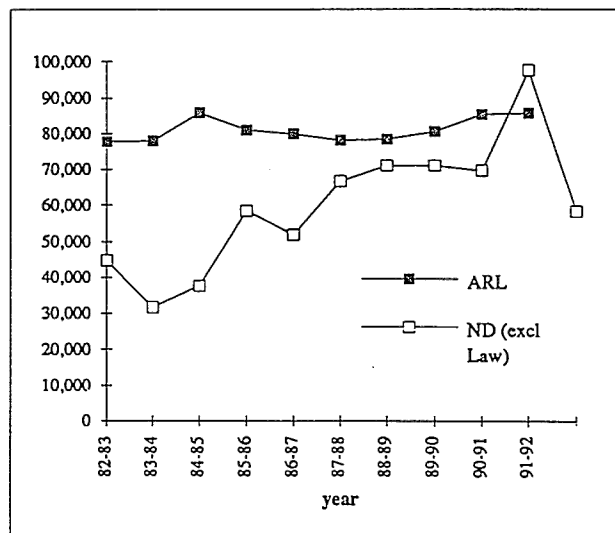
Library bibliographers and liaison officers should work with faculty in the colleges to assess specific needs and to develop a program for retrospective acquisitions. The complete program will amount to adding about 300,000 volumes to the present collection.

Current Acquisitions of Books, Journals and Data Bases

Improving the University's current holdings would be of limited long-term value if the annual acquisitions budget were not set at the same time at an adequate level to maintain the viability of the book collection and to provide access to current information in journals and data bases.

Books. The graph in Figure 7 shows that the trend of annual book additions at Notre Dame since 1982-83 was upward through the mid 1980s, but has been about level on the average but irregular since about 1989. The average of volumes added by ARL institutions, shown also in Figure 7, has been nearly constant at about 81,000 volumes per year over a 10-year period.

Figure 7 — Volumes Added (gross), Comparison of Trends



The Peer Groups have all shown an increase over the past seven years, but for some the increase has been small, similar to that shown in Figure 7 for the ARL group.

In 1991-92, the average gross volumes added by the Library Peers was 68,364; by ARL universities, 85,762; by private institutions in the AAU, 93,605; and by all AAU institutions, 102,279. In that year Harvard added 284,662 volumes; the University of Chicago, 124,883 volumes. Notre Dame added 97,953 (excluding law, in 1991-92) a peak year as shown in Figure 7.

What should the current rate of annual acquisition of books be to keep pace with user needs? Clearly it should exceed the average of the past in most areas at Notre Dame because that rate has led to the present collection problems described earlier. The dip in volumes added in 1992-93 is of concern if indicative of a continuing trend or level. However, giving an accurate answer to the question is beyond the capabilities of the committee and requires a thorough analysis by library professionals, working with teaching-and-research faculty, of the present approval plans and other acquisition strategies. Our evidence suggests that the current acquisition rate should be increased by about 20 percent, for an increase of about 12,000 volumes per year — and for budget planning purposes, we suggest that as a preliminary target. Obviously there is a need for flexibility and refinement.

RECOMMENDATION 4

Book acquisition strategies in general, and the approvals system in particular, should be reviewed by discipline with the intention of assessing needs and establishing allocations. The anticipated need is for a 20 percent increase in current book acquisitions, or an increase of about 12,000 volumes per year.

Journals. In 1992-93, Notre Dame subscribed to 21,727 serials (mostly journals) and the trend has been upward, apparently ahead of trends at most other places. The graph in Figure 8 (showing the library and the law library separately) compares the trend here to that of the ARL institutions over 10 years.

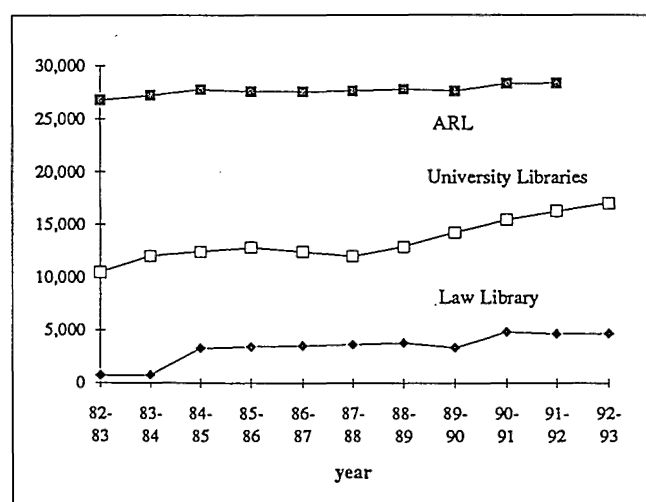
Over the six-year period from 1985-86 through 1991-92, Notre Dame's subscriptions increased by 29.1 percent. Over that same period subscriptions increased for all of the peer groups, but by much smaller amounts. The largest was 4.2 percent for the Library Peers. Some institutions within the groups reported decreases. Harvard's number was reduced by 5.9 percent; the University of Chicago's by 3.4 percent.

For further comparisons the 1991-92 ARL data show that Library Peers subscribed to 21,459 as an average; ARL universities to 28,307; private institutions in the AAU to 30,908; and all AAU institutions to 35,161. In that year

the University of Chicago subscribed to 46,072 journals, Harvard to 96,019, Notre Dame to 20,863.

Clearly gains have been made at Notre Dame. Yet in some areas subscriptions are barely at or even below the level considered to be a solid core to support teaching and research activities. A cursory survey showed a need for new subscriptions in nearly every area. The most striking are in engineering, science, music, psychology, sociology and some humanities areas. The upward trend will have to continue at an even faster rate for some years in order to support leading research at Notre Dame. Based on the aforementioned survey, the committee estimates that an additional 5,000 subscriptions are needed. As in the case of current book acquisitions, this should be regarded as a preliminary estimate for planning purposes.

Figure 8 — Journal Subscriptions, Comparison of Trends



RECOMMENDATION 5

Current journal subscriptions should be reviewed with the aim of identifying and prioritizing specific areas where expansions are needed. The anticipated need is for an additional 5,000 subscriptions.

Resources in other formats. While books and journals in any format are clearly within the province of libraries, the responsibility for other materials has not been so clearly delineated. The foremost examples are electronic data bases and materials in visual formats — critical resources for leading research and teaching in some areas even now and becoming more critical in many others. The need for data bases will be exacerbated when Ph.D. programs are begun in the College of Business Administration.

Currently the acquisition and campus sharing of such materials is decentralized and uncoordinated. Some pur-

chases have been made through library funds, others through department and college budgets. Yet in many cases, widespread use and frequency of access suggest that there should be campus-wide sharing and central management or coordination. Examples include such electronic products as *Current Contents* and *UMI Dissertation Abstracts* and a plethora of visual materials in the form of tapes, slides, videodisks and CD-ROMs.

In some cases centralization would mean that these products could be loaded on the NOTIS INFOSHARE system locally and therefore available to users over the campus network. In other cases central management would mean obtaining other means of access for all campus users to remote services.

As the availability and popularity of data base and visual materials grow, a continuation of present practices will lead to needless duplication and limited sharing. Further, lacking central management, personnel will not be available generally to assist users in the identification and use of these resources. The library is the logical place for depositing and managing these resources. This will require additional funding for acquisitions, electronic storage and services.

As an indication of the immediacy and future magnitude of this issue, consider the new building for the College of Business Administration. That building will contain the Business Information Center, the University's first branch "library" not to have print material. The facility will serve as a prototype for electronic access and delivery of materials and information for those disciplines that rely principally on numerical and textual data bases for teaching and research. Starting in 1995-96, this will require both staffing (estimated at three positions) and an expenditure of about \$250,000 for such numerical, textual and bibliographic data bases as *Compact Disclosure*, *Investext* and the *Business Periodicals Index*, each of which is commonly available in leading university libraries.

RECOMMENDATION 6

The library should take steps to become the University's principal collecting agency for data base and visual materials of campus-wide interest. This will entail costs of acquiring and storing materials and providing the necessary user services. As a first step, staffing and the acquisition of data bases for the Business Information Center will be necessary in 1995-96.

More on non-print media and the future library

As indicated in previous sections, forces behind a fundamental change in library services are compelling. From the positive perspective, the opportunity will exist to provide access faster and to more material and information than has been possible in the past. From another perspective, forces driving change are based on difficulties in

dealing with spiraling costs, increasing amounts of library materials and space requirements.

Considering existing and emerging technologies, one can readily envision many elements of the library of the future — elements that are likely to be realized early in the next century. Increasingly materials will be available in electronic formats, and much of existing collections will be converted to that format — and in that format they will be shared. Electronic journals are now appearing in increasing numbers, and formal peer-reviewed electronic journals are likely to become standard. Computer-based techniques for searching the literature will be commonplace — not only for bibliographic searches but also for full texts. The library of the future will be less likely to be a physical repository for journals than it has been in the past. Those whose library needs are with journals and data bases will have a virtual library at the desk top.

Books may be another story, however. No one predicts the end of printed books in the foreseeable future. But even those whose library use is principally with the book collection will experience changes when most books of interest are available in electronic form. Whether print or electronic format is more useful will depend on the particular situation. The main impact of electronic technologies in the humanities so far has been the introduction of electronic bibliographies, indexes and certain full-text data bases. These have been supplements to, rather than substitutes for, traditional print materials. Clearly the electronic format will offer advantages for any search of the text material, for example. Therefore, it will be increasingly important for librarians to work with users to select not only the appropriate materials but also the appropriate media.

In short, the library of the future, at least into the early decades of the next century, will have many new features and services along with elements familiar in today's library. The biggest changes will be with electronic formats, and therefore with sharing, for journals, data bases and other resources for current information. Familiar elements will be books in print, although their availability in electronic form will bring about changes for all users. All disciplines will make use of both print and electronic formats. The balance between different formats will vary from one discipline to another. Library professionals working with faculty and students will be the best guides in this period of transition.

It should be emphasized that this overall vision of the future library necessarily has significant implications well beyond the library itself. The broad range of electronic resources envisioned will require multiple high-end computer servers and major amounts of memory capacity. From the users' side, student and faculty workstations may require more frequent upgrades and replacements.

In addition, the delivery of a broad range of electronic resources involving text, video and sound to classrooms and offices has implications for the campus backbone and building networks. Clearly, the library cannot move forward without careful planning and cooperation with other units — and without University support for the costs borne by other units.

Cost Increases and the Information Explosion

Perhaps the most immediately threatening common problem affecting libraries across the country is the increasing cost of acquiring materials. Two factors contribute. First, the annual inflation on books and journals has been running significantly ahead of the consumer price index, indeed ahead of all other University costs and the regular University budget increases. According to data in a recent study prepared for the Mellon Foundation,² book prices increased at an average annual rate of 6.3 percent and journals 10.4 percent through the decade of the 1980s. Those rates persist today. They vary significantly from one discipline to another, and many foreign publications have had even greater inflation. At the same time, non-salary budgets at Notre Dame have increased annually by 2 or 3 percent in recent years. The available revenue from the endowment that provides partial support for the library's acquisitions has increased by 4 percent annually. Special allocations have been made in most years for library materials in ad hoc attempts to deal with this problem.

The second factor is the increasing rate of production of new material and information. According to the aforementioned footnoted study, the number of new books published each year by the Association of American University Presses has increased at a compounded annual rate of 3 percent, and journal titles are increasing in number at the rate of about 1 percent per year. Neither figure takes into account the great explosion in the availability of other information, notably in data bases which are generally in electronic format. Also noteworthy is the increasing interest in acquiring foreign materials.

By our estimates the combination of these factors lead to a conclusion that the acquisition expenditures at Notre Dame would have to increase by 10.5 to 11 percent per year to preserve purchasing power. Preserving purchasing power means acquiring a constant fraction of available material. If indeed 10.5 percent is needed to keep pace, the consequence of inflating the acquisition budget by only 4 percent per year would cause the purchasing power to decrease by more than 20 percent by the year 2000; by more than 40 percent by 2005.

² Cummings, Anthony M., et al., *University Libraries and Scholarly Communication*, The Association of Research Libraries, November 1992.

Over the seven-year period from 1985–86 through 1992–93, Notre Dame's expenditures for books have averaged a compounded annual increase of 5.2 percent; for serials, 13.5 percent. For comparison, Table 3 shows the annual increase for the Peer Groups calculated from their reported expenditures for the beginning and ending years of the period. The graphs in Figure 9 show the year-by-year expenditures for the ARL group and Notre Dame. It appears that universities on the average have nearly kept pace with costs of serials, but generally they have not done as well with expenditures for books. Notre Dame has fared better than others. Undoubtedly for some, there was relief available by reducing duplicate purchases and eliminating the least frequently accessed materials.

Table 3 — Books and Serials Expenditures, Comparisons and Trends

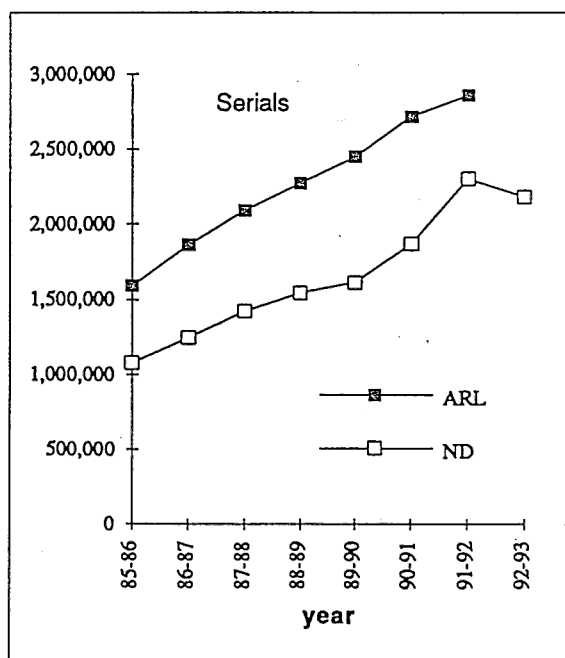
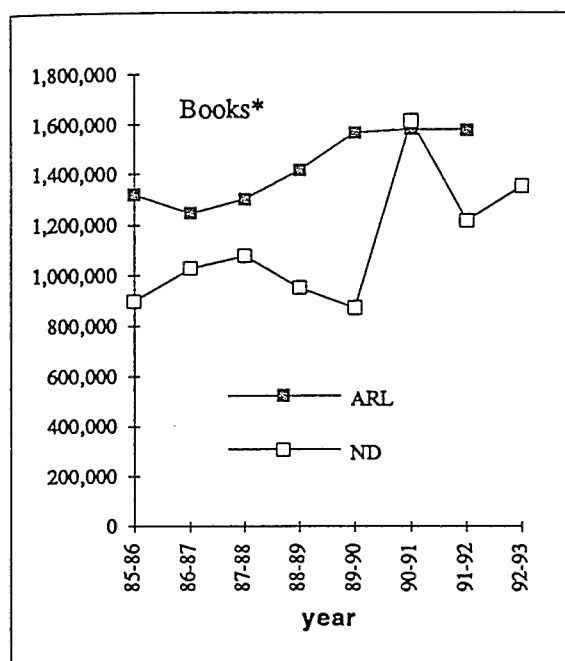
| | Expenditures for Books* | | % change | |
|---------------|-------------------------|------------|----------|--------|
| | 1985–86,\$ | 1991–92,\$ | overall | annual |
| Notre Dame | 898,172 | 1,218,002 | 35.6 | 5.2 |
| Library Peers | 1,131,534 | 1,562,764 | 38.1 | 5.5 |
| ARL | 1,319,515 | 1,577,747 | 19.6 | 3.0 |
| AAU privates | 1,545,555 | 1,935,598 | 25.2 | 3.8 |
| AAU | 1,628,835 | 1,876,207 | 15.2 | 2.5 |

| | Expenditures for Serials | | % change | |
|---------------|--------------------------|------------|----------|--------|
| | 1985–86,\$ | 1991–92,\$ | overall | annual |
| Notre Dame | 1,077,027 | 2,299,855 | 113.5 | 13.5 |
| Library Peers | 1,488,429 | 2,597,472 | 74.5 | 9.7 |
| ARL | 1,589,637 | 2,858,057 | 79.8 | 10.3 |
| AAU privates | 1,669,772 | 3,127,857 | 87.3 | 11.0 |
| AAU | 1,823,677 | 3,280,036 | 79.9 | 10.3 |

* The figures given here for Notre Dame's book expenditures do not include those of the Law Library. That library's purchase in 1991 the Chicago Bar Association's collection would distort the trend.

DOCUMENTATION

Figure 9 — Expenditures for Books and Serials, Trends and Comparisons



An assumption that the current inflation rate will continue for long may be unnecessarily pessimistic. However, it will probably continue for a short run at least, and the information explosion almost certainly will not be

contained. By itself, the University will be limited in ways to ameliorate this problem. Recommendations elsewhere in this report on shared resources and cooperative associations with other universities will help, and indeed may be the salvation in the long run, but they will not soon curb the increases. Neither will the increasing application of technologies decrease costs in the short run. In fact, they will probably add to the cost for some time.

Certainly the library's acquisition practices and related operations should be reviewed regularly for their cost effectiveness. For some years, however, "superinflation" on library materials should be expected. As costly as it may be, it would be even more costly eventually, and immediately have a negating effect on the benefits gained through retrospective purchases, if the annual purchasing power were allowed to erode.

RECOMMENDATION 7

In addition to the enhancement programs for retrospective purchases and annual acquisitions, the University should increase the library's acquisition budget annually in keeping with the actual cost increases of materials. Recognizing the magnitude of these cost increases, the rate of which currently might be more than 10 percent annually, library personnel and faculty in the colleges should regularly review acquisition practices for their cost effectiveness and weigh alternative approaches to providing necessary materials for library users.

Access to Shared Resources — Traditional Means and New Opportunities

Often the users' needs for material and information require only *access* — fast and convenient access — not necessarily *ownership*. Though universities frequently boast about the *size* of their owned holdings, and about their national ranking in terms of that size, users may have little interest in whether the material is owned, shared or borrowed — so long as ready access is not affected. In the past, the only way to satisfy the want of the users was to own and store print material, often in multiple copies, and most of today's library personnel and patrons have been raised in a world in which satisfactory access *required* ownership. However, given the exploding volume of materials and information in print and other formats, it is clearer than ever that no institution can reasonably expect to achieve a goal of holding locally all of the resources needed by faculty and students. Sharing will be increasingly important, and libraries will be challenged to find an appropriate balance between owning and providing access to shared resources — and challenged to provide the services necessary for convenient sharing. The balance will be a shifting one for years to come. Fortunately, the changes coming about through electronic technologies allow access without ownership.

Generally speaking, the library should hold locally the core resources, particularly those available only in print format, that are central to its areas of teaching and research or other special interests. Frequency and type of use and the nature of the material should be factors in determining whether ownership is necessary or desirable.

Interlibrary loan service. While appropriate attention must be given to the increasing availability of electronic formats and the potential for the sharing of resources in those formats, the library of the early 21st century will probably continue to house and own paper materials, especially books, in much the same manner as they do today. Therefore, the traditional interlibrary loan (ILL) service will continue to be a major means of obtaining materials and information that are not owned and stored at Notre Dame. Given this situation, the library should make every effort to improve the ILL service and make it as good as possible.

At the present time, orders to other institutions for interlibrary loans are typically sent out from Notre Dame within a day of receipt of the user's request. Occasionally, heavy usage of the service at peak times causes delays of several days. As it stands, most orders can be processed only from the Hesburgh Library because branch libraries lack on-site access to the OCLC system. The turnaround time varies from hours to weeks; the average is 11 or 12 days. Long delays are usually caused by the processing time at the lending institutions.

An interlibrary loan supplementary service provides a limited, more expedient service, called CARL/UnCover,³ for ordering journal articles directly from a user's workstation. Limited presently in the number of journals, this service is an example of things to come. (The Chemistry/Physics library reports that only 15 percent of their requests can be met currently through this service.) In essence, the user from his or her workstation searches through a data base of titles and abstracts and places an order over the Internet for desired articles. Often a copy of the article is delivered that same day. The average turnaround time is 30.2 hours.

The average cost to Notre Dame for ILL services is less than \$9 per transaction. The cost of the CARL/UnCover service, which includes copyright permission charges, varies depending on the publisher. Some are as high as \$100 per article. None of these charges are passed on to the user. In 1993, for example, 461 articles were ordered through CARL/UnCover from 283 different journals at a total cost of \$5,180 — an average cost of about \$11 per article. On the whole this is a cost-effective alternative to ownership for obscure or infrequently used journals.

³ CARL is an acronym for Colorado Alliance of Research Libraries.

In order to make the interlibrary loan service satisfactory for most users in the Notre Dame environment, the library should establish a goal of delivering routine journal articles within two working days, books within seven to 10 working days, and special book orders within two days.

To achieve this goal, the service should be extended to the branch libraries and increases and improvements in equipment and increases in staffing will be necessary. Because the speed and quality of this service depends on cooperation from the lending libraries, a factor beyond Notre Dame's immediate control, the library should also consider such approaches as paying selected source libraries for expedited service or hiring personnel at selected libraries for direct handling of Notre Dame requests. The service should continue to be normally free of charge to the individual user, but some limitations may become necessary, and the no-charge policy should be reviewed periodically.

RECOMMENDATION 8

The interlibrary loan service should be made as effective as possible for obtaining materials and information not stored at Notre Dame. Specifically this requires expanding staff, expanding and improving equipment, and extending the service to branch libraries. The library's goal should be to achieve normal turn-around times for journal articles and similar materials (and special book orders) of two working days; for books of seven to 10 working days. For the time being, at least, the service should not be limited and costs should be borne by the library, but policies in this regard should be reviewed regularly.

Electronic materials. As technologies move forward and more material becomes available in electronic formats, opportunities increasingly will exist to provide access to more shared material and information with faster delivery than has been possible traditionally. Many scholarly communications have already moved in this direction.

It is difficult to make predictions and to formulate specific recommendations on what steps Notre Dame should take at this time with respect to new technologies. Neither the time frame nor the costs are predictable. It seems certain, however, that if universities are to benefit from these upcoming developments, they will have to work cooperatively. The forces to do so will be strong because cooperation in the sharing of resources in the long run is the most likely answer to problems of cost inflation, increases in the volume of materials and space requirements for material storage. Notre Dame, therefore, should be in a position to pursue cooperative arrangements aggressively with other institutions and to provide opportunities for personnel development and continuing education.

Important in this regard are the library's current memberships in the Association of Research Libraries (ARL), the Center for Research Libraries (CRL) and several others.

Missing from the current memberships, because of its relatively costly membership fee (\$25,000 per year or more), is the important Research Libraries Group (RLG) from which springs many important initiatives for strengthening and sharing library resources and services. Active participation in all such organizations requires an increase in the annual budget for travel and meeting attendance.

RECOMMENDATION 9

The library should participate in, and aggressively pursue, resource sharing arrangements with other institutions when appropriate opportunities arise. For this purpose, as well as for the continuing development and education of library personnel, formal membership in library organizations is important. The library should continue its memberships, and it should initiate membership in the Research Libraries Group (RLG). Active participation will require an increase in the budget for travel to attend meetings and for participation in programs.

Preservation

In addition to serving as a repository for materials, the library has a responsibility for the preservation of those materials for future generations of users. The useful life is threatened in various ways, the most pervasive of which is the embrittlement of paper caused by acid used in the paper-making process.

Embrittlement mainly affects print material produced between 1800 and 1960. As much as 68 percent of Notre Dame's current collection is at some stage of embrittlement. Of that 68 percent, about half can be saved from further deterioration by mass deacidification — a process requiring that materials be sent off campus for treatment. The average cost is \$8 per volume.

The other half cannot be saved and must be reformatted — that is, converted to microform by filming at an average cost of \$45 per volume. Digitization for computer disk storage is a possible advantageous means for reformatting for preservation in the future, if not now.

Preservation activities at Notre Dame, formally undertaken only in recent years, have involved both deacidification and filming. Sponsored through a grant program by the National Endowment for the Humanities, work here with the Medieval collection has achieved national recognition. Other grant proposals are pending, and a preservation facility will be opened in the Reyniers building during 1994-95. Still, given the magnitude of the problem, activities in this area are at a very inadequate level — not only in treating embrittled books, but also in basic book repair and binding. In addition, no attention has been paid to the preservation of non-print formats or to digitization as a reformatting option. A major catch-up effort and a comprehensive plan are needed.

To deal with this matter, the library needs to establish a regular program whereby important embrittled volumes from the current collection are selected and processed for preservation each year. At the same time, other methods of reformatting, particularly digitization — perhaps as a shared activity with other universities — should be explored continually as an option. Such an option is likely to become ever more feasible with time. The program will require an infusion of funds for personnel and for processing and equipment costs.

RECOMMENDATION 10

The library should significantly expand its preservation program, including the deacidification, reformatting, binding and repair of materials. Reformatting activities should include digitization of materials, perhaps cooperatively with other institutions, when advantageous.

EQUIPMENT

A relatively high proportion and a growing number of library user complaints, particularly from students, center on inadequate, obsolete and non-functioning equipment including audio-video, microform and the public terminal network for in-house access to UNLOC. The use of such equipment is extensive by both students and faculty. Frequently all pieces are in use. For example, the audio-video facility in the Renner Center is used heavily by students in dozens of courses each semester. Microfilm readers are used extensively by both students and faculty to access the more than 1.6 million separate pieces of microform available in the Hesburgh Library.

The inventory of library equipment also includes computers and terminals used by library personnel to provide the library's services and to carry out regular work functions. Those who are members of the library faculty are included in the faculty workstation program, which is funded and administered through the Office of University Computing. For other uses, purchases, maintenance, upgrades and replacements rely on the availability of maintenance and capital funds in the library's budget.

Much of this pool of equipment needs to be upgraded or replaced and expanded, and the costs far exceed the funds presently available to the library. Further, since the useful life of the equipment is short, generally in the range of five to seven years, and maintenance contracts must be purchased, these are recurring needs that require a budget adjustment.

RECOMMENDATION 11

The library should be provided with a revolving fund for the support of its entire inventory of equipment. The annual budget for the fund should be sufficient to cover the average annual costs of maintenance, upgrades and replacements. In addition, the fund should be initiated with a one-time allocation

for the purpose of upgrading the present equipment and facilities.

LIBRARY SPACE

The library system is in immediate need of additional space both in the branches and in the Hesburgh Library. The need is particularly acute in the Life Sciences library where space is exhausted now for further storage of materials. The crisis will be widespread within two years.

Since additional space is scarce generally in buildings where the branches are located, the remedy in the short run at least is likely to be an increasingly deliberate selection and reduction of material to be stored in the branches, even though further reduction will be disadvantageous for some users. That leaves the Hesburgh Library, where space for materials, library personnel, and study areas is an imminent problem also, as the repository for the overflow.

In the very long run, the relentless storage requirements may be appreciably mitigated when non-print formats become more common, probably decades from now. For the foreseeable future, however, the library will continue to be a place where print materials are stored — a place where most users go for library services.

In addition, the library traditionally has played other roles in the life of the university as a place for studying and reading, a place for gathering for discussion and interaction. In effect, it serves at the "intellectual commons" for students, both undergraduate and graduate. One of the principal concerns of students is that the library continue to provide adequate space for work and study.

For the past two years, an eight-member task force has been engaged in examining in detail the present situation and the future needs of the Notre Dame Library. Assuming a steady state of collection growth and no major increases in staff, that task force estimates that a 25 percent increase in square footage is necessary to meet all space needs over the next 20 years. The report will point out that this amount of space is available in the Hesburgh Library if all non-library units and activities are relocated elsewhere on campus and compact shelving is installed in the basement area. Such units and activities, which now occupy 50,000 square feet of assignable area, include arts and letters faculty offices, Career and Placement Services and the Laboratory for Social Research.

It should be emphasized that utilizing all available space in the Hesburgh Library is only a short-term solution to the library space problem. In light of the committee's recommended increases in the rate of materials acquisitions and personnel, along with the fact that more mate-

rial must be moved from the branches, the task force's estimate of sufficient space for 20 years may be optimistic. Inasmuch as space needs are not likely to be relieved appreciably by the availability of non-print media by that time, the University should begin now to formulate long-term plans for dealing with library space needs. In that planning process, consideration should be given to consolidating some of the existing branch libraries for economies of both space and costs.

RECOMMENDATION 12

Planning should begin immediately to move the non-library units and classrooms from the Hesburgh Library to new or re-used space elsewhere on the campus. The movement should begin as soon as possible and be completed within about six years, at which time a major renovation and restructuring of the space in the Hesburgh Library should be undertaken. At the same time, the University should begin long-range planning for future library space.

OTHER MATTERS

Committee discussions extended to other important library matters that do not appropriately fall in any single other section of this report. One such item is the library's involvement in academic planning.

All too frequently at Notre Dame, new programs or program changes are approved without due consideration given to the adequacy of library support and other support services. A case in point is the recent establishment of the Department of Computer Science and Engineering. A similar situation is hiring faculty in areas for which there is an inadequate collection of books, journals or data bases. In such cases, library responses are after the fact and often without sufficient funding. It is important that the library be informed and involved in early stages of planning. Further, start-up funds for library resources should be provided for new faculty when necessary, just as they are now provided for laboratory equipment and the like.

RECOMMENDATION 13

In order that required library resources and support may be provided in a timely manner for new or altered academic programs, the library must be informed and involved in early planning stages. The library should explore the means of accomplishing this with the individual colleges. Among the means are closer interactions with college councils and with appropriate college and department committees. As a routine procedure, the Graduate Council and Academic Council should require that library impact statements be included in any proposals for new or altered programs. Also routinely, start-up support for new faculty should include funds for library materials when necessary. In addition, membership of the director of University Libraries on the Provost's Advisory Committee should be considered.

DOCUMENTATION

Throughout this report and throughout committee discussions a need for library leadership in bringing about change and a need for more extensive involvement of library personnel with users and academic programs have been emphasized. In addition many developments require the participation of other units including the Office of University Computing (OUC) and Educational Media. For example, library acquisitions of electronic media may require that the OUC upgrade servers, workstations, disk storage and software.

It would seem that the University Committee on Libraries, described in Academic Article IV.3(f), is an appropriate group to coordinate and foster the necessary communications, interactions and changes — and to work with the Office of the Provost to oversee the follow-through on the recommendations in this report. Therefore, that committee has an important function — a function that may need to be more clearly mandated in the Academic Articles. As a first step, the committee should be restructured to ensure the necessary representation and liaison with the colleges and other entities.

RECOMMENDATION 14

The University Committee on Libraries should be restructured to include undergraduate and graduate students, the director of the Law Library, and representatives of allied entities such as University Computing and Educational Media. The restructured committee should be an essential interface between the library and other academic units and between library personnel and library users for promoting and coordinating initiatives and communication. Specifically it should assist the library in refining the recommendations in this report and overseeing their implementation. The committee should report annually to the Academic Council.

Several other matters were brought up during discussions and, while we did not feel they were appropriate for formal committee recommendations or that they required the committee's evaluation, we include them below for whatever action is deemed necessary by the library or the University Committee on Libraries.

- In a few years the library will confront a major equipment and software need when NOTIS Systems, Inc. converts its software from an outdated mainframe base to a state-of-the-art client/server environment. (NOTIS software is used to support UNLOC which runs on the University's IBM mainframe.) This means that network servers will be needed and that the terminals now used for mainframe access will have to be replaced by workstations. This will be a substantial cost, and since it will be incurred during the five years encompassed by the recommendations of this report, the estimated cost is included in Table 4.

- The present book security system in the Hesburgh Library is inefficient and obtrusive to users. The library should consider an improved replacement in the near future that would be installed also in the branch libraries. The approximate cost of this item is also included in Table 4.

- For book purchases the library subscribes to two major approval plans whereby new books matching a designated profile in broad subject areas and costing less than \$100 are shipped without being ordered. For items exceeding \$100 or on the periphery of the profile, special orders are required. Consideration should be given to establishing both upper and lower limits by discipline. A single ceiling across the disciplines is not the optimal strategy and the absence of a lower limit leads to wasteful purchases of unused inexpensive items.

- Library users, students particularly, complain frequently that materials are not on the shelves when needed. Usually they are on loan to faculty under an unusually generous policy that allows year-long checkouts. Recalls can be made, but they entail time delays and difficulties even when the borrower honors them promptly. On the other hand, shorter checkouts mean an increase in library staff time for handling and processing. The costs and benefits of alternative checkout policies should be studied.

- Users of some of the branch libraries speak strongly for more open access to the facilities. Presently, limited staff budgets result in limited hours, especially during vacations and break periods. In some cases, faculty are given keys that are shared with graduate students, but library policies in this regard do not apply uniformly to all branches. Since some faculty and graduate students find the limited access to be a hindrance to their teaching and research, means should be sought to satisfy their needs.

- A suggestion was made that the desirability and feasibility of establishing a centralized campus delivery service for library materials be studied.

ESTIMATED COSTS AND GAINS

Table 4 shows our estimations of the costs associated with the recommendations in this report. It bears repeating and emphasizing that the entries in the list are not refined estimates, but we feel that they are realistic and reasonable. A great deal of flexibility must be granted with specific items during the actual implementation, but the totals provide an initial basis for budget planning and fund raising.

The estimates amount to an increase of \$3.9 million for the recurring (annual) expenditures, a 53 percent increase over the 1993-94 figure, and \$29.2 million for non-recurring (one-time) ones.

DOCUMENTATION

The committee suggests that a five-year strategy be designed whereby the budget for annual (recurring) expenditures would be increased by about \$800,000 each year as personnel are added and annual acquisitions and services increased gradually. Additional amounts, over and above that \$800,000, should be added in each year of the five years so as to meet the total one-time (non-recurring) need over that period.

The essence of Recommendation 7 merits reiteration. The costs of library materials have been increasing annually by an amount well in excess of normal inflation, and they will probably continue to do so in the near future, at least. The figures in Table 4 are in 1994 dollars and therefore do not reflect these increases.

In addition, an assessment must be made of the impact of these actions on other units. For example, acquiring data bases requires equipment additions and upgrades for the OUC — not to mention possible staff additions there as well. Such costs are not included in the table.

Regardless of the meaning of library rankings, it is inevitable that questions will be asked about the effect of our recommended actions on them. Therefore, we estimated, where possible, the impact on Notre Dame's position in the ARL list of 108 research universities. Our total annual expenditures for acquisitions would move from the 69th to the 35th position; the total of all annual expenditures from the 82nd to the 42nd position. We also examined the overall impact on ARL rankings by calculating ARL's formula index using data that would result from our recommendations. If the recommended changes had been in effect in 1992-93, the index for Notre Dame would have been increased from -1.28 to -0.768, and our rank would have changed from 66 to 40 — that is, to about the mean ranking of AAU institutions. Among private institutions, Southern California would have been immediately above us, and Washington University in St. Louis would have been immediately below. Of the Library Peers, Princeton, Duke, Northwestern and Johns Hopkins would have been above Notre Dame.

While these gains in rankings are appreciable, they reflect only part of the picture — specifically, the immediate effects of the recommendations. They fail to recognize the long-range benefits that will accrue from being in a strong position, owing particularly to additional human resources and an enlarged acquisitions budget, for future developments and growth.

The committee feels unanimously and strongly that these library costs, as significant as they are, must be met if Notre Dame is to take the right steps, the necessary steps, to ensuring a library that befits the institution's academic aspirations. The recommendations are all driven by our assessment of the needs to achieve that goal.

Table 4 — Current and Recommended Budgets

| | recommended 1993-94 budget | 5-year refer- increase ence | recom- mended new budget for 1999-2000 |
|---|----------------------------------|--------------------------------|---|
| Recurring (annual) expenditures | | | |
| Library personnel (benefits not included) | | | |
| Faculty salaries | 1,469,500 | 630,000 rec 1 | 2,099,500 |
| Staff salaries | 2,221,500 | 820,000 rec 1 | 3,041,500 |
| Faculty salary adjust. | | 150,000 rec 2 | 150,000 |
| Personnel development | 28,000 | 50,000 rec 2 | 78,000 |
| Materials and Information Resources | | | |
| Book acquisitions | 1,103,700 | 500,000 rec 4 | 1,603,700 |
| Serials (journals) | 1,923,000 | 500,000 rec 6 | 500,000 |
| Electronic products | 0 | 500,000 rec 8 | 85,000 |
| Preservation | 105,800 | 375,000 rec 10 | 480,800 |
| Operations, memberships, capital, maintenance, misc. | 496,300 | 175,000 rec 9 et al. | 671,300 |
| Revolving equipment maintenance, upgrades & replacements | 0 | 150,000 rec 11 | 150,000 |
| Total recurring | 7,382,800 | 3,900,000 | 11,282,800 |
| Non-recurring (one-time) Expenditures | | | |
| Retrospective purchases | 12,500,000 | rec 3 | |
| Processing of retrospective purchases | 5,000,000 | rec 3 | |
| New equipment | 300,000 | rec 11 | |
| Building renovation | 10,000,000 | rec 12 | |
| NOTIS replacement | 1,000,000 | page 28 | |
| Book security system | 400,000 | page 28 | |
| Total non-recurring | 29,200,000 | | |

Notes: Salary and wage increases anticipate 57 new positions — 15 for faculty, 42 for support staff. The figures for acquisitions of print materials include a total current expenditure from endowment funds of \$769,200. The lines for interlibrary loan services and preservation do not include personnel costs. Such costs are included under library personnel.

APPENDIX I — PEER GROUPS

Association of Research Libraries (ARL) Member Institutions, 1992

| Institution | type* | incl law? | incl med? |
|---------------|-------|--------------|--------------|
| Alabama | S | Y | Y |
| Alberta | C | Y | Y |
| Arizona | S | Y | Y |
| Arizona State | S | Y | N |
| Auburn | S | N | N |

DOCUMENTATION

| | | | |
|---------------------------|---|---|---|
| Boston Univ | P | Y | Y |
| Brigham Young | P | N | N |
| British Columbia | C | Y | Y |
| Brown | P | N | N |
| California, Berkeley | S | Y | N |
| California, Davis | S | Y | Y |
| California, Irvine | S | N | Y |
| California, Los Angeles | S | Y | Y |
| California, Riverside | S | N | N |
| California, San Diego | S | N | Y |
| California, Santa Barbara | S | N | N |
| Case Western Reserve | P | Y | Y |
| Chicago | P | Y | Y |
| Cincinnati | S | Y | Y |
| Colorado | S | Y | N |
| Colorado State | S | N | N |
| Columbia | P | Y | Y |
| Connecticut | S | Y | Y |
| Cornell | P | Y | N |
| Dartmouth | P | N | Y |
| Delaware | S | N | N |
| Duke | P | Y | Y |
| Emory | P | Y | Y |
| Florida | S | Y | Y |
| Florida State | S | Y | N |
| Georgetown | P | Y | Y |
| Georgia | S | Y | N |
| Georgia Tech | S | N | N |
| Guelph | C | N | N |
| Harvard | P | Y | Y |
| Hawaii | S | N | N |
| Houston | S | Y | N |
| Howard | P | Y | Y |
| Illinois, Chicago | S | N | Y |
| Illinois, Urbana | S | Y | N |
| Indiana | S | Y | N |
| Iowa | S | Y | Y |
| Iowa State | S | N | N |
| Johns Hopkins | P | N | Y |
| Kansas | S | N | N |
| Kent State | S | N | N |
| Kentucky | S | Y | Y |
| Laval | C | N | N |
| Louisiana State | S | Y | N |
| McGill | C | Y | Y |
| McMaster | C | N | Y |
| Manitoba | C | Y | Y |
| Maryland | S | N | N |
| Massachusetts | S | N | N |
| Mass. Inst. of Tech. | P | N | N |
| Miami | P | Y | Y |
| Michigan | S | Y | Y |
| Michigan State | S | N | N |
| Minnesota | S | Y | Y |
| Missouri | S | Y | Y |
| Nebraska | S | Y | N |
| New Mexico | S | Y | Y |
| New York | P | Y | Y |
| North Carolina | S | Y | Y |
| North Carolina State | S | N | N |
| Northwestern | P | Y | Y |
| Notre Dame | P | Y | N |
| Ohio State | S | Y | Y |
| Oklahoma | S | Y | Y |
| Oklahoma State | S | N | Y |
| Oregon | S | Y | N |
| Pennsylvania | P | Y | Y |
| Pennsylvania State | S | N | N |
| Pittsburgh | S | Y | Y |
| Princeton | P | N | N |
| Purdue | S | N | N |
| Queens | C | Y | Y |
| Rice | P | N | N |
| Rochester | P | N | Y |
| Rutgers | S | Y | N |
| Saskatchewan | C | Y | Y |
| South Carolina | S | Y | Y |
| Southern California | P | Y | Y |
| Southern Illinois | S | Y | N |
| Stanford | P | Y | Y |
| SUNY-Albany | S | N | N |
| SUNY-Buffalo | S | Y | Y |
| SUNY-Stony Brook | S | N | Y |
| Syracuse | P | Y | N |
| Temple | S | Y | Y |
| Tennessee | S | Y | N |
| Texas | S | Y | N |
| Texas A&M | S | N | Y |
| Toronto | C | Y | Y |
| Tulane | P | Y | Y |
| Utah | S | N | N |
| Vanderbilt | P | Y | Y |
| Virginia | S | Y | Y |
| VPI & State Univ | S | N | N |
| Washington | S | Y | Y |
| Washington State | S | N | N |
| Washington-St. Louis | P | Y | Y |
| Waterloo | C | N | N |
| Wayne State | S | Y | Y |
| Western Ontario | C | Y | Y |
| Wisconsin | S | Y | Y |
| Yale | P | Y | Y |
| York | C | Y | N |

* C, Canadian
P, Private
S, State-supported

Library Peers

Brown, Dartmouth, Duke, Emory, Georgetown, Johns Hopkins, Northwestern, Princeton, Rice, Rochester, Syracuse, Tulane, Vanderbilt, Washington-St.L.

DOCUMENTATION

AAU Privates

Brown, Case Western Reserve, Chicago, Columbia, Cornell, Duke, Johns Hopkins, Massachusetts Institute of Technology, New York, Northwestern, Pennsylvania, Princeton, Rice, Rochester, Southern California, Stanford, Syracuse, Tulane, Vanderbilt, Washington-St. Louis, Yale

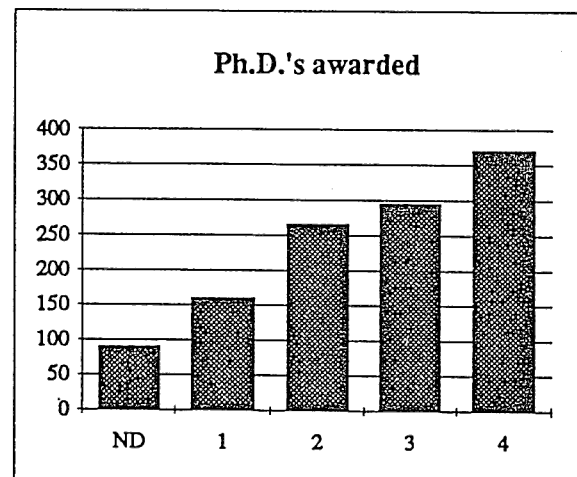
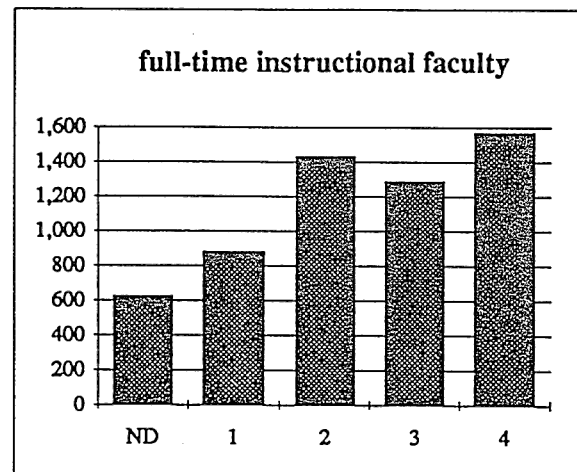
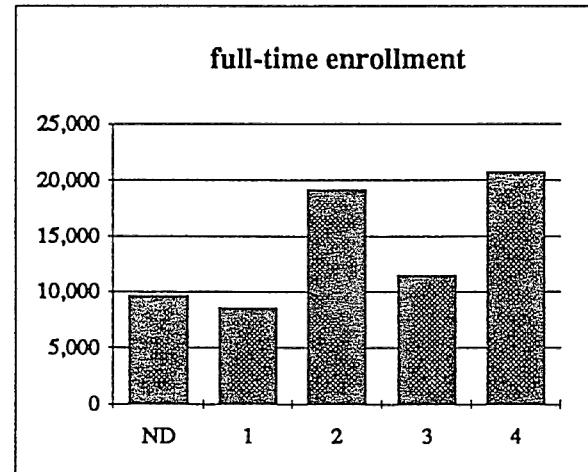
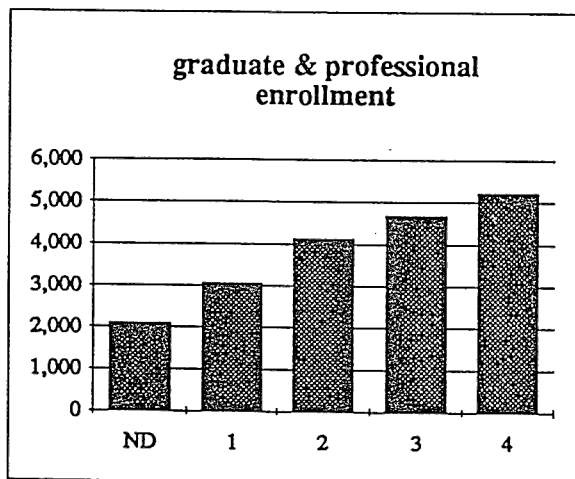
AAU Members

Arizona, Brown, California, Berkeley, California, Los Angeles, California, San Diego, Case Western Reserve, Chicago, Colorado, Columbia, Cornell, Duke, Florida, Illinois, Urbana, Indiana, Iowa, Iowa State, Johns Hopkins, Kansas, Maryland, Massachusetts Institute of Technology, Michigan, Michigan State, Minnesota, Missouri, Nebraska, New York, North Carolina, Northwestern, Ohio State, Oregon, Pennsylvania, Pennsylvania State, Pittsburgh, Princeton, Purdue, Rice, Rochester, Rutgers, Southern California, Stanford, SUNY-Buffalo, Syracuse, Texas, Tulane, Vanderbilt, Virginia, Washington, Washington-St. Louis, Wisconsin, Yale

APPENDIX II

Institutional Size Characteristics of Peer Groups, 1991-92

| | |
|----|-----------------------|
| ND | Notre Dame (incl Law) |
| 1 | Library Peers |
| 2 | ARL |
| 3 | AAU privates |
| 4 | AAU |



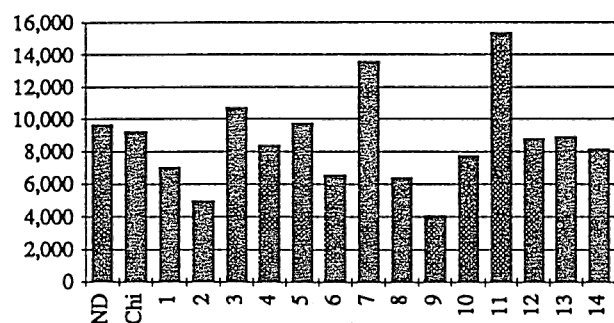
DOCUMENTATION

APPENDIX III

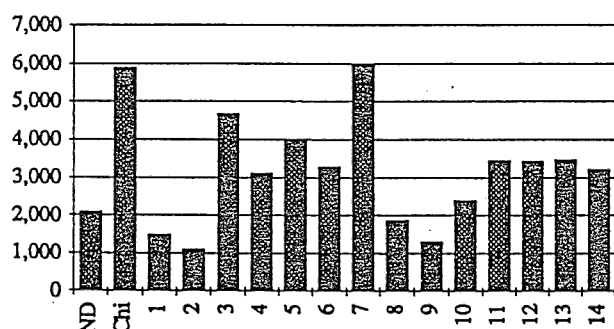
Institutional Size Characteristics
Library Peers and University of Chicago
1991-92

| | | | |
|-----|-----------------|----|--------------|
| ND | N.D. (incl Law) | 7 | Northwestern |
| Chi | Chicago | 8 | Princeton |
| 1 | Brown | 9 | Rice |
| 2 | Dartmouth | 10 | Rochester |
| 3 | Duke | 11 | Syracuse |
| 4 | Emory | 12 | Tulane |
| 5 | Georgetown | 13 | Vanderbilt |
| 6 | Johns Hopkins | 14 | Wash.-St.L. |

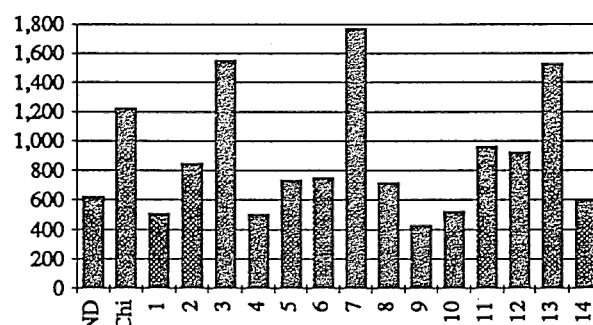
full-time enrollment



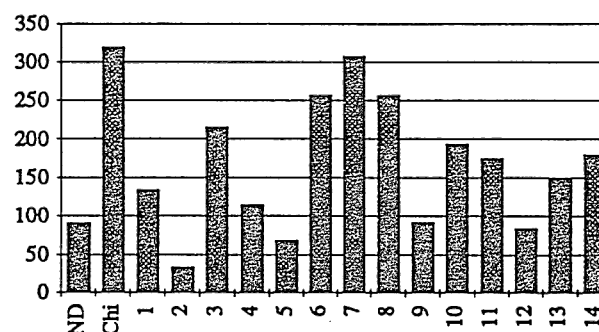
graduate & professional enrollment



full-time instructional faculty



Ph.D.'s awarded



APPENDIX IV

Comparisons of Holdings by Discipline

| | Notre Dame | Chicago | Library of Congress |
|-------------------------------|------------|---------|---------------------|
| Philosophy, Periodicals, etc. | 1,740 | 2,086 | 4,203 |
| Ancient-Renaissance | 6,172 | 9,928 | 16,000 |
| History & Systems | 10,789 | 17,261 | 31,776 |
| Logic | 1,350 | 1,940 | 3,342 |
| Speculative | 2,776 | 4,254 | 10,333 |
| Ethics | 2,401 | 4,350 | |
| Esthetics | 488 | 1,275 | 3,105 |
| Psychology | 7,729 | 12,921 | 37,219 |
| Christianity | 10,774 | 15,569 | 31,209 |
| Bible | 11,822 | 14,344 | 43,144 |
| Doctrinal Theology | 9,676 | 9,329 | 30,819 |
| Catholic Church | 28,706 | 17,132 | 57,928 |
| Protestantism | 6,796 | 15,516 | 45,926 |

DOCUMENTATION

| | | | |
|-----------------------------------|-------|--------|---------|
| History of Civilization & Culture | 1,894 | 2,797 | 7,793 |
| Archaeology | 364 | 987 | 1,982 |
| Diplomatics, Archives | 554 | 2,347 | 8,138 |
| European History, General | 545 | 1,364 | 5,213 |
| Great Britain | 9,058 | 19,049 | 51,138 |
| France | 5,929 | 14,268 | 38,018 |
| Germany | 4,979 | 12,656 | 42,605 |
| Greco-Roman | 290 | 927 | 2,125 |
| Greece | 1,368 | 5,148 | 8,723 |
| Italy | 3,502 | 13,163 | 27,933 |
| U.S. Colonial History | 7,131 | 11,769 | 32,498 |
| U.S. Revolution | 814 | 2,324 | 7,451 |
| U.S. 1790-1855 | 1,539 | 3,539 | 10,848 |
| U. S. Civil War | 2,167 | 6,661 | 17,878 |
| U.S. Since Civil War | 3,827 | 5,926 | 13,385 |
| Commerce | 4,061 | 13,179 | 40,976 |
| Business | 8,463 | 13,179 | 62,178 |
| Finance | 8,667 | 23,078 | 72,774 |
| Sociology, General | 4,508 | 9,296 | 19,270 |
| Music: Collected Works | 2,264 | 1,549 | 20,702 |
| Instrumental Music | 3,111 | 22,038 | 111,106 |
| Vocal Music | 1,770 | 11,378 | 95,248 |
| Literature of Music | 7,604 | 25,845 | 94,043 |
| Visual Arts | 7,409 | 17,562 | 62,239 |
| Architecture | 8,516 | 12,404 | 43,504 |
| Sculpture | 1,456 | 4,439 | 12,734 |
| Graphic Arts | 1,545 | 2,685 | 20,358 |
| Painting | 5,683 | 17,499 | 53,884 |
| Classical Philology | 1,672 | 6,555 | 7,549 |
| Classical Literature | 115 | 447 | 487 |
| Greek Literature | 2,732 | 12,464 | 9,021 |
| Latin Literature | 2,664 | 10,849 | 8,337 |
| Medieval Latin | 654 | 2,112 | 1,989 |
| French Philology | 918 | 4,156 | 9,273 |
| Spanish | 577 | 1,950 | 6,200 |
| Literary Theory | 1,039 | 2,384 | 4,213 |
| Literary History | 1,548 | 4,492 | 6,987 |
| Medieval French | 909 | 2,466 | 2,612 |
| 16th Century | 459 | 1,347 | 1,698 |
| 17th Century | 696 | 2,513 | 3,890 |
| 18th Century | 642 | 2,893 | 4,192 |
| 19th Century | 2,368 | 9,988 | 15,157 |
| 20th Century | 3,524 | 8,872 | 35,966 |
| Italian Literature to 1400 | 4,440 | 2,784 | 3,531 |
| Italian Literature 1400-1700 | 379 | 2,840 | 1,833 |

| | | | |
|---------------------------------|-------|--------|--------|
| Italian Literature 1901- | 1,066 | 4,986 | 16,225 |
| 19th Century English Literature | 8,942 | 19,439 | 27,243 |
| Medieval German Literature | 326 | 1,990 | 1,477 |
| Mathematics, General | 6,873 | 7,922 | 32,688 |
| Physics, General | 2,827 | 3,251 | 13,070 |
| Chemistry, General | 2,190 | 1,841 | 10,334 |
| Analytical Chemistry | 962 | 1,063 | 5,066 |
| Inorganic Chemistry | 562 | 718 | 4,004 |
| Organic Chemistry | 2,116 | 2,307 | 13,449 |
| Practical & Theoretical | 3,371 | 3,214 | 10,449 |
| Crystallography | 548 | 675 | 1,842 |
| Geology | 5,654 | 14,718 | 54,050 |
| Biology, General | 4,677 | 9,570 | 19,401 |
| Botany | 3,064 | 3,503 | 14,473 |
| Microbiology | 1,672 | 3,221 | 7,796 |

| | | | |
|------------------------|------------|---------------|-------|
| | Notre Dame | Johns Hopkins | Penn. |
| Technology | 2,575 | 1,638 | 2,091 |
| Civil Engineering | 8,821 | 5,578 | 4,429 |
| Hydraulic Engineering | 1,317 | 803 | 857 |
| Environmental Eng. | 2,190 | 2,543 | 3,949 |
| Building Construction | 1,628 | 604 | 1,365 |
| Mechanical Engineering | 2,886 | 3,381 | 2,175 |
| Electrical Engineering | 6,823 | 3,789 | 5,378 |
| Aerospace Engineering | 3,730 | 1,962 | 1,757 |
| Chemical Technology | 3,508 | 2,620 | 2,619 |
| Manufacturing | 2,383 | 1,313 | 1,516 |

PART II. THE KRESGE LAW LIBRARY

BACKGROUND

The earliest university law schools were largely formed by universities absorbing institutions or programs operated by lawyers who were training students to practice law. With few exceptions, the faculty were proprietors of the school who assumed the risk of ownership and pocketed any profits. These origins resulted in a tradition which long allowed law school faculties substantial independence within the university. While eventually most universities moved to make their law schools regular institutional units, a tradition of independence continues to permeate law school administrations.

It is also noteworthy that legal education is considered a handmaiden of the professional bar. The American Bar Association and local bar associations have, for over 100 years, promoted attendance at law schools as a superior

method of legal education. A trend, beginning in the late 1920s, ultimately required that as a matter of law a candidate for admission to a state bar must be a graduate of an American Bar Association approved school. By 1930, in order to gain approval, a law school had to meet the promulgated *Standards* of the American Bar Association Section on Legal Education and Admission to the Bar. Among those standards are certain minimal library requirements, as well as a general demand for a law library sufficient to support the mission of the school.

As a consequence of these traditional and regulatory forces, law libraries are universally organized as integral components of the law schools they serve. They are administered separately from the library of the parent institution.

The leadership of the law library is usually delegated to a library director, an individual approved by the faculty of the law school and supervised by its dean. The qualifications for these directors, and indeed for many of the librarian positions within the school, require not only a library degree but a law degree as well.

The primary mission of the law library is to collect, organize and make ready for use the primary materials of the law from those jurisdictions of interest to the faculty and students of that school. While most schools do not aspire to the goals of the Harvard Law Library — to collect the primary legal material from every jurisdiction in the world — most schools, particularly those that serve a national constituency, attempt to collect the primary materials of every American legal jurisdiction. These primary materials consist of constitutions, statutes, administrative regulations and decisions of the appellate courts. As the country has grown and society has become more complex, the extent of this material has grown exponentially and continues to grow today. As it is the nature of the legal process that ancient law can be every bit as important as law promulgated this afternoon, it is necessary for law libraries to maintain collections with both historical integrity and current accuracy. The mass and variety of these primary materials also resulted in the development of an extensive panoply of bibliographic tools: indexes, digests, citators — all of which have to be purchased on a continuing basis to provide access to the principal materials.

In addition to these primary materials, law libraries collect, depending on their resources, strong holdings of the secondary literature which analyze, describe or comment upon the primary material. In both monographic and serial form, these materials represent the output of both the professional and the academic community. In the late 1960s an expansive growth of legal scholarship led to the development of collections in fields allied to the study of law — labor, corporations, environment, finance, economics, sociology, etc. While it is clear that law libraries

cannot develop extensive collections in all of these fields, it is necessary to support the scholarly interests of faculty and students by acquiring the most used of these materials.

THE CURRENT COLLECTION

In 1968 when the American Bar Association and the American Association of Law Schools visiting team inspected Notre Dame, they described the library as "disgraceful." In 1978, another team found that the quality of the collection was even worse than it had been before. The 1988 inspection, while noting considerable progress, found the library collection "the single biggest weakness" of the law school.

Chart 1 compares Notre Dame's title count with the average of all 175 ABA approved law schools as well as the average of our peer group [leadership law schools with less than 600 students: Yale, Stanford, Chicago, Northwestern, Cornell, Vanderbilt, Duke].

The comparison points out gross library weakness. The collection, despite major efforts in recent years, is just now reaching parity with the mean of all approved law schools. The collection size is woefully below the mean of peer group schools.

As noted in Chart 2, the library has expanded its rate of acquisitions over time. Notwithstanding these efforts, however, the growth rate has not been sufficient to overcome decades of poverty. At the present time the library still needs to acquire nearly 1200 titles a year to reach parity with its peers.

Chart 3 shows the growth in the number of serial titles to which the library subscribes. The chart indicates that while the number of titles received is larger than the national average, it remains substantially behind the number collected by peer schools.

Chart 1 — Titles Held

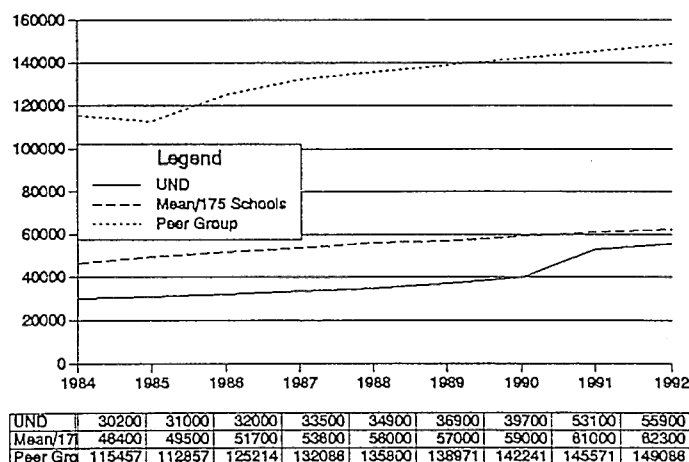
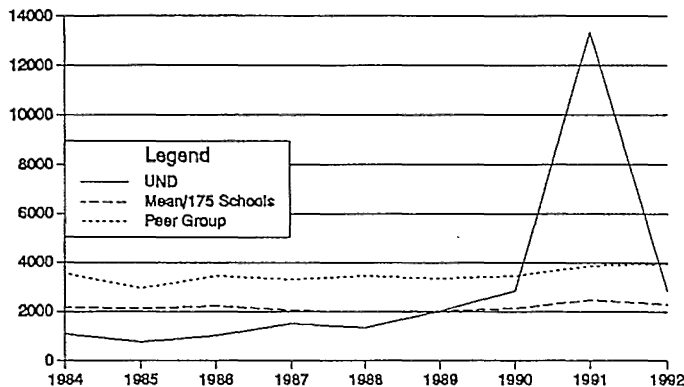
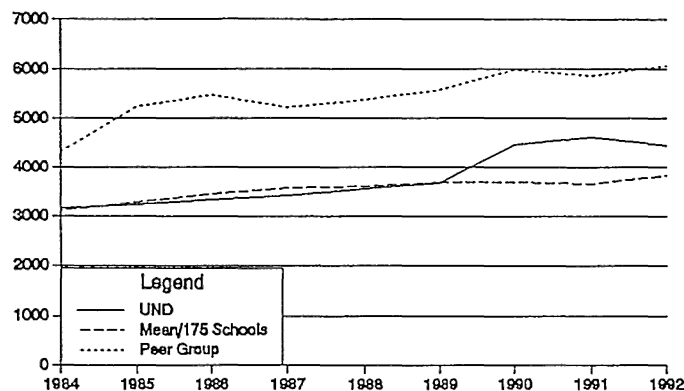


Chart 2 — Titles Added



| | | | | | | | | | |
|----------|------|------|------|------|------|------|------|-------|------|
| UND | 1105 | 773 | 1045 | 1504 | 1352 | 2016 | 2819 | 13371 | 2818 |
| Mean/175 | 2168 | 2113 | 2240 | 2042 | 1980 | 2032 | 2108 | 2470 | 2291 |
| Peer Grd | 3557 | 2943 | 3443 | 3300 | 3457 | 3329 | 3443 | 3843 | 3971 |

Chart 3 — Active Serial Titles



| | | | | | | | | | |
|----------|------|------|------|------|------|------|------|------|------|
| UND | 3167 | 3237 | 3329 | 3417 | 3557 | 3678 | 4457 | 4617 | 4448 |
| Mean/175 | 3112 | 3293 | 3454 | 3567 | 3611 | 3688 | 3695 | 3664 | 3828 |
| Peer Grd | 4314 | 5243 | 5488 | 5229 | 5371 | 5588 | 5988 | 5871 | 8071 |

Consequently, while the Notre Dame collection offers the basic American primary and secondary legal literature sufficient to support teaching the core subjects of the law, the quality of work is being constrained by lack of library resources. Student work of the highest caliber cannot be supported by our collection. Scholars venturing into any new field will all too frequently find their investigations hampered. Both faculty and students complain about having to work around the library and choosing topics that will not require access to a wide range of resources. While much progress has been made in the past few years, it is clear that support of leadership research is still impeded by the scarcity of materials. The four recommendations that follow are aimed at overcoming that enormous scarcity.

RECOMMENDATION 1

Acquire an additional 1200 monograph titles per year to reach parity with peer group mean. [Additional annual cost \$60,000]

RECOMMENDATION 2

Add 1630 additional serial titles to those currently received to reach parity with peer group mean. [Additional annual cost \$183,000]

RECOMMENDATION 3

Add one librarian position and three support staff to respond to the increased processing requirements of recommendation 1 and 2. [Additional annual cost \$122,000]

RECOMMENDATION 4

Double number of titles in collection over five years to increase holdings to a level of parity with mean of lower half of peer schools. [Estimated five year cost \$4.2 million or \$840,000/year]

IMPACT OF TECHNOLOGIES ON THE COLLECTION

Over the past seven years, the acquisition of microforms as alternatives to hard copy books has been a method of filling gaps to meet research needs. Either because the desired materials were only available in this format, or this was the only format available at a reasonable cost, long runs of state statutes, judicial reports, government documents and special archival collections have been purchased. Thirty-five percent of the volumes in the Kresge collection are in microformats. These volumes, however, represent only 16 percent of the total title count. By and large the subject matter of microformat collections are large, space-consuming, historically important serial back files. It is anticipated that microformats will retain their value as research acquisitions well into the future. Additional expenditures for microform collection development are subsumed in the estimates contained in recommendations 1-4.

Law libraries have been major users of computer-assisted legal research [CALR] technologies for about a decade. Among the nation's largest computer databases are WESTLAW and LEXIS/NEXIS owned by two private purveyors of legal and legal related information. In an attempt to inculcate the use of computer research by law students who, as graduates, will purchase their services at commercial rates, these two companies have made their systems available to law schools at greatly reduced educational pricing. For approximately \$25,000 per year for each system, every student and faculty member is provided unlimited access to these major sources. As the data on these systems has grown to include the full text of the great mass of American primary legal literature, they are beginning to have an impact upon American law libraries.

The major impact, in addition to the \$50,000 annual cost, is the effort necessary to support the new technology. The coordination of hardware and software, the provision of space for the machines, and most importantly,

The involvement of library faculty as instructors and trainers has led to an entirely new dimension of library service. While computer assisted legal research provides the power to respond to some queries that are beyond the potential of books, as yet, with meager exception, the library has not been able to replace books with this technology. The reasons for limited substitutions of computers for books are:

1. Some students and many faculty are uncomfortable with computers.
2. The commercial rates for access to CALR are so high that many lawyers still do not find them cost effective. Consequently, our students must still be trained in traditional methodologies. [The commercial value of the 11,600 hours of law school CALR use last year is calculated at \$2.7 to \$3.5 million.]
3. The special educational discounts given to law schools prohibit the use of the databases by the law school's secondary and tertiary users. Faculty and students in other colleges as well as members of the profession must have books available for their use. [The law school draws on the local bar for a great deal of vitally important uncompensated educational activity. Making available a more extensive collection of legal materials than the courthouse library can provide is a small recompense.]
4. Although the size of CALR databases have grown to include most primary legal materials, only a fraction of the total titles contained in any law library are available electronically.

OTHER TECHNOLOGIES AND THEIR IMPACT ON COLLECTION

CD-ROM is one of the newer technologies with a potentially significant impact on libraries. While there may be as many as 100 CD-ROM products of interest to law libraries today, there are no more than a dozen that supplement or effectively replace their former book counterparts. The CD-ROMs that have appeared to date have prices similar to the books they replaced. Moreover, they bring the additional costs associated with hardware, space, maintenance and training.

Imaging technologies are still in the developmental stage and at this moment there is no significant product which competes with existing information dissemination methods. Future developments in imaging may within a decade begin having some impact on providing access to a greater range of legal information.

SERVICES

Computing in the library

As has been noted, the law library is actively involved with applying new technology. Two 10-station labs are devoted to instruction in computer assisted legal research. Computerized technical services have been major areas of development. A 20-station law school computer cluster located in the library has also been a library responsibility, as is general oversight of the faculty workstation program and other law school computer activities. Experience with these new technologies over the past five years has proven their current value or suggest their potential for the future. This experience has also proved the need to provide hardware, software, and personnel support in order that the library faculty may inculcate the utility of these technologies to faculty and students. Through several ad-hoc initiatives and some vendor support the library has cobbled together three labs; two for teaching and research and one for word processing. As progress toward the millennium unfolds these labs must be enlarged and continuing maintenance and upgrades provided. Additional instructional and support staff must be engaged to ensure that appropriate teaching and service is provided.

RECOMMENDATION 5

Enhance computer research technologies by acquiring sixty (60) PC workstations. [Estimated one time cost \$200,000]

RECOMMENDATION 6

Establish revolving fund for annual support of hardware and software maintenance, upgrades and replacements. [Estimated annual cost \$70,000]

RECOMMENDATION 7

Add one librarian and one support staff to provide instruction and service in new technologies. [Estimated annual cost \$73,000]

Bibliographic organization

It must be recalled that the primary historical service of the library was to gather and organize materials in a way which would make them readily accessible to the library's patrons. Insofar as the law library's collections were weak or its bibliographic organization primitive, it was difficult for the library to meet this primary mission. While the shortcomings in the library's collection remain, the bibliographic difficulties of a decade ago have largely been eliminated through a major retrospective cataloging and classification project and through the implementation of UNLOC as supported by automated cataloging techniques. All but a minor portion of the law library's collection can be identified electronically through UNLOC.

Moreover, with the early implementation of administrative, acquisitions and serial control systems designed for law library by Innovative Interfaces Inc., comprehensive automated management of the library's technical operations is well under way. The library still lacks an automated circulation system. Not overly excited about the application of the Hesburgh Library system to law school requirements, the Kresge Library has been reluctant to follow its lead in this area. It is now believed that the law school's best interests would be served by pursuing an Innovative Interfaces circulation system which could be integrated with the high class serial system now in place. This particular path, however, may require a reevaluation of our online public catalog to determine how an Innovative system would interface, if at all, with the desirable attributes of the union catalog now available through UNLOC.

RECOMMENDATION 8

Acquire modules missing from current automated library system. [One time cost \$100,000; annual cost \$10,000]

Research and reference services

A superior research and reference staff has provided essential mediation between patrons and students and their need to find particular materials in a collection with striking limitations. The research department, comprised of three law trained librarians, offers reference and extended research assistance. The department, augmented by other law library faculty, is also heavily involved in instructional activities. These activities include both informal library instruction and the responsibility for the required first year class in legal research. The library faculty have also offered advanced legal research courses and advanced short seminars. In cooperation with teaching and research, faculty librarians offer bibliographic instruction in particular subject areas. They also are primarily responsible for instruction in the new technologies, particularly computer assisted legal research. In addition to carrying out their own professional and scholarly interests, these library faculty have been intimately involved with the greater educational life of the law school. Serving on various law school committees, taking on law school administrative assignments and assisting students in various co-curricular programs, the law library faculty are an active force in the educational life of the law school.

The law library faculty, however, is stretched to the point of breaking. While the quantity of assignments and the quality of work has multiplied, the library faculty has not grown in seven years. If the library is going to respond to enhanced collection development; if it is going to support the research of a growing and more dynamic faculty; if it is going to respond to the increased instructional requirements that the new technologies are bringing; and if

it is going to be able to think and plan for the future, it must have additional strength. It is anticipated that in addition to the two librarians and four staff members cited in the recommendations above, one additional librarian and one staff member will be required to meet the expanded mission and activities of the law library over the next five years. The librarian would work generally in research services. The staff member would take on related support activities.

RECOMMENDATION 9

Add one librarian and one support staff member to provide additional strength to research services. [Estimated annual cost \$73,000]

SPACE

A recent analysis of Kresge Library requirements indicates that in less than five years at current growth rates library stacks will reach effective capacity. In five years all shelving will be exhausted. The enhanced acquisitions rate recommended above will place shelving of materials in a "crisis" situation. The analysis also points out that the library suffers current crowding of some of its activities and does not have the space to meet the projected requirements of students and staff, particularly in response to the developments of new technologies. Finally, it is noted that when compared to libraries in our peer group and to selected other schools of similar size the space available in the Kresge Law Library is substantially undersized.

While the need for additional space seems apparent, it is not clear how best to achieve the space that will be required. For many purposes the current law school is functional and desirable. Further additions to the current structure would be challenging but imaginative possibilities exist: an underground stack, a graduate legal research center replacing the post office and connected by bridge or tunnel to the existing building and the finishing of the law school attic are three suggestions that have been mentioned. It might also be possible to reduce space needs in the present structure by relocating some of the material to remote storage — either in space exclusive to the law library or in conjunction with Hesburgh Library developments.

RECOMMENDATION 10

Anticipate impending "crisis" in collection storage, particularly if development recommendations above are funded, as well as evolutionary longer term law library requirements. [Est. space required 39,900 s.f.]

A FUNDING NOTE

With total annual income from all sources presently standing at approximately \$1,627,000, the annual increase recommended will require a 33.5 percent increase

On the law library's annual budget. A note on the current budgetary state may be in order.

Over the past two decades, law libraries have regularly consumed between 15 and 20 percent of the typical law school's expenditures. The smaller percentage for schools with student bodies in excess of 700 students, the larger percentage for those below 700 students. The combined pressures for additional resources for student aid and the acquisition of new technology, may be driving library expenditures as a percentage of total law school expenditures into decline. The most recent available data indicates that Notre Dame's peer group had library budgets that averaged 13.4 percent of their law school budgets. The range was 11.6 percent to 14.6 percent. Notre Dame's law library expenditures were 19.6 percent of the law school's. However, compared to Notre Dame's total law school expenditures of \$8.3 million, the peer group average was \$14.5 million. Consequently, the law library, while spending 6.2 percent more of the Law School's total resources than the average of its peer group, was spending 17 percent less in actual dollars. While it seems inconceivable that the law library's annual expenditures could be increased to 26 percent of the Law School's total resources it is anticipated that as further recommendations of the Colloquy are implemented, the Law School resources will grow so that the law library portion will remain relatively constant. Moreover, since much of the enhanced law school resources will be used to support new faculty positions and enhanced research activities the need for concomitant library research support will grow.

Lastly, it should be stressed that all the dollar figures here are expressed in 1994 values. Like the University library, the law library has over the past decade faced the debilitating effects of increased cost of legal information and more of it. The most recent data published in the *Law Library Journal* indicates the following 10-year trends:

| Type of Material | Increased Costs | Increased Publishing |
|--------------------|-----------------|----------------------|
| monographs | 110% | 43% |
| periodicals | 102% | 40% |
| looseleaf services | 112% | 35% |
| court reporters | 195% | 6% |
| continuations | 103% | 92% |

These data stress the point that any attempt to maintain library collections at some constant percentage of publishing output must anticipate annual budgetary increases in the range of 10 percent per year — a figure analogous to the requirements of the University library.

RECOMMENDATION 11

Increase law library budget annually in keeping with the actual cost increases of materials. [Over the past decade this figure has averaged over 10 percent per year]

Total estimated cost of recommendations:

Annually: \$591,000

One time: \$4,470,000

Space: 39,900 s.f.

Report of the University Committee on Research, Scholarship and Infrastructure July 1994

Members: Nathan O. Hatch, chair; John Borkowski, psychology; George R. Duke, corporate relations; Fernand (Tex) Dutile, Law School; Rita Francis, chemistry and biochemistry; Thomas Frecka, accountancy; Maureen L. Gleason, University Libraries; Paul Helquist, chemistry and biochemistry; Paula M. Higgins, music; Anthony K. Hyder, research department; Gerald L. Jones, physics; Jeffrey Kantor, chemical engineering; Vicki J. Martin, biological sciences; Thomas J. Mason, business affairs; Wilson Miscamble, C.S.C., history; Anthony Dirk Moses, history; Larry Patterson, Radiation Laboratory; Frank Reilly, finance; Billie F. Spencer Jr., civil engineering and geological science; Jennifer Warlick, economics; Howard T. Hansen, recorder

I. Introduction

The University of Notre Dame has made great strides toward the goal of becoming one of the premier private universities in the country, renowned for research as well as teaching. Few universities have done more in the last 20 years to raise academic life to a new level — creating more than 100 endowed chairs since 1970, making faculty salaries competitive with the best private universities, and bringing teaching loads into line with peer institutions.

The mandate of the Committee on Research Scholarship and Infrastructure was to develop a comprehensive strategic plan for improving the infrastructure of research and scholarship at Notre Dame. Given the presence of a gifted faculty that is committed to research as well as teaching, we were charged to explore how Notre Dame can create a research environment that will optimize faculty efforts and release the research potential of students, graduate and undergraduate alike. In addition, as Notre Dame looks to increase its faculty over the next decade and to replace its retiring scholars, the committee considered how the University can remain competitive in its efforts to recruit and keep talented and committed faculty.

A. Assumptions

The following assumptions guided the work of the committee:

1. The committee addressed issues of research infrastructure rather than those of academic enhancement. Issues such as the need for new faculty or enhanced support for graduate education have been strongly and clearly addressed within the Colloquy process. This committee concentrated on other areas where, as a university, Notre Dame is less competitive and where it must improve if we are to raise our standing relative to other universities.

In the same vein, the committee did not focus on recommendations of the Colloquy regarding new graduate programs in business or arts and letters. Our goal was to address those ancillary research priorities of the University which, year after year, are too easily deferred. Failure to address these latent priorities over time — like deferring maintenance — can compromise the central aspirations of the University.

2. The committee focused on the largest and most crucial needs for research development. Emphasized in this report are those elements which are essential for Notre Dame to compete with other universities.

3. What we propose is concrete and realistic — a limited number of achievable goals. The committee avoided making an idealistic research environment our aim, an objective that the University budget cannot sustain.

4. The committee grounded its work in an extensive number of reports on research at Notre Dame completed over the last five years: the Task Force Report on the University's Equipment for Education and Research (1989), the Report of the Task Force on Research Systems (1991), the Dean's Reports for the Colloquy 2000 Report, and the numerous departmental and divisional reports prepared by the Academic Life Committee of the Colloquy.

5. The committee recognized that improvements in the ability of the University and Law Libraries to support research is essential to achieving the academic aspirations of the University. Aware of the detailed examination given that issue by the Ad Hoc Committee on University Libraries, we did not want to duplicate their work by recommending precise ways in which that might be accomplished. However, we fully endorse the prominence given the libraries in improving the infrastructure for research and scholarship at Notre Dame.

B. Enhancing Notre Dame's Research Infrastructure

In recent years Notre Dame has invested heavily in research support for faculty in many ways: new research facilities, increased matching funds for equipment, capitalizing new faculty, wide-ranging research support for arts and letters faculty through the Institute for Scholarship in the Liberal Arts, summer research support for

business and law faculty, and support of several research centers ranging from the Medieval Institute to the Center for Applied Mathematics, from the Center for Philosophy of Religion to the Center for Environmental Engineering and Pollution Control. In addition, the University has made a concerted effort to locate endowment support for the library and for graduate fellowships.

The University has often shown flexibility when it has encountered major problems or unusual opportunities. The University located a donor when a modern Nuclear Magnetic Resonance Spectrometer was required, and also when a major law library became available. Major donors have been linked to the Medieval Institute and the Program in History and Philosophy of Science. A new biology research laboratory has just been completed at Land O' Lakes, Wisconsin. On numerous occasions, special financial arrangements have been made to remodel needed laboratory space or to meet the research needs of faculty being recruited.

A systematic approach to budgeting for research infrastructure at Notre Dame is less prevalent, however and capitalization has often depended upon discretionary funds from the provost's office or the possibility of a budgetary surplus at the end of the fiscal year. Similarly, the University has not implemented a plan to address the critical need for replacing and maintaining research equipment, despite several studies that identify this problem.

In the next stage of its research development, the University needs to invest in its own research infrastructure in predictable and long-term ways. A regular plan, however modest, needs to be implemented — one that takes precedence over the pressing needs that are usually debated in setting the annual budget.

The need for Notre Dame to invest in research infrastructure is also underscored by comparative data. In a Higher Education Data Sharing Consortium survey of 14 private universities, Notre Dame's expenditures on research are significantly below that of peer institutions, even those without medical schools. Similarly, our percentage of income from government grants and contracts is substantially below the mean of these institutions. (See Appendix A.)

II. Capitalization and Research Equipment

A. Capitalization

In the past 15 years Notre Dame succeeded in increasing faculty salaries to levels, in most cases, that are competitive with the best schools. In recruiting laboratory scientists, the gravest danger the University now faces is not being competitive on the issue of capitalization.

DOCUMENTATION

The most pressing research development problem in the colleges of science and engineering is the need for start-up money for new hires, particularly in the experimental areas. Other colleges have specific, if limited, needs in this area, as well.

Research in the experimental areas is so expensive that it is almost completely dependent on the faculty member's ability to generate external grant support. External funding agencies do not normally fund initial laboratory set up costs, so it is imperative that new faculty members be given sufficient start-up funds to initiate a program capable of attracting continuing external grant support. Without this, their research life is over.

To estimate these needs we asked the chair of each department in the colleges of science and engineering to estimate their average start-up costs for a beginning position and the average number of positions per year that they anticipated for the next few years. We asked them to indicate how they arrived at their estimates and to provide comparative figures with departments at other institutions if available.

The estimate of annual need was arrived at by multiplying the average start-up cost per new position by the average number of new positions per year for each department in the college, and then adding these departmental figures to get a total for the college. The average number of positions per year was either estimated by the chair or calculated with the assumption that the average tenure of a faculty member in a position is 20 years, so that each year 1/20 of the faculty would have to be replaced.

College of Engineering

| Department | Start-up costs x New positions/year |
|----------------------------------|--|
| Aerospace/Mechanical Engineering | \$200,000 x 1.5 |
| Electrical Engineering | 150,000 x 1.0 |
| Chemical Engineering | 300,000 x .55 |
| Civil Eng./Geological Sciences | 100,000 x 1.0 |
| Computer Science | 25,000 x .45 |
| Total | \$726,250 |

College of Science

| Department | Start-up costs x New positions/year |
|-------------|--|
| Chemistry | \$354,000 x 1.35 |
| Physics | 190,000 x 1.9 |
| Biology | 175,000 x 1.4 |
| Mathematics | 15,000 x 1.9 |
| Total | \$1,112,400 |

College

| College | Start-up costs x New positions/year |
|------------------|--|
| Arts and Letters | \$15,000 x 15 |
| Business | 15,000 x 8 |
| Law | 15,000 x 2 |
| Architecture | 15,000 x 1 |
| Total | \$390,000 |

Capitalization is also required for faculty in the College of Arts and Letters, the College of Business Administration, the Law School and the School of Architecture. These needs range from computers and databases and specialized book collections to equipment for an artist's studio. As the number of quantitative social scientists increase in arts and letters and business, the need for capitalization will increase. The following represents a minimal estimate of capitalization needs. (These figures do not reflect the need for library purchases associated with new faculty positions.)

Recommendation 1: It is recommended that the University devise a funding plan to increase the annual budget for capitalization to \$2.25 million, approximately twice what it is today.

B. Research Equipment

Over the past decade, there have been a series of studies at the University which have identified the research equipment needs of the faculty. The cumulative effect of these studies has been to underscore a critical need for investment in research equipment, its purchase, maintenance, repair and replacement. The University substantially increased its commitment to matching funds for research equipment, from \$105,000 in fiscal year 1984 to \$675,000 in 1994. Yet the need for greater equipment support has been evident to every group that has assessed the issue. Appendix B contains some of the main points of these reports.

A striking feature of these reports is a general convergence in the needs as determined by the deans' reports for the Colloquy 2000 and the earlier Project 19 report. These different sources express needs that are roughly similar in size and on the order of \$15 to \$20 million in a one-time investment, and \$6 to \$8 million in annualized maintenance, replacement and matching funds. Some fraction of the one-time investment costs would come from external funding agencies, or as specific development goals. Thus, the overall goal of about \$10 million suggested by the Project 19 report is consistent with the needs as expressed in the Colloquy reports.

Whether or not the University can address a need of this scale, it is crucial that a regular funding plan be put into place. The Report of the Committee on Academic Life of

the Colloquy proposes in its "tempered vision" that over 10 years the annual budget be established of \$1.5 million for matching equipment and \$1.5 million for equipment renewal and restoration.

Recommendation 2: *In light of the need the need to purchase, maintain, repair and replace research equipment, it is recommended that the University increase funding by a minimum of \$200,000 per year over the next 10 years.*

III. Research Administration

A. Administrative Systems

The administrative systems that are in place to support research and scholarship on campus have been subject to various degrees of criticism. A typical case is in the 1992 report of the Dean of Science for the Colloquy 2000 which cites several concerns regarding the accounting system. The 1991 Varma Report discussed issues with respect to accounting, purchasing and delivery systems, and the general administration of sponsored programs. These concerns are usually raised in a context that places them secondary to other matters, such as equipment and financial support for research.

Since the time of those reports, a number of actions have been taken which may largely ameliorate some issues. One action was the development of a new position, the associate vice president for the Graduate School, and an attendant reorganization of the Research Division of the Graduate School. The reorganization largely addresses the specific concerns raised in the Varma Report, and also avoided introducing a number of new administrative assistant positions. The Research Division, coupled with existing personnel in the academic units, appears capable of handling a significant increase in research activity.

The accounting and purchasing systems are also undergoing change as part of the ongoing investment in automating the University's administrative systems. A new accounting system is currently going on-line which was designed to replace the system criticized in prior reports.

There are several concerns with respect to the new accounting system that have been raised by our committee. It appears the new accounting system may create additional, unwanted paperwork for departmental administrators. Also, there does not appear to be an efficient means to encumber accounts to reflect projected personnel costs on sponsored programs. More generally, there are concerns about whether the design of the accounting system can meet the needs of researchers on campus and whether our system measures up to those used at other research universities.

Recommendation 3: *Following implementation of the new accounting system, a representative committee of administrators and research personnel from the academic units should conduct a study that compares our administrative computing systems to other research universities. The committee should develop recommendations as to the type and quality of the services to be provided, and, if appropriate, develop a plan for implementation that maximizes the value of our current accounting system.*

B. Research Development Fund

A university today cannot afford to bear the full expense of research laboratories. It is professors themselves who must set agendas and scramble to generate the funds necessary to survive in today's high-technology research world. Unlike researchers at the Eli Lilly Company or Bell Labs whose laboratory costs are underwritten by the company, academic scientists cannot prosper unless they are entrepreneurs. They have to match their expertise and interests with a funding source, in most cases federal agencies such as the National Science Foundation or the National Institutes of Health, and they must compete for awards against very stiff odds — only a fraction of applicants are funded. It is an intensely competitive and demanding environment and becoming more so.

Because of this, universities must ensure that faculty are in the best position to compete successfully for external research funding. This will require a two-fold effort by the University, a pro-active Office of Research that seeks to stimulate grants and contracts and an increased investment in research development.

Notre Dame receives about three-quarters of its sponsored-program support from the Federal government. Changes in the Washington climate, therefore, directly influence funding of research on the campus. Most noticeable among recent shifts in the Federal climate are a diminished Federal budget for research, increased competition for the shrinking dollars, and increased emphasis on applied research. Even the National Science Foundation has been directed to "set specific performance milestones for Federal critical technology programs." In response, the Office of Research at Notre Dame must become ever more active in linking faculty with funding opportunities, both in the public and the private sector. It is in the best interest of the University to understand the rapidly changing funding environment and to assist faculty accordingly.

Sustaining a research faculty also requires investment in the funding of research development: allowing young faculty to perform preliminary work on a project before submitting a proposal, providing transitional funding for faculty moving into new areas of research, assisting faculty with travel to enable them to collaborate with others

or examine materials, and supporting innovative research projects that are not fully funded.

Notre Dame has only begun to invest in research development. For 10 years, between 1982 and 1992, the University relied on funding from the Jesse H. Jones Endowment to support research development. This fund provided \$150,000 annually to support seed grants for research, research equipment and research travel. To partially replace this funding, the University initiated in 1993 an annual fund of \$80,000 to support research development. The Academic Affairs committee of the Colloquy recommended that this fund be increased to \$400,000 annually during the next decade.

Recommendation 4: As part of an overall plan to pursue research funding aggressively, it is recommended that the University increase funding for research development by at least \$40,000 annually for the next 10 years.

C. Special Needs of Social Science

Notre Dame's strongest traditions of research are rooted in the natural sciences and the humanities. Social science departments were very late arrivals to Catholic universities such as Notre Dame and the orientation of departments such as government have traditionally had a more humanistic focus rather than the quantitative and behavioral focus of most of political science departments. During the last generation, Notre Dame has witnessed a dramatic transformation in the academic quality of social science, as its departments have recruited a distinguished research faculty. At the same time, new levels of research assistance have been available from the Institute for Scholarship in the Liberal Arts and the Research Office of the Graduate School. In addition, the Laboratory for Social Research has been recently reorganized under the direction of Professor George Howard with the express purpose of providing greater support to social science disciplines.

Yet the culture of the University still has a long way to go in supporting mainstream social science which is often quantitative and collaborative. And graduate reviews of our social science departments have noted the surprisingly modest level of research funding enjoyed by social scientists at Notre Dame. While there are no simple and ready-made solutions to these problems, the University must become more attentive to working with faculty to make Notre Dame a place where social science research can flourish.

To this end, it is crucial that the College of Business Administration be included as a vital link in the social science environment at Notre Dame. As the University considers the introduction of doctoral programs in business, it is crucial that the University strengthen mainstream social science research of a quantitative nature. This kind

of collaborative work needs to be encouraged across departmental and college boundaries.

Recommendation 5: It is recommended that the Institute for Scholarship in the Liberal Arts, the Research Office of the Graduate School, the Laboratory for Social Research, and the College of Business Administration develop a regular means of dialogue to enhance the research efforts of and funding opportunities for social scientists.

IV. Notre Dame's Continuing Transition as a University

Notre Dame continues to make the transition from being a predominantly nine-month, undergraduate institution to becoming a university that approaches graduate education and research with equal seriousness. At various levels Notre Dame is coming to terms with what it means to be a University, a many-faceted center of learning. We now are enriched by hundreds of doctoral students whose work continues throughout the year, with research laboratories that hum with activity day and night, with scores of research associates, visiting scholars, and postdoctoral fellows that enliven the community, and with a steady stream of academic conferences and seminars. As a part of this ongoing transition, the University should give attention to the following two issues:

A. Research in the Professional Schools

The academic reputations of Notre Dame Law School and the College of Business Administration has risen dramatically in recent years. In recruiting faculties fully engaged in research as well as teaching, both have come to compete with the top tier of American universities. In this environment, it is important that research support at Notre Dame be on par with the professional schools with which we compete.

In schools of business, the current competitive environment requires that a university provide each faculty member with *at least* one month of summer salary for research over three or four years. The reality is that the "better" schools are offering new faculty members two months of summer salary, and this is typically guaranteed for the first six years until the tenure decision. In addition, many universities provide senior faculty with research funding during the summer. At Notre Dame, the maximum grant has been one month of summer salary, but a survey conducted two years ago among the business schools in the Big Ten indicated that almost two-thirds of them provided two months of salary for senior faculty active in research.

A great deal of the research in business also deals with empirical analysis of relationships between the economy and financial markets. This research requires extensive

data bases and experienced professionals to keep the material ordered, documented and accessible.

It is also clear that research support in the Law School is notably below that of the top 25 law schools. At least \$100,000 additional funding annually is needed for faculty summer funding, and another \$30,000 for summer research assistants. Although library funding is not explicitly in this committee's purview, the Kresge Law Library estimates an average expenditure of \$75,000 per new faculty hire.

Recommendation 6: *As a means to ensure competitive research support for faculty in business and law, it is recommended that the University vigorously pursue the Colloquy goals of endowing the Institute for Research in the College of Business Administration for \$15 million and the Institute for Research in the Law School for \$5 million.*

B. The Status of Research Faculty

Research growth in an institution makes severe demands on the time and talents of its faculty. Many institutions have found that quality, breadth and substance in research programs require the active participation by members of the academic community outside the regular teaching and research faculty. The number and quality of research faculty at Notre Dame continues to increase.

These professionals are highly qualified researchers who are distinguished from the regular faculty they augment in two ways: They do not usually have teaching responsibilities, and they are not tenured. They usually have doctorates, they conduct independent research programs, and they are well-known and respected by experts in their fields outside of the University. These research leaders are important to the University's research stature, and it is equally important that they be afforded appropriate standing within the University.

Notre Dame has not fully appreciated the role of these research leaders within the University. They have been identified by a variety of titles, most frequently 'Professional Specialist.' Unfortunately, this title has come to embrace a broad group of University employees, regardless of their academic qualifications.

Recommendation 7: *It is recommended that the University formally recognize the need for, and the contributions of, the professionals augmenting the regular faculty in research. Appropriate titles for research faculty should reflect their vital contributions to the academic life of the University.*

V. Graduate Education

The committee also examined the infrastructure supporting graduate education at Notre Dame. Beyond the issue of competitive financial support for graduate students, what constrains our graduate programs from fulfilling their research potential?

Two underlying realities shape the experience of graduate students on this campus — the relatively small number of programs and students and the lack of dedicated space for graduate students. If a number of graduate students still feel that they are marginal to the life of the University, part of the reason may be that certain types of support, such as 24-hour access to the library and dedicated computer facilities, are not likely to be available, given the limited aggregate graduate population. When the student population on campus contracts substantially in the summer months, those remaining often find a paucity of normal university services, a problem compounded when no classes are in session, from May 15 to June 15 and December 15 to January 15.

A. The Finite Scale of Graduate Education at Notre Dame

Notre Dame has a very limited range of doctoral fields, enrolling students in only 23 programs. By contrast, Duke, Vanderbilt and Brown each offers between 35 and 40 fields; Princeton and Yale, over 60. Two areas at Notre Dame seem strikingly underdeveloped: the life sciences and literary studies. Instead of offering separate programs in, say, botany, cell biology, zoology and microbiology, as one would find at many peer institutions, Notre Dame's biology department is a single program of modest size. In the area of literary studies, the University offers doctoral work only in English. Most peer universities include a broader range of offerings in Romance, Germanic and Slavic languages, in comparative literature, and in classics.

It is also clear that the ratio of graduate students to undergraduates at Notre Dame is among the lowest of any comparable university. With only 24 percent of Notre Dame students in graduate programs, the ratio of graduates to undergraduates is lower than at any of the private universities which are often considered peer institutions: Boston University, Duke, Emory, Northwestern, Pennsylvania, Vanderbilt or Washington University. (See Appendix C.)

Individual graduate departments at Notre Dame are also small by comparison. In a casual survey, department chairs were asked if the number of graduate students currently enrolled was less than the optimal number. Thirteen departments said yes. The number of additional stu-

Students needed to reach the optimum ranged from four to 30 students with an average of 13.

Recommendation 8: *It is recommended that the Graduate School, in concert with graduate programs, undertake an in-depth study to determine critical and optimal sizes for graduate Ph.D. programs at Notre Dame that will meet standards of excellence in terms of students and faculty attracted, quality of research, visibility and impact of research, support of undergraduate programs, and placement of graduates in appropriate positions.*

B. Office Space for Arts and Letters Graduate Students

In the colleges of science and engineering, new laboratories benefit graduate students as well as faculty. New research facilities such as Fitzpatrick Hall of Engineering (1979), Stepan Chemistry Hall (1982), and Hessert Aerospace Research Center (1991) have expanded the research space for experimental groups to which graduate students are attached. Likewise, the proposed Environmental Engineering Building and the Aquatic Laboratory will have a positive impact upon research space for graduate students.

By contrast, graduate students in the humanities and the social sciences enjoy no office space either in O'Shaughnessy Hall or Decio Hall, the respective administrative and faculty office buildings. This places Notre Dame at a severe disadvantage in competing for first-rate students with other research universities.

This lack of office space also compromises the education and research potential of the approximately 500 doctoral candidates in the College of Arts and Letters. Not sharing offices near departmental faculty, they cannot enjoy regular and sustained interaction that is common in universities. Neither do they have space for themselves to prepare classes, grade papers or to establish office hours to meet with students — nor do they have access to telephones during business hours. According to a survey in 1989, 85 percent of arts and letters teaching assistants had no place to meet with undergraduates for whom they were responsible.

About half of the doctoral students in arts and letters have access to the 255 library carrels that are available. Yet necessary library restrictions make solitary research the only possible function of these cubicles.

The gravity of this issue has been underscored by several external reviews of graduate programs. The External Review Committee for the philosophy department noted in 1989: "The worst problems concerning facilities are exactly at the crucial level of undergraduate teaching: the graduate assistants, with whom the undergraduates must have contact, have no place — literally no place — to

meet their students." Similarly, the external examiners of the government department noted in 1990: "The most glaring exception to otherwise adequate if occasionally inconvenient facilities is the absence of partitioned office space and separate desks for teaching assistants."

Recommendation 9: *It is recommended that the University give immediate attention to providing office space to graduate students in the College of Arts and Letters.*

C. Graduate Student Records

The Graduate School currently maintains several graduate student data files, for admissions, for course activity and grades, for financial aid, and for employment at Notre Dame. Each of these files could be merged to create a comprehensive record for each graduate student sorted by department and program. This data, collected over time, would enable the construction of a time series data base.

At the same time, the University and its relevant graduate departments needs to develop a far more careful placement record of Notre Dame graduates. The results of a departmental survey on job placement revealed that one-third of Ph.D. granting departments keep no record of jobs obtained by their graduates and only half track employment beyond the first job. The results of the survey appear in Appendix D. This record of outcomes is an important mirror of quality that both departments and the University need for evaluation and planning.

Recommendation 10: *It is recommended that the Graduate School work to make their student records more comprehensive and integrated; and that the Graduate School develop a system for departments to maintain careful records about student placement in the five years after graduation.*

Previous attempts to address research infrastructure needs of the University have met with only modest success. One explanation for this is that the committees studying the problem disbanded after submitting their recommendations. This committee sees it as imperative that an ongoing faculty committee continue to take stock of this issue.

Recommendation 11: *It is recommended that the Committee on Research, Scholarship and Infrastructure should remain in place for the foreseeable future, or that the University Committee on Research and Sponsored Programs be given the same responsibility: to assess and to communicate to the provost and the Academic Council the progress being made in addressing the issues of this report.*

DOCUMENTATION

Appendix A

Characterization by Enrollment

| Institution | Undergraduates | Professional and Grad Students | Total | Undergrad Percent | Prof and Grad Percent |
|--------------|----------------|-----------------------------------|-------|----------------------|--------------------------|
| Mean | 6142 | 4243 | 10622 | 59% | 39% |
| Non-Med-Mean | 5522 | 1902 | 7424 | 74% | 26% |
| Notre Dame | 7499 | 2281 | 9779 | 77% | 23% |

Distribution of Expenditures (all numbers are in percent)

| Institution | Instruction | Research | Public Service | Academic Support | Student Instructional Services | Support | Plant O & M | Scholars & Fellows | Transfers |
|-------------|-------------|----------|-------------------|---------------------|-----------------------------------|---------|----------------|-----------------------|-----------|
| Mean | 35.1 | 19.3 | 1.7 | 8.1 | 3.5 | 9.1 | 6.7 | 11 | 5.5 |
| Non Med | 30.7 | 19.8 | 0 | 7.2 | 3.8 | 12.4 | 6.9 | 12.2 | 7.0 |
| ND | 36.7 | 10.0 | 2.4 | 6.9 | 4.6 | 12.0 | 7.5 | 15.3 | 4.5 |

Sources of Revenue

(all numbers are in percent except the last column)

| Institution | Tuition and Fees | Government Approp'tions | Gov't Grants & Contracts | Private Gifts | Endowment Income | Educational Activities | Other Sources | UG Tuition & Fees (1990) |
|-------------|---------------------|----------------------------|-----------------------------|------------------|---------------------|---------------------------|------------------|-----------------------------|
| Mean | 40.9 | 1.0 | 25.7 | 11.2 | 7.7 | 7.8 | 5.7 | \$15,525 |
| Non Med | 50.8 | 0 | 24 | 11 | 9.7 | 0 | 4.4 | \$15,232 |
| ND | 57.0 | 0 | 13.2 | 15.2 | 9.0 | 0.5 | 5.0 | \$12,390 |

In these three tables, the "MEAN" is derived from 14 private institutions, six of which were in the top national 25 listing from *U.S. News and World Report*, 1992, and the remaining eight were in the top quartile of the "Best of the Rest" category. All but three have medical schools. The average of the three non-medical school institutions are also given in the row labeled "NON MED." Notre Dame ranked in the top quartile of this "Best of the Rest" category. The data were accumulated by the Higher Education Data Sharing Consortium of which Notre Dame is a member.

Appendix B

The so-called 'Project 19' report was developed in response to recommendation 19 of the 1982 PACE report. That recommendation called for the preparation of a long-term plan for the maintenance, renovation and replacement of educational and research equipment. In 1989, a task force co-chaired by Professors Roger Schmitz and Robert Gordon conducted a comprehensive survey of the academic units regarding non-computing instructional equipment, and research equipment of all types. Their report, presented in 1990, offered a series of four recommendations and detailed financial plan to address equipment needs.

The Project 19 report estimated a replacement cost of about \$40 million for the equipment on campus in 1989, and an immediate need for about \$10.5 million in additional equipment. The 1989 annual expenditures for maintenance and replacement was estimated at \$4.7 million, whereas the need was for \$6 million to support existing equipment. They estimated that \$8.2 million would be required annually to support the projected equipment needs.

The Project 19 report recommended a multiyear funding plan that would provide a one-time allocation for additional research and non-research related equipment, and result in a permanent annual budget for a maintenance and replacement fund. In 1989 dollars, the projected one-time investment was about \$9.3 million which was to be spread out over five years. The report recommended a \$1.7 million permanent budget increase for maintenance and replacement. The balance of the projected need would come from external grants and gifts.

The report recognized a large and unmet need for new research equipment. Researchers responding to the survey estimated a required additional investment of \$17.1 million, and a shortfall in annual maintenance support of about \$2.2 million. To address this particular need, the report recommended that University implement a routine program to support equipment matching grants.

DOCUMENTATION

Report of the Task Force on Research Systems

This report, commonly called the 'Varma Report,' was commissioned by the vice president for Graduate Studies and Research and was presented to him in April 1991. The task force was chaired by Professor Arvind Varma, and consisted of additional representatives from throughout the University. The report examined research infrastructure, academic organization, and made a wide-ranging series of recommendations. The report appears to be a synthesis of committee inputs; it does not appear that the committee sought a significant amount of external advice.

The Varma report made recommendations on a greater variety of issues than those included in Project 19. The estimated annual budget increment was \$3.5 million. The component associated with equipment maintenance and replacement was \$0.5 million, which is significantly different than the need found in the Project 19 report. The other main items included additional staffing in the Research Division (about \$0.5 million), capital equipment matching funds (\$0.5 million), and additional graduate student support (\$1.0 million).

Appendix C

Enrollment at America's Leading Research Universities

| Institution | | Men | Women | Total | % Total | Univ. Total |
|----------------------------|---------------|-------|-------|--------|---------|-------------|
| Boston University | Undergraduate | 6,671 | 7,663 | 14,334 | 58% | 24,768 |
| | Graduate | 5,167 | 5,267 | 10,434 | 42% | |
| Cornell University | Undergraduate | 6,802 | 5,761 | 12,563 | 69% | 18,172 |
| | Graduate | 3,456 | 2,153 | 5,609 | 31% | |
| Duke University | Undergraduate | 3,331 | 2,799 | 6,130 | 54% | 11,426 |
| | Graduate | 3,224 | 2,072 | 5,296 | 46% | |
| Emory University | Undergraduate | | | 4,874 | 49% | 9,958 |
| | Graduate | | | 5,084 | 51% | |
| Northwestern University | Undergraduate | 3,727 | 3,745 | 7,472 | 49% | 15,272 |
| | Graduate | 4,615 | 3,185 | 7,800 | 51% | |
| University of Notre Dame | Undergraduate | | | 7,600 | 76% | 10,000 |
| | Graduate | | | 2,400 | 24% | |
| University of Pennsylvania | Undergraduate | 5,493 | 4,100 | 9,593 | 46% | 20,678 |
| | Graduate | 5,864 | 5,221 | 11,085 | 54% | |
| Vanderbilt University | Undergraduate | 2,911 | 2,668 | 5,579 | 57% | 9,724 |
| | Graduate | 2,180 | 1,965 | 4,145 | 43% | |
| Washington University | Undergraduate | 3,149 | 2,925 | 6,074 | 52% | 11,572 |
| | Graduate | 3,182 | 2,316 | 5,498 | 48% | |

Statistics taken from The College Handbook prepared by the College Board

Dean's Reports for the Colloquy 2000 Report

The Colloquy 2000 was based partly on reports from all of the academic units in the University. Of particular relevance are the reports of the deans of engineering and science which express the largest proportion of the financial needs.

The deans of science and engineering both express needs for substantial investment in new research equipment. Engineering, for example, presents a case for about \$6 million in new equipment, while the College of Science estimates their needs as about \$10 million for the remainder of the 1990s for teaching and research equipment, plus an additional \$2 million for shop facilities. In addition to these one-time investments, the deans recommend a total of an additional \$3 million in annual expenditures for replacement/maintenance, and equipment matching funds.

The remaining colleges' infrastructure related needs that are smaller in magnitude, but are equally pressing. Many of these needs are related to the library, which is being addressed separately.

Appendix D

| Department | Record of 1st Job | | Track Beyond 1st Job | | Available from Index | |
|--------------------------|----------------------|----------------|----------------------------|----------------|----------------------------|----|
| | Ph.D. yes | Master's no | Ph.D. yes | Master's no | yes | no |
| BA | | X | X | | X | X |
| Engineering Division | | | | | | |
| Aero/Mech Engr | X | | X | | X | X |
| Chemical Engr | X | | X | | X | X |
| Civil Engr/Geo Sci | | X | X | | X | X |
| Computer Sci/Engr | X | | X | | X | X |
| Electrical Engr | X | | X | | X | X |
| Humanities Division | | | | | | |
| American Studies | | X | X | | X | X |
| Art, Art History, Design | X | X | | X | X | X |
| English | X | | X | | X | X |
| History | X | | X | | X | X |
| HPS | X | X | | X | X | X |
| Romance Lang & Lit | | X | X | | X | X |
| Medieval Institute | X | | X | | X | X |
| Music | | X | X | | X | X |
| Theology | X | | X | X | X | X |
| Social Sciences Division | | | | | | |
| Economics | X | | X | X | X | X |
| Govt/Intl Studies | X | | X | X | X | X |
| Psychology | X | | X | X | X | X |
| Sociology | X | X | X | | X | |
| Science Division | | | | | | |
| Chemistry/Biochem | X | X | | X | X | X |
| Mathematics | X | | X | | X | X |
| Physics | | X | X | | X | X |

Final Report of the University Committee on International Studies

to Provost Timothy O'Meara and the Academic
Council
June 1994

Members: Isabel Charles, associate provost, director, International Study Programs, committee chair; Austin Collins, C.S.C., associate professor, art, art history and design; JoAnn DellaNeve, associate professor, Romance languages and literatures, department chair; Harald Esch, professor, biological sciences; Jeffrey Flynn, junior, College of Arts and Letters; Michael Francis *, professor, government; Sonia Gernes *, professor, English; Joseph Guiltinan *, associate dean, professor, marketing; V. Paul Kenney, professor, physics; Kwan Kim, professor, economics; Lizabeth Lennon, senior, College of Arts and Letters; St. Jean Lenz, O.S.F., assistant vice president, student affairs; William Lewers, C.S.C., director, Center for Civil and Human Rights, professor, Law School; Blake Leyerle,

assistant professor, theology; David T. Link, Joseph A. Matson chair, dean, Law School; John Lucey, associate professor, aerospace and mechanical engineering; Kevin Misiewicz, associate professor, accountancy; Walter Nugent, Andrew V. Tackes chair, professor, history; Chris Peterson, junior, College of Business Administration; Mihir Sen, associate professor, aerospace and mechanical engineering; Duncan Stroik, assistant professor, architecture; Joseph Taijeron, junior, College of Arts and Letters; Rafael Tarrago, assistant librarian; Raimo Vayrynen, Regan director of the Kroc Institute for International Peace Studies, professor, government and international studies; Anne-Marie Wolf, assistant professional specialist, Freshman Year

* steering committee member

MISSION STATEMENT

The University of Notre Dame, conscious of its own international heritage and the tradition of universality it shares with Roman Catholicism, is strongly committed to providing its students with opportunities to enlarge their understanding and vision beyond the borders of this campus and this country. Chief among the means to accomplish this end is the establishment of a variety of overseas programs where students study and live for a year or a semester in a culture quite different from their own.

The University believes that such programs make a substantial contribution to the academic excellence of a Notre Dame education. In addition, they serve to develop an internationalized, culturally sensitive and well educated student body and broaden the cultural diversity of the on-campus student population as well. We are convinced, moreover, that international programs operate most effectively with support of university faculty, and we encourage their direct involvement in on-site administration and teaching.

As it approaches the year 2000, the University endorses a sizeable increase in the number of students participating in international study programs, thus preparing graduates who are more attuned, both professionally and culturally, to the global community. Finally, we urge the development of a coherent and integrated plan for maximization of the varied international resources on this campus.

INTRODUCTION

In order to fulfill the charge of Recommendation 16 in the *Final Report of the Colloquy for the Year 2000*, the University Committee on International Studies focussed its attention primarily on undergraduate study programs. Its comprehensive examination covered three major areas:

Current Programs, Future Programs and Reorganization. Subcommittees on these three areas conducted their studies simultaneously, but frequently their concerns crossed and interlaced with each other. In the final analysis, their joint findings produced results which built upon and supported one another, laying the foundation for a bright and coherent future for the University of Notre Dame which foresees an internationalized faculty and student body.

CURRENT PROGRAMS

A major step in the evaluation process was the review of 16 current programs available to Notre Dame undergraduates.

Ten Notre Dame-operated programs: Angers, Fremantle, Innsbruck, Jerusalem, London Arts and Letters, London Engineering, Mexico City, Nagoya, Rome Architecture, Toledo

Three Saint Mary's College programs: Maynooth, Rome, Semester-Around-the-World

Three programs offered through other institutions but facilitated by Notre Dame's International Study Programs Office: Athens, Cairo, Santiago

The recently inaugurated programs in Dublin, at Trinity College and University College, were not evaluated as the first students have not yet completed their studies.

A survey instrument developed with the cooperation of the staff of the Social Science Training Laboratory was sent to over 700 students who had spent time abroad during the period 1991-93 and to approximately 40 faculty who had been involved with the programs since 1979.

Returns were sufficiently significant to give a good reading on the responses. "Town-meetings" and interviews with both faculty and students were held to allow for further input. The large number of responses of students and faculty who had participated in the London Program was duly considered in the overall analysis.

The first and most obvious conclusion as a result of the survey process is that international programs are overwhelmingly successful in the eyes of Notre Dame students and considered "extremely valuable" as a contribution to their educational experience. They also rate highly their opportunity for travel, their growth in personal maturity and confidence, and their appreciation and understanding of a different culture. Although 58 percent said the workload was less than Notre Dame's, a majority ranked other aspects of the academic program "about the same," and a sizeable percentage of students found intellectual stimulation and development during

their time abroad. For those who lived in countries where the language was not English, many achieved the goal of increased fluency. Generally students were satisfied with living arrangements — housing and meals, though they found support structures such as computer and library facilities wanting, especially compared with the home campus.

The survey also explored student reaction to campus information on programs, preparation, and debriefing procedures and found varying degrees of satisfaction.

Faculty responses usually corroborated the responses made by students, though faculty were more apt to check "moderately" than "greatly" in many categories. They were less sanguine than students about the opportunity to make friends from a different culture or to gain a deeper appreciation of religious heritage. Corroborating student perception, faculty reported that information on the host country was the weakest part of the orientation for an overseas stay. While faculty judged most academic aspects of the programs similar to those at Notre Dame, they perceived the workload as heavier than the students did. Like students, faculty gave their highest rankings to travel, historical sites, drama/music/museums and informal social interaction.

Individual program results were separately analyzed and those reports and recommendations will be made available to interested persons and to the current International Study Programs office for study and action.

Eight general recommendations to improve all current programs follow:

Recommendation 1.

To assure high academic quality, administer some form of TCE's for all courses offered by Notre Dame programs, with results available to on-site and Notre Dame administrators.

Recommendation 2.

Wherever possible, arrange the opportunity for students to enroll in courses in the local University with host country students.

Recommendation 3.

Take steps to maximize experience with the local population, especially by housing with families, when possible.

Recommendation 4.

Develop and/or strengthen support structures such as a counselling referral system, on-site library and computer resources, as well as an on-campus academic guidance system, operative both before departure and upon the students' return.

Recommendation 5.

Institute a "Fall Semester International Studies Day" as an effective recruitment tool.

Recommendation 6.

During orientation sessions, emphasize information on the host country and its culture and make good use of returning students in this activity.

Recommendation 7.

Implement a system of more widely incorporating Notre Dame faculty in administration and teaching in international programs.

Recommendation 8.

Conduct reviews of all programs at regular intervals.

FUTURE PROGRAMS

Given the committee's conviction about the educational value of an international experience and the clear evidence that a substantial percentage of students had found their participation extremely valuable, we believe Notre Dame should strive over the next decade to *double* the percentage of students studying abroad (from the current 20 percent to 40 percent of the undergraduate student body).

This action has implications for admissions, library holdings, living space on campus, faculty teaching responsibilities and curriculum. All of them, in turn, impact on finances. Thus we urge careful planning for such expansion of international study opportunities.

Basic to any expansion, however, is the question of student demand. Currently, for all but the London Program and possibly Fremantle, demand and supply seem equally balanced. What are the reasons for this relatively limited demand? Aside from the obvious time investment language preparation requires, the committee's study and discussion revealed two: faculty attitude and curricular structure. Since the curriculum is primarily faculty-controlled, our conclusion was that faculty involvement is essential for development of new programs if additional students are to see them as important to their education.

We strongly believe, therefore, that intensive discussions must take place on a department by department basis to determine how international study can help departmental and college goals. The mechanism we suggest to accomplish this is the formation of a university-wide committee closely linked to the International Study Programs office. This committee would be available, among other things, for systematic discussions with departments about what kinds of foreign study programs would best suit their needs and/or how they could better utilize existing programs for their majors. Furthermore, we believe it is wise to maximize Notre Dame faculty participation in administering and teaching in international programs through broader search procedures, clearer selection criteria and an explicit statement of duties while abroad. This participation will create a cadre of individuals on campus

who understand the functioning of the programs and who can act as advocates for their development. While recognizing the curricular problems facing the colleges of science, business and engineering, we encourage them to re-examine how foreign study could benefit their programs. Representatives from the international programs office and faculty with international experience from other colleges or even other universities can serve as resources for discussions of this nature.

Possible student demand, on-campus faculty, and the potential academic quality of a program all must be taken into account when discussing the range of new programs that could and should be initiated. Because any specific decision depends on the investigation of existing programs in foreign locations, on-site visits, and lengthy negotiations, the committee feels that its appropriate role is to simply suggest some general locales. We recommend three:

1) China. It should be a high priority to reinvigorate our interest in a country with a quarter of the world's population. However, to create student demand and provide a good academic milieu for such a program, we must have stability and strength in Chinese language instruction as well as courses which enhance our students' understanding of Chinese history, literature, economics and politics.

2) Africa. Clearly this is an important area of the world, with some countries of long-term stability such as Kenya or Ghana. African programs need to strike a balance between the kind of living conditions needed for American students and opportunities to interact with the native cultural traditions and the general population. Effective, educationally sound programs, however, will require additional faculty strength in African expertise to prepare the students prior to their time abroad and to help them further develop their knowledge upon return.

3) Russia. With current interest of students who participate in the University of Illinois Program in St. Petersburg already manifest, we must give serious thought to expanding international opportunities for Russian Studies. Again, this implies building faculty strength in Russian language and related academic areas.

Departmental involvement such as we envision may well produce interest in other sites which, of course, we view as a positive development. In addition we encourage greater participation in the current Nagoya Program in Japan and the exploration of other Asian sites.

At present only a few programs (Mexico City, Chile) incorporate experiential learning and encourage student involvement in social service work. We believe it would be valuable to explore on-site opportunities which expose students to social problems in the locales of a variety of other programs.

DOCUMENTATION

Finally, the space problem in London which now impacts on five University programs — Law, MBA, AL, Summer Law and Summer EG — will very soon face a critical decision period. The sub-lease on the third and fourth floors at Albemarle Street expires in 1997, at the time of the rental rate review for the basement, ground and first floors. The review presumably will result in a substantial increase in rental costs. The lease on the lower floors expires in 2004. As soon as possible, we must make a decision concerning the existing Notre Dame Centre and the continuation of our presence in London.

Regarding the future of international programs at the University of Notre Dame in the years ahead, the committee proposes the following:

Recommendation 9.

Over the next decade double the percentage of Notre Dame students participating in study abroad programs.

Recommendation 10.

Undertake, in conjunction with the Office of International Study Programs, systematic discussions at department and college levels on how an international experience could reinforce their academic goals.

Recommendation 11.

Strengthen communication between the Office of International Study Programs and the faculty by the use of college liaisons in the deans' offices and the expansion of membership in the current International Study Programs Advisory Committee.

Recommendation 12.

Explore new sites (e.g., China, Africa, Russia) for additional programs and assure sufficient curricular support as they are developed.

Recommendation 13.

Seek out social service opportunities for students at international sites.

Recommendation 14.

During AY 1994/95 establish a committee to consider size and location of a London facility to replace #7 Albemarle Street before the lease expires in 2004. Membership should include representation from the Provost's Office, those currently using the facility and those planning a London program.

Recommendation 15.

Conduct a serious examination of the financial aspects of international programs: the current charge structure for Notre Dame programs; the pros and cons of participating in programs sponsored by other good universities and institutes; financial support, where needed, for curricular expansion to sustain new programs; and the feasibility of providing additional financial aid for needy students who want to study abroad.

REORGANIZATION

Looking at the current international studies situation, the committee found that overall the international programs lack widespread visibility on campus, among both students and faculty. This condition has a direct impact not only on student participation but also on pertinent advising at the dean and department levels. The primary cause of this situation appears to be organizational and specifically relates to resource constraints of an office staffed at a significantly lower level than that of most comparable offices at universities which offer similar opportunities for their students.

If the committee's convictions about the growth and development of international programs are to be realized, the organizational structure must be strengthened. International Studies must be given a prominent place in the University structure where the commitment of the institution is clear and support is visible.

Thus the committee sees as pivotal the need for an officer whose responsibility encompasses, either by direct involvement or by supervisory oversight, all international activities on campus. This centralization will allow for better cooperation among units, more efficient use of personnel, more complete source of information, and ultimately the fostering of a strategic plan to make the University truly international in its scope.

This officer would preside over a fully funded office of International Studies and Programs. The office, best located in the Main Building, would oversee the academic and support functions (including the current International Student Affairs Office) associated with international faculty and students and serve as a liaison with other units on campus involved with international education and research such as the Kellogg Institute, the Kroc Institute, the Center for Civil and Human Rights, as well as the Law and MBA Programs. As chair of the advisory committee mentioned in this report, this officer would have regular interaction with the colleges and departments in the exploration and establishment of new programs, oversight and evaluation of current programs, and other related matters. The following recommendations support this reorganization:

Recommendation 16.

Institute the position of vice president for International Studies and Programs. Reporting to the provost, this officer has overall responsibility for international affairs at the University.

Recommendation 17.

Establish a fully funded office of International Studies and Programs. A proposed chart of this office and associated operations is attached. (See Exhibit 1.)

DOCUMENTATION

Recommendation 18.

Form an expanded International Programs Advisory Committee with membership from the Dean's Office of each of the undergraduate colleges as well as interested and qualified faculty and students.

Recommendation 19.

Require each college to designate publicly an international advisor who will be an active liaison between the Office of International Studies and Programs, departmental faculty and students.

Recommendation 20.

Explore the establishment of language and culture community centers on campus to promote international awareness and encourage the use of foreign languages.

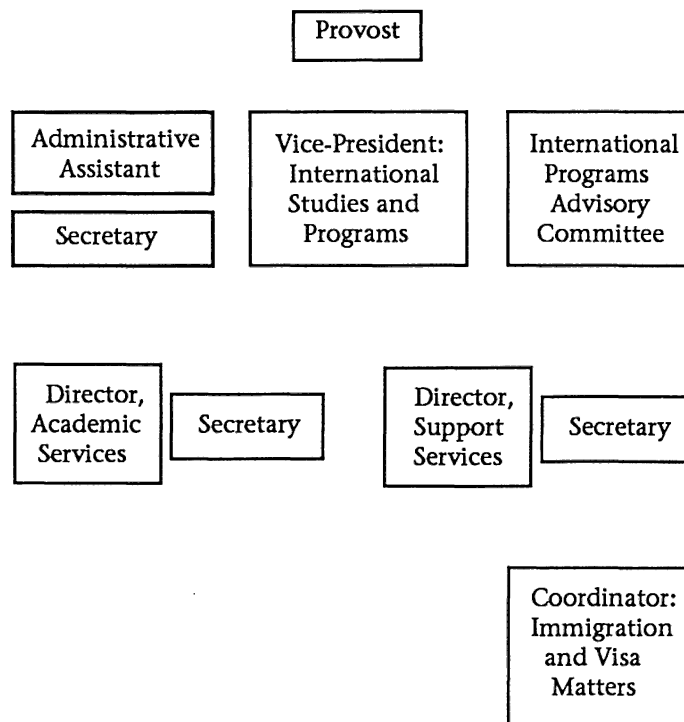
CONCLUSION

This narrative and these 20 recommendations attempt to capture the essential elements which, over the past four months, the members of the committee struggled to determine as forming a base for the improvement of international studies at Notre Dame. Individual subcommittee reports provide the details of the discussion and recommendations on which this final report is based. They are available in the current International Study Programs office to all interested persons. Finally, it is our firm belief that this document will form a blueprint for making Notre Dame of the future a truly internationalized campus.

Respectfully submitted,

Isabel Charles, Chair

Exhibit 1



Academic Services

- Undergraduate international studies program
- Faculty exchange agreements
- Library resources
- Liaison with:
 - Colleges
 - Graduate school
 - International institutes
 - Alumni affairs

Support Services

- Visa/Immigration processing
- Financial advising
- Fulbright scholar advising
- Advisor to International Student Organization
- Orientation
- Visiting faculty support

THE GRADUATE SCHOOL OFFICE OF RESEARCH

Current Publications and Other Scholarly Works

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

Errata: Corrections on entries in *Notre Dame Report* Issue No. 1, citations listed under:

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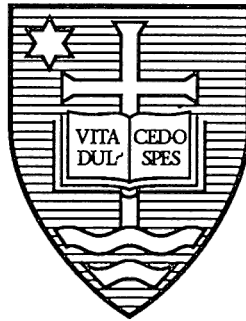
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