Decentralization and Curricula
at the University of Rochester

An Institutional Self-Study
presented by
The University of Rochester

Developed within the Alternative Self-Study Model

for

The Middle States Commission on Higher Education

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I.A.   INTRODUCTION

In 1996 the Middle States Commission reaffirmed the accreditation of the University of Rochester through the Periodic Review Process.   The University's 2001-02 decennial reaccreditation was postponed until 2003-04 in order to coincide with the Accreditation Board for Engineering and Technology's reaccreditation of Rochester's engineering programs. In May of 2002, the University's President Thomas Jackson and Provost Charles Phelps began preparations for the University's accreditation review. As the first step in this process, they appointed two senior faculty members, Dean William Scott Green, Professor of Religion and Philip S. Bernstein Professor of Judaic Studies and Professor Nicholas Bigelow, Lee A. DuBridge Professor of Physics and Professor of Optics, to serve as co-chairs of the Self-Study Committee, and chose fifteen additional representatives of the University's various constituencies to serve as committee members. Together, this committee reviewed the readiness of the University for accreditation review.

As described in *Designs for Excellence,* 7th edition (2000) the Middle States Commission made the important decision to offer the Alternative Self-Study Model. It is this model that the Steering Committee has chosen for its self-study.

At the end of October 2002, The Executive Director and the deputy Executive Director of the MSCHE, Ms. Jean Avnet Morse and Dr. John H. Erickson, visited the University to discuss the proposed themes and gave their approval for the Steering Committee to proceed with the preparation of this self-study.

The University's motto is *Meliora*, meaning "always better." *Meliora* represents the idea of continuous improvement in all aspects of the University enterprise, and it is an idea that UR faculty, students, and staff regularly incorporate into their work. This self-study, in the Alternative Model design, has created a new opportunity to seek such improvement in areas of the University that are of primary importance, and to do so as a community. Therefore, it is in the spirit of *Meliora* that we undertook this self-study.

I.B.   UNIVERSITY SKETCH

The University of Rochester, founded in 1850, has developed into one of the country's leading private research universities. The University is composed of six schools: The College (arts, sciences, and engineering and the core undergraduate program), the Margaret Warner Graduate School of Education and Human Development, the William E. Simon Graduate School of Business Administration, the Eastman School of Music, the School of Medicine and Dentistry, and the School of Nursing. The University enrolls approximately 4,400 undergraduate students, 2,600 full-time graduate students, and 1,200 part-time graduate students who carry out their studies and research under the supervision of 1,000 full-time tenure-track faculty. The University activities also include the operation of the Strong Memorial Hospital, Golisano Children's Hospital, and Eastman Dental Center, as well as a number of world-class facilities such

as the Laboratory for Laser Energetics, the Mees Observatory, and the Memorial Art Gallery, all of which support the University's educational, research and service agendas.

By all measures the University has **a tradition of excellence**. *U.S. News and World Report* repeatedly ranks the University of Rochester among the top 50 "Best National Research Universities." The Eastman School of Music ranks first in the country in graduate music programs, the School of Medicine and Dentistry ranks 7th among primary care medical schools, and the School of Nursing's Pediatric Nurse Practitioner program ranks 7th best in the nation. The University's Ph.D. programs, including those in political science, economics, physics, and optics, also have been highly rated by distinguished groups such as the National Research Council. These rankings are all the more impressive when one recognizes the comparatively modest size and scale of the overall University as well as its constituent parts. The University of Rochester faculty include winners of MacArthur awards, Guggenheim, Sloan, and Packard Fellowships, Pulitzer Prizes, and memberships in the National Academies. Rochester students also are systematically recognized through earning Fulbright, Churchill and Goldwater scholarships, and delivering outstanding performances in musical competitions on local and national stages. Five Rochester graduates have gone on to win Nobel Prizes, most recently Steven Chu (Rochester B.A./B.S., 1970) and Masatoshi Koshiba (Rochester Ph.D., 1955), who were selected for the Nobel Prize in physics, Chu in 1997 and Koshiba in 2002.

The University of Rochester is a small, but **highly complex institution**. Auspiciously, each professional school regularly has undergone its own specialized review and accreditation, and the curricula of all the professional schools have been reviewed during the past five years. The College has begun its review of the new Rochester Curriculum, which went into effect for the class of 2000.

The University as a whole has undergone significant structural and organizational changes in the past decade. It is both appropriate and necessary to examine these changes in the context of the overall academic enterprise. Because our varied curricula recently have been reviewed and assessed, or are about to be, the Steering Committee directed the major part of its self-study to the central theory and practice of the University's structure and administration: the consequences of decentralization.

I.C.   THEME OF SELF-STUDY

Meliora – to become better. The University's motto. The University's mission. If there is one conclusion from the self-study Working Group Reports, this is it: we are becoming markedly better, yet the work is not done.

Our Middle States self-study focused on the core theme of the University's structure, management, and organization: decentralization. The University has changed in fundamental ways since our last self-study in 1991. Although some of the University's schools, particularly Music and Medicine, were in basic respects "tubs on their own

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Our Middle States self-study focused on the core theme of the University's structure, management, and organization: decentralization. The University has changed in fundamental ways since our last self-study in 1991. Although some of the University's schools, particularly Music and Medicine, were in basic respects "tubs on their own

bottoms" before 1991, the current University administration has presented and realized a clearly articulated plan for moving the University toward becoming a uniformly decentralized entity. Since 1991, the schools of Arts and Science, Engineering and Applied Science, and Nursing have been reorganized. The colleges of Arts and Science and of Engineering and Applied Science have been merged into a single administrative and educational unit, known as The College, and the School of Nursing has revised its undergraduate programs and charted a freshly independent course in Nursing education. This restructuring has resulted in moving several departments and divisions from the central administration to the discrete units and has made decentralization a comprehensive and defining reality for the entire University. Decentralization has changed the way we do business and the way we imagine ourselves. It has raised elemental questions about the identity of the discrete schools and colleges and of the University as a whole. The aim of our self-study was to examine this systemic change and understand and assess its impact on the University as a whole.

The guiding questions for the University of Rochester's management are: what is the theory and responsibility of the Center?[1] Which roles and activities are best carried out by the Center, and which principle of governance should govern those activities? Where can the Center help the units advance, and how can it avoid impeding progress and excellence? These issues are fundamental to taking the University forward, and are common to any decentralized University. What is particular to the University of Rochester is that the time to define the role and self-image of the Center is now.

1.   *DECENTRALIZATION DEFINED*

In a recent presentation to the University's Faculty Senate, President Thomas Jackson defined decentralization in terms of the principle of "governance at the lowest coherent and responsible unit" (see Appendix A). This definition means that decentralization is not and cannot be uniform across the institution. The degree to which university resources, services, and decision-making are decentralized depends on an interplay of economies of scale, logical relationships, and availability of expertise. For example, consider the academic department, in most cases the basic building block of a university. It is natural for the department to be responsible for its graduate education programs and its own research as it reaps the benefits of its successes in these areas. By contrast, its efforts in undergraduate education are intertwined with many other departments and programs, making the rewards for its excellence more diffuse. Therefore, decisions regarding research and graduate education are "decentralized" to the departmental rather than school level, while decisions regarding undergraduate education are "decentralized" to the level of the school rather than the University.

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[1] Throughout this report, the "Center" generally refers to that part of the University that is not specific to one of the schools of the University, but rather is in place to serve many or all parts of the University. This includes the Offices of the President, the Provost, the Senior Vice President for Institutional Resources, the Senior Vice President for Administration and Finance, and the General Counsel, as well as a few other smaller offices. We may think about the "center" differently, however. For example, from the perspective of the departments in The College, it occasionally is appropriate to think about the center as the Office of the Dean of the Faculty of Arts, Sciences, and Engineering.

Our self-study suggests that the nature and detail of the changes that have accompanied the theme of decentralization are primarily apparent to the University and its faculty within a context-specific framework. Most members of the community see only the changes that most directly affect their individual activities. We therefore felt that it was both timely and natural for the Decennial Review Steering Committee and its partners to undertake a self-study on the theme of decentralization as a logical part of the continuing process of monitoring and understanding its effect on the intellectual and academic landscape at the University of Rochester. Decentralization touches on essentially every aspect of the University and hence on every one of the Commission's Standards of Excellence. Furthermore, the specific theme of self-study has provided a broad representation of the University community with the rudiments of a guide to understand and improve the underlying structure of our decentralized university – a sort of map – that will direct a continual self-examination process long after the Commission's review is completed.

As a corporate policy, decentralization implies similar goals: decision-making authority is placed closer to the customer thus enabling faster, more efficient and personalized output. In urban education too, decentralization is a potent strategy; it brings budgets and decisions closer to the individual schools and allows the schools the flexibility to adapt quickly to the needs of their programs and individual students.

Organizational structures are not the only place where decentralization is latent in modern culture; decentralization is a powerful theme in modern technology. Distributed, *decentralized* computing architectures leverage the power of multiple, independent computers and offer incredibly resilient and robust thinking environments. Perhaps the most remarkable example of decentralization is the internet – large numbers of loosely connected computers with a high degree of local authority create a stable, powerful whole.

Although there are real similarities between the present decentralization at the University of Rochester and these analogues, there are some important differences.

2.   THE "UNI" IN UNIVERSITY

According to Webster, a university is a guild – a "union of people...with a common trade [assembled] to uphold their standards and protect the members." The theme of decentralization resonates well with this definition and with the core value of intellectual autonomy and entrepreneurship. Against that definition is a root of the word university: universe – a "totality." An overarching theme of our self-study is that our community needs to understand more about how the University works as a whole so that we can optimally exploit our strengths in a way that is visible not only within the University, but from the outside.

Synergy at the University is common. Our study shows that our faculty have little trouble collaborating and that students enjoy more opportunities than ever. The central

administration has supported these advancements, lowering barriers for interdepartmental and interschool activities. For example, recent steps have restructured the way in which credit for grants and grant income is recognized in interdisciplinary projects. Interdisciplinary programs are being nurtured; for example, The College and the School of Medicine and Dentistry have collaborated on a new interdisciplinary degree in biomedical engineering.   All six schools of the University joined forces on a proposal to the Kauffman Foundation to compete for funding in the Kauffman Campuses Initiative. This successful collaboration resulted in a 3.5 million dollar award from the Foundation that will be used to fund 10.5 million dollars in university-wide, truly multidisciplinary programs in entrepreneurship over the next five years (see Appendix B for the Kauffman Foundation proposal).

Yet, in the main, our study indicates that our long-range ambitions are not well understood by many, nor is how or why we function as we do. At various levels of coherence and competence, be they schools, programs, departments or individuals, we are active and entrepreneurial, and justifiably proud of our achievements. Meanwhile we understand surprisingly little about each other. To become better and to assure that there will be an intergenerational understanding that will outlive any administration, our self-study indicates that this must change.

Perception is everything. In experimental research, our faculty often tackle complex problems that require complex approaches. In a physics experiment, for example, a team of graduate students may collectively work on a project, each specializing in some particular aspect of the task. One student may develop electronics and computer systems for data acquisition, while another focuses on a vacuum system and yet a third is in charge of laser systems, etc. The needs of each sub-project are clear and the students individually make decisions that assure the excellence and performance of their sub-system. Students will even spontaneously seek each other out when obvious interfaces between them are required and, in the best of cases, students will together recognize unexpected problems and find creative solutions. In some cases, the students may even begin to believe that the "professor" is not needed and that the work can and will evolve reliably in this spontaneous and organic manner. However, experience shows that this perception is treacherous. At moments of frustration, when the expected overall effects are not observed, or when a change of plan is required, the professor must step in. Similarly, when a disconnect develops between sub-tasks and/or students, again the professor must step in. Moreover, as important guiding questions arise, the professor is a reservoir of experience and knowledge and can save the team from wasting precious time reinventing ideas or methods.[2] What is crucial is the perception that the research team members have of each other and of the "center."

By analogy, our study shows that, like the science experiment, our systems are in generally good order. The natural focus of the central administration on "getting the

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[2] The professor may also serve a "central" role in other ways. For example, faculty help the University meet institutional goals through their participation in the development of appropriate curricula and research projects.

decentralization house in order" has been productive and justified. At the same time, these sub-systems are increasingly in contact and networks and connections are spontaneously emerging, not necessarily by design. The study shows that large-scale coordination and vision is increasingly being desired. It is important to stress that our findings do not suggest that the University should swing backward towards a more centralized character. The complexity of the University is not suited to a centralized approach. What is needed, however, is more transparent communication and more information flow, an issue that can most readily be enabled by the Center.

The perceptions of the faculty, staff and students about the University *as a whole* are clouded, despite evidence that the Center has sought to openly discuss much of its strategy and decision-making processes. The study shows that the community is still not clear on the big picture or about how to best navigate the complexities of the University, and therefore how to make it better. The themes adopted by our Working Groups have provided significant guidance for how the next phases of decentralization should occur: university-wide curricular strategy sharing is needed, more external visibility is desired, center-based monitoring of fundraising is lacking, and University-wide, modern information management instruments are needed, but must be considered in the context of the complex University with a vast array of priorities.

In the words of Henry H. Grady, "The University will be the training camp of the future." Significant developments happen at the interface of fields, a fact that is widely recognized, a simple example of which is the large number of studies at the National Academy of Sciences on interdisciplinarity. During a time when linkages are critical elements in scholarly work – be it study of the history of physics, the business of engineering, or the teaching of music – connections are important. But at Rochester it means more. Linkages are at the core of how we enable students to learn, a fact that is clearly reflected in the ubiquitous link between our research and our teaching enterprise.

As an ensemble, the self-study reports show that Rochester is held together by an emergent network of linkages but that these linkages are most obvious only on a local level. To further excel, a sense of University-wide interconnectedness is needed and wanted and can best be enabled by clear articulation from our leaders. Increased transparency will not only empower the faculty, staff and students with needed access to information, it will inspire professionalism and confidence and it will reduce suspicion at all levels.

Is decentralization an improvement? The good news is **yes**. The curricula of our professional schools have undergone substantive and ambitious development and, as their recent assessments demonstrate, stand at the forefront of their fields. The College's curricular reform is just in its fourth full year, and all the interim measures are positive and encouraging**.** Fiscal development in many schools is productive. University staff feel that they understand the missions of the institution. Faculty perceive few, if any, significant barriers to inter-school collaborations. Overall, Rochester's colleges and schools are thriving. In sum, our self-study shows that in our most crucial concerns: education, scholarship, and prosperity, decentralization has accompanied measurable

successes and, reassuringly, has caused no failures. So is the news all good? Have we completed the work? **No**.

Significant challenges remain. The recurring theme of this study is that although decentralization has fostered, even enhanced overall excellence, it has incidentally allowed a sense of fragmentation to emerge. The broad focus and direction of the University as a whole are unclear to many constituencies. The faculty's perception of problems with the University continues to focus on offices within the central administration, and there is only a vague sense of how "the whole is greater than the sum-of-the-parts." Information flow and communication between and among units is tangled and tends to be inefficient. Our information reservoirs are disjoint and only sparingly decorated with pockets of excellence. Some key services continue to disappoint[3] or appear non-responsive to customer concerns.   The University's visibility lags considerably behind its achievements in the public eye. The general operation of the University remains opaque for much of its community. In several key areas, our self-study shows that there is significant work to do. Therein lies the challenge.

The Key Issue for the Future: With the significant strides in achievement of decentralization, we have become better. Decentralization has leveraged the instinctive strengths of our community: particularly the self-actualization of the faculty.   Because a decentralized management minimizes administrative interference in the intellectual and educational work of the faculty, it allows the faculty's skills, interests, and creativity to expand. Rochester is blessedly unburdened by the impediments of university-wide curricular requirements that force our diverse students into a single educational mold. Through systematic decentralization, opportunity and accomplishment have become partners, the educational enterprise is flourishing, and our curricula and student academic satisfaction are among the best in our peer group. What is clear in every facet of our self-study is that we now need a more consistent University-wide framework to enable each school to best direct its energy and resources and to capture synergies across the University. The need and desire of the community is for this framework to come from the offices of the central administration yet for it to preserve the intellectual and functional autonomy of the schools, departments and individuals.

The blueprint for this synergizing framework already exists in the faculty committees that oversee doctoral student Ph.D. exams and the ad hoc cross-departmental/cross-school committees that review tenure cases and promotions. These committees work well and represent an effective theory and practice of decentralization. They do not tell scholars how to do their research or direct schools and colleges in paths of intellectual or professional work. Those decisions are decentralized. Rather, these committees bring the expertise from across the University to bear on key personnel decisions and evaluate the results of the scholarly and educational work. They are our guarantors of consistent quality across the board; they are our mechanisms of assessment

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[3] Student comment on services has been particularly critical of dining and parking, as reflected in articles published in one of the University community's newspapers, *The Campus Times*. The Faculty Senate, in responding to this self-study, also mentioned dining and parking services as fundamental concerns.

and ongoing self-evaluation. Because of them and the structure of management they represent, the quality of our faculty remains high, and even in an environment of tight money, the University's overall excellence has improved. As the following summary suggests, almost uniformly, the recommendations of the various Working Groups suggest that the central administration lead the University in the spirit exemplified by these faculty committees.

3. *RECOMMENDATIONS*

The Working Groups made numerous recommendations, including these particularly significant ones:

• There is uniform opinion that the schools other than The College have little communication from institutional leaders concerning vision for the University, evolution of new programs, and successes of programs and faculty in the schools. It would be desirable for the leaders to appear regularly at meetings of faculty to communicate such information. The opinion is that communication of the central administration with deans and vice presidents alone is good but insufficient to develop and sustain full engagement of the faculty.

• The University needs to better publicly articulate its vision and its role in the region. It should articulate its goals to other schools, business leaders and potential supporters as well.

• The University must develop a mechanism to look systematically at any barriers to academic collaboration, and seek ways to lessen or eliminate these.

• A University-wide committee should be established to share information about major curricular changes on an annual basis, to design a mechanism that will permit and even welcome comments from each school in the ongoing evaluation process conducted by each of the schools, and to determine other ways in which curricular cooperation among the schools can be encouraged.

• The central administration should develop better internal processes to appropriately monitor and assess the units' fundraising processes, and to foster cooperation that better captures the synergies among the units.

• The central administration must provide more leadership in fundraising management in an effort to improve those processes.

• There needs to be a significantly greater connection between decision-making about systems investment and development and the budgeting process.

• The central administration has a role to play in convening appropriate players and supporting the collaborative processes in the earliest phases of planning and acquisition of new systems. Those who plan and budget must also include those

who implement systems during the vetting and purchasing phases of system development. Further, the executive sponsor has a role to play in articulating what is to be gained (from a University-wide perspective) from the undertaking.

• In an institutional environment that emphasizes decentralization, a written statement should exist to clarify the rationale for keeping some services under centralized institutional control. When it is understood specifically why a service is centrally provided, managers of the service can produce mission statements and strategic plans that extend directly from the understood rationale. Customers of the service can then become fully involved in the planning processes of these services and assist in developing mechanisms for assessing the ability of the service provider to meet customer needs as articulated by these plans.

• Broader participation by academic customers in the planning for and delivery of centralized services can result in a better understanding by centralized service providers of the potential unintended academic consequences of decisions made without the input of their customers.

• Once a rationale is derived determining which services should be centralized, all services should be examined in that context. Both those services currently centralized and those now decentralized should be reviewed against the rationale. Those not meeting criteria for centralized provision might then be considered for decentralization.

To conclude: Over the past decade, decentralization has been nearly fully implemented at the University of Rochester.   The discrete schools and colleges are stronger as a result. It is now time to rethink and recraft the University's center so that it can become a more effective mechanism for uniting the institution as a whole. Our self-study suggests that its goal should be to lead through enlightened collaboration, not to direct and manage the discrete units, and to use the strengths and accomplishments of each to advance the work of the others.

I.D.   THE STEERING COMMITTEE

Co-Chairs

William Scott Green, Professor of Religion, Philip S. Bernstein Professor of Judaic Studies, and Dean of The College. **The College.**

Nicholas P. Bigelow, Lee A. DuBridge Professor of Physics and Professor of Optics, Director of Undergraduate Studies, Department of Physics and Astronomy. **The College.**

Committee Members

Judith Gedney Baggs, Professor of Nursing, and Associate Dean, Academic Student Affairs. **School of Nursing.**

Adrian Daly, Director of Admissions. **Eastman School of Music.**

Ronald F. Dow, The Andrew H. and Janet Dayton Neilly Dean of River Campus Libraries.

Ronald W. Hansen, Senior Associate Dean for Faculty and Research. **William E. Simon Graduate School of Business Administration.**

Paul LaCelle, Professor of Pharmacy and Physiology and Senior Associate Dean of Graduate Education. **School of Medicine and Dentistry.**

Elizabeth W. Marvin, Professor of Theory and Dean of Academic Affairs. **Eastman School of Music.**

Jack G. Mottley, Associate Professor of Electrical and Computer Engineering and Associate Dean of Undergraduate Programs. **The College.**

Suzanne J. O'Brien, Associate Dean of Undergraduate Studies and Director of College Center for Academic Support. **The College.**

Joanna Olmsted, Professor of Biology and Dean of Faculty Development. **The College.**

Philip Ponella, Director of Information Technology Services, Academic Technology. **Information Technology Services.**

Nancy Speck, Assistant Dean for Institutional Research and Registrar. **The College.**

Tyll van Geel, Earl B. Taylor Professor and Chair of the Educational Leadership Program. **Margaret Warner Graduate School of Education and Human Development.**

Jerold Zimmerman, Professor of Accounting, Ronald L. Bittner Professor of Business Administration. **William E. Simon Graduate School of Business Administration.**

Committee Consultants

Jody Asbury, Dean of Students of The College and Director of the Interfaith Chapel.

Norman Burnett, Director of the Higher Education Opportunity Program and the Office of Minority Student Affairs.

Holly Crawford, University Budget Director.

Sally Ann Hart, Assistant Provost for Institutional Research.

Cary Jensen, Director of International Services Office.

Kathleen Moore, Assistant Provost.

Elissa Newport, George Eastman Professor of Brain and Cognitive Sciences and Linguistics and Chair of Brain and Cognitive Sciences. **The College.**

<u>**Staff**</u>

Lynne Davidson, Associate Provost.

I.E.   THE PROCESS SURROUNDING THE SELF-STUDY

After the initial meetings of the co-chairs and senior administrators, and the events that led to the expansion of the Steering Committee membership to its current size, the Committee held a sequence of meetings, collected data, and took steps to ready the University for review. A guiding theme of the Committee's activities is the inclusion of a broad selection of the University community in the process.

April 2002: Initial meetings of co-chairs and senior administrators. Committee membership broadened.

May: Co-chairs meet to prepare for first full Steering Committee meeting. Steering Committee meets. First assignment to committee presented, a request for a curricular snapshot from each school.

July: Steering Committee meets to review curricular snapshots and discuss guiding questions for topic of "decentralization." Second assignment given to all committee members, to consider and reply to the set of guiding questions.

August: Co-chairs and administrators meet to discuss results from second assignment and to prepare for full committee meeting in September.

September: Full committee meets. Working group leadership established and guiding questions for proposed self-study allocated across committee membership. President and Provost meet with Faculty Senate and discuss decennial review. Self-study proposal document preparation underway.

Early October: Send requests to senior officials and deans soliciting input for upcoming visit from Middle States Commission senior staff and are asked to review participation.

Late October Early November: (1) An "Academic Leadership" retreat is held. Retreat participation includes representatives of all units of the University, including faculty, deans, the Provost and the President. Activities include a half-day focused on the topic of decentralization, including breakout groups. (2) Executive Director J. A. Morse and Deputy Executive Director J. H. Erickson visit the University and endorse the choice of self-study model.

November, December and Early January 2003: Working Groups meet and develop designs for their portion of the self-study. Consolidation of Working Groups takes place. Synthesis of self-study design proceeds through meetings between co-chairs, Committee staff and Working Group leaders. Article in the *Rochester Review*, the University's alumni magazine.

Late January and Early February: Visiting Committee Chair selected. Design for self-study presented to Middle States Commission on Higher Education. Steering Committee co-chairs meet with Steering Committee of the College Faculty Council to present plans for self-study for comment and input.

Late February: Article in *Currents*, the leading campus newspaper, with wide circulation to all members of the University community.

March: Meetings of Working Groups with and without co-chairs continues. Working Groups finalize their plans. Co-chairs meet with entire Steering Committee of the College Faculty Council to describe self-study, and seek further comment and input on plan. Visiting team chair identified.

April to August: Working Groups carry out their plans, including interviews, surveys, and data collection. Meetings of Working Groups with co-chairs and Steering Committee members continue – guidance as needed.

October: Presentation to Academic Affairs Committee of the Board of Trustees. First Working Group reports arrive and are reviewed. Revisions begin.

November: Meeting of co-chairs and Working Group chairs to discuss all reports and define remaining revisions and data needed for final report. Presentation to Faculty Senate.

December: Dissemination of report draft to community at large, including a presentation/report to Faculty Council of The College.

January 2004: Collect final comments from the University community, and incorporate into report.

February: Finalize report; send to Middle States Commission and evaluation team.

II.A. THE WORKING GROUPS

1. *Definitions and Guiding Questions*

In the context of our self-study themes, there are a multitude of questions that we could have asked to help us understand how our organizational management and structure have impacted the University as a whole. Clearly, we could not ask them all. It is our intention, however, to continue this study of ourselves long after the reaccreditation process ends. We are intensely interested, for example, in the way that a decentralized university tackles the difficult issues associated with our desire to achieve a more diverse community. The self-study steering committee did not address that extremely important issue.[4] We summarize here those questions that we did pursue over the course of the last eighteen months.

a) **Curricular Review and Development:** This self-study area begins with a comprehensive collection of overviews of the curricula of the six schools of the University. The next step involves a synthesis of the different approaches to curriculum development and evaluation and focuses on questions that address commonalities and differences within this group. For each school, we ask about the processes used to develop and evaluate their curricula; the methods used to communicate their educational purpose to their constituencies; and about plans for continued curricular development and review.

b) **Administration and the Role of the Center:** What is the University's "center"? How responsive is the "center" to each unit? Decentralization involves decision making at the lowest possible level at which there is a coherent program. How does this affect leadership and governance?

c) **Interdisciplinary Research and Teaching:** Does decentralization create intellectual boundaries and constraints? For research? For education? In what ways does decentralization enhance and in what ways does it hinder interaction of students, faculty and staff across school boundaries?

d) **Fundraising in a Decentralized Environment:** How does fundraising operate? What are the advantages/disadvantages of decentralized fundraising? How are assets of different units/schools separated and how are they linked? Does decentralization create instabilities and liabilities or does it create leverage and integrity?

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[4] Over the last several months, the University has been engaged in a new round of discussions on the issue of diversity, at least in part due to the recent Supreme Court decisions in the University of Michigan admissions cases. In the "post-Michigan" world of admissions, it is possible that the University's goal of greater diversity may be best achieved through policies and practices that utilize some degree of central coordination that do not currently exist. This is one of many issues that will be considered as we continue the process of self-study.

e) **Information Management and Access:** How is information/data shared across units of the University? What are the rules for ownership (and readership) of a unit's data? What are the forms of data communication across units? In what sorts of situations is this structure beneficial? When is it a hindrance?

f) **Services in Decentralized University:** Centralization of services in a decentralized environment is a complex challenge. Where are we succeeding and where are we not succeeding?

2. *LEADERSHIP ASSIGNMENTS AND RATIONALE*

In considering how best to begin planning a self-study based on the themes of decentralization and curricula, the steering committee first considered a plan in which each school and each functional unit of the University be asked to respond to the guiding questions. In this approach, each steering committee member would form a working group and a school- or unit-centered response would be generated. After some discussion an alternative strategy was adopted that offers several significant advantages by making the self-study more constructive and more likely to make a lasting impact on the University. Each Steering Committee member addressed one or more of the guiding questions with a *university-wide perspective*. The benefits of this approach are manifold. **First**, the natural biases that can arise from a school-centered perspective are diluted. Working group membership, by necessity, included members of the community outside of a given group leader's unit. **Second**, because a large scale "woods from the trees" perspective is built into the self-study structure at a very high level, the insight gained from the study crossed unit boundaries. **Third**, members of different units examined the results of other working groups and thus gained a better perspective of university-wide relationships.

Self-Study Theme	Steering Committee														
	Green	Bigelow	Baggs	Daly	Dow	Hansen	LaCelle	Marvin	Mottley	O'Brien	Olmsted	Ponella	Speck	van Geel	Zimmerman
Curricula	√	√								L					
Interdisciplinary Research and Teaching	√	√	√	√		L		√							
Administration	√	√					L								
Information	√	√										L	L		
Fundraising	√	√													L
Services	√	√			L										
Synthesis	CC		√	√	√	√	√	√	√	√	√	√	√	√	√

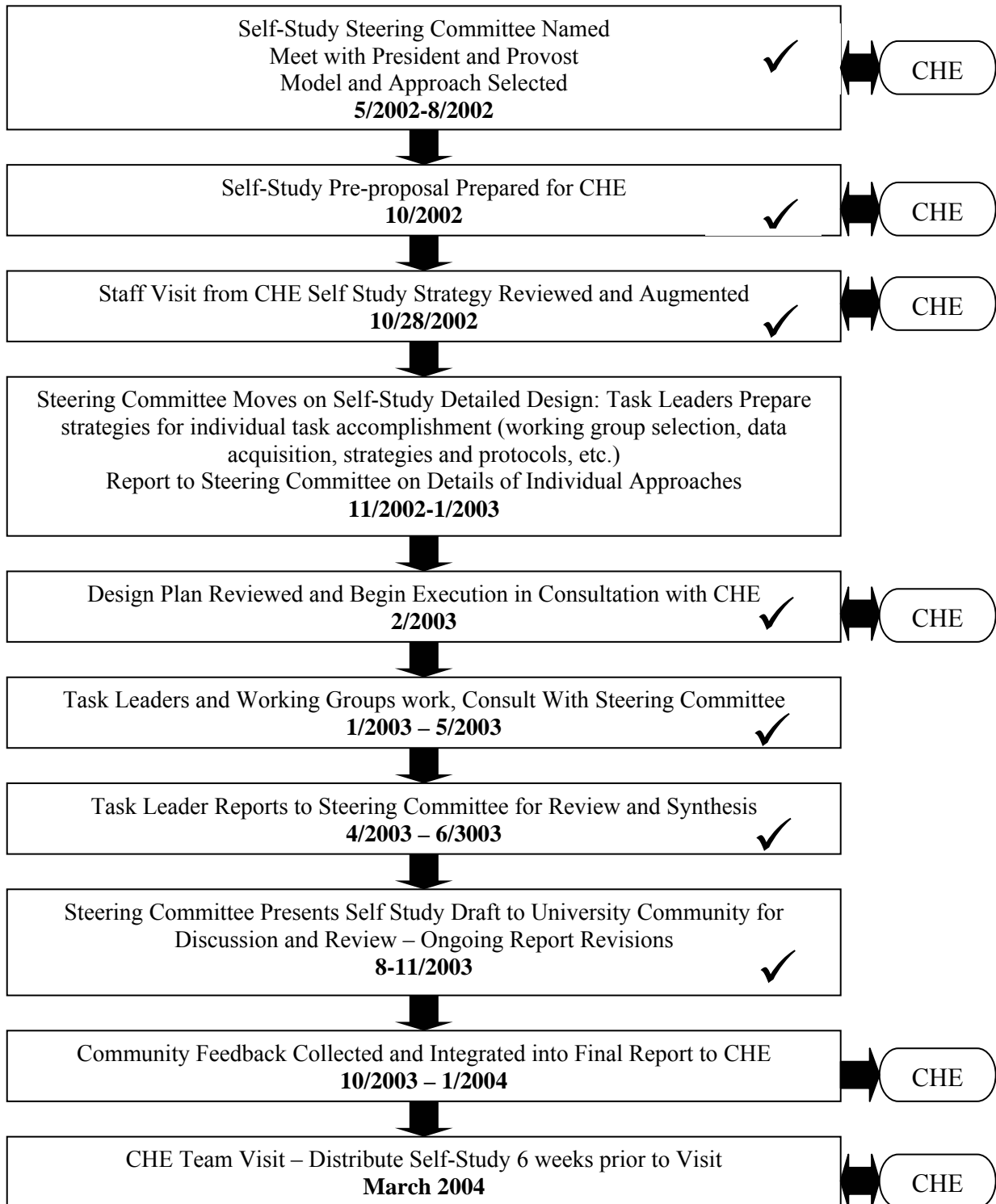CC= Steering Committee co-chairs; L= Working Group Leader

3. *OVERVIEW OF WORKING GROUP ACTIVITIES*

Common to the working groups are **surveys and interviews** of University community members and information harvesting from distributed and centralized databases, departments, and committees. The Steering Committee recognized these activities as effective, and provided logistical support to minimize duplication of effort and saturation of resources. The self-study staff therefore coordinated these efforts to avoid incidental data requests, repetitive surveys, etc.

Decentralization is a process that has progressed over time, starting before the last full accreditation review and predating the 1994 appointment of President Jackson and the formation of the present administration. The Steering Committee concluded that as a result, there is some confusion within the University Community as to exactly what is decentralized and what is not. This is reflected by a common strategy among the Working Groups to generate a "snapshot" of the structure of the University as it relates to their topics and to undertake a set of **case studies** that served as **vignettes** to help the community to think about itself both now and long after the formal accreditation review has been completed.

For example, the working group on information access and management developed and analyzed a case study on the conversion of social security number to University ID as the primary student identifier. This case study allowed the steering committee to view decision-making and implementation on a university-wide issue in the context of the decentralized environment. This particular case study had few substantive programmatic implications, but a significant budgetary one. Other analyses in this self-study reveal something about University process on issues that have less budgetary importance, but are more academic in nature (e.g., the analysis of cross-school collaborations), or are of greater relevance to student life (e.g., the student services case studies).

II.B.   Timeline of the self-study

Self-Study Steering Committee Named
Meet with President and Provost
Model and Approach Selected
5/2002-8/2002
✓   CHE

Self-Study Pre-proposal Prepared for CHE
10/2002
✓   CHE

Staff Visit from CHE Self Study Strategy Reviewed and Augmented
10/28/2002
✓   CHE

Steering Committee Moves on Self-Study Detailed Design: Task Leaders Prepare
strategies for individual task accomplishment (working group selection, data
acquisition, strategies and protocols, etc.)
Report to Steering Committee on Details of Individual Approaches
11/2002-1/2003

Design Plan Reviewed and Begin Execution in Consultation with CHE
2/2003
✓   CHE

Task Leaders and Working Groups work, Consult With Steering Committee
1/2003 – 5/2003
✓

Task Leader Reports to Steering Committee for Review and Synthesis
4/2003 – 6/3003
✓

Steering Committee Presents Self Study Draft to University Community for
Discussion and Review – Ongoing Report Revisions
8-11/2003
✓

Community Feedback Collected and Integrated into Final Report to CHE
10/2003 – 1/2004
CHE

CHE Team Visit – Distribute Self-Study 6 weeks prior to Visit
March 2004
CHE

Following *Designs for Excellence* the alternative self-study can be described in terms of a process-oriented flow chart:

Steering Committee Organizes the Self-Study Process, Defines Approach, Evaluates Planning Questions. Proposes Self-Study Plan. meets CHE staff	Task Leaders and Working Groups Study programs and services in context of alternative topic of self-study with emphasis on assigned sub-themes of self-study Data collected; faculty, students and staff interviewed. Task Leader and Working Group activities encompass entire institution Active use of web based information banking for Steering Committee and eventual CHE use Task Leaders and Working Groups meet regularly with Steering Committee co-chairs (and with Steering Committee). Steering Committee assembles additional supporting materials as described in *Characteristics of Excellence.* Steering Committee develops draft report.	University Wide Discussion And Review of Self-Study Report Draft	Final Report Disseminated in anticipation of March 2004 visit from CHE Team (6 weeks prior to visit)
5-10/02	11/2002 – 11/2003	11/2003 – 1/2004	2/2004

III.A. WORKING GROUP REPORT:
CURRICULAR REVIEW AND DEVELOPMENT

Working Group Membership

Suzanne O'Brien, Associate Dean of Undergraduate Studies and Director of the College
     Center for Academic Support (**Chair**)
Michael Ackerman, Associate Professor, School of Nursing
Raffaella Borasi, Dean, Warner School of Education and Human Development
Tana Grady-Weliky, Senior Associate Dean for Medical Education,
     School of Medicine and Dentistry
David Liptak, Chair, Composition, and Chair,
     Eastman Undergraduate Curriculum Committee
Elissa Newport, Chair, Brain and Cognitive Science and Chair,
     College Curriculum Committee
Marie Rolf, Professor and Chair, Eastman Graduate Curriculum Committee
Jerry Warner, Professor and Chair, Simon MBA Curriculum Committee

Working Group Charge and Guiding Questions

     Six schools comprise the University of Rochester: The College (Arts, Sciences and Engineering), the Eastman School of Music, the William E. Simon Graduate School of Business Administration, the Margaret Warner Graduate School of Education and Human Development, the School of Medicine and Dentistry, and the School of Nursing. Although the Provost, Charles E. Phelps, oversees and monitors all academic programs of the University, he generally delegates development, review, and revision of the various schools' curricula to the schools themselves. One goal of the Self-Study Steering Committee was to understand the processes by which the schools in the University develop, review, and revise their curricula, given the decentralized nature of curricular decision-making. The Committee raised the following questions:
Is there a uniform process across schools? Or are there differences in the schools themselves that necessitate different processes for curricular evaluation? What, if anything, can we say about the quality of the curricula that are a result of the processes inherent in this decentralized environment?

     This evaluation focuses primarily on the University's three largest academic units, The College, The Eastman School of Music, and the School of Medicine and Dentistry. (There will be occasional references to the three smaller units as well.)

     Let us note here that five of the six schools at the University have recently reviewed their curricula for purposes of reaccreditation. The National Association of Schools of Music reaccredited The Eastman School of Music in 2002, the Liaison Committee on Medical Education reaccredited the School of Medicine and Dentistry in 2001, the National League for Nursing Accrediting Commission reaccredited the School of Nursing in 2001, and the American Assembly of Collegiate Schools of Business

reaccredited the William E. Simon Graduate School of Business Administration in 1998. The National Council for Accreditation of Teacher Education is expected to grant accreditation to the Margaret Warner Graduate School of Education and Human Development in 2004. As of this writing, the Warner School teacher education programs (along with the teacher education program in music at Eastman) have met their preconditions and have been declared a candidate by the accreditation board. The Council for Accreditation of Counseling and Related Educational Programs accredited Warner's counseling programs in 2003. Additionally, at the beginning of 2004, based on their fall 2003 site visit, the Accreditation Board for Engineering and Technology is expected to reaccredit all relevant programs in the School of Engineering and Applied Sciences, which resides in The College.

As discussed elsewhere in this report, the undergraduate curriculum in arts and sciences in The College is in the middle of a lengthy review of its three-year old curriculum. The departmental reviews are available in the reaccreditation document files.

Approach and Methods

The first step for the Curriculum Working Group was to understand the processes by which the schools develop, review, and revise their curricula. The Working Group obtained information from curriculum committee chairs in each of the schools to answer the following questions:

- *How is membership on each school's curriculum committee determined?*
- *When were the current curricula established?*
- *What processes are used to develop and evaluate the current curricula?*
- *How do the schools communicate their educational purposes to their constituencies (e.g., faculty, current students, alumni, employers), and how do those constituencies participate in the review and evaluation of the curricula?*
- *What ongoing plans are in place for curricular development and review over the long term and the shorter term? What is the frequency of such reviews? How do the results of such reviews translate into change?*

Second, the Working Group examined the curriculum processes across schools to determine whether or not the schools operate very differently, and if the decentralized process of curriculum review is a necessity given the decentralized nature of the University of Rochester.

Finally, the Curriculum Working Group asked those questions that would help us understand if the curricular evaluation processes employed by the schools produce curricula that are sufficiently unique and take advantage of Rochester's strengths:

- *How do the University's curricula compare to those of comparable institutions?*
- *In what ways do the curricula follow the standards for their fields? If it is possible in your field to go beyond a necessary core, in what ways do you do that? If your curriculum is unique, why is that so, and how is that so?*

- *How does your curriculum relate to your mission and your students' goals? How does the curriculum help your students achieve your school's educational goals?*

Executive Summary, Conclusions and Recommendations

The Self-Study Steering Committee wished to have a better understanding of the processes each of the schools has employed in developing, monitoring, and evaluating their curricula, given the University's decentralized structured and varied curricula. The Committee hoped to find out how differently each school operated, and if the curricular review process appropriately belonged within each school. The Committee also hoped to discover whether the evaluative processes employed by the schools produced curricula that reflected Rochester's strengths and were in some measure unique.

To help us toward these goals, the Curriculum Working Group sought responses to a series of specific questions from each of the schools, asking those who chaired curriculum committees or otherwise had primary responsibilities in this area. We received cooperation from others as well.

To a significant extent, it seems fair to state that as a University we have a far better understanding, having completed this phase of our curricular self-study, how each of our schools handles its central curricular mission. The decentralized process, rather than lead to a chaotic miscellany of academic programs, appears to free each of the units to design curricula most in keeping with its professional and intellectual standards. In fact, the three largest units have recently completed major, comprehensive changes in their curricula, and each has created a unique curriculum that fits comfortably with the traditions of the University of Rochester while moving ahead in new and creative ways.

However, we discovered that there is virtually no mechanism in any of the schools for including formal representation from the other schools in the development, monitoring, or evaluation of the schools' curricula. We offer the following recommendation:

That a University-wide committee be established, composed of those faculty members and administrators, their delegates or replacements, who participated in the Curriculum Working Group. Its charge would be:

- to share information about major curricular changes on an annual basis with the expectation that the faculty and students of many of the schools will be able to profit from this increased knowledge;

- to design a mechanism that will permit and even welcome comments from each of the relevant schools in the ongoing evaluation process conducted by each of the schools;

- to determine other ways in which curricular cooperation among the schools can be encouraged.

We believe that such a committee, by its very nature, will serve to reduce the impediments – minor though they appear to be – that exist in such a decentralized environment.

1.   THE CURRICULA OF THE UNIVERSITY

This section briefly describes the curricula in each of the University's six schools. For more in-depth descriptions, see reaccreditation document files.

a) The College

In The College the driving forces for revising the undergraduate experience derived from the belief that significant improvement in undergraduate education would arise if the boundaries between faculty and student learning could be lowered. Undergraduate education at a major research university is often perceived as taking a back seat to research with the disturbing insinuation that the best teachers are those faculty who no longer are active in research. At Rochester, there is a firm belief that the opposite is in fact the truth. Researchers are inherently curious experts who have learning as their primary activity and who intrinsically involve the students under their supervision in the learning process. It is from this belief that the College revised its curriculum with the goal of making "learning the habit of a lifetime." Briefly, this goal was most clearly expressed in the implementation of two new approaches to undergraduate curricula.

First, a series of Quest courses have been introduced. These are small courses (15-25 students) that are exploratory and research oriented in nature, stressing collaborative conversation and investigation rather than traditional classroom study. Quest courses are data-, research- and laboratory-intensive. In humanities and social sciences, students delve deeply into texts, scrutinize expert research and data, and focus on augmentation and interpretation. In the natural sciences, courses favor the generation and interpretation of new data.

Second, the familiar distribution requirements intended to foster "general education" were replaced with the cluster system. In revising this aspect of the curriculum, three central features of learning were adopted to be the hallmarks of a Rochester education: Curiosity, Competence and Community. The first, Curiosity, is intrinsic to Rochester in that the faculty are active scholars and researchers. Since the drive of curiosity is a fundamental motivator of the faculty's learning we believe that it should work for undergraduates as well. In a standard curriculum, curiosity driven learning can be hindered or even destroyed by too many required courses, outside of the student's major, that they need to "get out of the way." Rather, a set of intellectually connected courses, still outside of the major, that provide an opportunity to attain some depth as well as breadth are more natural ways to nurture "learning as the habit of a lifetime." This is the birth of the cluster concept. In the cluster system, students are required to take two clusters outside of their major area. For example, a chemistry student, instead of having many distribution requirements, takes two clusters, each

composed of three related courses, one in the humanities and another in the social sciences. The reformulation of the requirements to replace the random sampling of isolated topics into a coherent triad of courses – the cluster – expresses the hallmark of Competence. They are able to achieve better than average knowledge in the three classic realms of learning. Finally, the Rochester Curriculum redirects the student's experience from being centered in a single department, that of the major, to active participation in three different intellectual Communities at the University, one linked to their major and two others linked to their divisional clusters. The curricular structure asks students to take ownership of their education by structuring and prioritizing their educational goals and interests.

Both of these curricular developments, the Quest course and the cluster system, have enjoyed external financial support. The William T. and Flora Hewlett Foundation has supported the Quest system, and a grant from the Fred L. Emerson Foundation has helped fund the cluster program.

In addition, the University of Rochester is considered the national leader in the development of the student-led learning group model in the sciences. Since its introduction in 1995, The College's Workshop program has been implemented across the sciences, including biochemistry and biophysics, biology, chemistry, computer science, and physics. Every semester, nearly 25 percent of College undergraduate students participate in one or more Workshop-based courses. Our peer-reviewed assessment studies demonstrate a robust, significant improvement in grades, retention, attitudes, and motivation for Workshop students, including students from under-represented groups, compared to their peers in recitations. (For more information on The College Workshop Program, see Appendix C.)

b) *The School of Medicine and Dentistry*

In the School of Medicine and Dentistry, the Double Helix Curriculum grew out of an initiative aimed at integrating basic and clinical sciences; and enhancing the teaching of the scientific principles of medical research and practice, and the social aspects of illness and health. The Double Helix Curriculum attempts to take to a new level the application of adult learning principles, the concept of problem-based learning, and possibilities for integration across disciplines and between the basic and clinical sciences. In addition to weaving the basic science and clinical "strands" across all four years of medical education, there is further integration across related disciplines within each course in the basic science strand and the core clinical clerkships. Pharmacology, pathology and genetics do not exist as separate courses but are woven throughout each and every course in the Double Helix Curriculum. Finally, there are six named "themes" that are also integrated throughout the curriculum. These themes (Nutrition, Prevention, Ethics and Law, Diversity, Health Care Financing and Organization, and Aging), the so-called "orphan topics" at many schools, have specified learning objectives for each course and year. In addition to traditional course and clerkship directors, there are faculty directors for all six themes and for pharmacology, pathology and genetics, who oversee the integration of those topics throughout the curriculum. Students in the Double Helix Curriculum are guided in their professional development and career planning by

Advisory Deans, with whom they meet regularly both in small groups and individually throughout all four years of medical school to discuss the process of becoming a doctor. These close mentoring and advising relationships are integral to the overall vision of medical education that Rochester has developed.

The Liaison Committee on Medical Education sent a team of evaluators to the School of Medicine and Dentistry on October 15-19, 2000 and met on February 2, 2001, at which time they agreed to continue the accreditation of the educational program leading to the M.D. degree. The evaluation team noted no areas of concern, but rather identified numerous noteworthy achievements of the M.D program since its 1993 accreditation survey (see other reaccreditation documentation, "Report of the Survey of the University of Rochester School of Medicine and Dentistry, October 15-19, 2000, prepared by an Ad Hoc Survey team for the Liaison Committee on Medical Education.) The School received a perfect score, giving Rochester the highest possible accreditation status for a medical school. Full, five-year accreditation with no citations is an achievement earned by few American medical schools.

The survey team concluded that the "Double Helix Curriculum is a bold and innovative initiative that has summoned an extensive institutional commitment to reorganization of the management and delivery of the medical school curriculum . . . A rigorous ongoing assessment strategy reflects extensive planning. The strategy systematically goes beyond accumulating data and feeding it back to the program leadership. It also weaves into the process the expectation for an explicit improvement plan that completes the improvement cycle."

The School of Medicine and Dentistry ranks among the top 10 percent of medical schools for primary care, and is among the top 25 percent of medical schools in the nation, according to *U.S. News & World Report*.

c) *Eastman School of Music*

The primary aim of Eastman's curricula derives from the School's mission: "to give the student an intensive professional education… to prepare each student with a solid foundation in music and an expansive education in the liberal arts…and to develop an informed and inquiring mind that enables each graduate to engage the fundamental issues of his or her art and to become an effective cultural leader in society." The Eastman School summarizes this mission as threefold: artistry, scholarship, and leadership.

The Bachelor of Music (BM) degree is the only undergraduate degree offered at the Eastman School. Graduate studies at Eastman are divided into two divisions: Graduate Professional Studies (MM and DMA) and Graduate Research Studies (MA and PhD).

The Eastman Initiatives in the Eastman School of Music grew out of a realization that changes in the culture and marketplace for music compel us not only to educate

musicians in artistry and scholarship, but to place an increasing emphasis on leadership, outreach and career opportunity.   Begun as part of the Eastman Initiatives in 1995, Music for All—a chamber music outreach program—is aimed at helping all musicians understand how to stimulate demand for the arts, and music in particular, by developing ongoing relationships with the communities in which they reside. The intent of the Warfield Partnership is to provide expanded musical education and opportunity for city youth and for the Rochester City School District and the Eastman School to work together to provide a model urban music education program. The newly named Catherine Filene Shouse Arts Leadership Program (ALP) prepares Eastman students not only to perform and to teach, but also to assume leadership roles in arts organizations.   The ALP certificate curriculum includes internships with arts organizations, guest presentations, and courses such as "Entertainment Law and Music," "Entrepreneurship in Music," "Politics of Art," and "Artistic Programming for the Symphony Orchestra: Balancing Artistic Goals with Financial Realities."

In a bold move that reflects an understanding of the changing nature of classical music in America, the Eastman School has created the Institute for Music Leadership (IML) - the first center of its kind in the country. This organization serves as a focal point for lectures on the nature of classical music in America, related coursework and career preparation counseling (through its Arts Leadership Program), and outreach into the community (through its Music for All program). Recognizing the fundamental power of music and its importance in peoples' lives, the IML's emphasis is on developing and maximizing musicians' leadership potential by providing exceptional opportunities for professional development, nurturing innovative ideas, and bridging the gap between the academic and professional worlds.

The National Association of Schools of Music sent an evaluation team to the Eastman School on September 30 through October 2, 2001. The team noted that among Eastman's strengths is the fact that its curricula "have served as models for the profession." The Eastman School is ranked first in the most recent *U.S. News* survey of graduate music programs.

d) *School of Nursing*

The School of Nursing is nationally recognized for the integration of education, research, and practice within a collaborative academic health setting and innovative health care community. This Unification Model serves as the organizing framework for the School of Nursing's curriculum. The mission of the School of Nursing is: "We improve the health of individuals, families, and communities through innovation and collaboration in the integration of education, research, and practice. Our educational programs are taught by faculty active in research and/or practice and their cutting edge knowledge drives our educational programs."

The School of Nursing is responding to changing demographics and to nursing shortages at all levels by offering efficient degree programs to produce well qualified staff nurses, nurse practitioners, academic clinical researchers, and scholarly

practitioners. The School grants the B.S., M.S., and Ph.D. degrees; however, there are a number of different pathways and programs to these degrees. The pathways to a B.S. include one for registered nurses (RNs) who came into nursing without a B.S. (the RN to BS program) and an Accelerated Baccalaureate Program for Non-Nurses (ABPNN) for those with a B.S. or B.A. in another field. The M.S. program, which has only nurse practitioner specialties, can be entered directly or in combination with either of the new B.S. programs (RN to BS to MS or the Accelerated Master's Program for Non-Nurses). Similarly, the doctorate may be entered directly or in combination with the M.S. program (MS/PhD).

With 682 baccalaureate and post-graduate nursing programs in the country, the Pediatric Nurse Practitioner program at the School of Nursing was named the 7th best in the nation in the 2003 *U.S. News and World Report* annual rankings. The Adult Nurse Practitioner program was ranked 13th in the nation, and the Family Nurse Practitioner program was ranked 21st. Overall, the University of Rochester School of Nursing is 29th in the nation.

e) *Margaret Warner Graduate School of Education and Human Development*

The Warner School is comprised of three basic divisions that house a variety of distinct programs. The three divisions are Teaching and Curriculum, Educational Leadership, and Counseling. Each division offers master's degree, Ed.D., and Ph.D. programs. These degree programs may also lead to the award of a state certificate needed for employment as a professional in New York public schools. (The possibility also exists for a student to enroll in a non-degree program that leads to only New York state certification.)

The Warner School prepares both practitioners and researchers in the fields of education and human development. Graduates of Warner's programs are providing powerful models of leadership and positive examples of change in a number of arenas as: teachers and administrators in schools; provosts in institutes of higher education; school counselors and directors of community agencies; specialists rethinking the curriculum; and scholars at colleges and universities around the globe.

f) *William E. Simon Graduate School of Business Administration*

The Simon School offers three degrees: Masters of Business Administration (M.B.A.), Masters of Science in Business Administration (M.S.) and the Ph.D. in Business Administration. The School teaches several courses to University of Rochester undergraduate students as well, many of whom are in the Management Certificate Program, but there is no undergraduate business major or business degree. The cross-functional economic foundation of the School's curriculum allows students to understand the way that organizational problems incorporate finance, accounting, operations, and marketing issues. The curriculum teaches these principles and a comprehensive understanding of organizations that can be applied to both domestic and international business situations.

The caliber of the Simon program is seen through the School's consistent ranking as one of the top business schools in the country. In *Business Week*, the school has been ranked among the top 30 U.S. business schools in 7 out of 9 surveys since this biennial ranking was established in 1986. *U.S. News & World Report* has ranked the Simon School among the top 30 U.S. business schools in 13 of the 14 years since the annual survey's inception in 1990.

2. CURRICULUM REVIEW

a) Curriculum Committee membership

i) The College

The Dean of the College, in consultation with the Steering Committee of the Faculty Council, appoints six faculty members, representing six different departments of the College, to the College Curriculum Committee. Faculty members are distributed as equitably as possible among all disciplines represented in the College and serve for three-year terms. The Dean of the College also sits on the Curriculum Committee as an ex officio voting member. In addition, one full-time undergraduate student member serves, without vote, for a one-year term. This student is required to have been accepted into a major. Ex officio membership is also extended to the Associate Dean of Undergraduate Programs in the School of Engineering and Applied Sciences, the Associate Dean of Undergraduate Studies in Arts and Sciences, the Director of the College Writing Program, and the Assistant Dean for Institutional Research.[5]

ii) Eastman School of Music

The Eastman School has three curriculum committees. Membership is determined by recommendation from department chairs and then appointment by the Director of the School. The committees are: the Undergraduate Curriculum Committee (UCC), the Graduate Professional Committee (GPC) for performers, and the Graduate Research Committee (GRC).

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[5] For the purposes of this report, the analysis of the College curriculum will focus on the undergraduate curriculum only. This will NOT be the case in the discussion of the curricula in the other schools of the University. For the sake of completeness, a brief description of the curriculum review process for the College's graduate programs follows: Departments and programs each devise their own graduate curriculum to best suit the needs and expectations of the specialized fields. The Committee on Graduate Studies, appointed by the Steering Committee of the Faculty Council, is charged with advising the Dean of the Faculty or the Dean's delegate on the general conduct and administration of graduate work in the College, and submitting proposals to the Faculty Council that affect the general policies of graduate work (e.g., authorization of new degree programs, changes in general requirements for graduate degrees). The Graduate Committee reports to the Council and the faculty on matters that it is studying and on which it has taken action.

iii) School of Medicine and Dentistry

The Curriculum Steering Committee (CSC) for the medical school curriculum was established in December 1997 by the Medical School Advisory Committee and charged with the development and implementation of the Double Helix Curriculum. This body appointed a variety of committees and task forces, which were involved in the planning and implementation of the new curriculum. These working groups (Curriculum Design Teams) were comprised of primarily of faculty and students, but also included resident and alumni representation. Course directors continue to engage members of the original design teams as needed, particularly when examining the course evaluations and when considering significant changes in a course. As the curriculum has unfolded over the past four years, the CSC has maintained oversight responsibility for the curriculum with regular review of course evaluation and continuous improvement. The Senior Associate Dean for Medical Education (SAD-ME) chairs the CSC and determines membership on this committee. The Medical School Advisory Committee then approves those members.

In addition to the CSC, the medical school has two faculty instruction committees. The First and Second Year Instruction Committee (FSYIC) is comprised of course and clerkship directors for all required first and second year courses and clerkships. The Third and Fourth Year Instruction Committee (TFYIC) is comprised of course and clerkship directors for the third and fourth year required courses and clerkships. In addition to course and clerkship leadership, there are a number of ex-officio members on these committees, including representation from the library, educational resources, student services, Advisory Deans and the Senior Associate Dean for Medical Education. These committees are designed to facilitate discussion among course and clerkship directors regarding operational issues for the implementation of courses and clerkships. It has been an opportunity for course leadership to share curricular innovations. The FSYIC and TFYIC meet on a monthly basis. Every other month it is a large group meeting (including the ex-officio members). On alternate months the course and clerkship directors meet independently with the Senior Associate Dean for Medical Education to address specific issues within courses or clerkships that may be more appropriate for a smaller group.

iv) Warner School

Each of the three program areas, Teaching and Curriculum, Counseling and Human Development, and Educational Leadership, essentially acts as a "curriculum committee" for the academic programs falling within its area.

v) School of Nursing

Membership is determined by the by-laws, and faculty members are voted on to the committee.

vi) Simon School

The dean chooses the members of the curriculum committee, and all academic areas are represented.

b) Establishment of current curriculum

i) The College

The current curriculum was largely implemented in the fall of 1996 following the approval by the Faculty Council in April 1995 to replace the College's distribution requirements with a new curricular structure for the bachelor's degree, the Rochester Curriculum. (Prior to this time, in April 1993, the Faculty Council approved the development and introduction of a special category of courses called Quest Courses. These problem-centered courses employ a research-based pedagogy.) After the implementation of the Rochester Curriculum, the Curriculum Committee next engaged in an intense evaluation of our primary writing requirement, and then reviewed the way students meet the upper-level writing requirement. This last refinement of the curriculum was put in place for students graduating in 2001.

ii) Eastman School of Music

There is no single curriculum at Eastman. Rather, there are five distinct degrees, and each of these varies substantially by major. For that reason, it is not possible to assign one date as the establishment of the current curriculum (e.g., the last revision of the Ph.D. curriculum in music theory has a different date from the last revision to the Ph.D. in music education). The degrees are revised on a regular basis, and new degrees are added. The School currently is in the process of adding a new MM in Early Music – its "establishment" will be 2004, whereas many of the other MM degrees (other majors) may be 15 years old or more.

iii) School of Medicine and Dentistry

The undergraduate medical education curriculum in the School of Medicine and Dentistry was initiated in the fall of 1999. The first class to complete this new curriculum graduated in May 2003.

iv) Warner School

The teacher preparation programs were radically revised and resubmitted to the New York State Department of Education in spring 2001 (as required by the State after they revised the requirements for various teaching certifications). The counseling programs (both Masters and Doctoral levels) were considerably revised during the 2001-02 academic year as a result of the self-study undertaken as part of the CACREP accreditation process. The School Administration programs have been reviewed and slightly altered as part of the current NCATE accreditation process. The faculty has been

examining all doctoral programs since fall 2002; as a result of this preliminary analysis, some changes have been proposed and approved by the entire faculty (including the elimination of school-wide core courses and the establishment of a number of new program-specific doctoral level courses.) The curriculum for the programs in Human Development was established several years ago, when Warner had more faculty and students in this area. The curriculum for the programs in Higher Education was established several years ago and will be reviewed within the next two years.

v) School of Nursing

The School of Nursing established its current M.S. and Ph.D. curricula in the fall of 1999, and the undergraduate curriculum in the spring of 2002.

vi) Simon School

The basic structure was established in the early 1980's, with frequent but not radical updates.

c) Processes used to develop and evaluate the current curriculum

i) The College

Beginning in 1991 and for the next three years, successive members of the Curriculum Committee worked to develop programs that would reflect Rochester's distinctive strengths as a small and distinguished research university that is able to offer students a high quality liberal arts education. They focused on the areas of so-called "general education," courses students take before, outside, and alongside their field of major concentration. The first proposal, made to the Faculty Council in April 1993, was to develop and introduce Quest courses. Then, after extensive data gathering and discussions within the Curriculum Committee of alternatives to the distribution requirements, in April 1995, the Faculty Council authorized a new curricular structure for the bachelor's degree called the Rochester Curriculum. During 1995-96, all departments and programs in the College proposed, for Curriculum Committee review, some 200 departmental and interdepartmental clusters. These were reviewed using principles established by the Committee. (There are now over 250 clusters.)

Beginning in 1996, the Curriculum Committee moved on to an intense review of the primary writing requirement, benchmarking with other institutions, bringing in consultants from the University of Chicago and elsewhere, and discussing with all concerned and relevant faculty members at the UR. The change in the writing requirement led to hiring a Director of College Writing from outside UR. Next on the Curriculum Committee's agenda was a review of the upper-level writing requirement. Students had been required to pass two courses that met criteria set by the Writing Committee, but these "stand-alone" courses lacked appropriate oversight. The faculty endorsed a change in this requirement such that every major in The College now incorporates upper-level writing within its requirements. Each department's proposal

was reviewed and ultimately approved by the Curriculum Committee, with the ongoing collaboration of the Director of College Writing.

The final step in the development of the current College curriculum was officially begun in 1999 and ended only recently. The Curriculum Committee sent instructions to each department and program asking for an extensive two-stage review of every major in the College.

The Faculty Council mandates the use of the Student Course Opinion Questionnaire (a multiple-choice survey) in every course every semester. Students also have the opportunity to comment more extensively as part of this process. The results of the SCOQ are analyzed and tabulated and sent to department chairs as well as instructors. The Quest program is evaluated periodically by the Dean of Freshmen and the Curriculum Committee. The College Writing Program has proposed and implemented several enhancements and modifications of the initial course on the basis of continuing evaluation. Departments are asked annually to review their clusters and propose changes to the Curriculum Committee. The Committee analyzes data concerning students' declaration of majors, double majors, minors, and clusters on an annual basis. Graduating seniors beginning with the Class of 2003 are asked a series of questions pertaining to their experience with the Rochester Curriculum. (Results from this survey, together with data from other outstanding non-Ivy universities, are located with the other reaccreditation document files.)

ii) Eastman School of Music

The GPC, GRC, and UCC regularly review the Eastman curricula. Concerns or ideas for change arise from faculty or departments. They put together proposals for discussion by administrators or other affected departments. When the proposal is refined and ready, it goes to a vote by the GPC, GRC, or UCC. A positive vote by the committee is followed by a vote of the full faculty. The proposal is presented at one meeting, and the vote taken at the next meeting.

iii) School of Medicine and Dentistry

A working group of students, faculty and administrators initially reviewed the "old" curriculum and identified areas for curricular improvement. The identified areas included the following: 1) earlier clinical exposure; 2) incorporation of more active learning models; and 3) emphasis on life-long learning. Following this initial review a set of working groups were formed to create a general medical education curriculum that emphasized the knowledge, skills, attitudes and behaviors appropriate to leaders of 21st century medicine. Four overarching goals of the curriculum were outlined at that time.

- Emphasis on active student-centered learning;
- Focus on competencies, learning objectives, and outcomes with continuous study and improvement of the curriculum, teaching and learning;
- Integration of the teaching of basic and clinical sciences across all four years of the curriculum;

- Fostering the knowledge, skills, attitudes and behaviors of the physician/scientist/ humanist through combining evidence-based medicine with the relationship-centered art of medicine.

As noted above small working groups comprised primarily of students and faculty began working on specific areas of the curriculum with an emphasis on integration within and across the basic and clinical sciences. These course design teams developed each of the courses and continue to work together on an as needed basis for review and appropriate revision of courses.

The process for evaluation of the SMD curriculum is multi-layered.

First, students are required to complete evaluations following the completion of each course. Each course has a common set of evaluation questions including the quality of lectures, problem-based learning experiences, and laboratory experiences (if appropriate). Additionally, each course/clerkship director may add specific questions regarding their individual course. In addition to the specific ratings, students are encouraged to provide narrative comments for the overall course and specific lectures and faculty. The course rating and narrative comments are compiled by the Curricular Affairs Office (CAO) and then forwarded to the individual course directors and the SAD-ME. Course directors are then asked to review the material and present their responses to the CSC on an annual basis.

Second, student focus groups are held following each course. These groups are facilitated by a member of the CAO and attended by the course director. This allows students and faculty to have more direct feedback and engage in conversation about specific strengths or weaknesses of the course.

Next, SMD holds bi-annual retreats of the first and second year and third year to review progress and examine what is working and what is not working in the new curriculum. These retreats have facilitated communication among course/clerkship directors with the CSC and have resulted in continued faculty participation in curricular quality improvement.

Finally, performance of SMD students on national board examinations is collected and reviewed. Since the implementation of the new curriculum, there has been no significant change in performance of students on this standardized examination compared to prior performance of students in the "old" curriculum.

iv) Warner School

All changes in curriculum requirements and new courses have to be reviewed and approved by both the Academic Policy Committee (a faculty-elected committee consisting of a faculty member from each of the three program areas) and the faculty as a whole.

When major curriculum reviews take place, "study groups" are established. These groups are comprised of all the faculty in the relevant program area, plus a representative of each of the other two programs and the Dean, to review the existing program and put together an alternative proposal. These proposals are then presented to the faculty and put to a vote.

v) School of Nursing

The process of curriculum development takes place as part of strategic planning and is the work of a faculty work group within each program. Current evaluation of the curriculum takes place each semester by both faculty and students. Administration and the Curriculum Committee both review the evaluation reports.

vi) Simon School

Each academic area has an Area Coordinator. Major changes in a course usually involve both faculty from the area, the coordinator, and approval by the Curriculum Committee. Every course has student evaluations as input.

d) Communication of the educational purpose of the schools to constituencies (e.g., faculty, current students, alumni, employers), and constituency participation in curricular review and evaluation

i) The College

Over the course of the Curriculum Committee's deliberations, faculty members were kept apprised of developments, largely through the Faculty Council, which has membership from every department in The College. Every faculty member receives minutes from the Faculty Council, through which all curricular matters pass. Faculty members who serve as freshman and sophomore advisers, as well as those who advise students in the major, have learned in detail about the Rochester Curriculum. Many faculty members were and are involved in the creation and modification of departmental clusters. Each department has been involved in the two-stage review process of its major, and each will be involved over the next six years as majors, minors, and clusters are evaluated.

Current students hear first about the Rochester Curriculum from Admissions, through publications such as the *Undergraduate Bulletin* and presentations. Meetings with their faculty advisers at orientation, along with further presentations by deans and staff, continue the theme. (During orientation in the fall of 2001, 58% of the freshmen said that the Rochester Curriculum had a slightly or a strong positive effect on their decision to enroll. About 37% of freshmen were unaware of the Rochester Curriculum or said that it had no effect on that decision.) The focus remains on advising throughout the first two years, with faculty and professional staff advisers. Each semester we hold an advising fair, focusing specifically on clusters in the fall and on majors in the spring.

Even the form that a student uses to declare the major graphically depicts the Rochester Curriculum.

Articles in the *Rochester Review*, our primary alumni publication, have highlighted the new Rochester Curriculum, and presentations to alumni given by administrators across the country often focus on the curriculum.

The College has a redesigned transcript both to highlight the unique Rochester Curriculum and to permit our students' interests to be displayed. We know that our students, when designing their resumes, similarly highlight their clusters along with their majors, since they have gained at least a minimum competency in those areas. The Career Center, in a document entitled *Recruit our Best*, refers to "the distinctive Rochester Curriculum" which, "via majors, minors, and 'clusters' of thematically linked courses produced students well versed in a variety of subjects who are eager to learn more and trained to blend research, analysis and communication skills and be curiosity driven."

ii) *Eastman School of Music*

In 2001, the faculty adopted a formal mission statement:
The Eastman School of Music strives:

- o to give the student an intensive professional education in his or her musical discipline;
- o to prepare each student with a solid foundation in music and an expansive education in the liberal arts;
- o to develop an informed and inquiring mind that enables each graduate to engage the fundamental issues of his or her art and to become an effective cultural leader in society; and,
- o through its community and continuing education programs, to offer the highest quality music instruction and performance opportunities for students of all ages.

This mission is sometimes summarized in three "bullet" points: artistry, scholarship, and leadership. The mission and/or the bullets are printed in various publications, and are a significant factor in all of Eastman's advertisements and print materials for the school (especially artistry-scholarship-leadership).

Faculty participation in curriculum review and evaluation occurs through the committees already described, as the full faculty vote for any major curriculum change. Students are members of the UCC. Alumni and employers have no formal role in curriculum design, although Eastman has surveyed alumni to get their input on curricular change. Eastman also has several prominent alumni who sit on its Board of Managers, and these individuals are regularly apprised of curricular innovations and changes as they occur.

iii) *School of Medicine and Dentistry*

As noted above, faculty and students are intimately involved in the review and evaluation of the SMD curriculum through their participation on instruction committees, course/clerkship design teams, student focus groups, regular curricular retreats, and, for students, completion of course evaluations. Additionally, a wide range of faculty, residents, and students are invited to attend a semi-annual DHC curriculum committee meeting, in which an innovative curricular idea is presented or there is an update on the curriculum.

Communication about the medical student education program and purpose is facilitated through regular instruction committee meetings, retreats, and semi-annual DHC curriculum committee meetings. Additionally, there is an annual medical education conference each spring, open to students, residents, staff, faculty and administrators, which highlights a range of topics within medical education. For example, the initial medical education conference in 1998 provided an opportunity for faculty to engage in small and large group discussion of the upcoming curricular change and to learn about the problem-based learning process. Additional conference topics have included methods of student assessment and educational scholarship.

In addition to face-to-face meetings or conferences, SMD maintains a website about the curriculum. The site describes the curriculum in some detail for local students, faculty and staff, but also gives alumni and other interested medical educators an opportunity to learn about this innovative curriculum.

Information about aspects of the SMD curriculum is also presented at regional and national conferences through poster or platform presentations. These national venues at general medical education (e.g., AAMC) or specialty (e.g. Society for Neuroscience) meetings facilitate communication about the curriculum.

iv) **Warner School**

Warner's mission, educational purposes and major programs are described in the viewbook and website (both of which have undergone considerable change over the past couple of years).

The Warner School held meetings with various constituencies, (students, community members, etc.) as part of the review of the teacher preparation and counseling programs. The School will do the same for future reviews, including the upcoming review of the doctoral programs.

v) *School of Nursing*

Nursing's educational purpose is communicated in several ways. The most widely accessed communication is the School of Nursing web site. The educational purpose is also communicated in various catalogues and marketing materials that the

School prepares. Faculty and students evaluate courses within the curriculum each semester. Faculty, employers, and alumni all participate in evaluation as members of advisory groups for each program.

vi) Simon School

Simon has various councils and committees for periodic communication with its constituencies. The curriculum committee actively seeks input when appropriate.

e) Long-term and short-term curricular development and review, and incorporation of results

i) The College

Having now completed its review of all majors, the Curriculum Committee is embarking upon a seven-year cycle of curriculum review. Every year for the next six years the Committee will ask a subset of our departments and programs to review their majors, minors, and clusters and report their findings. During the seventh year, the Committee will review the entire Rochester Curriculum.

The College will review the Quest program, and the primary writing requirement more frequently.

The Curriculum Committee reviews proposals for change that emanate from departments. If the Committee approves those proposals, they are forwarded to the Steering Committee of the Faculty Council for presentation to the entire Faculty Council. All proposals made by the Curriculum Committee would follow the same route.

The Rochester Curriculum's cluster requirement and the writing program have very recently been reviewed as part of the successful ABET accreditation process in the School of Engineering and Applied Sciences.

ii) Eastman School of Music

Eastman's accrediting body, NASM, reviews the School every 10 years. Eastman conducts a less formal review every five years. Reviews and results are funneled through the UCC, GPC, and GRC. The UCC is actively looking now at ways to modify the curriculum based on some complaints by performance faculty that students do not have enough time for practice. Graduate curricula are more departmentally based. Recommendations for change generally are generated by faculty in the departments, and go from there to committee.

iii) School of Medicine and Dentistry

Short-term strategies regarding regular review of our curriculum include continued student evaluation of courses and clerkships. This feedback will continue to be

given to course and clerkship directors who will be responsible for reviewing and responding to the evaluations. Course and clerkship directors will also continue to present on a regular basis to the CSC in an effort to facilitate continued guidance. Through this regular review and oversight, we will be able to ensure that results of the review are incorporated into the curriculum. Long-term strategies for curriculum development and review include the following:

- Acquisition of survey information from young alumni ("old" curriculum compared to "new" DHC curriculum) in an effort to assess what differences may exist during the graduate medical education and early practice experiences. This information will help us to continue to appropriately shape our curriculum.
- Continued close examination of our students' performance on national standardized tests as one measure of our curricular strengths and weaknesses.
- Enhance our formative competency-based comprehensive assessment for medical students and look at opportunities for incorporation of similar assessments for graduate medical education and continuing medical education. Competency-based education is a growing national trend for which we have started to prepare our undergraduate medical students. Further assessment of the success of our undergraduate programs is needed with the potential to expand these methods to graduate and continuing medical education programs.

iv) Warner School

While there is no system in place to evaluate curriculum on a regular basis, both the counseling and teaching preparation programs have started the practice of having an annual meeting to review their programs and identify issues that need to be addressed.

v) School of Nursing

Each program undergoes a regular review every three years. The School of Nursing also has an evaluation committee. Both the Evaluation Committee and the Curriculum Committee make recommendations for programmatic changes as needed. The results are incorporated through each program's curricular sub-committee, which makes recommendations to the School of Nursing Curriculum Committee, and then on for faculty approval as needed.

vi) Simon School

The curriculum committee is a standing committee and meets regularly. The Simon School does not perform full curriculum reviews on a regular basis, but rather the School focuses on specific issues and areas that seem to need improvement.

3. CURRICULUM ANALYSIS

a) Uniqueness of curricula, comparisons to comparable institutions, and following the standards for the field?

i) *The College*

The Rochester Curriculum is distinctive among American universities, although some other institutions have expressed an interest in copying it. How The College curriculum compares to that of comparable institutions is perhaps most succinctly summarized in the Admissions brochure entitled *High School Gives You Requirements. College Should Offer You Choices.* (This and other admissions documents may be found with the other reaccreditation documentation.) Three other types of curricula are noted, along with their pros and cons. Some colleges (such as Rochester prior to the Rochester Curriculum) rely upon distribution requirements, some have a core curriculum, and some with an open curriculum have no course requirements at all.

The Rochester Curriculum takes the special character of college education seriously and attempts to craft a structure of learning that both respects the student as an individual learner and takes full advantage of Rochester's character as a research university. University researchers/teachers are self-motivated learners, people who every day work to sharpen understanding and create new knowledge. More than any other group in society, a university research faculty knows how to make learning the habit of a lifetime. The basic aim of the Rochester Curriculum is to break down the barriers between the way the faculty learn and the students learn so that students can make the content, but also the practice, of disciplined learning their own. The College does this through the Quest Program and the Rochester Curriculum.

The Rochester Curriculum is simple, flexible, and reflects the true hallmarks of university life and learning—curiosity, competence, and community.

> *Curiosity*—The most important discoveries in the history of science, the most enduring works of art and literature, and the most compelling theories of society are the consequences of curiosity—which brings with it scholarly or artistic energy and persistence that won't let a question rest until it is answered. The freedom to follow one's own curiosity is the prime motivator of faculty learning, and it works just as well for undergraduates as it does for faculty. Therefore, we do not restrict our students' freedom with a system in which they must take required courses to "get them out of the way." Instead, we ask students to take responsibility and build their college education out of their own interests, goals, and aspirations. Broad and free experimentation with ideas and subjects allows them to discover and sharpen their own interests and to learn their own strengths and weaknesses.
>
> *Competence*—We believe that for students to understand how a field of learning actually works, they need to spend sufficient time in it to learn its language, become familiar with its artifacts, and experience its logic. The Rochester Curriculum allows them to do so—not just in their major, but also in two other fields across the liberal arts disciplines. A key mark of a Rochester education is a demonstrable competence in the three major realms of thought and analysis and

the consequent ability to make informed intellectual connections across fields and disciplines.

Community—Curiosity does not thrive in isolation, and our researchers do not—indeed, cannot—work alone. Active participation in a community of inquiry and expertise, engagement in a heritage of curiosity, is a fundamental ingredient of the intellectual life in a research culture. By providing the framework for a major and two clusters, the Rochester Curriculum invites students into three different intellectual communities—three different sustained conversations about learning and ideas—during their undergraduate careers.

Since a substantial part of a student's academic experience focuses on the major, it makes sense in a review of the curriculum to analyze also how the requirements of each major compare to those of comparable institutions. A specified part of the Curriculum Committee's review of all majors involved benchmarking with a set of schools determined by each department. These reviews in many cases (see Mathematics and English for two examples) have proven helpful to departments and to the Committee, as they provide information showing where our "standard" majors were congruent and where they were not.

ii) Eastman School of Music

Eastman's most recent NASM accreditation documents address these curriculum questions in great detail (and are available upon request).

iii) Warner School

In the past couple of years, Warner has undergone considerable curriculum change, in part as a response to the decision to seek national accreditation in both counseling and teaching. As part of this accreditation process, the School has clearly articulated its mission as a unit, and also the more specific goals of some of the School's major programs – i.e., teacher, counseling and school administration preparation. Warner also has articulated how these goals are in line with the standards supported by relevant professional organizations (as articulated in the "pre-conditions documentation" for NCATE, which can be found with the reaccreditation documentation). Warner is in the process of developing an assessment system that will ensure that its students meet these goals. This process will be completed in spring 2004.

As of summer 2003, Warner has full accreditation for eight years for the master's and doctoral programs in counseling from CACREP. The accreditation process with NCATE is ongoing, with a site visit scheduled for spring 2004. Warner has, however, already "passed" the "pre-conditions requirements," as well as the preliminary review by the relevant professional organization for most of its teacher education programs.

iv) School of Nursing

The School of Nursing's most recent NLNAC accreditation documents address these curriculum questions in great detail (and are available upon request).

*b) **Curriculum, mission, and students' goals?***

i) The College

Academic programs in the College are deliberately designed to create a small, collegial, academic environment where students work closely with faculty and classmates while also having access to the intellectual and technological resources of a world-class research university. A hallmark of flexibility for the individual student, the distinctive Rochester Curriculum allows undergraduates' own interests to drive their learning. Students can thus become active partners in learning rather than mere consumers of education. The Rochester Curriculum fully integrates learning opportunities with the research culture of the institution.

The students' backgrounds, interests, and educational goals are too diverse to assume there is a "common learning" that can serve them all. Therefore, students' freedom is not restricted by a system in which they take required courses to "get them out of the way." Rather, a fundamental step in becoming educated is for students to take the responsibility – and to plan – for broad and free experimentation with ideas and subjects, within a specified academic framework, and thereby to discover or sharpen their interests and learn their intellectual strengths and weaknesses.

ii) Eastman School of Music

Eastman's most recent NASM accreditation documents address these curriculum questions in great detail (and are available upon request).

iii) School of Nursing

The School of Nursing's most recent NLNAC accreditation documents address these curriculum questions in great detail (and are available upon request).

4. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS.

The Self-Study Steering Committee wished to have a better understanding of the processes each of the schools has employed in developing, monitoring, and evaluating their curricula, given the University's decentralized structured and varied curricula. The Committee hoped to find out how differently each school operated, and if the curricular review process appropriately belonged within each school. The Committee also hoped to discover whether the evaluative processes employed by the schools produced curricula that reflected Rochester's strengths and were in some measure unique.

To a significant extent, it seems fair to state that as a University we have a far better understanding, having completed this phase of our curricular self-study, how each of our schools handles its central curricular mission. The decentralized process, rather than lead to a chaotic miscellany of academic programs, appears to free each of the units to design curricula most in keeping with its professional and intellectual standards. In fact, the three largest units have recently completed major, comprehensive changes in their curricula, and each has created a unique curriculum that fits comfortably with the traditions of the University of Rochester while moving ahead in new and creative ways.

However, we discovered that there is virtually no mechanism in any of the schools for including formal representation from the other schools in the development, monitoring, or evaluation of the schools' curricula. We offer the following recommendation:

> *That a University-wide committee be established, composed of those faculty members and administrators, their delegates or replacements, who participated in the Curriculum Working Group. Its charge would be*:
>
> • to share information about major curricular changes on an annual basis with the expectation that the faculty and students of many of the schools will be able to profit from this increased knowledge;
>
> • to design a mechanism that will permit and even welcome comments from each of the relevant schools in the ongoing evaluation process conducted by each of the schools;
>
> • to determine other ways in which curricular cooperation among the schools can be encouraged.

We believe that such a committee, by its very nature, will serve to reduce the impediments – minor though they appear to be – that exist in such a decentralized environment.

III.B. Working Group Report:
Administration and the Role of the Center

Working Group Membership

Paul LaCelle, Senior Associate Dean of Graduate Education, School of Medicine and
      Dentistry **(Chair)**
Linda Altpeter, Eastman School of Music
Elaine Andolina, Director of Admissions, School of Nursing
Rose Burgholzer, Administrator, Biochemistry and Biophysics
Christa Chatfield, student
Jules Cohen, Professor of Medicine
Fern Hilsinger, student
Linda Lipani, Registrar, Offices for Graduate Education, School of Medicine and
      Dentistry
Robert Wason, Professor of Music Theory
Richard Waugh, Chair of Biomedical Engineering
Jill Weimer, student

Working Group Charge and Guiding Questions

      The Self-Study Steering Committee established the following guiding questions for the working group concerned with the role of the central administration and its effectiveness:

> *What is the role of a central administration in a decentralized university?*

> *What are the critical dynamics in establishing decision-making at the lowest level at which there is a coherent program?*

> *How does the decentralized university assure quality, communicate vision, and represent itself to the broader external community?*

Approach

      The core activity of the Working Group is based on derivative inquiry: **surveys** and **interviews**. Specifically the Group interviewed deans, chairs and other leaders as well as faculty and students.

      From these guiding questions, the working group developed two primary themes to guide information collections from administrators, faculty, students, and staff.

> *Allocation of responsibility*:
> *How effective are the mechanisms that assign responsibility to either the central administration or the local units? Is there an appropriate distribution of*

responsibility or is there a disproportionate retention of responsibility at the central level or at the unit level? How functional are mechanisms to benchmark, monitor and continuously upgrade quality? Are local unit interests well represented to the central administration and governing bodies?

Final authority of the central administration:
What responsibility does the central administration have to represent the interests of the University and local units to the community, other academic, and business institutions? Should the central administration be the ultimate intellectual center or spokesperson for units of the University? Do initiatives in program development originate in schools and their divisions or does the initiative and final authority remain in the central administration? If initiatives originate in the schools and their divisions, what is the role of the central administration? How responsive is the University to initiatives arising in the local unit?

Methods

The working group surveyed opinion of the schools, including their leaders, faculty, staff members, and students to obtain data to address various aspects of the themes. The Working Group employed three methods: interviews, a survey, and a study of representative focus group opinion. The questions examined the perspectives of individuals in leadership roles within the schools of the University and faculty opinions that reflect the perspectives of faculty in each school. The Working Group also solicited undergraduate and graduate student opinion, with inquiry suited to students' interests in their schools and programs. Finally, the Working Group obtained opinions from a representative group of University staff. See Appendix D for a list of interview, survey, and focus group questions, and for lists of interviewees.

Executive Summary

The philosophy of a decentralized governance and administrative structure generally functions well in the opinion of leaders, faculty, staff, and students. For a small, research-intensive University with strong professional schools that have specific missions and individual identities, this decentralized structure is preferred to a highly centralized one. Those functions that remain central are recognized by all constituencies as appropriate to the role of central administration.

The primary role of the central administration is to articulate vision for the University to its schools and divisions, to academic peers of deans, chairs and faculty, and to the public, and to plan for the future of the University. The expressed opinion is that greater effort is needed to develop vision and express it, particularly to the community (Rochester and area) as well as to the schools and divisions. The decentralized model has the disadvantages of making the image and vision of the University relatively diffuse; there is a tendency among the schools, especially the Eastman School and School of Medicine and Dentistry, to be functionally separated from

the rest of the University. This detracts from intramural communication, and establishment of a highly visible positive image.

There is a concern that although delegation is appropriate, the central administration is not sufficiently involved in oversight and dialogue to assure appropriate standards, initiation of novel efforts and periodic critical evaluation of units (beyond their reviews by accrediting agencies). Selection of leaders is, on balance, good. Few *exceptional* leaders have been brought to the University and some programs have lost their former reputations.

It is clear that the administration expects a high level of quality in academics and in faculty performance. The responsibility for that quality is assigned to the schools and divisions. Benchmarking and monitoring are delegated to schools as well.

The mechanisms for assignment of responsibility, following the premise that decision making logically should be done at the lowest level where there is a coherent program, is reasonable and has proved effective. Delegation of authority is substantiated and to some extent enhances the leadership of units; however, delegation of authority without critical periodic review may allow units to decline or simply maintain the status quo, while our peer institutions grow in quality and impact. (It is recognized that financial considerations may limit growth or may contribute to decline.)

The ultimate intellectual visibility of the University includes the contribution of the central administration *and* those of the individual units. Further, the central administration, in concert with the schools, should indicate how development and improvement will occur. This reflects both the reality of the strengths of programs of the schools and the necessity of the key representation by the University leaders.

Initiatives and development do and should originate in the schools and their units, with the support of the administration, which must modulate the needs of the University with the goals and directions of these units. This works effectively within the present model. The final authority remains with the University leadership as agents of the Board of Trustees.

<u>Working Group Recommendations</u>

- Focus groups proved exceptionally useful as a means to promote discussion and reveal broad opinions across the University constituencies. Therefore, we recommend that this approach be used to provide opportunity for the constituencies to express opinions and to become aware of University visions, directions, and development. Focus groups are potentially of great value for undergraduate and graduate students to express their concerns and to become aware of the broad opportunities and activities within the University.

- There is a uniform opinion that the schools other than The College have little communication from institutional leaders concerning vision for the University,

evolution of new programs, and successes of programs and faculty in the schools. It would be desirable for the leaders to appear regularly at meetings of faculty, including deans and chairs, to communicate such information. The opinion is that communication of the central administration with deans and vice presidents alone is good but insufficient to develop and sustain full engagement of the faculty.

- The University's vision of its directions and its role in the region and its relationships need to be expressed in an ongoing effort involving community leadership. The University's directions and accomplishments currently are perceptions from the limited information from local newspapers and extremely limited television coverage.

- The University leadership, representing a vigorous institution, should develop more effective public relations efforts to identify and articulate specific goals to peers, to regional schools, business leaders, and potential supporters. Although public perceptions often are determined by third parties, especially the media, the University's plans and important achievements should be strongly presented to all elements of its public and intellectual communities.

- An actively updated University website should highlight University activities and accomplishments.

- The University Faculty Senate, the one representative body constituted from all the schools of the University, needs to be evaluated in terms of strategies to make it useful to both the faculties and University leadership. Reconfiguration of membership selection and a new perception of its key role would permit the Senate to initiate and discuss new directions and communicate effectively with its constituents as well as to serve an important constructive, analytical role with respect to programs and institutional leadership.
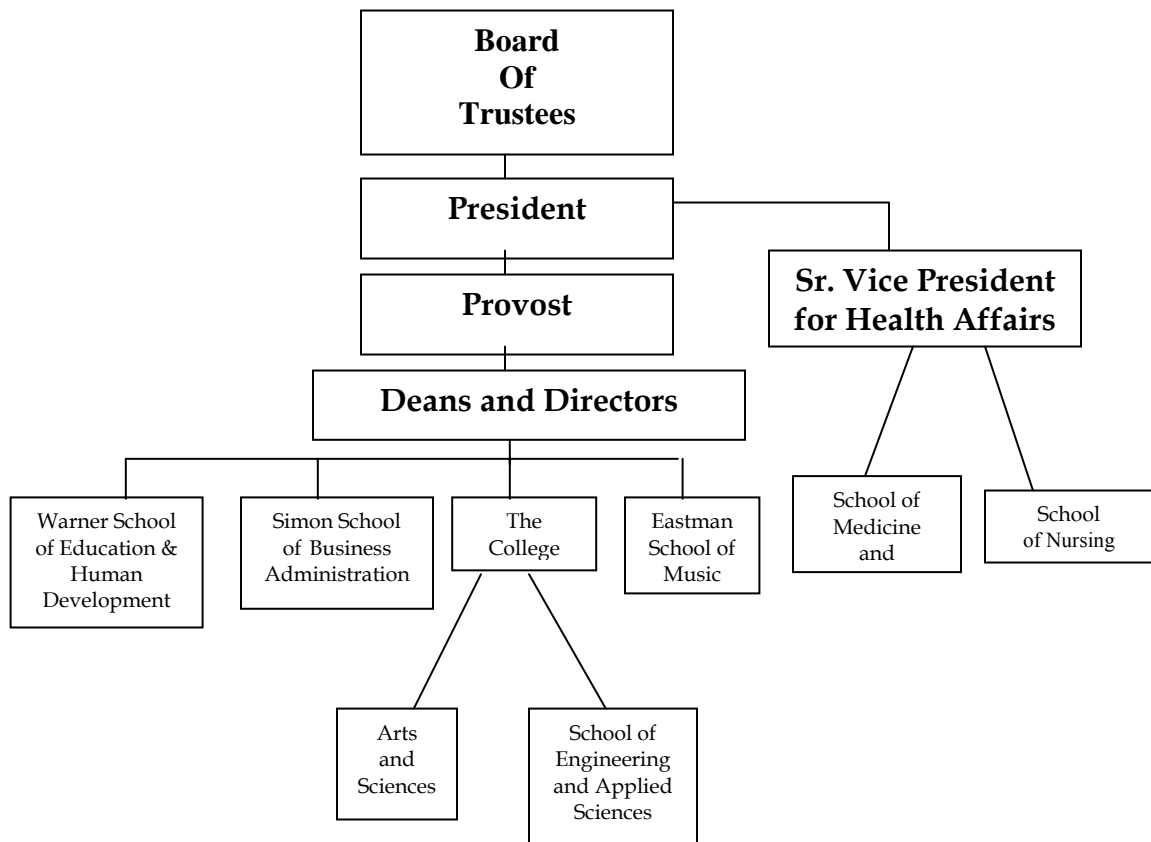
1. *STRUCTURE OF THE UNIVERSITY*

a) *Academic Organization*

The University's academic organization is depicted in figure 1. The Schools comprising the University report to the central administration through deans and directors, except in the case of the Schools of Medicine and Dentistry and Nursing, which report to the central administration through the Senior Vice President for Health Affairs. The central administration is defined as the President, Provost, their supportive Vice Presidents and the service groups, which report to the Central Administration.

Figure 1

University of Rochester
Academic Organization

Board
Of
Trustees

President

Provost

Sr. Vice President
for Health Affairs

Deans and Directors

Warner School
of Education &
Human
Development

Simon School
of Business
Administration

The
College

Eastman
School of
Music

School of
Medicine
and

School
of Nursing

Arts
and
Sciences

School of
Engineering
and Applied
Sciences

b) *Faculty Senate of the University*

The Faculty Senate is the sole established representative faculty organization whose elected members relate the faculty of all the schools to the University's central administration and, through the Administration, to the Trustees of the University.

2. *SUMMARY OF FINDINGS*

a) *Mission and vision*

Summary: The University portrays as its identity a group of loosely connected schools. Faculty and academic leaders have little awareness or collective understanding of the University's vision and mission. Many feel that it is critical that this be developed as a whole. Others question whether it matters. The staff group was the only group that felt they knew and understood the vision of the University.

Interviewees noted the relative separation of the School of Medicine and Dentistry and Eastman School from the remainder of the University and considered it important for the central administration to alleviate this sense of separation while at the same time delegating authority to these units. Several expressed the opinion that decentralization exacerbates the relative detachment and aloofness perceived by the schools with respect to the central administration. This is viewed as the main disadvantage of decentralization, which affects the sense of overall vision of the University, the effectiveness of the central administration to reflect interests of the schools throughout the University, and to the broader academic community and public.

i) *Perspective of deans, directors, and department chairs on River Campus and Eastman School of Music*

Respondents in this group say there is no vision that is apparent to the community. If there is a vision, it is more "bureaucratic rather than inspirational." Externally, the "University of Rochester's reputation in the community is ambiguous at best." In their opinion, operating under a model of decentralization underscores a lack of unity to the larger community. One said, *"decentralized functioning impacts central administration's ability to identify and create a vision. We are really just a loosely held grouping of schools."*

These participants say they are not sure why there is no vision and suggest that UR is "distracted or preoccupied with financial problems." The larger question is, "does identity and vision really even matter?" This group also believes that government relations are a huge concern. They feel that this is managed in a fragmented manner and needs to be addressed.[6]

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[6] In January 2004, President Jackson centralized all University government relations efforts with the appointment of a new Executive Director of Government Relations and the formation of a Policy and Priorities Advisory Committee that will advise the President. This change should address the concern of fragmentation that the deans and department chairs express here.

ii) Perspective of deans, directors, and department chairs in the Medical Center

The participants in this focus group claim there is no vision being expressed by the UR as a whole, nor do they feel it is critical to focus on developing a vision or mission. All respondents agree that central administration serves as the umbrella at the top, and provides "figureheads" for the internal and external UR communities. *It "combines and holds the pieces together for one presentation to the outside world."*

They expressed some concerns about the balance that the central administration strikes between facilitating and controlling. Some participants view the role of central administration as overly authoritative. One said, "central administration can be seen like this - can I help you? Can I control you?"

iii) Perspective of faculty

This group describes a general lack of articulated vision to the schools and their faculty, and to the community at large. Some individuals consider this as a defect of decentralization, in which each school expresses its own vision rather than the central administration expressing a summary of the schools' aspirations as a whole. However, others consider a relative lack of communication as being typical of research-intensive, academically competitive universities whose concerns often are financial or focused on their relationships to organizations outside the university (e.g., industry.)

iv) Perspective of faculty senators

Faculty Senators consider the vision of the University of Rochester is "their self image" and that this vision is not forward looking. Senators believe that the central administration's attention to fundamental organizational problems has distracted them from articulating an appropriate vision.

Noting the lack of appropriate vision, these faculty also recognize that there may not be much value in a university-wide vision since departments and, to some extent, schools have a dynamic evolving vision. It would be a daunting task to integrate the vision of these units with a vision and goals for the entire university.

v) Perspective of staff

Compared to the faculty and academic leader groups, staff demonstrate a good understanding of the University's vision, and believe that the University's vision is well communicated.[7]

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[7] It has been noted that University staff members should typically get their sense of vision for the institution from faculty and higher level administrators. Therefore, it is curious that staff have a clearer sense of vision than other groups at the University, and one may wonder whether this sense of vision is complete or "accurate."

b) *Authority and responsibility*

Summary: The faculty and academic leaders who expressed opinions about the authority of central administration believe that the center has some, but not all, of the final decision-making authority. There are times that the central administration retains the power to make critical programmatic decisions that are generally made at the department or unit level. Overall, however, the University community regards central administration's role as being highly operational. The University community also recognizes the responsibility and hence authority inherent in the central administration's relationship to the Board of Trustees and less obviously, but importantly, to the agencies of New York State. The deliberately established decentralized model reduces authority of the center somewhat; however ultimate authority, by definition, remains with the central administration. Nevertheless, the units understand that their decisions have implications for the University both in terms of program and financial considerations.

Current decentralized processes are working well across the board and with every group. In addition, the departments feel they carry an appropriate and welcome level of autonomy. There were no suggestions from participants for centralizing any currently decentralized functions. The autonomy required to make unit or department level decisions is necessary to keep pace with students, staff and even patient demands.   There were some suggestions, however, to decentralize some of the functions that remain centralized (e.g., the Office of Research and Project Administration), especially because of the perception that the culture of the Medical Center is so different than that of the rest of the University, although this preference was specific to faculty and not staff.

Members of the community values connections among departments, schools and centers. They feel more collaboration and communication across school and departmental boundaries would improve the connections.

i) *Perspective of deans, directors, and department chairs on River Campus*

According to the participants in this group, the primary function of the central administration should be to *plan for the future*, including operational maintenance and management. One concern of this group is the lack of adequate communication of the University of Rochester's novel program development (e.g. the College's Renaissance Plan) to the community and the relative paucity of communication to the public, community leaders, regional academic institutions, and businesses.

ii) *Perspective of deans, directors, and department chairs in the Medical Center*

Respondents in this focus group say the function of central administration is to perform *"customer service" functions*. These should include: University policy, development, some services and operations, human resources, endowment investment, legal services, and purchasing activities such as bidding.

The participants in this group believe that the central administration is also singularly responsible for controlling all money and budgets, and that the Medical Center is really the customer. Allocation of dollars is by central administration, ultimately the only group that sets up all accounting procedures.

Many faculty and department chairs in this group made comments related to important central services that serve an academic role, such as the Office of Research and Project Administration (ORPA), legal counsel, and processes that facilitate cross-campus collaborations. The operations of ORPA are an especially huge and passionate concern for this group. They believe that ORPA in not as responsive as it was in the past and that timely communication, a priority for this group, is *not* a priority for ORPA. They would like to see greater access to, and control of, ORPA at the school level.[8]

This group believes that the legal counsel functions that remain centralized are non-responsive and inefficient. Medical Center faculty believe that this problem is heightened because the Medical Center culture is unique within the University and "central administration does not understand the speed and nature of the Medical Center business."

Faculty and academic leaders in the Medical Center believe that many of the collaborative efforts they initiate with central administration are driven by necessity and not necessarily by relationship or desire. This is especially true of the research, legal and programmatic activities that require approval.

iii) Perspective of faculty

The University is well represented in its peer group of 50 research Universities of the United States and in the National Academies' Research Council. The impression is that there is little sense of an overarching or shared "vision" that would apply appropriately to all units of the University. There is, of course, an articulated University aspiration to achieve and maintain prominence as a prestigious – yet relatively small – research-intensive institution.

The central administration's role in communicating to the non-academic community of the region, and to the political institutions in the city and county is minimal. The central administration has almost *no* presence in local media; it's as if it doesn't exist. It would seem that the role of media spokesperson would be an important one for the presidency in a decentralized university. There *are* issues, after all, confronting both the University and the City that the President and central administration

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[8] The steering committee wishes to note, however, that this is a good example of an office for which perception may frequently differ from reality. ORPA routinely uses University listserves to disseminate grant information, conducts workshops for faculty and staff, and recently developed an extremely popular certification program for research administrators. Administration and Finance also has developed a Clinical Research Review Improvement Team that provides critical feedback to ORPA, and is planning to survey the research community about how well the research needs are addressed by offices such as ORPA.

leaders could weigh in on. As decentralization moves forward, the central administration must increase the University's visibility.

Interviewees in this group stress the need for central administration to increase visibility in the community, communicating their vision and, more importantly, communicating those University activities that will have long-term effects and benefits to the non-academic community.

iv) Perspective of faculty senators

Faculty Senators believe that the central administration has been very effective in specific efforts, such as the implementation of the Renaissance Plan, and in the exercise of central administrative power to better the University of Rochester community. The senators believe the central administration is ineffective in areas that should involve faculty opinion; such opinion is not solicited. This group would like to see a greater role for the Faculty Senate in representing faculty to the central administration. This group commented that some members of the Faculty Senate feel "abused" by the administration.

The central administration should enhance efforts to develop cross-school and cross-department contacts. Although research collaboration occurs, there is a need for the central leaders to create incentives for additional interactions.

v) Perspective of staff

University staff indicated that, in general, authority should and does remain in the central administration. But in order to be a perceived as a more unified system, staff members feel strongly that better communication from central administration is the key. They would like to know more about accomplishments that occur that directly relate to the University's strategy for growth. In addition, they see a great opportunity being missed because the Medical Center operates so independently of the rest of the University.

Some staff members do not understand how they fit into the overall "strategy of the University" and it is unclear how they can "help and collaborate" with others to be better aligned with central administration's goals. In general, staff would like to see better communications between the campuses.

The participants generally agreed that departmental direction, faculty recruitment, curriculum decisions, department budgets, and finances and accounting, should remain decentralized. Some believe, however, that general hiring and staff reviews should remain at a department level, while others feel this is a University function that should be centralized within human resources.

When asked to list the top currently centralized activities that should remain centralized, staff generally agreed on the following:

- University governance
- vision and mission for future of the University and all its components
- strategic planning (except that input should be solicited from all units)
- public relations
- human resources/employment practices, benefits
- facilities and property management/maintenance master plan
- research and project administration
- purchasing

Staff perceive several areas to function as isolated entities with no tangible connection to the needs of the University, such as alumni development, University calendar and communication vehicles, and salary policy.

c) *Program Development, Academic Excellence, and Assessment*

Many view program development as a unit level responsibility, usually at the department level. The dynamics and "ferment" of the disciplines require that the departments perceive need for change and institute new programs and directions. Others, however, consider that the mission and strategies of individual schools should be a concern of the central administration despite the decentralized model.

Many of those interviewed believe that academic excellence is an obvious priority for the central administration; however, assessment and benchmarking are responsibilities of individual schools and divisions. They also believe that the administration is overly concerned with public surveys and rankings (e.g. *U.S. News & World Report*). Some also view the central administration's attitude toward the condition and excellence of schools, their leaders, and their programs as reactionary or passive.

i) *Perspective of deans, directors, and department chairs*

Medical Center chairs do not believe that the center greatly influences academic development. The central administration's attention is almost completely on The College. Indeed several participants state that central administration is so coupled to The College that many faculty and the lay public view the central administration as the leadership component of The College, with little or no connection to other units, particularly the professional schools.

Deans and chairs believe that academic excellence is judged in a number of ways: metrics: how much money the department brings in (research grants), placement of students after graduation, selection and retention of good students, and faculty recruiting and retention, which *"defines the department in the final analysis."*

Academic quality and faculty review get high marks from this group. They feel that the process is effective and fair: *"It's a process that works well. Peer review makes*

good decisions 90% of the time. Ad Hoc committees deliberate very non-politically, it's a rational process."

ii) *Perspective of faculty*

Faculty believe that there is little effort to investigate shared goals, potential synergies, and development of potential interschool programs. Further, some sense a large intellectual chasm between the administration, the College, and other schools, particularly the School of Medicine and Dentistry and the Eastman School of Music, and detect little or no effort by this or previous administration leaders to remedy this. Some non-College interviewees note that the central administration is preoccupied by pressures of finances and problems within The College and that less attention is given to academic excellence in other units. Several applauded the central administration's role in selection of leaders in the schools and in the appointment and promotion processes, which, although arduous, results in strong faculties in the schools.

iii) *Perspective of faculty senators*

There is minimal impact of the central administration on academic excellence; rather, the preoccupation is with SAT scores, *US News and World Report* ratings, and research funding. There is reaction to curricular problems but not anticipation and evaluation of such matters. Use of metrics and accreditation processes, however, does ensure a level of excellence.

The University is presented to potential students, both undergraduate and graduate, as a whole University with several accessible schools and a broad array of offerings. In fact, taking classes and sharing resources across schools is very difficult, largely due to financial considerations. Students are unable to fully realize the advantages of access to multiple resources, and this fact may impact student satisfaction with the University of Rochester experience. Despite the decentralized model of governance, this group believes that such problems should be solved centrally.

The reorganization of the undergraduate admissions process (moving the report from the Provost to the Dean of Arts, Sciences, and Engineering) was a positive step, and one that affirms the reality of the decentralized model. This important change allows The College to make that important link between academic excellence and the admissions process.

iv) *Perspective of students*

Students highly value their experiences at the University. They especially like the flexibility to take classes in other departments.[9]

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[9] This flexibility is somewhat hampered by the difficulties some students experience in their efforts to take classes in other schools (rather than other departments within their schools), due to issues of tuition transfer, and, when the Eastman School is involved, transportation problems. These issues are discussed elsewhere in this report.

d) *Overall assessment of the University as a decentralized institution*

i) *Perspective of deans and chairs*

This group is very strongly in favor of a decentralized model for many if not most activities such as academic assessment, programmatic decisions and department level staff reviews. The majority of the individuals in this group say that as much as they desire access to more collaborative decision-making, they are concerned about remaining, as much as possible, a decentralized institution within the larger University.

ii) *Perspective of staff*

Opinion is very positive about the efforts of the central administration to decentralize functions, enhance the roles and responsibilities of the schools and divisions, and communicate the University's vision. Staff representatives believe the administration has been notably effective in ventures such as the Renaissance Plan in the College and undergraduate student quality.

This focus group says that their loyalty and commitment to the University is largely driven by frequent and accurate communication from the "upper levels." They believe that central administration leadership is effective, but would like to see more effective leadership at the school and division level.

iii) *Perspective of students*

Students say they are largely unaware of what makes up the "central administration" and do not know what a provost is. Their comments on the effectiveness of the administration directly relate to their daily experiences navigating the "system." Students are very pleased with their experiences at the University. They feel collectively that the University is a first-rate, well-run institution, and they like the size and feel of the institution.

Graduate students, however, may not feel the effects of decentralization as they claim that they do not feel they need as much connection to the activities on the campuses.

Students feel there is a rich foundation of intellectual opportunity that helps "round out" their education.

2. *RECOMMENDATIONS*

- Focus groups proved exceptionally useful as a means to promote discussion and reveal broad opinions across the University constituencies. Therefore, we recommend that this approach be used to provide opportunity for the constituencies to express opinions and to become aware of University visions, directions, and development. Focus groups are potentially of great value for undergraduate and graduate students to express their concerns and to become aware of the broad opportunities and activities within the University. This will also benefit offices, such as ORPA, that require community feedback about their services in order to be sure that University needs are being met.

- There is uniform opinion that the schools other than The College have little communication from institutional leaders concerning vision for the University, evolution of new programs, and successes of programs and faculty in the schools. It would be desirable for the leaders to appear regularly at meetings of faculty to communicate such information. The opinion is that communication of the central administration with deans and vice presidents alone is good but insufficient to develop and sustain full engagement of the faculty.

- The University's vision of its directions and its role in the region and its relationships need to be expressed in an ongoing effort involving community leadership. The University's directions and accomplishments currently are perceptions from the limited information from local newspapers and extremely limited television coverage.

- The University leadership, representing a vigorous institution, should develop more effective public relations efforts to identify and articulate specific goals to peers, to regional schools, business leaders, and potential supporters. Although public perceptions often are determined by third parties, especially the media, the University's plans and important achievements should be strongly presented to all elements of its public and intellectual communities.

- An actively updated University website should highlight University activities and accomplishments.

- The University Faculty Senate, the one representative body constituted from all the schools of the University, needs to be evaluated in terms of strategies to make it useful to both the faculties and University leadership. Reconfiguration of membership selection and a new perception of its key role would permit the Senate to initiate and discuss new directions and communicate effectively with its constituents as well as to serve an important constructive, analytical role with respect to programs and institutional leadership.

III.C. WORKING GROUP REPORT:
THE EFFECTS OF DECENTRALIZATION ON
INTERDISCIPLINARY RESEARCH AND TEACHING

Working Group Membership

Ronald Hansen, (**Chair**), Senior Associate Dean for Faculty and Research, William E.
   Simon Graduate School of Business Administration
Judith Baggs, Professor of Nursing, and Associate Dean, Academic Student Affairs,
   School of Nursing
Adrian Daly, Director of Admissions, Eastman School of Music
Bruce Jacobs, Professor of Political Science and University of Dean of Graduate Studies
Harriet Kitzman, Professor, School of Nursing
Elizabeth Marvin, Professor of Theory and Dean of Academic Affairs, Eastman School
   of Music

Working Group Charge and Guiding Questions

The objective of the Working Group on Interdisciplinary Research and Teaching
was to study the impact of decentralization upon collaborative faculty research and
teaching across schools or departments. The questions assigned to this group included:

- *Does decentralization create intellectual boundaries and constraints? For research? For education?*

- *In what ways does decentralization enhance and in what ways does it hinder interaction of students, faculty, and staff across unit/school boundaries?*

Approach and Methods

The Working Group collected data on funded research, composition of
dissertation reading committees, enrollment of students in courses outside their
department or school, and tuition transfer. The Working Group also created a web-based
faculty survey, inviting all faculty from each school of the University to participate. The
survey had a 47% response rate overall.

Executive Summary

The Working Group believes that a small research university provides an ideal
setting for collaborative research. Over half of the faculty surveyed have engaged in
research with UR faculty outside their departments or schools within the last five years.
Fewer than 15% of those who have engaged in such research reported any barriers in
conducting their projects. Faculty who have co-taught collaboratively with a colleague
from another department/school, or who have taught a course in another
department/school, reported some barriers in terms of their collaborative teaching
"counting" toward their loads. The distance barrier faced by Eastman faculty, and the

concern that members of their discipline might not value their collaborative work, are not appreciably affected by the University's decentralization. There is a substantial amount of faculty collaboration across schools in the University on an ongoing basis as Ph.D. dissertations are written and defended. Professors are drawn together intellectually as they work with students, despite any constraints related to school boundaries.

Conclusions and Recommendations

The committee recommends:

- that the University continues to fund the Bridging Fellowships;
- that the University develops a mechanism to look systematically at any barriers identified in this report and to seek ways to lessen or eliminate these. For example, a fund might be established for departments/schools to hire an adjunct periodically to cover a course in the home department, to enable a faculty member to teach or co-teach a course in another department or school; and,
- that the University continues to gather data on collaborative work across schools (such as tracking the composition of Ph.D. committees) to inform future decision-making.

1. *INTRODUCTION*

In the worst of all worlds, perhaps, decentralization would lead to balkanization with each school conducting its teaching and research independent of what other schools were doing. We would not expect this extreme outcome for a variety of reasons. Strong disciplinary connections exist across schools (e.g. in the biological sciences) and some interdisciplinary degree programs (e.g. biomedical engineering) would not be realistically possible without cooperation between individual schools in the University. However, several questions remain to be answered. What actual levels of joint activity do exist and how does the faculty perceive the results of decentralization?

Has the decentralization of the University affected research or instructional activities? At one level the answer is obviously "yes" since the administrative processes necessary to conduct cross-school collaborations on research and instruction have changed. But what is of concern is not the form but the substance. Has there been an effect on the type or volume of cross-school research and instruction as a result of decentralization at the University of Rochester? Our study was limited to the experience at the University of Rochester and did not try to answer the broader issue of which of many potential centralized or decentralized systems are most or least conducive to cross-school cooperation in research or instruction. By "collaboration," we refer to ongoing work between disciplines that results in outside funding, publications, and/or course offerings.

Before discussing the study addressing this issue, it is important to note some important parameters. First the decentralization that we investigate is between central university administration and the various schools. We did not attempt to study issues of decentralization within schools, although our survey did uncover some effects that

occurred across departments within a school. It should be noted that three schools, The School of Nursing, The Warner Graduate School of Education and Human Development and The William E. Simon Graduate School of Business, are not formally made up of departments. The Eastman School of Music and the School of Medicine and Dentistry have formal academic departments. The College has not only the departments associated with arts and science but also the School of Engineering and Applied Science. These structural differences will help to explain some of the apparent differences in observations that we will discuss later.

Decentralization was not an unanticipated event that occurred at a single point in time. While certain aspects of decentralization, such as the change in the budgeting process, have a specific implementation point, this was known well in advance and schools could make adjustments in anticipation of the change as well as in reaction to the change. Thus, it was not possible to do an event study comparing activities immediately prior to decentralization to activities immediately after decentralization.

The activities that we attempted to assess are themselves difficult to measure. Research and instruction take many forms, some of which are easily measured but many of which are difficult to quantify. Even when one can quantify, such as counting the number of sponsored research projects or the dollars of research support received, there may be factors other than decentralization at work. Variations in these measures might be affected more by changes at the funding agencies rather than by university structure. Publication counts run into issues of quality versus quantity. Citation measures are both time sensitive (new research will not have the opportunity for many citations and publication delays may vary across disciplines) and would require more resources than the Working Group had available.

2.   *DATA GATHERING*

One approach used by the Working Group was to gather annual statistics that relate to activities that cross school boundaries, such as funded research involving investigators in different schools or students registered for courses in schools other than their home school. These provide us with measures of the amount of cross-school activity as well as time trends. The trends may suggest effects of decentralization, though they do not eliminate other explanations.

The other approach was to survey faculty members throughout the University to learn about their teaching and research activities that crossed school boundaries and to obtain their opinions about the opportunities and obstacles involved. Some of this information can be captured in figure and table form. Another part of this information is in text form and is summarized.

The faculty survey was web-based and was conducted during the summer of 2003. An electronic mail from President Jackson was sent out to the faculty inviting them to take the survey and directing them to the URL. A software program was used so that the responses to a question would automatically advance to the next relevant

question (no instructions such as "skip to question 8A"). This feature shortened the time require to complete the survey. The overall response rate was 47%, which ranged from a low of 43% at the School of Medicine and Dentistry to 100% at the School of Nursing (see Figure 2). The lower response rate at the School of Medicine and Dentistry may be due to the diversity of faculty responsibilities such that some faculty are not involved in both research and classroom teaching; however we were unable to verify that. We did receive comments such as "I'm a clinical faculty not involved in teaching." The Working Group was pleased with the response rate from all schools. We purposely did not include codes that would allow us to identify respondents. While this meant that we could not follow up with non-respondents, we felt that the anonymity provided greater frankness in the responses, particularly in the text section. We did send a general reminder.

There are no readily available records of all the research activities that occur at the University, whether within a department, across departments in the same school or across schools. Some types of research require little financial support so that a departmental or dean's office would have no financial tracking of research effort. Research activity that results in a publication will be likely to show up in faculty activity reports where required, but until (or if) it reaches that stage there may be no written record of these activities. At the other extreme, there are research activities that require large financial expenditures and are primarily covered by outside grants or contracts. The affiliation of the principal investigators for these funded activities can be obtained through the Office of Research and Project Administration (ORPA). The faculty survey included questions that addressed all research collaborations, not only sponsored research.

3.   *RESULTS: RESEARCH*

As shown in Figure 3, sponsored research that involves principal investigators from more than one department, while significant, averages about 6% of the total. If we limit this to sponsored research in which the principal investigators are from different schools, the number is substantially lower. The time trend shows a major increase in 1997 followed by a decline and eventual return to pre-1997 levels. This does not appear to be related to decentralization.

In the faculty survey, we asked whether respondents had conducted joint research with University of Rochester faculty outside their department or school. Overall 56% responded yes, with the largest percentage in the School of Medicine and Dentistry closely followed by the School of Nursing and The College (see Figure 4). The lowest percentage was the Simon School of Business. Simon, Warner and Nursing do not have internal departments so their responses also represent cross-school collaborations. If we look only at cross-school collaborations in the other three schools, the yes percentage falls significantly in all, with the greatest percentage change in the School of Medicine and Dentistry, from 64% to 26% (see Figure 5). The School of Nursing stands out as the school with the largest percentage of faculty who conduct research with faculty outside the school.

Figure 2
Survey Response Rates

	# sent	% of total sent	# recd	% of total recd	response rate
College	280	19.3	155	22.5	55.4
SMD	1015	70.0	440	64.0	43.3
ESM	71	4.9	37	5.4	52.1
SON	19	1.3	19	2.8	100.0
Simon	50	3.4	26	3.8	52.0
Warner	16	1.1	11	1.6	68.8
TOTAL	1451		688		47.4

Figure 3

University of Rochester
Collaborative Projects as Percent of All University Awards
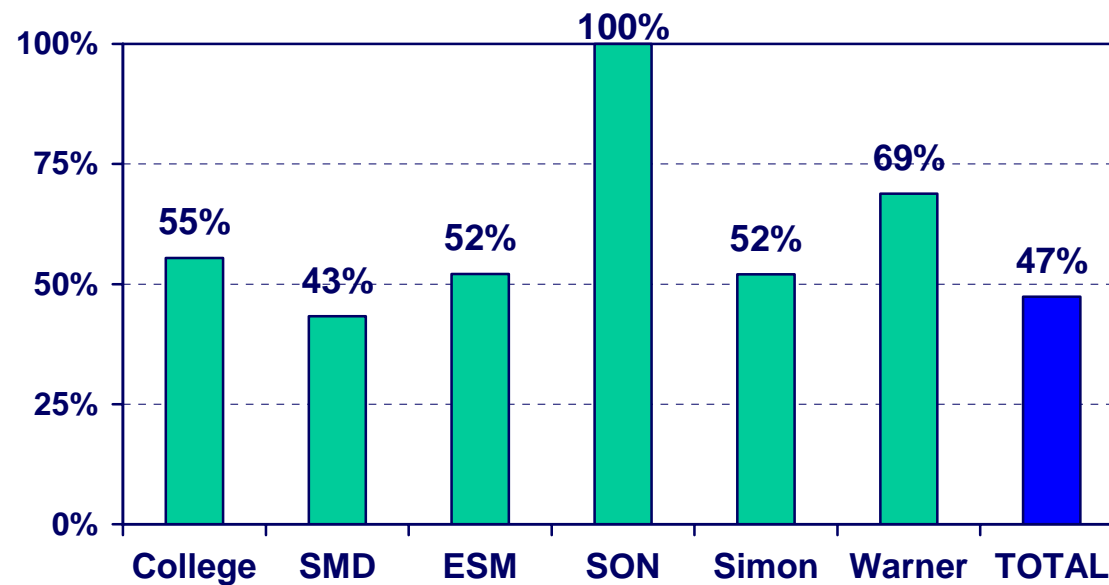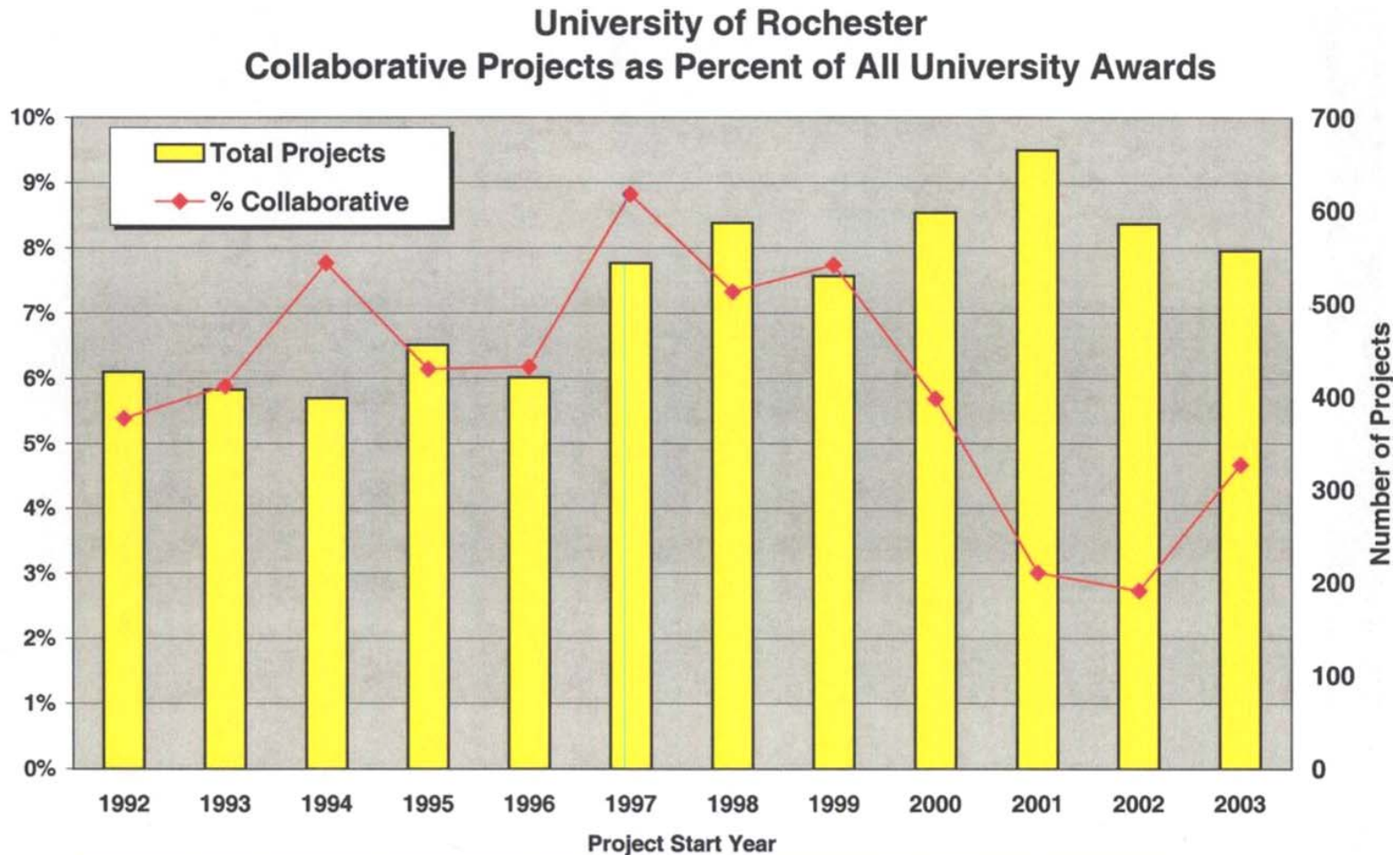
□ Collaborative sponsored projects are those where the principal investigator is from one department and co-investigators are from another department, center or school.

□ Total number of sponsored projects for the 1992-2003 period was 6,178.

□ Collaborative projects number 360, or 6% on average.

Figure 4
Within the last 5 years, have you conducted any research with U of R faculty outside your department or school?

% Yes

	College	SMD	ESM	SON	Simon	Warner	TOTAL
	50%	64%	27%	58%	19%	27%	56%
N:	77	281	10	11	5	3	387

64
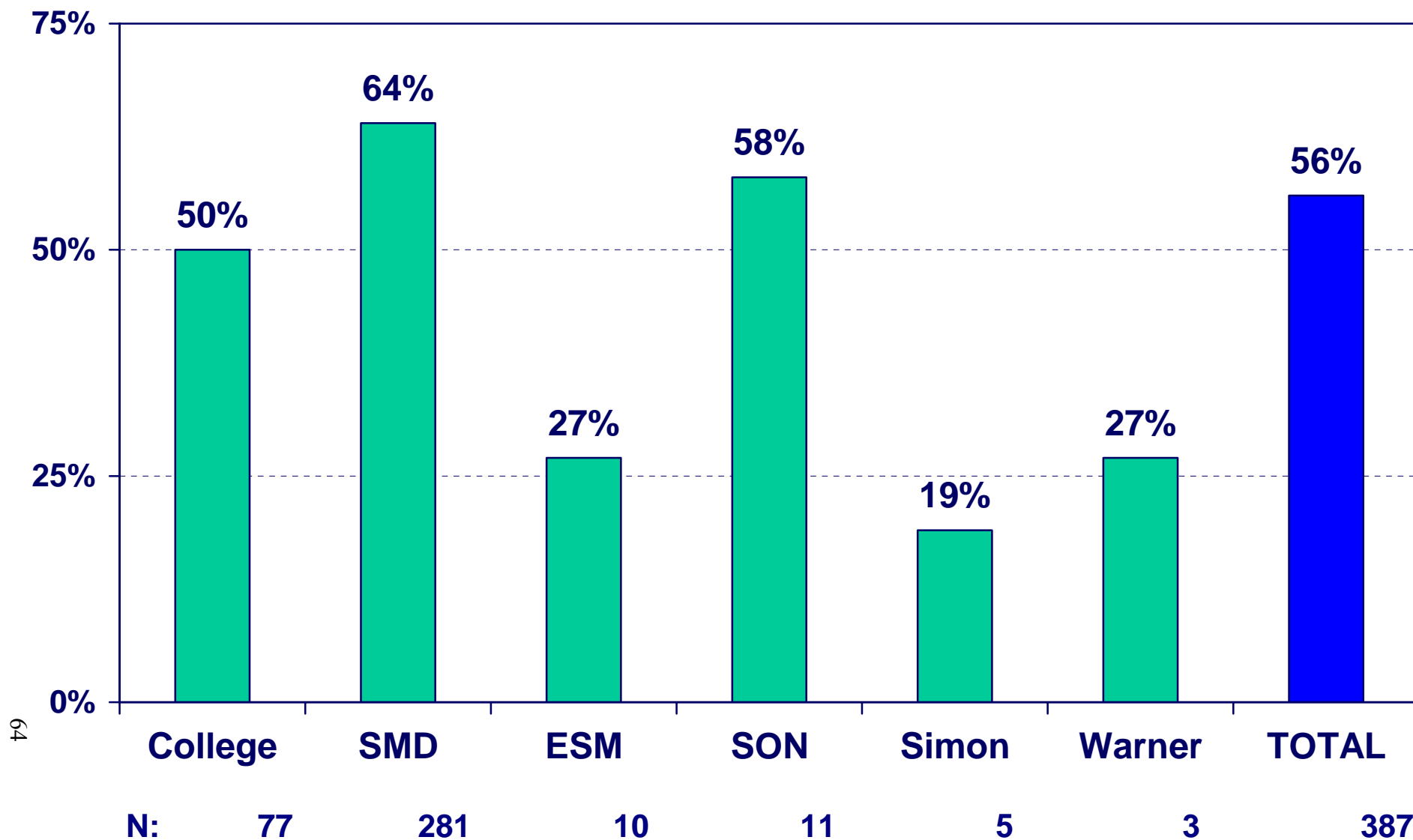
Figure 5

Within the last 5 years, have you conducted any research with U of R faculty outside your school?

% Yes
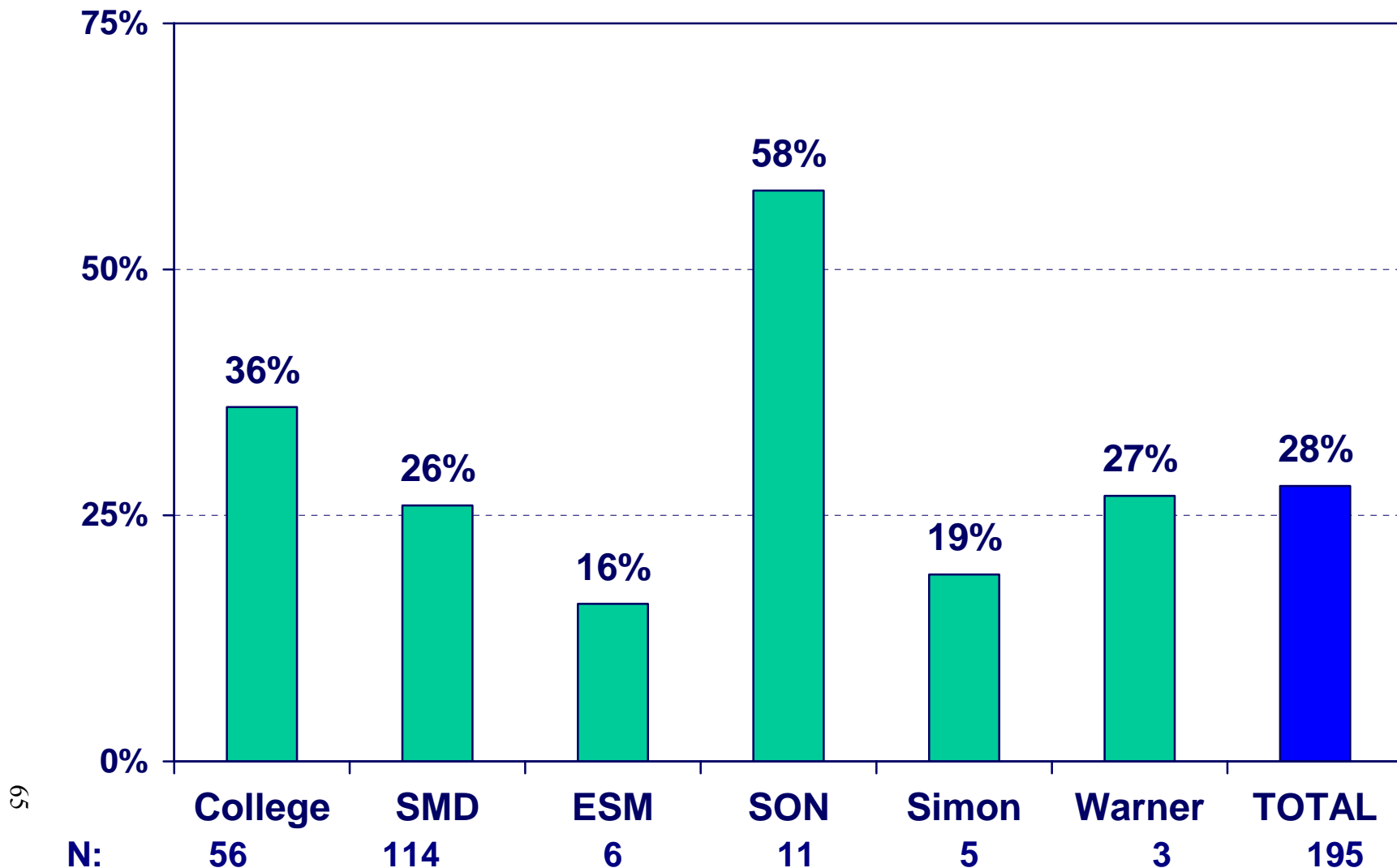
Of those who do conduct research outside their department or school, only 12% responded that they found barriers to conducting the joint research (see Figure 6). Eastman reported the greatest difficulty, 23%, while the respondents from Simon and Warner did not report any difficulty. If limited to only those faculty who conducted research outside their school, the percentage of Eastman faculty reporting difficulty rose to 33% but was only slightly higher for the other schools (see Figure 7).

For the faculty who had not conducted research outside their department, we tried to establish the reason. In particular we asked whether is was due to lack of interesting research opportunities, difficulty in funding, differences in cultures, concerns about internal valuation of research outside the department or other. More than one reason could be checked. Of the four specific responses, lack of research opportunities was identified by approximately 30% of the respondents and difficulty in funding by approximately 20% (see Figure 8). There are differences among the schools in the relative ranking of these explanations, but the small number of respondents for the smaller schools reduces the significance of these differences overall. Half of those responding gave reasons different from those specified in the question. Many indicated that they were too busy working on their own research (e.g. finishing an article, writing a book, or working in their laboratory). Several faculty, recently appointed, were focused on establishing their positions in their department. For this group the perception (correct in most cases) that their promotion and tenure depended on their research productivity in their own discipline meant that they did not seek research opportunities outside their department. They were also unable to answer the question of whether decentralization affected research outside their department. Eastman School faculty had some other reasons specific to their school. One pointed to the individual work of teaching performance, another the even more individual exercise of music composition. A number spoke of the difficulty of traveling to and getting parking at the River Campus.

When the faculty members were asked their opinions as to whether the decentralization of the University created either opportunities for or barriers against initiating a joint research project, the dominant answer of those who had not conducted research outside their department was "Don't Know" followed by "Neither" (see Figure 9). Less than 10 % responded that decentralization created opportunities and a similar number said that decentralization had produced barriers to joint research. In fact, those who have not done collaborative research were no more likely to mention barriers than those who have. Thus there apparently is no widespread belief among the faculty that decentralization has raised significant barriers to joint research.

There are many comments related to difficulties in allocating credit (financial or other) when individuals from more than one department were involved. In this regard it should be noted that the University does have a system for allocating overhead on sponsored research grants among schools. Basically the deans of the affected schools have to agree on the distribution, which they report when they sign the required ORPA form. This applied only to allocations among schools. It does not apply to within school allocations of credits, which are presumably set by the dean or director of the school. Although we could not verify it, it is likely that some of these comments on credit

Figure 6
If yes, did the differences in departments or schools create any barriers in conducting the joint research?

% Yes

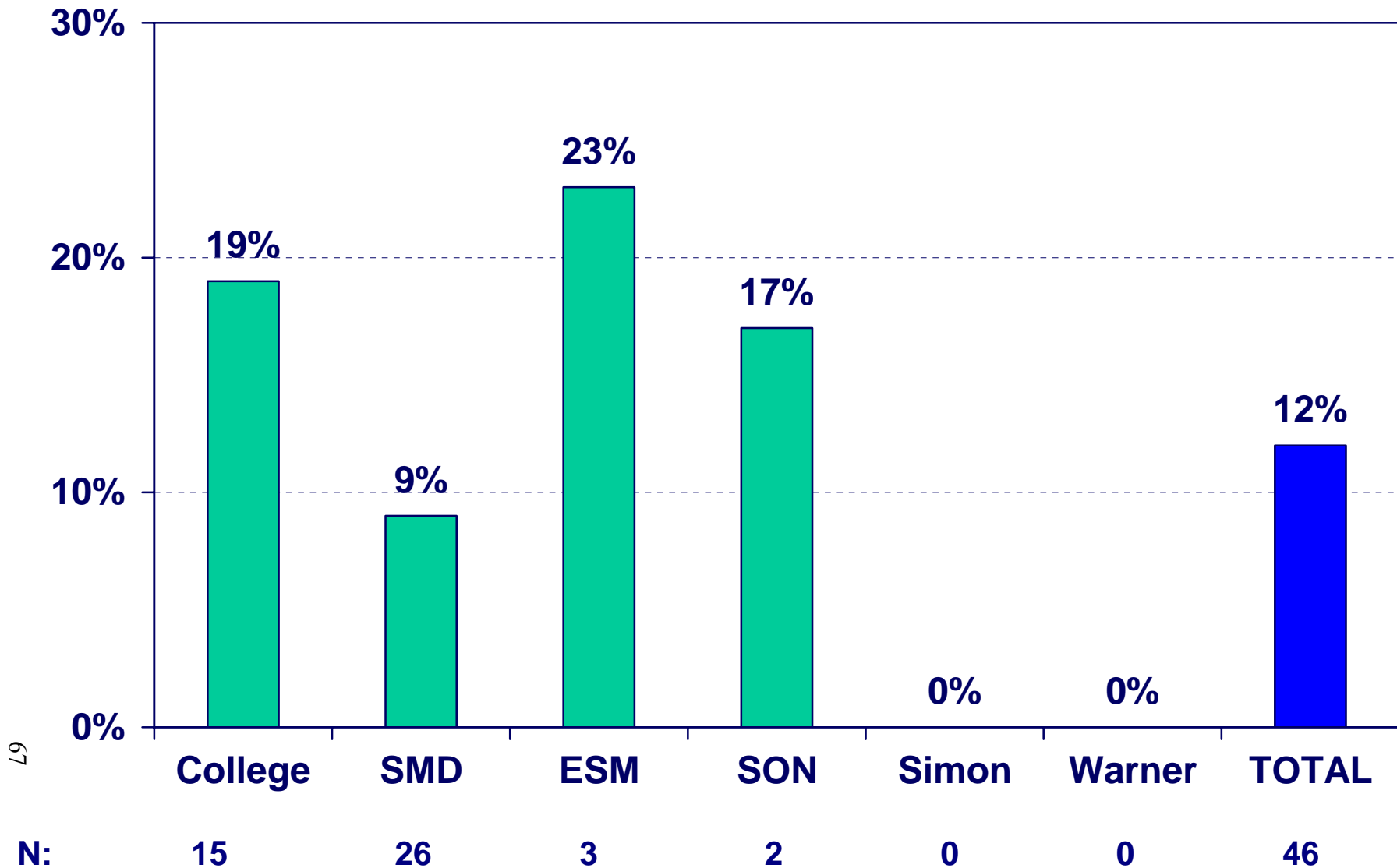|	College	SMD	ESM	SON	Simon	Warner	TOTAL
%	19%	9%	23%	17%	0%	0%	12%
N:	15	26	3	2	0	0	46

67

Figure 7

If yes, did the differences in schools create any barriers in conducting the joint research?
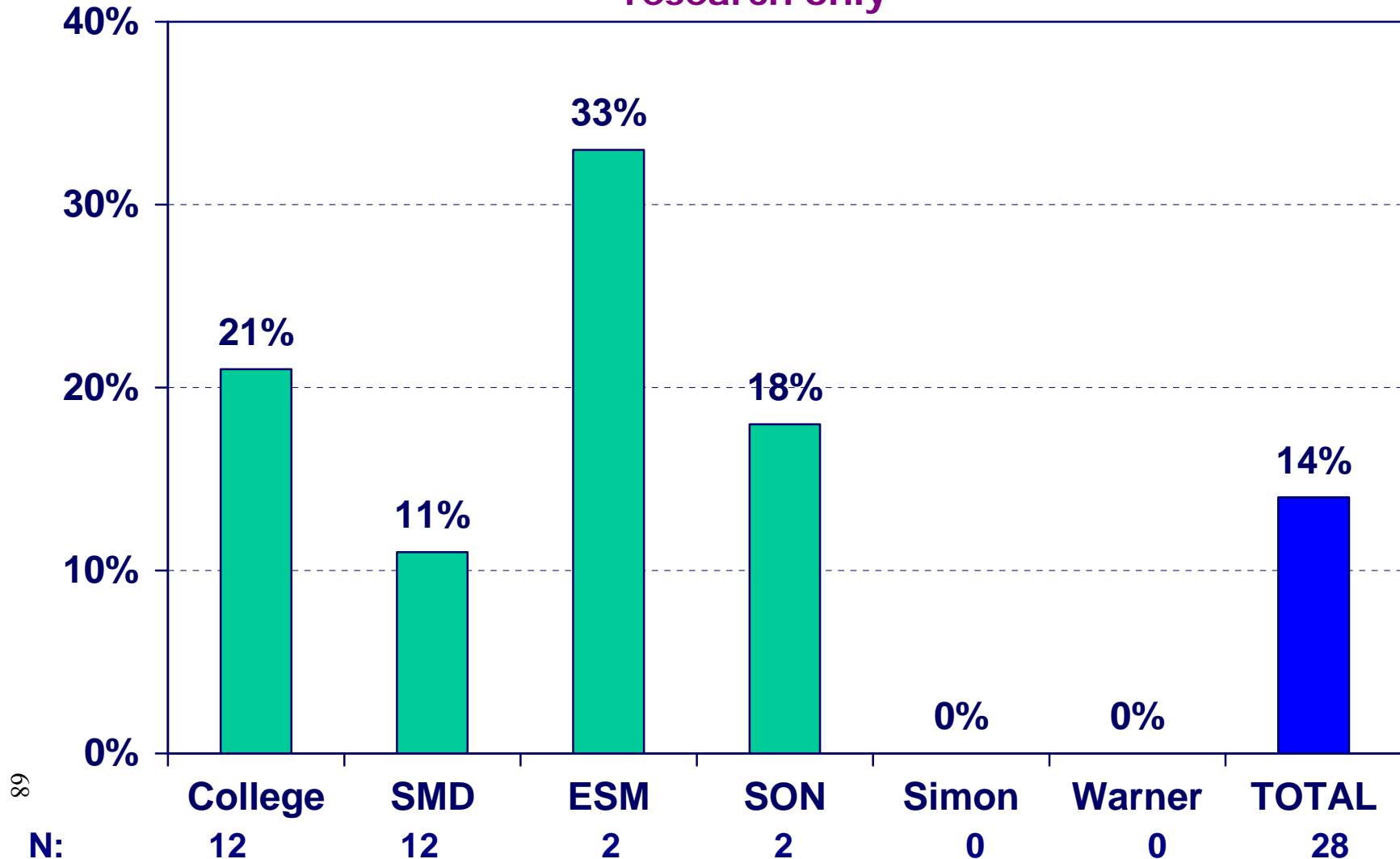## % Yes – respondents who have done cross-school research only

	College	SMD	ESM	SON	Simon	Warner	TOTAL
%	21%	11%	33%	18%	0%	0%	14%
N:	12	12	2	2	0	0	28

68

Figure 8
If you have <u>not</u> done research with faculty outside your department or school, is it due to: (check all that apply)

- lack of interesting research opportunities
- difficulties in financing
- differences in cultures
- concern about internal valuation of work outside your department
- other (please describe)

	College	SMD	ESM	SON	Simon	Warner	TOTAL
N:	78	159	27	8	21	8	301

69
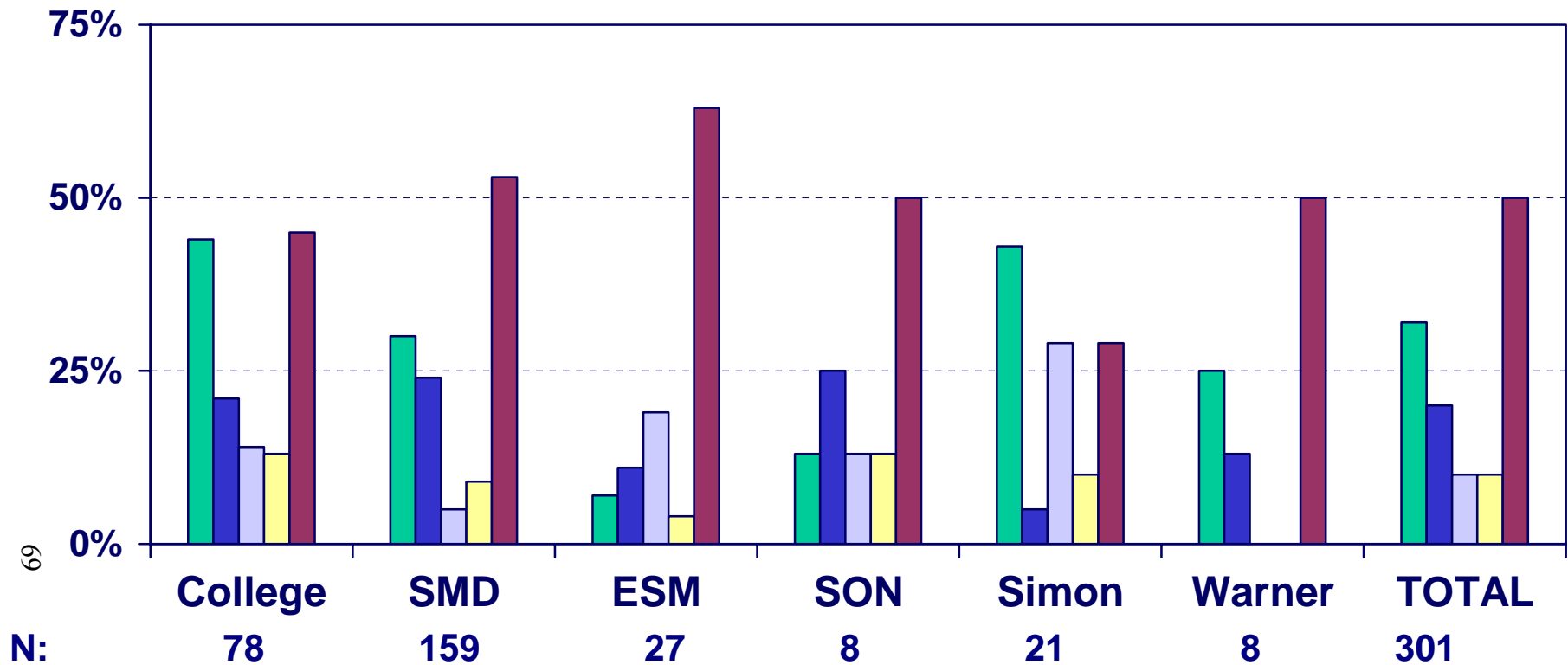
Figure 9
Has the decentralization of the university over the last ten years created opportunities for or barriers against initiating a joint research project?
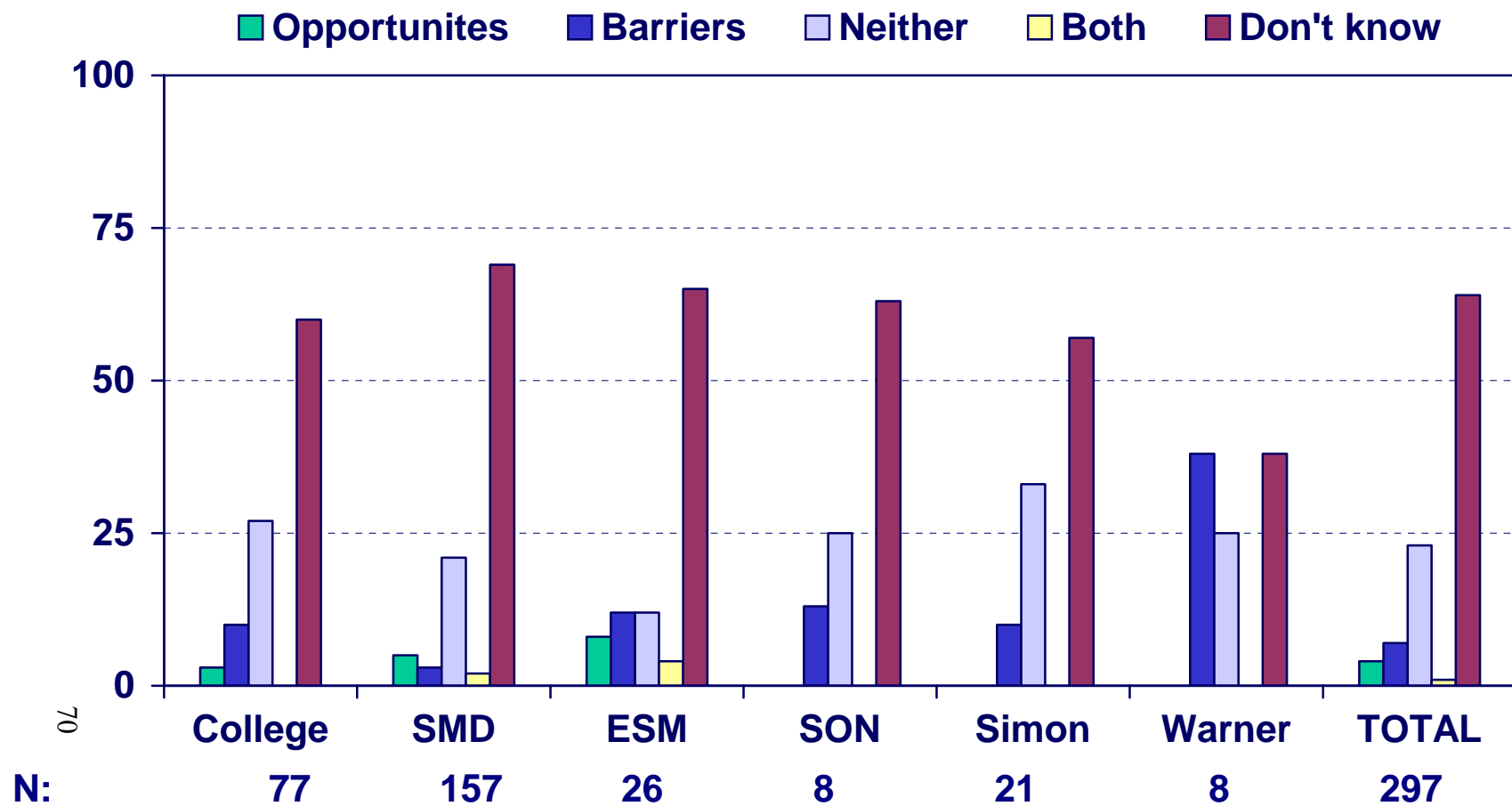
Respondents who HAVE NOT done collaborative research

allocation related to within school allocations. It is also likely that many faculty may be unaware of the University mechanism for allocations among schools. Since we were concerned about decentralization issues between central administration and the schools, we did not investigate within school policies.

Some respondents mentioned the extra hassle of dealing with two school or department administrators, though that was probably an irritant rather than a major barrier. Some responses identified the policies of a particular school or departmental administrators. In a few cases it seemed as though this was a cross-school issue. The fact that overhead is returned to the schools rather than being retained by central administration may have contributed to the perceived or actual problem. However, one cannot rule out the hypothesis that this was personality driven independent of decentralization.

A sampling of individual comments about barriers to research is contained in Appendix E.

Overall, it appears as though decentralization has had at most only a minor impact on cross-school research. We have no way of determining whether the change in policy, which allowed schools rather than the central administration to receive overhead funds, had any impact on deans encouraging greater research activity.

4. *RESULTS: INSTRUCTION*

Students at the University of Rochester are allowed to take courses in schools other than their home school. In fact, there are some cluster programs that strongly encourage, if not require, students to register for courses outside their home school. Each school has its own rules with respect to the authorizations required. Financially the typical pattern is that the student pays tuition to his/her home school and that school then makes a tuition transfer to the school providing the instruction. As part of the decentralization process, the tuition transfer rates are negotiated between the schools and are not set by central administration. In some cases there is so little activity between schools that a transfer rate may not be in effect.

We do have counts of students registered in schools other than their home school, but they may not capture cases in which courses are cross-registered. Moreover some types of instruction, particularly at the graduate level, occur outside the formal classroom and may not be captured by course registration statistics. Course registration data by school of the course and by student is available, but caution in drawing inferences from these statistics is warranted. There are year-to-year variations in cross-enrollments, but in general there is no systematic pattern. At the undergraduate level, there was a drop in College students enrolled in Simon courses in the mid 1990s but a relatively steady enrollment pattern thereafter. This may be a response to a curriculum change in the Management Certificate program partially affected by tuition transfer issues but there were other factors, such as changes in student interest, that were at work as well. Based on enrollment patterns, it would be difficult to make a case that decentralization has

significantly affected instructional patterns. However some survey respondents reported that students in their programs were not allowed to take courses in other schools and either guessed or were told by their dean's office that it was due to tuition transfer concerns.[10]

Several faculty reported barriers to teaching outside their own department. Even if they were not actively discouraged from doing so, many reported that they would receive no credit within their departments for such teaching. They had to fulfill their departmental teaching obligations and they either did the other teaching gratis or were compensated by the other department. For younger untenured faculty members, there was concern that senior colleagues would not have a favorable view of straying away from the primary discipline. These barriers were not limited to teaching across school boundaries but were also present within a school.   While decentralization probably adds some to these barriers, the departmental focus is likely to be the primary barrier. A sampling of individual comments about barriers to teaching outside the department is contained in Appendix F.

5.   *RESULTS: COLLABORATION ON PH.D. DISSERTATIONS*

Participation on doctoral dissertation committees and in dissertation defenses embodies a process of collaboration between faculty from different departments and schools in the University. It is, quite probably, the most frequent form of such contact between faculty and is done on an entirely voluntary basis. In a number of instances this joint activity is institutionalized. For example, in some interdisciplinary degree programs (e.g., Neuroscience) faculty from both the College and the School of Medicine and Dentistry can mentor Ph.D. students. In a few instances, moreover, faculty from one of these schools have actually played the lead roles on dissertation committees in degree programs offered by the other. Much more commonly, however, collaboration arises on the basis of overlapping intellectual interests and is carried on within the general guidelines governing Ph.D. dissertations.

By University rule, each Ph.D. student must have a dissertation advisory committee consisting of a faculty advisor, at least one other faculty member from the student's department (or interdisciplinary program), and an "outside" faculty member from another department or program. (In a small number of cases outside members do not hold faculty appointments at the University. These include both senior scientists at the Laboratory for Laser Energetics and scholars outside the University.) A faculty member selected by the University Dean of Graduate Studies chairs the final oral examination, commonly referred to as the "dissertation defense." Like the outside member, the chair must be from another department.

Three schools at the University of Rochester have only one Ph.D. program apiece. They include the William E. Simon Graduate School of Business Administration, the

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[10] Faculty in the School of Nursing have been particularly vocal about their concerns in this regard. The steering committee was told that students in schools outside of Nursing are "actively discouraged" from taking courses in Nursing. The issue of tuition transfers should be further explored.

School of Nursing, and the Margaret Warner Graduate School of Education and Human Development. In each case, both the outside member and the chair must be from another school in the University. In the School of Medicine and Dentistry, The College, and the Eastman School of Music, outside members and examination chairs can hold faculty appointments either within each school or in another school.

To measure the magnitude of cross-school faculty collaboration on dissertation committees and defenses we review all Ph.D. degrees completed from 1992 through the summer of 2003. A total of 2279 dissertations were successfully defended over that period. The distribution of these degrees across the University is as follows: The College (1565); the School of Medicine and Dentistry (470); the Eastman School (73); the Simon School (76); the School of Nursing (50); and the Warner School (45).

Table 1 documents levels of cross-school faculty presence on dissertation advisory committees. Recall that outside members must come from other schools in the cases of the Simon School, the Warner School, and the School of Nursing, since those schools do not have distinct departments. In the case of Simon, almost all outside members (about 97 percent) hold appointments in The College. Warner also relies heavily on The College (73 percent), but the School of Nursing is most likely to have medical school faculty as outside members (64 percent).

Each of the three schools with multiple Ph.D. programs relies most heavily on its own faculty for outside members: 65 percent for The College, 76 percent for the School of Medicine and Dentistry, and 89 percent for Eastman. While this pattern might reflect some degree of convenience, the main reason for "looking inward" is, of course, the relative closeness of disciplines within each school. However, the degree of collaboration between schools is nontrivial. The College and the School of Medicine and Dentistry, for example, use outside members from each other's faculty about 17 percent of the time.

Table 2 provides descriptive data on the sources of chairs for dissertation defenses. The results are quite similar to those in the prior table, as should be expected given the pattern of intellectual linkages between schools. Overall, we see somewhat greater reliance on The College, the School of Nursing, and the Simon School for chairs than for outside members. This is in part a function of the fact that scholars outside the University cannot serve as examination chairs and, therefore, additional numbers must come from schools in the University. However, in recent years there has been an effort to reach out across school boundaries to appoint chairs linked by their similarities of interests and training.

Table 1
Source of Outside Members on UR Dissertation Committees by UR School
(1992 - 2003)

School of Outside Members on Dissertation Committees

School in which degree was completed	Number of Dissertations	The College	SMD	Eastman	Simon	Warner	SON	Laser Lab	Outside UR	TOTAL
The College	1565	65.2%	16.7	1.3	5.0	2.5	0.4	1.2	7.7	100.0 %
Medicine and Dentistry	470	17.0	76.2	0	0.9	0	0	0	5.9	100.0
Eastman	73	11.0	0	89.0	0	0	0	0	0	100.0
Simon	76	97.4	2.6*	0	XX	0	0	0	0	100.0
Warner	45	73.0	13.0	0	2.0	XX	0	0	12.0	100.0
Nursing	50	14.0	64.0	0	2.0	8.0	XX	0	12.0	100.0
TOTAL	2279	53.7	28.9	3.8	3.7	1.9	0.3	0.8	7.1	100.2**

* Includes professors of statistics when there was a department of statistics in The College

** Not equal to 100.0 because of rounding

Table 2
Source of Chairs for UR Dissertation Defenses by UR School
(1992 - 2003)

School of Chairs for Dissertation Defenses

School in which degree was completed	Number of Dissertations	The College	SMD	Eastman	Simon	Warner	SON	Laser Lab	TOTAL
The College	1565	69.1%	17.1	0.9	7.0	2.4	2.4	1.1	100.0 %
Medicine and Dentistry	470	22.6	75.5	0	1.7	0	0.2	0	100.0
Eastman	73	19.2	0	72.6	0	6.8	1.4	0	100.0
Simon	76	86.8	13.2*	0	XX	0	0	0	100.0
Warner	45	71.1	0	8.9	0	XX	20.0	0	100.0.
School of Nursing	50	64.0	28.0	0	4.0	4.0	XX	0	100.0
TOTAL	2279	58.4	28.3	3.1	5.2	2.0	2.2	0.7	99.9**

* Includes professors of statistics when there was a College department of statistics

** Not equal to 100.0 because of rounding

The linkages between schools in dissertation committee composition are quite substantial for some individual Ph.D. degree programs. Table 3 illustrates a few of these concentrated collaborations.

Table 3
Dependence of Some Individual Ph.D. Degree Programs
on Outside Readers From Other Schools Within the University

Ph.D. Program	Number of Degrees	College of Outside Reader	Percentage of Outside Readers that are outside of the school
Biophysics (SMD)*	40	The College	43%
Biochemistry (SMD)	76	The College	26
Health Services Research (SMD)	11	The College	36
Chemistry (The College)	182	SMD	39
Biology (The College)	80	SMD	78
Brain & Cognitive Sciences (The College)	26	SMD	27
Clinical Psychology (The College)	35	SMD	60
Psychology (The College)	44	SMD	52
Economics (The College)	156	Simon School	44

*School of Medicine and Dentistry

The first three degrees are offered in the School of Medicine and Dentistry. (The Biophysics and Biochemistry degree programs are both housed in the same department.) All of the other programs in the table are offered in The College. Five of these depend heavily on the School of Medicine and Dentistry for outside readers.

In the sixth, Economics students are likely to have Simon School faculty on their committees and, not surprisingly, the data show that most (66 percent) of the Simon Ph.D. students have Economics professors as outside readers.

To summarize, there is a substantial amount of faculty collaboration across schools in the University on an ongoing basis as Ph.D. dissertations are written and defended. Though the structure of academic work in the University is formally decentralized, many professors are drawn together intellectually as they work with students, despite any constraints related to school boundaries.

6.   *BRIDGING FELLOWSHIPS*

The University of Rochester has a program that allows faculty to spend time, usually a semester, in another department. These Bridging Fellows often attend courses and engage in joint research projects with colleagues in this department. The Bridging Fellowship has been awarded to 57 individuals over the 23 years of the program (see Appendix G). Individuals selected for a Bridging Fellowship tend to be faculty who are already tenured. Untenured faculty who have not established their reputation in their own discipline are generally not selected for this program. In the faculty survey conducted for this analysis, almost all individuals who had participated as a Bridging Fellow thought that the experience was very worthwhile and many continue to work with colleagues in the other department. The Office of the Provost conducted an e-mail survey of previous Bridging Fellows in 2002. The remarkable range of Bridging Fellowship experiences can be seen in Appendix H.

7.   *CONCLUSIONS AND RECOMMENDATIONS*

A research university the size of Rochester should be an ideal venue for collaborative research. We found no significant effect of decentralization on collaboration across the University, although some barriers were identified. Some individuals reported difficulty with conducting joint research activities with individuals in other parts of the University (which they considered to be attributable to decentralization), but this was a small minority. The distance barrier faced by Eastman faculty, and the concern that members of their discipline might not value collaborative work, are not appreciably affected by the University's decentralization. University programs such as Bridging Fellowships and multi-disciplinary Ph.D. programs further strengthen relations across departmental and school bounds.

The Working Group recommends:
- that the University continues to fund the Bridging Fellowships;
- that the University develops a mechanism to look systematically at any barriers identified in this report and to seek ways to lessen or eliminate these. For example, a fund might be established for departments/schools to hire an adjunct periodically to cover a course in the home department, to enable a faculty member to teach or co-teach a course in another department or school. The University should also pay particular attention to the costs and benefits associated with the current tuition transfer policy; and,

- that the University continues to gather data on collaborative work across schools (such as tracking the composition of Ph.D. committees) to inform future decision-making.

III.D. WORKING GROUP REPORT:
FUNDRAISING IN A DECENTRALIZED ENVIRONMENT

Working Group Membership

Jerold Zimmerman (**Chair**), Professor, William Simon Graduate School of Business
     Administration
Rebecca Fox, Senior Associate Vice President, University Advancement
Nicholas Goluses, Professor, Eastman School of Music
Robert Griggs, Professor, School of Medicine and Dentistry
Kevin Parker, Dean, School of Engineering and Applied Sciences

Methods and Approach

Members of the Working Group on Fundraising interviewed President Thomas Jackson, Provost Charles Phelps, Doug Phillips (Vice President of University Resources), and deans and/or development officers from all the schools. Appendix I lists those persons interviewed. The interviews lasted about one hour and followed both a structured set of questions (Appendix J) as well as open-ended discussion. All those interviewed were very forthcoming in both their praise and criticism of the extant system.

The Working Group also examined data from the University's 990 IRS returns and surveys by the Council for Aid to Education. Preliminary drafts of the report were circulated to central administration, deans, and the University's Middle States Accreditation Steering Committee. Comments were received and incorporated into the final report.

The remainder of this report describes the fundraising process in general (section 1), the decentralized structure (section 2), benefits and costs of a decentralized fundraising model (section 3), the evidence (section 4), and suggestions to improve the system (section 5).

Executive Summary

The University of Rochester's Middle States Accreditation Steering Committee, led by the Working Group on Fundraising, conducted a self-study of the institution's current decentralized fundraising system. The Working Group interviewed senior administrators, school deans and development officers, and reviewed fundraising data about the University of Rochester and other private universities. This report is based on these interviews and data.

Under the present regime, each unit within the University has the authority to design and implement development strategies targeted at that unit's constituencies. The central administration sets the ground rules that define property rights in donors, arbitrates disputes among the units, and assists the units with major gift prospects as requested by the units. The general consensus of those interviewed is that despite some

flaws, the current system is working reasonably well. Based on data from the University's 990 reports to the IRS and survey data that the University provided to the Council for Aid to Education, total contributions to the University have more than doubled from about $25 million in FY1993 to about $60 million in FY2003. Moreover, Rochester's rate of growth in contributions is comparable to other peer private research universities over this time period. In FY2001, 18% of the University's total gifts and grants received went into endowment, which is below other peer institutions. The remainder went to support current operations, property, buildings, and equipment. By all measures, decentralization of the development process does not seem to have harmed, and in fact seems to have enhanced the University's development process.

However, in the course of our deliberations, the Working Group on Fundraising identified a persistent concern. While the institution has been successful at decentralizing fundraising authority, the development of systems that systematically measure, monitor, and coordinate the fundraising by the units has not kept pace. Developing these measurement systems has been severely hampered by existing inadequacies in the University's donor prospect, gift processing, and reporting systems.

Recommendations

Based on the Working Group's analysis of the development process, the current decentralized system can be improved in three ways:

- The central administration should develop better internal systems to appropriately monitor and assess the units' fundraising processes. Such systems should be sensitive to the needs and resource bases of the discrete units and the implications of those needs and bases for institutional decisions on intergenerational wealth transfers. They also should foster cooperation that better captures the synergies among the units.

- The central administration can provide a valuable service to the schools by strategic use of the presidency in support of the goals of the University and its schools.

- The two existing data base management systems (FIST and Gift Manager) are outdated and the information they contain often is not current.[11] To date, the schools have not been able to agree among themselves the best way to upgrade these systems. Moreover, some development officers noted that disincentives exist to input information about major gift prospects lest other units use this information to assist in their approaches to the prospect. The central administration will have to provide more leadership if these systems are to be improved and the units have incentives to input relevant information.

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[11] FIST is a database of all donors including current address and degrees earned at the University and Gift Manager tracks all contacts made to major gift prospects, information about the prospect, and the University's strategy for each prospect.

If the University is to improve its fundraising efforts, the entire University community (faculty, staff, administration, students, and trustees) must acquire a better understanding of the nature of the development process and the tradeoffs involved in that process. Hence, the Working Group views an important function of this report to be educational – we hope this report informs the various constituencies that "fundraising is not free" and stimulates continued dialog for improvement.[12]

1. FUNDRAISING

University alumni, the local business community, and patients at the University's Medical Center provide much of the support received by the University. The fundraising process usually involves a long "engagement" period for alumni starting at graduation (e.g., publications, reunions, and alumni affairs), followed by a "cultivation" period (e.g., personal visits to determine the prospect's interests and giving potential), and finally "harvesting" when a major gift occurs. A donor is designated a "major gift prospect" (MGP) after the individual has been contacted and indicates both an interest in giving and the ability to make a significant gift (at least $25,000). Cultivation involves keeping the prospect informed of the school's activities, involving the prospect in the school's external affairs, soliciting annual gifts, and learning of the prospect's interests and giving ability (i.e., qualifying the prospect as a MGP). Harvesting involves asking for a major gift. The "engagement-cultivation-harvesting" description of university development has certain parallels to a firm's R&D process. Both require significant upfront investments and a long time horizon until the uncertain payoff is realized. Like the R&D analogy, the ultimate payoff in fundraising is highly uncertain and depends on the amount and types of investments made by the institution throughout the engagement-cultivation-harvesting process.

2. DECENTRALIZATION[13]

Decentralization entails delegating decision-making authority to lower level managers in the organization in order to make more effective use of these managers' local knowledge. In general, organizations decentralize certain decisions when individuals lower down in the organization have the knowledge necessary to make decisions, and it is easier to transfer the decision-making authority down to the units rather than the knowledge up to top management. It also conserves the resources of senior managers who do not have the time to make all the decisions. Finally, decentralization helps train and motivate lower-level managers.

But, in principle, decentralization also can entail certain costs. First, lower-level managers may tend to focus on their own subunit of the organization and not on making decisions that are in the best interest of the entire organization. Lower-level managers

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[12] Since the writing of this report, the University has received a consultant's report recommending centralized coordination of the corporate and foundation relations piece of the development organization. The consultant's report is attached as Appendix K.

[13] See J. Brickley, C. Smith, and J. Zimmerman, *Managerial Economics and Organizational Architecture* 3rd Edition chapter 12 (Boston: McGraw-Hill/Irwin, 2004).

also may focus on outcomes that generate favorable results over their tenure in the organization – they may generally prefer short-run results at the expense of the long term. Second, lower-level managers may not make decisions that take into account the interaction effects with other units. Third, the lower levels do not necessarily have all the pertinent information that might be available higher up in the organization, like the organization's priorities. Finally, if lower level managers are delegated decision making authority for new tasks, they must divert some attention from their other tasks. To encourage the lower-level managers to utilize their knowledge to enhance the entire organization's welfare and not their own narrow unit's interest (or short-run versus long-run results), the organization must have appropriate incentive systems and monitoring devices for the lower-level managers. Thus, it is important to emphasize that as decision-making authority is decentralized, the organization must implement concurrently additional monitoring and incentive systems to insure that lower-level managers make decisions that are consistent with the organization's strategy.

3.   DECENTRALIZATION OF THE FUNDRAISING PROCESS

The University has followed a decentralized development process for over a decade in the professional schools (the Medical Center, the Eastman School of Music, and the Simon School). In the late 1990's, the College and the Warner School developed discrete fundraising organizations within their units. The Fairbank Alumni House (the organization within the University focused on College fundraising) began reporting to the Dean of the College and not central administration in June 1996. A new position, Dean for College Advancement, was created and filled in 1998. The Warner School appointed its own fundraising officer in 1998.

This section describes the theoretical benefits and costs of a decentralized university fundraising model.

a) Benefits of Decentralized Fundraising

Universities decentralize their fundraising because the units usually have better information about their academic, patient-care, and research programs, and about their alumni and major gift prospects (MGPs). The units typically can design more effective alumni programs than the central administration because the units are better able to devise programs that appeal to their various constituencies.

Decentralization can often lead to more than one unit of the university approaching the same MGP. The university competes with other institutions for a gift from this MGP. The more contacts from the university and the more interesting the set of proposals offered the prospect, the larger the university's expected gift from that MGP. To the extent the MGP is sophisticated, having multiple units contacting the prospect likely increases the total gift from this person. Some fundraising experts argue that multiple approaches by the same institution confuse donors and reduce expected gifts. Little systematic evidence exists on this question. However, most of the deans and

development officers interviewed in this study generally agreed that MGPs do not reduce their gifts because of multiple solicitations.

Deans, directors, development officers, and the President described the advantages of Rochester's decentralized fundraising model as:

- The University benefits greatly from decentralizing fundraising to the units because the units are more responsive to their various constituencies.
- The Medical Center requires timely research because "grateful patients" must be approached quickly. The current decentralized fundraising system allows the Med Center to approach these patients promptly.
- Under the current system deans are engaged in and selected in part by their ability to raise funds.
- Deans are closer to their schools' needs and strategic development within their schools.
- Schools can create school-specific programs for cultivation and stewardship.
- Deans are closer to the action.
- Decentralization works here. Deans are quite superb at development.
- The schools are more knowledgeable about their programs and how to keep their alumni connected than the previous centralized functional silos.
- Schools can move swiftly on budget, design, and other elements of fundraising projects.
- Schools can choose appropriate fundraising vendors independently and thereby maintain each division's color/character.

b) Costs of Decentralized Fundraising

There are several possible costs of decentralization:
- Decentralizing fundraising to the schools requires the deans of these schools to spend their time not only managing the fundraising process but also in the actual engagement-cultivation-harvesting process. Most deans surveyed in this study reported they spend between 20 and 30 percent of their time either managing their development staffs or meeting with alumni and prospects (although one dean reported that he spent no time on development). We have no benchmarking data from other universities to indicate if 30% is high or low. Moreover, even in a more centralized model, professional school deans are likely to spend considerable time on development because the dean is of greater interest to alumni of professional schools than is the university president.

- School deans in principle can develop a "horizon problem" whereby their term in office expires well before major gift prospects are harvested. This horizon problem manifests itself in several behaviors. First, units might underinvest in cultivation. Outgoing deans may have less incentive to make calls on prospects with expected gift horizons occurring after they leave office. Second, units may have incentive to harvest a MGP too soon. And third, deans might accept gifts to fund current programs rather than endowment. A $1 million gift for current

operations provides immediate budget relief of $1 million, whereas a $1 million endowment gift provides about $60,000 a year in budget relief.[14] In fact, the Medical Center has raised few new endowed professorships in the last five years. Most of the Medical Center contributions have funded equipment, buildings, and current operations.

- Decentralized fundraising may not necessarily lead to an optimal spending policy. If some schools have better long-term prospects than others, ideally the University would want to invest more resources in those units. If decentralized fundraising also gives units the decision authority to spend the resources, then there is no guarantee that those areas in the University with high growth potential get funded. This problem is mitigated to the extent that savvy donors are capable of discerning future growth prospects. In the competitive market for donors, a decentralized funding process can, without central oversight, also decentralize the choice of university priorities to donors.

- In a decentralized system, the schools may develop incentives to "poach" other units' gift prospects. Examples include dual degree holders and major gift prospects with no degree from the University. "Poaching" arises because each school's property rights to individual donors are ill-defined. Unchecked poaching reduces the incentives of the units to invest in cultivation. Returning to the R&D example, if profit-making firms knew that their future R&D results would be freely available to everyone, few firms would invest in R&D. In fact, the primary reason for patents, copyrights, and trademarks is to protect intellectual property rights, thereby increasing society's investment in creating knowledge. To the extent these property rights are ill-defined, individual schools have less incentive to invest in the engagement and cultivation phases.

- Economies of scale and/or scope can lead to underinvestment. Certain cultivation processes might be subject to economies of scale or scope (e.g., alumni reunions) such that no single unit can justify the expenditure, but all the units jointly benefit. For example, a sophisticated alumni database management system is too costly for any one unit to purchase. But collectively, it is in the best interest of the institution to purchase and maintain such a system.[15]

- If units differ in their marginal productivities at cultivating and harvesting, then it is no longer optimum for the same unit to both cultivate and harvest. The amount harvested might be larger if several units cultivate and more than one unit harvests. In this case no single unit should be assigned sole property rights to

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[14] The University's 6% 5-year moving average spending policy requires the unit to wait five years before the $1 million gift ramps up to $60,000 of annual operating support.

[15] A centralized model can lead to overinvestment if the central administration makes the investment and the units are not charged. One advantage of a decentralized system where the units pay for these large investments is that the central administration learns about how the various units value the investment. However, gaming among the units over how to split the costs can distort these valuations.

donors. Rather, a "transfer" mechanism is required that leverages cooperation and rewards units for their participation.

c) *Role for the Central Administration*

In a decentralized fundraising model, the role of the central administration is to enhance the preceding benefits and mitigate the preceding costs:

- The presidency plays an essential role in activities that are interdisciplinary and cut across multiple schools. The President has a major impact on the public perception of the University, and affects the giving of those donors whose interests are broad and potentially interscholastic. Many donors, especially College alumni, consider the Office of the President as the ultimate site of authority and long-term vision of the University. Therefore, the presidency has an unsurpassed symbolic role. Strategic use of the President's time in connection with the long term goals of the University and its schools requires coordination with schools using policies set by the central administration. Furthermore, the donor relations of the President cannot be entirely isolated from the presidential role in community relations, public relations, and government relations, as the public portrait of the University and the President are constructed over time by actions in these domains.

- To the extent a particular MGP has informed the University that he/she only wants a single request, the central administration must decide which unit will make the "ask."

- The central administration enforces property rights in donors and reduces poaching. This increases the incentives of the units to invest in engagement and cultivation. The enforcement of property rights in donors also requires the central administration to punish poaching and adjudicate disputes. Enforcement requires the central administration to be informed of existing prospects and which units are approaching which MGPs.

- With decentralization of fundraising comes the concurrent need for the central administration to devise systems that monitor the units' development process and create proper incentive structures for deans and directors to not only achieve their unit's mission, but to capture the synergies among the units. These systems must monitor the deans' horizon problems: both the incentives to underinvest in cultivation and to divert endowment gifts into annual giving.

The preceding roles of the President create a conflict of interest. Because many College alumni identify more with the office of the President than the Dean of the College, the President often plays a more active role fundraising for The College than the other units. However, the President is the ultimate enforcer of property rights in MGPs. Some interviewees questioned how these conflicting roles can be resolved. Note that this conflict exists under a more centralized fundraising model and is likely little affected by the current decentralized system.

Based on interviews, poaching at Rochester is not a serious problem even though the central administration rarely disciplines poaching.[16] Because the Simon School has a higher fraction than other schools of MGPs who are dual-degree holders or from the local business community, it more often finds itself competing with The College and the Medical Center, and must rely on central administration to adjudicate these disputes. Again, it is not clear that Simon would be better off in a more centralized model.

d) *Role for the Board of Trustees*

The Board of Trustees plays a major role in selecting and retaining the President, setting endowment spending policy, establishing long-term goals, monitoring intergenerational funding transfers, approving major capital projects, and budget oversight. The Financial Planning Committee of the Board monitors issues relating to the endowment, including growth and draw rate. In May 2002, the Board created a Committee on Development (see Appendix L), which is charged to review fundraising programs and results, and to assist in fundraising.

4. *EVIDENCE*

In preparing this report the Working Group on Fundraising collected data from the central administration regarding the amounts of contributions received and the amounts spent on fundraising and data from public sources about Rochester's and other institutions' contributions. Contributions consist of both cash gifts received and the present value of future expected gifts from pledges. One source of University-provided data is from Rochester's 990 IRS returns.[17] Figure 10 displays these data. The solid line shows that contributions received rose from about $22 million in FY1993 to a high of about $54 million in FY2000 and has fallen to about $50 million in FY2002. Fundraising expenses (dotted line) have risen over 50% from about $8 million in FY1993 to about $15 million in FY2002. Fundraising expenses are estimated by the University's controller based on allocations and do not necessarily represent the actual time spent by deans and development officers.

To benchmark Rochester's fundraising performance we collected data on 19 private research doctoral universities from the annual surveys of the Council for Aid to Education.[18] These data are voluntarily supplied by each school and are published in the

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[16] One dean characterized the current situation as, "It's better to ask forgiveness, than permission" when contacting another unit's MGP.

[17] The UR Controller's Office made two adjustments to the 990 data to create a consistent series. First, they removed private grants and contracts, which were included in some years but not others on the 990s. Second, they adjusted the 990 data for FASB No. 116, which the University adopted in 1996. These adjustments make the 990 data comparable to the VSE data reported below.

[18] Carnegie-Mellon, Case Western Reserve, Chicago, Columbia, Cornell, Duke, George Washington, Georgetown, Johns Hopkins, MIT, NYU, Northwestern, Penn, Rensselaer, Rice, Southern Cal, SMU, Vanderbilt, and Washington University.

annual surveys entitled "Voluntary Support of Education" (VSE).[19] Each of the 19 school's time series of annual support was converted to an index with one being the amount received in FY1993.[20] Then, each year an average index across the 19 private universities is calculated. The dashed line in Figure 10 represents what Rochester's total contributions would have been had Rochester tracked the average fundraising performance of the 19 benchmark private universities in the VSE surveys. Over the entire period FY1993 – FY2001 (the last year VSE data are available), Rochester outperformed the 19-school VSE index. Based on Figure 10, the Working Group concludes that the University's fundraising performance has improved substantially over the period FY1993 – FY2001 and in terms of the growth in contributions, has performed at least as well as peer institutions. Decentralization does not appear to have retarded the University's development efforts, but rather has enhanced the institution's ability to raise contributions. [21]

In addition to analyzing the University's IRS 990 data, the Working Group also examined the contributions data reported in the VSE surveys. Figure 11 presents these data, along with the University's 990 data reported in Figure 10 for comparative purposes. The solid line represents the University's total support reported on the annual VSE surveys. The dashed line in Figure 11 is the University's IRS 990 data from Figure 10. The two series differ somewhat. Different accounting procedures underlie the two and account for most of the differences. Roughly speaking, the VSE data is on a cash-received basis of accounting for pledges, whereas the 990 data is on an accrual-basis of accounting for pledges. Appendix M describes these and other accounting differences between the VSE and 990 data. The dotted line in Figure 11 represents what Rochester's total VSE contributions would have been had Rochester tracked the average fundraising performance of the 19 benchmark private universities in the VSE surveys.[22] Three conclusions emerge from Figure 11. Again, Rochester's total contributions have increased substantially over the period FY1993 – FY2003. Second, the University's development has performed roughly on par to the 19 peer schools. Third, there can at times be substantial differences (e.g., $20 million in 2001) between what the University reports on the VSE surveys (cash basis) and the IRS 990 data (accrual basis).

Figure 12 provides a further breakdown of the University's VSE contributions. Each year the University reports its total support received broken out into three major categories: "Outright Support for Current Operations (Unrestricted and Restricted)," "Outright Support for Capital Purposes (Property, Buildings, Equipment, Endowment-Unrestricted, and Endowment-Restricted)," and "Deferred Giving." The solid top line in Figure 12 is the University's total support per the VSE surveys and repeats the same data

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[19] The data reported for Rochester's total annual giving in the VSE surveys and the IRS 990 forms differ, often substantially. Appendix M examines this issue in greater detail.

[20] For example, the index for each school in FY2000 is the level of support received by that school in FY2000 divided by the support the school received in FY1993.

[21] The College has doubled its contributions from FY1996 to FY2003. This data shows contributions for the University as a whole, over one-half of which was for the Medical Center.

[22] This benchmark line looks slightly different from the one in Figure 10 because of the higher starting point.

as reported in Figure 11. The remaining data series plotted in Figure 12 comprise the components of total support and sum to the Total Support. The dashed line represents

Figure 10
UR Fundraising Contributions and Expenses versus 19 School Benchmark
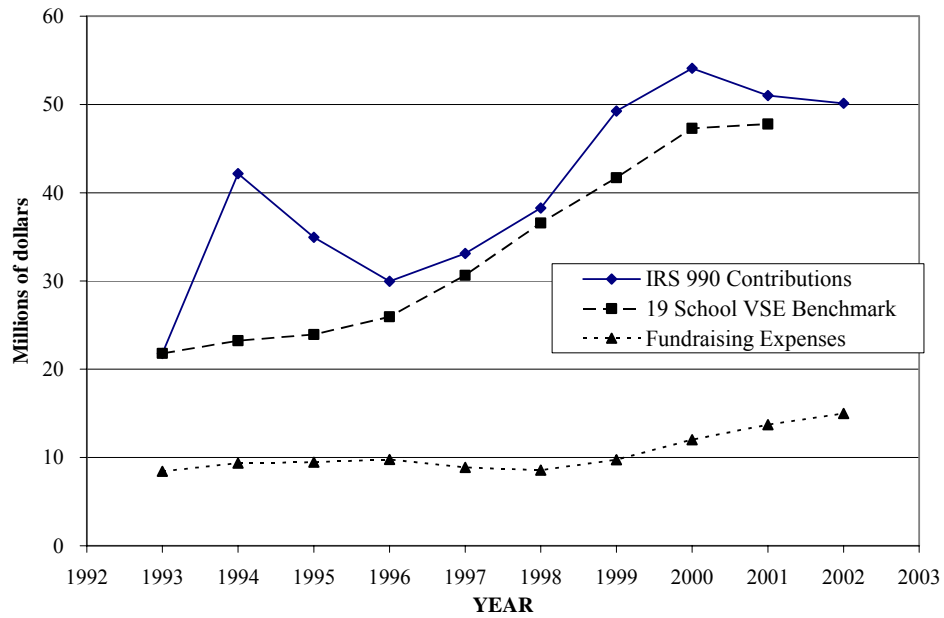(UR Data from IRS 990 Filings)

Figure 11
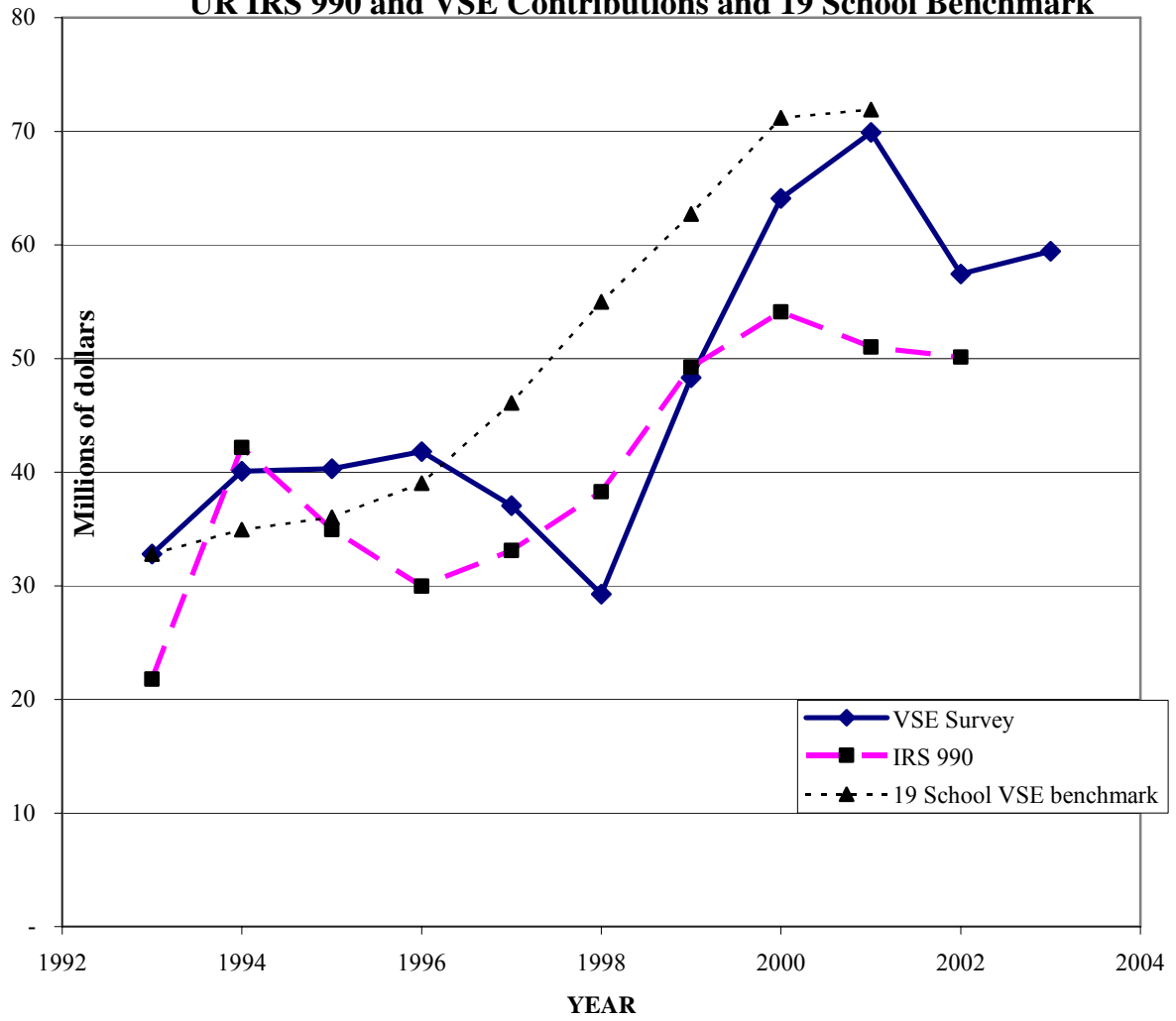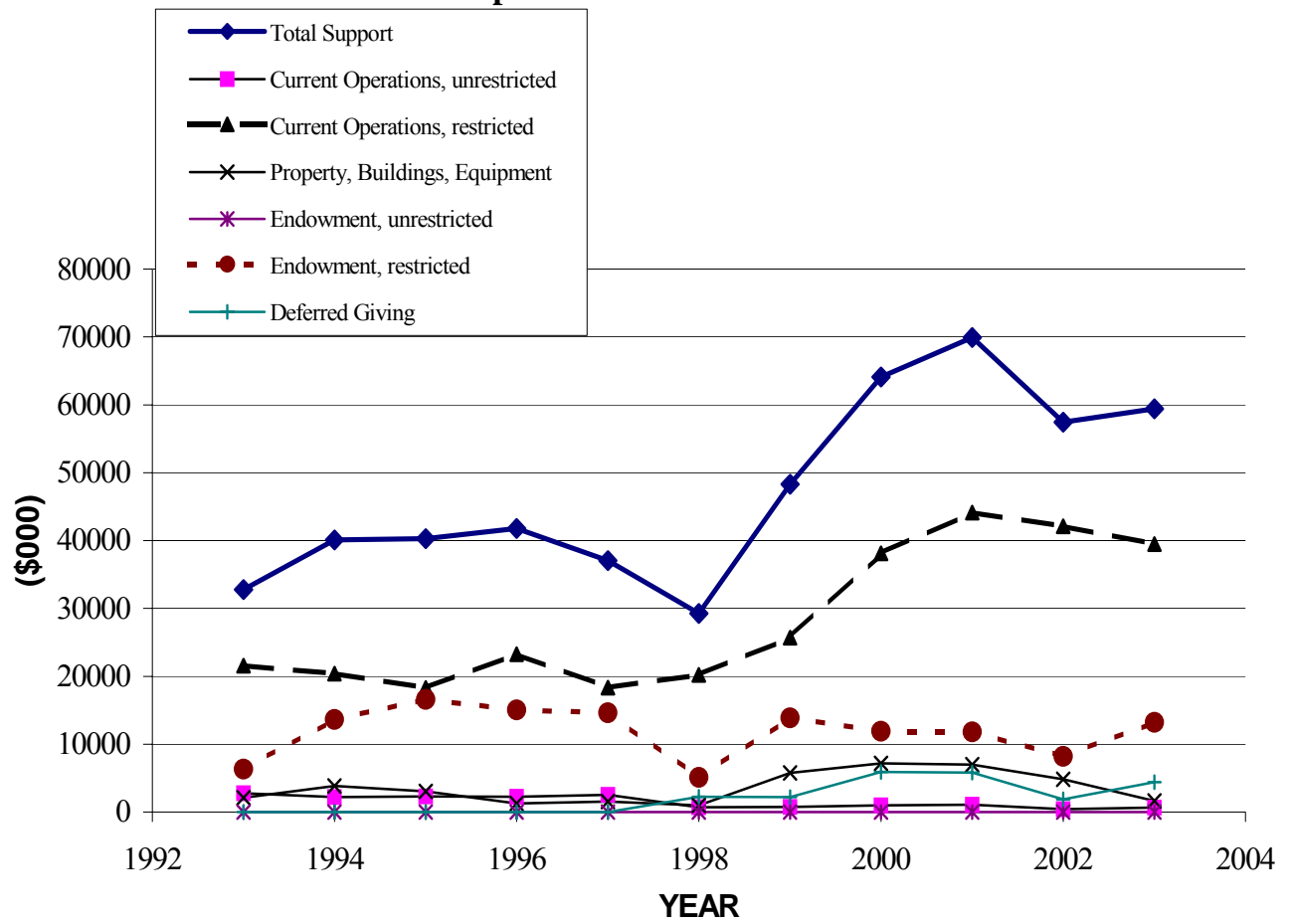**UR IRS 990 and VSE Contributions and 19 School Benchmark**

Figure 12
Components of the VSE Data

contributions received to support current operations (restricted to a specific school or unit). It is the largest single use of total support. In fact, almost all of the increase in the University's contributions supports current operations. Total support going into the restricted endowment (the dotted line) has remained relatively constant over the last 11 years, fluctuating between $5 and $15 million. The remaining uses of Total Support, such as deferred giving and property, buildings and equipment have remained small and relatively constant. Based on the data in Figure 12, the Working Group concludes that most of the increased fundraising has been used to support current operations and not to build the endowment. On the other hand, the increased use of contributions to support current operations has had the effect of reducing the draw on endowment to support current operations. Hence, assuming no change in spending, the use of contributions to support current operations has no net effect on the size of the endowment

Figure 12 raises the question as to how Rochester compares to other peer institutions regarding the percent of Total Support that goes into endowment. Table 4 is an extract from the 2001 VSE Survey that includes the University of Rochester and 21 other private research-oriented institutions that are similar to Rochester.[23] The last column reports the percent of outright support for endowment.[24] Of every dollar of outright support received by Rochester (excluding deferred giving), 18 cents ($11.8 million) goes to endowment (restricted and unrestricted). Forty-five million dollars was outright support for current operations, and $7 million was for property, buildings, and equipment. This 18 cents compares to a median of 25 cents of every dollar for the 22 VSE sample (including Rochester). Moreover, only four of the other universities in Table 4 have a lower percentage than Rochester (Case Western Reserve, George Washington, Rensselaer, and Syracuse).

Using the VSE surveys from FY1993 – FY2001 Figure 13 plots the percent of total support for endowment from FY1993 through FY2003. There has been a general tendency among all 19 peer schools to decrease the amount of total support going into endowment. Between FY1995 and FY1997, Rochester had a higher percent of support going into endowment than the average of the other 19 schools. But in three of the last four years (FY1998-FY2001) Rochester's support of endowment was below the VSE average by at least 9 percentage points.

It is important to emphasize that the data presented above be interpreted cautiously. As stressed above, the IRS 990 data and the VSE survey data use different accounting assumptions for the timing of gift recognition. Moreover, the data presented reflect the entire institution and are not necessarily representative of any single school or

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[23] Emory, Syracuse, and Tulane are included in Table 4 but excluded in the benchmark schools in Figure 10 because these schools did not submit data for all years FY1993-2001.
[24] This percentage is calculated as (col. 5 + col. 6) / (col. 1 – col.7).

Table 4
Percent of Outright Support for Endowment ($000)

Institution	Total Support 1 Outright and Deferred Combined	Outright Support for Current Operations		Outright Support for Capital Purposes			Deferred Giving	
		2 Unrestricted	3 Restricted	4 Property, Buildings Equipment	5 Endowment: Income Unrestricted	6 Endowment: Income Restricted	7 Face Value	Endowment %
Emory Univ	297778	4467	61670	10341	0	220987		74%
Carnegie-Mellon Univ	71392	2192	20677	6749	0	34542	7232	54%
Northwestern Univ	165717	8271	75417	3511	125	77895	498	47%
Massachusetts Inst of Tech.	199002	7415	91763	20256	15329	55699	8286	37%
Columbia Univ	358683	20793	179374	28126	2443	123871	4075	36%
New York Univ	171933	11489	85321	12577	471	59426	1564	35%
Pennsylvania, Univ of	285596	21309	118212	38242	226	94603	12979	35%
Rice Univ	67497	4285	19319	19969	2440	20054	1431	34%
Chicago, Univ of	163615	12349	82521	16726	3610	45071	3238	30%
Tulane Univ	53869	6131	28228	3961	0	14843	695	28%
Southern Methodist Univ	59323	2002	14900	26489	15	15290	628	26%
Johns Hopkins Univ	347732	4340	195326	57037	25862	57595	7572	25%
Cornell Univ	309473	128531	89195	5606	12167	58538	15329	24%
Georgetown Univ	94201	72	51151	17693	212	21897	3176	24%
Duke Univ	264425	42787	120660	41396	0	54651	4923	21%
Southern Calif, Univ of	280986	2418	174877	25570	3242	45559	29214	19%
Vanderbilt Univ	155719	150	102330	19510	108	27292	6283	18%
Rochester, University of	**69900**	**1101**	**44134**	**7005**	**1**	**11830**	**5830**	**18%**
Syracuse Univ	37530	1809	23778	4959	10	6382	590	17%
Case Western Reserve Univ	180923	21301	114730	16876	3933	21467	2569	14%
George Washington Univ	32656	2036	23245	2276	77	3278	1731	11%
Rensselaer Poly Inst	61736	6851	22636	27431	151	4110	557	7%
Mean								28.91%
Median								25.31%
Standard deviation								15.17%

[Source: "2001 Voluntary Support of Education" Survey from the Council for Aid to Education. Annual Survey.]

Figure 13
Percent of Total Support in Endowment
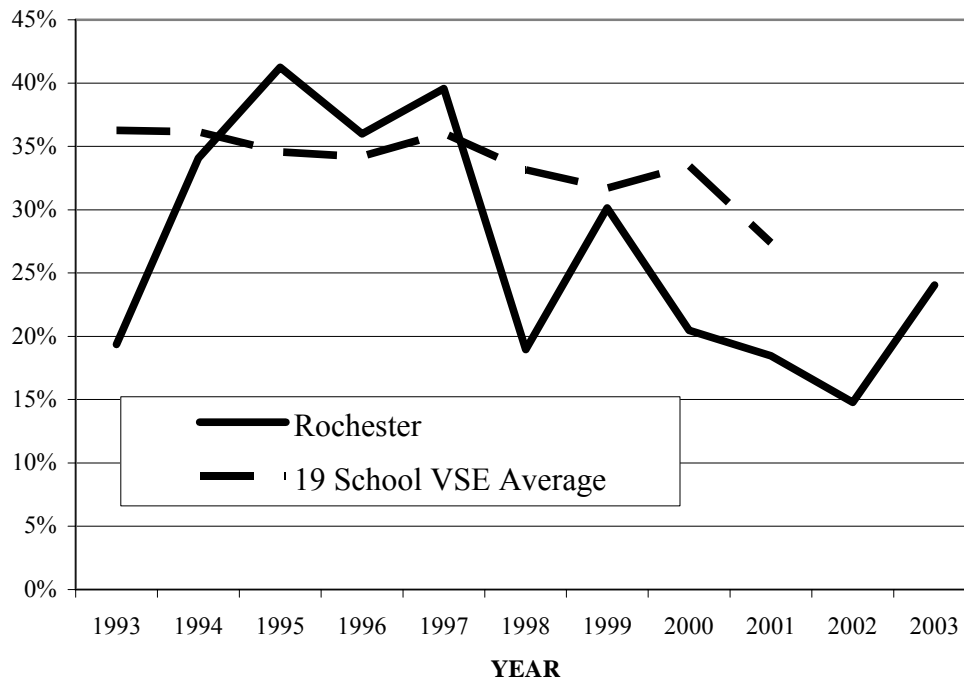
unit. The relatively large size of the Medical Center tends to skew the data towards that particular unit.

5.   *SUGGESTED IMPROVEMENTS*

- The central administration must develop better performance measures of its development process and the development performance of its units. It needs to establish criteria for comparison in order more effectively to benchmark the University's fundraising results and expenditures against a representative peer group. Central administration has fairly coarse detailed statistics by schools within the University of past fundraising. The central administration should coordinate efforts to establish processes and metrics for fundraising and serve as a repository for data to be shared among units. The central administration also should consider the role of deans in fundraising and how necessary administrative activities are then apportioned within the discrete units. Finally, it should develop mechanisms to foster cooperation among the units and encourage sharing of information.

- The strategic role of the presidency in fundraising requires coordination with the schools, and in some respects could be coordinated with the public role of the President in community relations, public relations, and government relations to form a consistent portrait of the priorities and direction of the University, particularly over the long term.

- Almost without exception, all the interviewees commented on the need to repair the deficiencies in the University's current database management systems.
  - The two existing systems, Gift Manager and FIST, are antiquated and the information contained is not up to date. A major investment is required to update these systems. (Note, however, that The Medical Center argues that the cost to replace the current systems would be better spent on funding more development officers.)
  - The units have failed to agree on a mutually acceptable way to share the costs. The central administration does not have the resources to fund the system and is unwilling to "tax" the units to pay for the upgrade. We understand that the central administration currently is developing a mechanism to fund a new system.
  - The central administration notes that it is not receiving the information it needs from the units to better coordinate fundraising. And the units complain that the information in the system is incomplete, especially information about what contacts other units are making of common MGPs.
  - The current decentralized system does not create sufficient incentives for the units to enter certain strategic information into Gifted Memory.

III.E. WORKING GROUP REPORT: INFORMATION MANAGEMENT AND ACCESS

Working Group Membership

Phil Ponella, Director of Information Technology Services (**Co-chair**)
Nancy Speck, Assistant Dean for Institutional Research and Registrar (**Co-chair**)
Anne-Marie Algier, Director of Student Activities, The College
Mike Bell, Project Director, Miner Library, Medical Center
Andrea Chamberlain, Registrar, School of Nursing
Pamela Black-Colton, Assistant Dean, Simon School of Business
Martha Every, Administrator, Simon School of Business
Jennifer Linton, Development Manager
Linda Lipani, Registrar, Offices for Graduate Education, School of Medicine and
        Dentistry
Tim Moore, Systems Analyst, Warner School
Carrie Remis Rall, Associate Director of Admissions, Warner School
Vicki Roth, Assistant Dean for Learning Assistance, The College
David Strong, Associate Director of Administration, Eastman School of Music
Dan Zager, Librarian, Sibley Library, Eastman School of Music

Working Group Charge and Guiding Questions

Information is vital to effective management, planning and decision-making, at all levels. In a decentralized environment, the collection of information can take place at all levels and there is some perception that data is owned by the one(s) who collects it.

Specifically, this Working Group is formed around the guiding questions:

- *How is information/data shared across the units of the University?*

- *What are the rules of ownership/readership of a unit's data?*

- *What are the forms of data communication across units?*

- *In what sorts of situations is this structure beneficial? When is it a hindrance?*

Approach

To learn about how data is collected, disseminated, and protected, the Working Group used surveys and interviews to ascertain what kinds of information collection and data banking takes place (1) at a departmental level, (2) at a school level, and (3) centrally. The Working Group conducted several case studies. Small subgroups were convened to consider each case in detail.

The Working Group report defines the current environment for information ownership and flow, describes the University's current information systems, and describes the cultural patterns of communication at the University.

The four case study groups examined the implementation of Voyager (the library system), the conversion from Social Security number to University ID as the primary University identifier, decisions surrounding the HRIS system, and the University's capabilities for institutional research. The case studies are designed to identify University processes surrounding the development and use of information, and the advantages and challenges inherent in those processes.

Methodology

The Working Group convened a large group of representatives from all schools at the University to discuss the questions from a large context and to determine, if we could, how to approach a discussion of the topic. From these discussions, the Working Group decided to assess the guiding questions by developing and analyzing four case studies within which to discuss the issues at hand. The Working Group convened smaller sub-groups to work on each case study and to devise questions for conducting interviews with salient players in each study.

The four case studies were:
- Library Systems
- Social Security Number conversion to University ID Number
- Human Resources Management System Conversion
- Institutional Research

(All interviews for the case studies took place during the spring and summer 2003. See appendix N for case study subcommittee membership, interview questions, and names of interviewees.)

Executive Summary

In the University's decentralized environment, decision rights and funding resources are in the hands of discrete units. These units have varying views on what information is to be shared, in what format and by what means. Independently implemented information systems developed during the last twenty years stand as "silos" that are disconnected in form and function. Many are of such an age that few useable connections can be made to enhance data collection, management and analysis for use by decision-makers.

The Working Group members used case studies to define the kinds of issues that arise in this environment and to find evidence for successes and failures in the area of information management and access. While the Information Technology Strategic Plan (available with the reaccreditation documentation materials) produced in spring 2001 articulated many of these issues in a compelling manner, we are unaware of any further discussion on the issues raised.

Our recommendations relate both to systems <u>and</u> to policy and process. Information management is notably related to *systems, system development and budgetary concerns*. Information access is more likely to relate to issues of *policy and environmental culture*. Necessarily, however, both relate directly to the manner in which the University makes decisions about the investment of human resources, financial capital and time to information management and access.[25]

<u>Conclusions/Recommendations</u>

- University-wide system development requires the commitment of an executive sponsor at the highest level of management in the University.

- Sufficient funds must be guaranteed for implementation of any University-wide project with the assurance that individual units will *not* lose operating capital. If capital is to be affected, then buy-in at the unit level must be ascertained, brokered and assured. Early communication and articulation is key.

- There needs to be a significantly greater connection between decision-making about systems investment and development and the budgeting process.

- Buy-in by all affected parties must be sought and gained at the earliest opportunity. The central administration has a role to play in convening appropriate players and supporting the collaborative processes in the earliest phases of planning and acquisition of new systems. Those who plan and budget must also include those who implement systems during the vetting and purchasing phases of system development. Further, the executive sponsor has a role to play in articulating what is to be gained (from a University-wide perspective) from the undertaking.

- Where information and resource sharing is seen to be beneficial to all parties, it is easier to leverage funds and human resources in cross-unit efforts. Again, the executive sponsors (perhaps heads of units) need to understand the value added to the whole as well as to the unit. This sort of collaborative project can be instructive for others. An opportunity to "share" examples of successful collaboration between or among units could enhance planning and processes of others attempting similar collaborations.

- All parties involved in discussions of information access must be willing to set aside the suspicion that information/data shared will have a negative impact on their units. Opportunities for collaboration can result in increased levels of trust among the participants. Increased levels of trust lead to greater commitment to the common good, while still maintaining the integrity of the unit.

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[25] The University Budget Director voiced concern about this Working Group's interpretation of some of the facts in these case studies. Her comments are attached as Appendix O.

- End-users of new systems need to be brought into the "change" environment quickly in order to achieve the greatest level of buy-in at the earliest opportunity. Leaders can assist in creating a culture that envisions change as beneficial and non-threatening.

- The executive sponsor must support efforts to review and re-engineer business processes when necessary and enforce accountability among the participants to ensure that <u>any</u> project or planning effort is brought to conclusion successfully, on-time and within budgetary constraints. Deviations from the original scope of the plan or project must be shared with all participating parties in a timely fashion. Continuous communication and discussion is critical.

1.   INTRODUCTION

"In higher education institutions, information is being handled in the…managerial, administrative, supportive, educational, and research context…. There are challenges higher education is facing with regard to information handling. Financial stringency, and more demanding clients, force institutions to provide their instructional services in a more efficient and effective way."[26]

Sharing information across an institution of higher education is a complex and difficult endeavor. Typically institutions are comprised of many disparate groups with varying responsibilities and needs for information. In a decentralized institution such as the University of Rochester, issues of information management are magnified by the fact that decision rights and funds are in the hands of the separate units who often have very different views on what information needs to be shared, in what form it will be shared, and by what means it will be shared.

This difficulty has contributed to circumstances that have led the University to have several outdated information systems that have now become inadequate. Most of the administrative systems were purchased in the 1970s and 1980s. Although they have been extensively modified, these systems no longer meet the needs of most units. Many academic and administrative units have developed shadow administrative systems that require redundant entry of information, duplicate staff, and/or unnecessary expenditures for equipment and programming support.

The case for replacing the large systems such as the student information system, or financial information system, is further complicated by the fact that the University's funding process creates extreme difficulty in the creation of and planning for infrastructure and for the development and execution of information technology initiatives. The estimated $43 million campus expenditure for IT is not coordinated, and central allocations are inflexible. Therefore, all units involved must agree to provide

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[26] Edgar Frackmann, "From Computing Strategy to Information Strategy," in *Managing Information Strategies in Higher Education*, Organisation for Economic Co-operation and Development, 1996.

additional funds for new projects, requiring an arduous political process when units have differing priorities.

In Spring 2001, the University produced a strategic plan for information technology. It stated:

> "Historically, information technology at UR has been driven by the needs of, and available funding in, internal departments, which has created a chaotic mixture of non-integrated systems on campus. The network, the core of most computing environments, is indicative of these systems. While the campus has an FDDI backbone network, individual departments are linked to the backbone through a variety of local area networks that vary widely in capability and security. Due to the multiple configurations, local authentication systems and locally developed firewalls, students, staff and faculty currently cannot access the network from, or move files to, many areas in the University."

While the University has upgraded and improved network connectivity (an ongoing effort as of the writing of this report), the same issues apply to the various information systems in use at the University. This report will examine how information and data are shared across the units of the University, and the impact of decentralization on the ways data and information are gathered and utilized across the institution. We have chosen four case studies to illustrate examples of information access and flow across the decentralized institution. The case studies are:
The University Libraries
Project to convert from Social Security Number to University ID number
Human Resources Management System
Institutional Research

The University has several "central" systems that support the work of the institution. As mentioned, most of these systems are outdated and have become inadequate. Information requests from outside the individual unit are generally handled on a case-by-case basis and require special programming or data manipulation.

2.   *CURRENT ENVIRONMENT*

The University maintains many diverse, aging information systems. They include:
Financial System: The IA Plus Financial Records Systems (FRS) developed and marketed by Systems and Computer Technology (SCT). The University currently uses two of the five available FRS modules, Financial/Grant Accounting and Accounts Payable.

Student Information System: The Integrated Student Information Systems (ISIS), which is a system of integrated ADABAS database files, stores information about students as well as information about the course catalog and faculty assignments. This system supports functional business needs of various student service offices from

admissions through graduation, including student demographic information, admissions applications, registration, financial aid, housing and billing.

Fundraising System: The Fundraising Information Systems Team (FIST) database, which became "active" in April 1987, keeps track of alumni, parents and friends (individual and organizational) of the University. FIST was created by ACS in conjunction with the development and alumni affairs staffs of all University divisions.

Human Resources Management: PeopleSoft, a client server system, handles Benefits and Third Party Remittances, Payroll and Employee Records, Compensation, EEOP/AAP Reporting, Employee and Labor Relations, Federal Reporting, Employment, Salary and Budget Planning.

Research: COEUS is a pre-award administration system for sponsored research.

The University of Rochester Medical Center (URMC) Information Systems Division (ISD) maintains Orion/ ESI, a purchasing and procurement system that is used by the entire University. Other Medical Center systems include:
OMEGA: a mainframe system that maintains information on over 1.6 million patients and is used for patient registration, medical records and billing at Strong Memorial Hospital.

Clinical Information System (CIS): The University of Rochester Medical Center's (URMC) central clinical data repository supporting direct patient care. Data from several applications is sent to CIS via eGate (data integration middleware from See Beyond Software, formerly STC). CIS is the primary application used by physicians and nursing staff.

LIS: a clinical laboratory information application.

Pharmacy: a drug ordering, dispensing and charging application.

SMD faculty database roster: maintains faculty appointments and demographics.

IDXRad: radiology scheduling, film tracking and transcription.

3. *CULTURAL PATTERNS OF COMMUNICATION AT THE UNIVERSITY*

Three cultural patterns of communication have emerged as the need for new information systems and mechanisms for information/data sharing have become necessary.

First, as was the case with the change from the use of Social Security number to University ID as primary student identifier, and to a lesser extent the Human Resources Management System, a legal or regulatory requirement forces the institution to change or upgrade a system so as to comply with a mandate or produce necessary outcomes for

which the University is liable. Second, a crisis arises at the lower levels of the institution (such as the Y2K issue) and prompts leadership to take notice and make changes to avert the crisis. Third, a mandate from executive leadership dictates that funds will be allocated and changes made.

a) *Case Study: University Libraries*

The University Library system is decentralized. Yet, while the individual libraries within the system remain clearly focused on the needs of the constituency with whom they are most closely aligned, the need for cooperation, integration, data processing and information sharing is clear among the leadership and staff of all the libraries.

Comprised of the River Campus Libraries, Sibley Music Library of the Eastman School of Music, Edward G. Miner Library of the Medical Center, the Ambrose Swasey Library of the Colgate Rochester Divinity School, and the Richard and Ronay Menschel Library of the George Eastman House, the libraries share a common, integrated library system that provides online access to the full bibliographic records of the more than three million titles held collectively by the individual libraries. This integrated online library system also provides links to other library catalogs, databases, and patron information.

Using Endeavor Information Systems, Inc. software, *Voyager* is the integrated library system for the University Libraries. The libraries support and encourage electronic access to their holdings from sites both on and off campus. For example: The River Campus Libraries spend a minimum of $500,000 a year on online resources. While funded by the River Campus Libraries, these resources are available to the entire University community and include approximately 9,300 online journals, 135 databases accessible both on and off campus, and 35 databases that are available only on campus (for licensing and or physical reasons).

The Edward G. Miner Library and its branches serve faculty, staff and students of the URMC, including the School of Medicine & Dentistry, Strong Health (the URMC integrated healthcare delivery system), the School of Nursing and the Eastman Dental Center. The Library supports all three missions - education, research and patient care - at the University and among its affiliates. The Miner Library is a technology leader, providing integrated access via a web-based, one-stop menu to hundreds of electronic resources through the Miner Digital Library. The Digital Library is accessible from within all the departments of the University, from home and from remote clinics and physician offices.

The Sibley Music Library, serving the Eastman School of Music and the other schools within the University of Rochester, is the largest music library affiliated with any college or university in the United States, with total resources of nearly 750,000 items. As such, the Library offers vast resources for performance and historical research. Although not a public institution, the Music Library serves 151 libraries in upper New

York State as part of the Rochester Regional Library Council. The library web site provides online access to a wide variety of online music resources for University users.

The Memorial Art Gallery's Charlotte Whitney Allen Library and Curatorial Department is spearheading the ongoing digitization of images of objects in the Gallery's permanent collection, which will be made available through the Gallery's website in the near future. This digital image library will be accessible to students, faculty, and staff for use with courses; for integration and linking with related University digital initiatives; and integration into the Gallery's educational outreach to the greater Rochester community.

The directors of these libraries report to and receive funding from the respective administrations of the individual divisions. While all decisions are made individually, the directors of the individual libraries meet regularly to discuss strategic direction and important issues. Similarly, staff from the different libraries meet and share information based on job functions and needs (catalogers, public service staff, etc.).

In 1995, the staff of the libraries went through the arduous task of preparing a request for proposals, reviewing proposals and revisions, and ultimately selecting *Voyager*, the Library systems' integrated online system. Although, for example, the staff in the Sibley Music Library had different priorities for features in a new system than the staff in the Miner Medical library, the libraries were able to form several cross-divisional teams, based on function (i.e. circulation, cataloging etc.), to refine functional specifications and review proposals. These teams not only established specifications for the new system, they also negotiated compromises that required some departments to change policies that had been handled in a completely individual, decentralized way (e.g., policies regarding library overdue and fee notices). The new integrated system forced these variables to become system-wide.

The libraries agreed upon a funding arrangement early in the process, as the directors of the libraries successfully presented the case for the new library system to their deans and directors. They demonstrated that by joining forces and implementing a single University-wide system, the University community would be best served, and financially, the Library system as a whole had far greater buying power as an integrated unit than if they had attempted to purchase individual systems that might be linked together later. Despite the fact that individual priorities pointed to the decentralized units to favor different systems to better meet their individual priorities, all agreed that a unified approach was best.

It should be noted that libraries in general have traditionally had a culture of cooperation, as resource sharing, collective databases, and union catalogs have been part of the *modus operandi* for generations of librarians. Equally as important is the fact that while needs of specialized libraries may differ, they have long been able to agree on common nomenclatures, rules for cataloging (e.g. Anglo-American Cataloging Rules), and technical specifications for data formats (MARC and Z39.50) to enable greater interoperability, cooperation and resource sharing.

Within the University Libraries, a staff member who formerly led cataloging at the Sibley Music Library recently has begun overseeing cataloging for the entire system in a newly created position. This individual splits time between two offices to oversee policy and operations on two campuses. When asked about this move, one of the directors involved said that despite the fact that one library would lose quite a bit of her time, the change made sense for the library system and for the individual.

As new systems are considered, new databases and technical changes cause the staff to continue to collaborate on issues, and look for new opportunities. The success of the Voyager selection and implementation project and the ongoing information sharing and support that continues among the decentralized staff points to several key issues that are vital to successful information sharing and system implementation in a culture of decentralization.

It was critical that executive sponsorship (funding) was engaged early on. Not only was this key to the Voyager implementation, but also is evidenced by the interaction of the Library directors who continue to work to plan collaborative efforts. This commitment to mutual support models the behavior that continues down through the ranks of the library staff. Individuals are willing to examine business practices and are willing to compromise. When doing so, there is little or no suspicion of the intent of others.

b) Case Study: Conversion of Social Security Number to University ID

In 2000, New York State adopted a law that prohibits the public display of student Social Security Numbers (SSNs). Under the Provost's executive sponsorship and determination that SSNs would no longer be used at the University for the purpose of identifying students, and that offices without the "need to know" would be required to use a new identifier in common business practice, the University undertook a student identifier conversion project as follows:

- A University-wide committee was convened.
- The committee included members of all schools and all relevant administrative departments at the University.
- Initial meetings were designed to share and discuss the features of the legislation and to assist members in understanding that the University's intent was to eliminate the use of SSNs as identifiers in a manner beyond the scope of the legislation's mandate.
- Discussions continued about the scope of the conversion and the costs likely to be attendant in a University-wide implementation to replace SSNs with University ID (UID) as the primary student identifier.

While financial resources were *not* unlimited, the management and technical teams were encouraged to move forward with the project with the understanding that resources would be made available. It appears that the cost of the implementation was

absorbed in some departments by existing human and technical resources. Colleges and departments were <u>not</u> required to forego a portion of their operating budgets in support of this mandated effort.

The impact of this implementation varied depending on the department in question. Among some departments (e.g., Parking Services), there was an issue of whether to "fix" or "replace" an existing system. However, budgetary constraints intervened and rather than replace systems, staff created "workarounds" such that UIDs are used to manage the front office business process, while the system still uses the SSN information "under the hood." Many offices on campus, with a variety of system interfaces, felt the impact of this project, and the technical implementation team (ITS/Administrative Computing) offered to provide conversion files to all of those affected offices. While some departments used this service (e.g., Computer Science Department), many did not. The Student Information System (ISIS) was adjusted to display UID instead of SSN, but the system will actually accept either as a student identifier. Other systems impacted by this project include the ID System (Lenel), HRIS/KRONOS, Voyager (Library Circulation System), Parking, Simon School's SASE, the Post Office (CPU Box assignment program), Telecommunications, Financial Aid (Financier), Bursar, FIST and others. The circumstances in which SSNs could continue to be used were for (student) employment and financial aid, as well as for 1098T reporting to the IRS and University Health Services. In these cases, for federal reporting and insurance needs, the SSN continues to be the identifier of choice.

In preparing the case study, the case study team conducted interviews with individual in schools and departments impacted by this implementation. All interviewees were asked the same series of questions.

For every respondent, the elimination of the SSN as a student identifier was a major challenge based on historical usage and pre-existing system designs. Adopting the implementation as a matter of University-wide policy also had its difficulties. There was unanimous concern at the outset that funds for implementation might be required to come from school and departmental budgets. When this did <u>not</u> happen there was considerable relief and that made "buy-in" more palatable. There were some discussions early in the process about why the University was doing "more than the law required." However, with the executive sponsorship of the Provost and the advice of (then) University Counsel, it was clear that this implementation should (and would) go forward.

In the early stages there was considerable anxiety about the scope, impact and funding sources for project implementation. However, once funding was assured, the technical team was able to focus on school and system-specific solutions. Certainly there is a sense that the IT team and the project leadership developed a collaborative relationship that enabled the project to move forward in a timely fashion. In most of the schools there were collaborative relationships already in existence between the technical support staff and those making the implementation decisions. However, in some departments where the implementation had a major impact, it seemed that there was not

enough technical support provided and there was an insufficient understanding on the part of management of the impact of this decision.

In general it is believed that the technical implementation was <u>very</u> efficient. Overall there were very few problems or complaints relating to technical development. In the rollout of the implementation there were some glitches, but overall it is believed that the implementation was successful. Looking back nearly two years, there is a vague perception that the implementation was not as complete as it should have been, for example, to include UIDs for staff and faculty. There is also a perception that some parts of the University may have been given a "pass" in completing the conversion. The implementation team was perceived as respectful of the human and financial resources of the various schools and departments and that the impact, from a resource perspective, was minimal. It is surmised that the total implementation was completed at a cost considerably less than that expended by other universities doing the same conversion.

In general all respondents indicate that the goal and the stakes remained clear from the outset and did not change as the implementation went forward. It was evident that there was a leadership mandate to move forward expeditiously in order to meet the implementation deadline and to exceed the legislative requirement. While there may not have been universal agreement with the broadly stated goal in the beginning, there was enough room for discussion and negotiation that the major constituents could be heard and their issues addressed, resulting in a plan of action that was widely accepted.

The obvious change at the University is the use of UID rather than SSN as a student identifier. From both a compliance and confidentiality perspective, this is a change that is beneficial to students. It is felt the change would have had more impact had the conversion occurred for all members of the university community. Organizationally, given the narrow scope of the project and the executive sponsorship, it was believed to be among the easiest university-wide changes to implement. Overall, however, no long-term benefit is seen.

Respondents believe no organizational relationships changed as a result of this project. Those who have collaborated well in the past continued to do so, especially at the management level. In some departments the implementation caused frustration and a sense of lost control over business practices that had been in place for a long time. It is believed that management did not understand the amount of expertise required to complete technical tasks and that led to some short-term dysfunction within departments. In addition, it is believed that executive sponsorship is the prerequisite for <u>any</u> initiative to reach a level of institutional priority where funding would even be considered.

It is believed that there is no central vision for systems development and system changes at the University and that each school is tasked to determine what it needs/wants and to establish its own funding priorities in support of these efforts. There is no forum for schools and colleges to share useful information about systems or to enable discussions where ideas and concerns and even research and development can be shared and perhaps jointly developed. Most such collaborations occur by accident, not by

design. It appears that there are *multiple visions* and **no** unified strategy for funding. With the development of the IT Strategic Plan two years ago there seemed to be the beginning of a unified vision for the University, but since its initial debut, there seems to have been very little public discussion of its implementation and/or funding priority in University planning and budgeting.

There is a professed sense, among respondents, that a central vision in the area of system development and system change is necessary. Managers interviewed, however, do understand the political nature of this kind of discussion in a decentralized environment. Since budgeting and planning is done within individual schools and colleges, willingness to relinquish control of budgetary or human resources for university-wide systems implementation takes more than good will on the part of the players. In general, it is believed that there must be an executive mandate for these kinds of changes to occur successfully and in a timely manner. The IT Strategic Plan was broadly inclusive in its development. There will need to be an equally broad and inclusive process put in place to move forward with any meaningful administrative system development in the future.

When the content and process of a project is consonant with the understandings of the provider, response time tends to be very expeditious. However, it is perceived that when new systems or proposals are suggested, the traditional IT answer has been "it's too expensive", "we can't do that" or worse, "no." In the past two years, perhaps as a result of the SSN to UID project and others recently undertaken and completed in The College, that perception has begun to change. Clearly the cost of new technology can be a limiting factor when proposing new university-wide systems, especially if existing systems "get the work done." Respondents in the interviews are hoping that responses in the future will move more toward sharing of information and joint developments (e.g., automation of admissions applications, web registration, etc.) cooperation, openness and willingness to discuss new proposals and to become "partners" in these enterprises developmentally and financially.

Upon completion of the SSN/UID project, we are able to make the following assessments about what was learned in the process:
- The executive established a clear and manageable goal.
- The legal deadline established by the legislation was met.
- The budgetary investment was relatively small.
- Centrally supported systems (ISIS, HRIS, etc.) manage conversion most easily.
- There is a significant disconnect between decision-making about systems investment and development and the budgeting process.

c) *Case Study: Human Resources Management System*

Like other institutions, during the mid- to late-1990s, the University spent considerable time and effort evaluating the Year 2000 issue and the impact it could have on University systems and operations. Several systems required remediation or

replacement. One such non-Y2K compliant system was MIPs, the system that produced paychecks for all employees.

To avert a crisis in January 2000, the University purchased and installed the Human Resources Information System from the PeolpeSoft Corporation. This client server system is capable of handling benefits and third party remittances, payroll and employee records, compensation, EEOP/AAP reporting, employee and labor relations, federal reporting, employment, salary and budget planning.

The project involved IT staff and consultants, and was completed on time. This implementation was occurring because of an impending crisis, thus there was a desire to retain much of the functionality of the familiar, non-compliant system. As a result there was little or no business process evaluation or reengineering. Consequently the new system received considerable customization in order to enable staff to make the transition more easily. This effort increased the complexity of the system implementation and as a result, the cost.

As with other administrative systems in the decentralized environment, no one "owned" the system. The IT group had responsibility for implementation, as per predefined specifications. The Human Resources group "owned" the data within the system. Once installed and running, there was no one entity responsible for planning the ongoing maintenance and periodic upgrades necessary. As a result, the system installed in 1999 is now so seriously customized that support is very difficult. Moreover, because the customizations caused severe cost overruns no upgrades were planned. The system is now several versions behind, out of compliance, and unsupported by the vendor and initial support agreements.

Due to compliance and support issues a new project is underway as of this writing to upgrade to the latest version and to re-implement the system so as to provide more efficient processes and new functionality to the community. A team from the Human Resources department is leading this project. This time, considerable effort is being put into examining business practices and reengineering processes and policies as necessary to meet the features of the new system. As a result of this implementation nearly all employees of the University will be affected, as benefits programs, vacation policies, labor distribution etc. will change.

Rather than customize the software to fit into the business model of the prior system, the new implementation will be "vanilla" with changes to business practices so as to require the fewest possible customizations of the system. Several "Business Process Reengineering" groups are meeting with relevant parties from across the institution to rethink processes and define new ways of doing business. These "BPR" groups will forward recommendations to the executive sponsors who form a steering committee. The initial activity is centered on several "problem" areas where the University has opportunities to improve or to reduce costs. Some areas, such as Strong Memorial Hospital, are looking at this as an opportunity to greatly improve efficiency of operations based on the new features this updated system will provide.

The team reports that decentralization has slowed their progress considerably. Some parts of the University have very different understandings of policies than others, or no knowledge of policies thought to be "university-wide." For example, in the creation of various tables in the new system a list of all departments of the University was required. Initial attempts at obtaining such a list proved difficult. The human resources system showed some 800 University departments while the financial system where budget information for those departments is located showed only 211. Different areas of the University have different definitions of what comprises a "department." In an effort to work through this issue team members contacted staff asking who managed their area. Some staff didn't know to whom their unit reported, recalling someone who left years earlier. Some couldn't say who performed their yearly performance assessment.

The team is troubled by a perceived lack of accountability and enforcement and points to the work of this project being 75% business process review and reengineering and only 25% technical/system implementation work.

d) Case Study: Institutional Research

At present there are no fewer than four major information systems being supported at the University of Rochester. They are ISIS (Student Information System), FIST (Fundraising Information System), FRS (Financial Records System) and PeopleSoft (Human Resources). There are, in addition, *dozens* of other repositories of information, generally housed within the individual schools and colleges as well as administrative departments who have specific needs for specific data at various times during the academic and business cycles of the University. In virtually every case, these systems neither interrelate nor accommodate differences when trying to share or compare information. Where these systems do interface, thousands of hours of programming support and system maintenance are required to respond to seemingly simple requests for information/data.

Without exception, these systems are outdated, most being more than twenty years old. They were designed as electronic repositories (read file cabinets) of data. They were not designed or intended to allow interrelationships of data to be explored without benefit of strong programming expertise. Often this expertise is in short supply, and becomes less available as systems age. The information stored in these systems, while useful for decision-making, is not relational in its construct, may not be queried, and cannot be mined for information without programming. Training on existing systems is generally "on-the-job." Therefore the robustness of existing systems is lost since staff can learn and use only what they need to get the job done. Any new development or research in existing systems requires countless programming hours at enormous expense to colleges and administrative departments that have need. Information (data) stored is in static form so that extracting information to share with constituents is time consuming, frustrating and expensive. Comparing and managing data is even more problematic.

In an attempt to discover the impact of this decentralized model of information access and management, interviews were conducted with principals in many of the colleges and administrative offices of the University. Generally speaking, the schools and colleges have created "guerilla" databases to meet their individual needs for information. The School of Nursing and the Warner School have hired an outside vendor to assist in creating an information management system that assists them in tracking admissions, enrollments, trends assessment, compensation management, faculty load, etc. through a database system called Central 360. Unfortunately this system does NOT connect with the financial management systems used by the University so that data must be reentered into the school-based data systems, thus increasing the risk of error as well as increasing workload. Other schools, like Simon and Eastman, have created databases "in house" for their information needs. While virtually *all* information needed is stored somewhere within one or more of the mainframe systems supported by the University, it cannot be accessed in necessary and meaningful ways.

An example of this can be found at the Eastman School where a FileMaker Pro database, currently managed by the Registrar, houses cohort data, enrollment information, retention rates, financial aid discount analyses, packaging, etc., while the Admissions office at Eastman uses an Access database for managing applicants, accepted and admitted students. These databases provide information unique to Eastman in terms of its management needs. The same information is stored in ISIS (Student Information System) but cannot be accessed in a way that is useful for the Eastman School administration.

The development of administrative computing systems at the University is generally evolutionary in nature, often taking six to seven years of research, specification development and purchase and then implementation; but there is a strong sense that there has been a lack of progress and growth for at least the last seven to ten years. Virtually all existing systems (with perhaps the exception of HRIS) are in maintenance mode *only* and new development in the existing environment is costly and time consuming and generally, though desired, cannot be funded with existing operating dollars. In spite of these issues, however, the information access needs of decision-makers grow more quickly than any of the systems can accommodate.

The existence of these separate and distinct information systems results in information management efforts that are time consuming, cumbersome and frustrating. It creates an environment where the University becomes a collection of separate businesses with proprietary interests, causing the creation of independent, non-connected systems that cannot be supported technically or financially and as a result create a drain on the resources of the University as a whole. This lack of connection and coordination has a negative impact on the collection of data and information access that would be advantageous to decision-makers. Mandates for both internal and external data reporting have grown exponentially. Efforts to collect data across the schools and colleges are inefficient and costly. The accuracy and validity of the data and information provided can impact the University's ability to be successful in acquiring substantial grant funding,

donor support, and federal and state dollars. Unified information systems would enhance the University's ability in these areas in ways that can only be imagined.

In general, the information users interviewed felt that there had been good support from ITS. However, the costs of such support, especially in new programming, have seemed prohibitive. Also, individual colleges and schools that have service level agreements (SLAs) with ITS are unclear about the services being provided and whether they "get what they pay for" in terms of IT support. While it is understood that SLAs provide maintenance of existing systems, the pressure for new development seems not to be heard or understood. It is also perceived that the central administration is unwilling to look at issues related to administrative computing and information access, since "the job still gets done." There is a broad consensus that a newer and more optimally designed system (for Student, Financial, Development and attendant modules) may be more efficient and less costly in the long run, and could provide continuity, support and access to information when needed, thus enhancing decision-making capabilities at all levels.

When asked what advantages would accrue to schools and departments if they were able to access necessary information through a larger Information System suite, the answers ranged from cost savings resulting from collaborative development and shared resources, to an examination of existing business practices and processes being reviewed, to information being available "on demand" and in formats accessible to the end user without requiring support from specialized programming staff. At still another level, it was suggested that the student experience would be more "transparent" if the systems with which they interact were unified. The creation of a unified system(s) would allow access to information and data in spite of the disparity of resources among the schools, colleges and departments. It would also create opportunities for schools and departments to use shared information and data to enhance the service provided to constituents.

4.   CONCLUSIONS

The University is now at a <u>critical time</u> in terms of making what will surely be a difficult decision. Most of its existing administrative computing systems are past their anticipated life expectancy and increasingly the University is left in a position of having to "catch up" to its peers in the area of information access and management. This will require investment at the University level, since no individual unit will be able to manage either the cost of research, development or implementation on its own. It is clear from our interviews that the schools, colleges and departments believe this is a decision whose time has arrived.

In order for such an undertaking to be successful, a number of commitments need to be made by the senior management of the University.

•   There must be executive sponsorship of the undertaking at the outset and a commitment to follow through and support the initiative throughout research, development, and implementation cycles of any project.

- All players involved in the process must be present from the outset and must be committed to the long-term outcome. Collaboration is key.

- All parties must be willing to examine (and reexamine) business practices for effectiveness and efficiency and make changes where necessary.

- All parties must be willing to compromise for the good of the whole.

- All parties need to move away from a "suspicion" of the intent of others.

- It must be clear to all parties what is to be gained, in the long run, by the undertaking.

III.F. WORKING GROUP REPORT:
SERVICES IN A DECENTRALIZED UNIVERSITY

Working Group Membership

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     (**Chair**)
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Holly Crawford, University Budget Director
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Students

Working Group Charge

The Self-Study Steering Committee asked the Working Group on Student
Services to catalog non-academic services provided to students at the University and to
categorize these services on an administrative continuum of centralized to decentralized.
The Working Group also chose two services as subjects for case studies. The primary
purpose of the case studies was to determine if the positioning of a service on the
administrative continuum of centralized to decentralized affects students and if so, to
what degree.

Working Group Recommendations

- In an institutional environment that emphasizes decentralization, a written
  statement should exist to clarify the rationale for keeping some services under
  centralized institutional control. Such a statement can be derived from the
  characterization of centralized services cataloged by this report. A rationale could
  conclude that services directly meeting statutory or fiduciary requirements placed
  on the University should remain centralized. Or perhaps services for which the
  University significantly benefits due to economies of scale should be centralized.
  None-the-less, the adoption of some formal guiding principles could achieve at
  least three desirable outcomes:
    o When it is understood specifically why a service is centrally provided,
      managers of the service can produce mission statements and strategic
      plans that extend directly from the understood rationale. Customers of the
      service can then become fully involved in the planning processes of these
      services and assist in developing mechanisms for assessing the ability of
      the service provider to meet customer needs as articulated by these plans.
      As we have seen in the cases, communication and collaboration seem to
      produce good results for students.
    o When academic customers of a centrally provided service understand the
      solution to problems with a service does not include the option to

decentralize to academic unit control, they can better focus their efforts by participating in planning processes of the service, establishing better working relationships with providers and communicating experiences in the context of agreed upon service levels.

o   Broader participation by academic customers in the planning for and delivery of centralized services can also result in a better understanding by centralized service providers of the potential unintended academic consequences of decisions made without the input of their customers.

- Once a rationale is derived determining which services should be centralized, all services should be examined in that context. Both those services currently centralized and those now decentralized should be reviewed against the rationale. Those not meeting criteria for centralized provision might then be considered for decentralization.

- Because some services will continue to be provided by centralized units, an effort needs to be undertaken to train middle managers in the academic units in how to obtain services from University-level providers. Program managers need to learn to better articulate their requirements and expectations for service in the context of agreed upon resources and open more channels of communication between service providers, students and faculty. There is some evidence to indicate disconnect between those in academic units who fund the purchase of services from centralized providers and those in academic units who manage the ongoing relationship with the service provider. Greater experience in the academic units with the concepts of purchasing services and with the consequences of financial trade-offs could probably minimize some of the organizational rancor that exists over the delivery of services not directly under an academic unit's control.

1.   *CATALOG OF NON-ACADEMIC STUDENT SERVICES*

The Working Group developed the catalog of non-academic student services through phone discussions with the offices of student services at each of the academic units, review of the campus phone book, experience of committee members and review by the Dean of The College. Conclusions concerning centralized services were refined by conversations with the Director of University Security, the Director of Parking and Transportation, and the Associate Vice President for Facilities and Services.

Tables 5 and 6 catalog the non-academic services identified by the committee and indicate if the service is provided directly by an academic unit (see Table 5), or by a central unit of the University (see Table 6). In total, forty-eight non-academic student services were identified. Academic units provide the service for their own students in 27% of the cases identified, such as with Conference & Events (from Table 5); and the service is provided by a central office of some sort in 63% of the cases, such as is so with the Bursar (from Table 6). Two types of services do not follow this model: those that are "centrally" provided, except that the provider is a school and not the University (e.g., ResNet), and those that are decentralized to some, but not all, schools (e.g., alumni

magazines which are decentralized with the exception of The College, which relies on a centrally produced alumni magazine.)

Table 5
Student Services Administered by Academic Units

Student Service	The College	Eastman School of Music	Warner School of Education	Simon School of Business	School of Medicine & Dentistry	School of Nursing
Alumni Magazine	U	E/U	W/U	S/U	M/U	N/U
Alumni Relations	C	E	W	S	M	M
Art Gallery	C	na	na	na	na	na
Career Service	C	E	W	S	M	C
Conference & Events	C	E	W	S	M	N
Exercise Facilities	C	C	C	C	M;C	M;C
Interpreter Services	C	E	na	na	na	na
Learning Assistance	C	E	na	na	na	N
Media Services	U	E			M	N
Notary Public	C	E	W	S	M	M
Registrar	C	E	W	S	M	N
ResNet	C	C	C	C	C	na
Commencement	C/U	E/U	W/U	S/U	M/U	N
Cable TV	C/V	C/V	na	na	M/H	na
Chapel	C/V	C/V	C/V	C/V	H/M	H/M
Concert Office ESM	na	E	na	na	na	na
Information Technologies	na	na	na	S	na	na
Resident Debt Mgmt	na	na	na	na	M	na

Key:

C: The College **W**: Warner School **S**: Simon School **M**: Medical School
E: Eastman School **N**: School of Nursing **U**: University **H**: Hospital
V: Outsourced to vendor **na**: not applicable

Table 6
Student Services Administered Centrally

Student Service	The College	Eastman School of Music	Warner School of Education	Simon School of Business	School of Medicine & Dentistry	School of Nursing
Academic Computing	U	E	U	S	M	N/U
Bursar	U	U	U	U	M/U	U
Classroom Tech.	U	E	W	S	M	N
Computer Store	U	na/U	U	na	U	U
E-Mail	U	E	U	S	M	M
Environmental Health	U	U	U	U	U	U
Facilities	U	U	U	U	U	U
Flex Card	U	U	U	U	U	U
Health Service	U	U	U	U	U	U
Housekeeping	U	U	U	U	U	U
Instructional Tech.	U	E	U	S	M	N
Intercessor, Office of	U	U	U	U	U	U
Internet Access	U	U	U	U	U	U
Intl Students/Immigration	U	U	U	U	U	U
Mail Service	U	U	U	U	U	U
Parking	U	U	U	U	U	U
Printing	U	E	U	S	M	M
Security/Police Services	U	U	U	U	U	U
Student Payroll	U	U	U	U	na	U
Telephone Access	U	U	U	U	U	U
Student Employment	U/C	U/C	na	na	na	U/C
ATM Machines	U/V	U/V	U/V	U/V	U/V	na
Auxiliary Services	U/V	U/V	U/V	U/V	U/V	U/V
Bookstore	U/V	U/V	U/V	U/V	U/V	U/V
Bus Service/Transportation	U/V	U/V	U/V	U/V	U/V	U/V
Copy Service	U/V	U/V	U/V	U/V	U/V	U/V
Corner Store	U/V	U/V	U/V	U/V	na	na
Dining Service	U/V	U/V	U/V	U/V	U	U
Vending Services	U/V	U/V	U/V	U/V	U/H	U/H
Computer Labs	U/C	E	na	S	M	N
Grounds	U/V	U/V	U/V	U/V	U/V	U/V

Key:

C: The College	W: Warner School	S: Simon School	M: Medical School
E: Eastman School	N: School of Nursing	U: University	H: Hospital
V: Outsourced to vendor	na: not applicable		

2.   CONCLUSIONS FROM THE CATALOG

Decentralized non-academic services appear, for the most part, to be decentralized because each was created initially at the academic unit level it serves rather than because the service was once centralized and later realigned as a result of organizational philosophy. Many of the centralized non-academic services also share common traits. These services appear to:

1. fulfill a statutory obligation placed upon the institution such as a fiduciary responsibility (e.g., bursar) or public safety (e.g., security, transportation, internet access);[27]
2. achieve economies of scale, to make the service as affordable as possible (e.g., telephone, transportation and ResNet); or
3. provide services consistently and equitably across the institution (e.g., parking, security, and grounds).

Based upon discussions with several managers, the Working Group believes that a lack of understanding exists about the nature of services that remain centralized. Without a formal written rationale for which services should remain centralized and for what reasons, tension between providers and consumers of services will continue to exist. The consumers of the service want the level of control they believe they can achieve if the service were directly under their control, while the centralized provider must continually explain why the service isn't of the type or at the level that is requested because funding is unavailable from the academic units to purchase additional levels.

3.   NON-ACADEMIC SERVICES CASE STUDIES

The Working Group chose two centralized services to review. The Group chose to review centralized services and not decentralized ones because these services are centralized in an environment where decentralization is emphasized. The services selected for review were **security** and **transportation**. The Working Group drew upon the experiences addressed by students and administrators of The College, as that is the academic unit with the most students. Complete documentation of each case is with the reaccreditation documentation materials.

a) Security Case Study

i)   Nature and Need for Security Service

University Security is a centrally administered service with offices on all three of the University's academic campuses (River Campus, Medical Center, and Eastman

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[27] University officers do, in fact, have fiduciary responsibilities that require close management of institutional risk. Finding the appropriate balance of assignment of operational responsibility for some services between the central administration and the lower levels of the institution, therefore, must include the assessment of issues such as intergenerational implications of current actions, protection of the University's assets, legal compliance, and management of potential costs imposed by one part of the University on another.

Campus). University Security is responsible for the safety of the University community and all who interact with the campus; they maintain responsibility for the security of University personnel and property, crime prevention, and emergency response. University Security is under the direction of the Associate Vice President for Facilities and Services, and is managed by the Director of University Security. As a centralized enterprise, all costs are allocated to academic divisions based upon an approximation of effort. The Medical Center pays the preponderance of the total cost of the service. The College (including River Campus residence halls) provides approximately 15% of overall funding for Security.

Students regularly encounter University Security. Officers greet students when they arrive on campus and give tips to new students on how to travel safely around campus. Officers patrol the campus 24 hours a day, seven days a week. They monitor, manage and report infractions of community rules and regulations and work closely with the Residential Life and Dean's Office staff to ensure that College procedures are met and community regulations are followed. University Security officers provide for safety at campus events for student clubs and major conference activities, escort services, transportation for students needing to go to the hospital, and investigations for criminal activity. They also are the institution's liaison with outside law enforcement agencies.

One advantage of a central security service is that during emergency situations, security resources can be moved between areas of coverage in a way that minimizes the financial impact of planning for such occurrences. Such an approach leverages institutional investment in security. Further, from a position of centralized control, it is easier for the University to document provision of security to meet statutory and reporting requirements imposed upon the institution by outside governing agencies.

ii) Selection of Service

The Working Group chose this service because it is so integral to life on our campuses. The net of safety that University Security provides is often invisible. When something goes wrong, however, security can be the first to be blamed. In times of crisis, it may be difficult to sort out what is wrong, and to know if there is a system problem or not.

While the schools have many security needs in common, each school and campus of the University has its own culture, needs, and expectations about what University security should do. The Eastman School is in the middle of an urban inner city, adjacent to an extremely impoverished and increasingly violent sector of the City. Rochester is experiencing a significant rise in crime like so many other urban areas. In addition, on the Eastman campus, security serves a very specific pre-professional population accustomed to authority and disciplined study. This is a campus culture attuned to authority, control and order. The Medical Center serves the greater urban area and runs an around-the-clock public and very porous facility with large numbers of visitors in and out of the facility regularly. They are used to managing large difficult cases and numbers of people. They have specific protocols and procedures for controlling interactions with

the public as well as a highly professionalized staff making for a much more corporate atmosphere.

The River Campus has as its borders a river on one side and a cemetery on the other. The primary student population University Security interacts with are undergraduate liberal arts students 18-21 years of age who are away from home for the first time. The College tries to create a warm and welcoming environment for them. In addition, the culture and curriculum in The College is one that encourages individual freedom and critical thinking and authority figures are not exempt from the challenges of students, staff, and faculty. In this climate, security officers can be perceived as limiters of personal freedom. Consequently, a request from a security officer made to an employee at the Medical Center or to a student at the Eastman School may be perceived differently than a similar request of a student residing in the culture of The College. Students of The College are not reluctant to challenge or complain to officers when they believe their rights have been violated. For example, students sometimes question the practice of security officers entering student areas unannounced.

iii) Problem of Decentralization

Controversy stirred during the 2002 -2003 academic year when security began to monitor safety in the fraternities using the same sort of inspections they had been using in the residence halls. Students believed that a new policy had been developed and put into practice without warning or discussion with students. The policy change produced unannounced security checks of fraternities for health and safety compliance. The decision to make changes to the implementation of health and safety policy was not well communicated to the community. The effect of the change was to create great hostility and suspicion among students who live in fraternities and their alumni. Every case that came before the judicial officer was challenged because of the tactics used by security. So the judicial system was in the position of evaluating infractions while at the same time, reviewing security practices. Students argued that security was watching the wrong people; i.e., students believed that security was spending too much time watching students and not enough watching outsiders.

iv) Discussion

The College provided information for the review of University Security. Students in The College have been meeting both formally and informally over the past year and a half to review the judicial procedures and security processes. These meetings have been held in response to: 1) complaints from fraternities because of changes made by Security in how they monitor campus safety, changes that students living in fraternities found to be unduly invasive; 2) concerns for safety on campus, and; 3) uses of security cameras on campus and related policy matters.

v) Findings

The College formed a committee to produce a report on security on River Campus. The Dean of The College and a Greek organization student member co-chaired the committee. Students were involved in all committee meetings, and findings were shared with students and University Security. By holding open committee meetings within The College, it became possible to lay out and explain Security's polices and procedures. As a result of the committee's identifying and explaining all security policies and procedures, and developing a comment/complaint form, the questioning of security's approaches and policies began to subside. By presenting the security office as open to questions and participative in planning, University Security and The College have begun to see a reduction in student complaints about security. There is a sense that security is working with students and The College to adapt their service to campus culture. Further, The College began to ensure that security was involved in other campus meetings on a variety of related topics of concern to students. Security has now begun to develop specific materials for College programs such as creating brochures for a new city program called RED (Rochester Every Day) and adapting their approach for presenting safety information to Study Abroad students.

b) Transportation Case Study

i) Nature and Need for Service

Employees and students move between campuses on a 24-hour basis. A trip to the Medical Center may be for reasons of getting health care services, for visiting patients, or for employment. Eastman students use the bus system to get to classes and events on the River Campus. Undergraduates in The College go to classes and music lessons at the Eastman School and also take buses to off-campus housing. The transportation system has become an increasingly important way for students to move from living on a rather isolated campus to a life integrated with the activity of the Rochester community. There is also a feeling of isolation among the students because they have become familiar with the city through service activities, but are unable to find transportation there when they want it. Since first year students no longer live among upper class students who possess cars and a willingness to drive underclassmen to events off campus, the underclassmen especially feel the isolation of the campus. In fact, first year students are among the strongest voices for better access to the city and its activities.

The Director of Transportation and Parking at the University of Rochester reports to the Associate Vice President for Facilities and Services. The department secures bus and other forms of ground transportation by negotiated purchase of services from outside vendors. The department enforces statutory requirements imposed upon the University by assuring that vendors are licensed, drivers have passed regularly required drug tests, and that vehicles are safe. Through negotiation, the department seeks to achieve fair pricing. Costs of the service are allocated to academic units based upon an approximation of effort.

ii) Selection of the Service

The Working Group chose transportation as a case study because of the increase in student demand for new ways to get off campus. In national studies of comparable institutions, Rochester students rank The College poorly (next to last) in providing enough things to do on campus. The City offers a variety of entertainment venues to augment student programming. Transportation to and from off-campus events is an aspect of improving campus social climate.

iii) Problem of Decentralization

The problem in this case is that there are many unique and discrete College issues that need to be addressed around transportation as The College extends into the Rochester community. It is difficult to know what kind of data to gather to help shape transportation decisions within The College when the city and the transportation choices are so vast and sprawling. Further, transportation is a complex system within the University—out-sourced vendors, rental vans, and contracted service through Rochester's Regional Transit Service (RTS), etc. As consumers, there is little way of knowing what will work the best.

iv) Discussion

Last year, first year students raised concerns with the Dean of Students about off-campus transportation. The College students formed a committee to look into the problems they identified. The group consisted of the Student Association president, the freshman class and sophomore class presidents and several other student senators. As a part of the deliberations, the group provided the Associate Vice President for Facilities and Services with a wide variety of information regarding transportation. In particular, the committee documented information about costs expended on bus rentals to transport students and non-academic departments to a variety of sites. These trips have involved programs run by Residential Life, Athletics, Student Activities, and Community Service and Student Association sponsored activities. Further, there was an effort to get students to off-campus food and shopping areas as well as to recreational and cultural events.

v) Findings

The student committee identified cost of service, accessibility and reliability of transportation systems as problems for students and those planning programs. Students don't know how to use buses even though they are taught how to do so during orientation. It is hard to understand or read the bus schedule and routes are not generally well advertised or used. Those student groups who use bus transportation sometimes report they find the system unreliable. Several people in The College who created programs to take students off campus reported that reserved buses did not arrive on time or failed to show up at all. Also, renting buses for special events is expensive and can discourage students from planning programs off campus.

After being encouraged to invite professional staff from the University to College meetings, the committee was able to develop a web map to help students find their way around the city. In particular, the University's Architect, assisted by interested groups, created an interactive map to complement off-campus initiatives. This should help make the bus system more accessible to students. There are other issues that remain including adding or re-designing bus routes to more closely match desired destinations as well as to figure out how to control transportation costs and improve vendor reliability. However, communication and collaboration seems to address the problems, and these remedies can be pursued regardless of the University's organizational structure.

3.   *CONCLUSIONS DRAWN FROM THE CASES*

Students don't seem concerned about whether a service is offered by a centralized unit of the University or by a decentralized provider within one of the academic units. They do care about having their needs met. Some academic program managers seem not to understand the relationship between central services and funding sources. For example, some academic program managers seem to view centralized services as being centrally funded and charged with meeting needs of students no matter which academic environment those students are associated with at the University. In our decentralized environment, however, academic units are allocated the cost of the provision of services through level of effort studies. Academic units can also buy additional services to meet more complex needs. These points all come together when there is a problem: students want services, academic administrators responsive to students can't understand why the level of service required can't be delivered, centralized providers of services are willing to meet student needs but only to the extent they can recover cost from academic units. In the end, as in these cases, communication between service providers and students, and communication facilitated by academic unit leadership, seems to lead to resolution of issues students face about services. When communication is absent, difficulty abounds.

4.   *RECOMMENDATIONS*

The Working Group makes the following recommendations:
- In an institutional environment that emphasizes decentralization, a written statement should exist to clarify the rationale for keeping some services under centralized institutional control. Such a statement can be derived from the characterization of centralized services cataloged by this report. A rationale could conclude that services directly meeting statutory or fiduciary requirements placed on the University should remain centralized. Or perhaps services for which the University significantly benefits due to economies of scale should be centralized. None-the-less, the adoption of some formal guiding principles could achieve at least three desirable outcomes:
    - When it is understood specifically why a service is centrally provided, managers of the service can produce mission statements and strategic plans that extend directly from the understood rationale. Customers of the service can then become fully involved in the planning processes of these services and assist in developing mechanisms for assessing the ability of

the service provider to meet customer needs as articulated by these plans. As we have seen in the cases, communication and collaboration seem to produce good results for students.

- o When academic customers of a centrally provided service understand the solution to problems with a service does not include the option to decentralize to academic unit control, they can better focus their efforts by participating in planning processes of the service, establishing better working relationships with providers and communicating experiences in the context of agreed upon service levels.

- o Broader participation by academic customers in the planning for and delivery of centralized services can also result in a better understanding by centralized service providers of the potential unintended academic consequences of decisions made without the input of their customers.

- Once a rationale is derived determining which services should be centralized, all services should be examined in that context. Both those services currently centralized and those now decentralized should be reviewed against the rationale. Those not meeting criteria for centralized provision might then be considered for decentralization.

- Because some services will continue to be provided by centralized units, an effort needs to be undertaken to train middle managers in the academic units in how to obtain services from University-level providers. Program managers need to learn to better articulate their requirements and expectations for service in the context of agreed upon resources and open more channels of communication between service providers, students and faculty. There is some evidence to indicate disconnect between those in academic units who fund the purchase of services from centralized providers and those in academic units who manage the ongoing relationship with the service provider. Greater experience in the academic units with the concepts of purchasing services and with the consequences of financial trade-offs could probably minimize some of the organizational rancor that exists over the delivery of services not directly under an academic unit's control.

IV. SUMMARY OF SUGGESTIONS AND RECOMMENDATIONS

The Working Groups' suggestions and recommendations are summarized here. The steering committee urges the President, Provost, and other University leaders to develop appropriate structures and mechanisms to address those suggestions that readily lend themselves to University-wide or central discussion, evaluation, and resolution. Others listed here are suggestions to the University community more generally, and it is the hope of the Steering Committee that these are discussed and considered within the academic divisions and administrative units of the University.

1) A University-wide committee should be established to share information about major curricular changes on an annual basis, to design a mechanism that will permit and even welcome comments from each of the relevant schools in the ongoing evaluation process conducted by each of the schools, and to determine other ways in which curricular cooperation among the schools can be encouraged.

2) Focus groups proved exceptionally useful as a means to promote discussion and reveal broad opinions across the University constituencies. Therefore, we recommend that this approach be used to provide opportunity for the constituencies to express opinions and to become aware of University visions, directions, and development. Focus groups are potentially of great value for undergraduate and graduate students to express their concerns and to become aware of the broad opportunities and activities within the University. This will also benefit offices that require community feedback about their services in order to be sure that University needs are being met.

3) There is uniform opinion that the schools other than The College have little communication from institutional leaders concerning vision for the University, evolution of new programs, and successes of programs and faculty in the schools. It would be desirable for the leaders to appear regularly at meetings of faculty to communicate such information.

4) The University's vision of its directions and its role in the region and its relationships need to be expressed in an ongoing effort involving community leadership.

5) The University leadership, representing a vigorous institution, should develop more effective public relations efforts to identify and articulate specific goals to peers, to regional schools, business leaders, and potential supporters. Although public perceptions often are determined by third parties, especially the media, the University's plans and important achievements should be strongly presented to all elements of its public and intellectual communities.

6) An actively updated University website should highlight University activities and accomplishments.

7) The University Faculty Senate, the one representative body constituted from all the schools of the University, needs to be evaluated in terms of strategies to make it useful to both the faculties and University leadership. Reconfiguration of membership selection and a new perception of its key role would permit the Senate to initiate and discuss new directions and communicate effectively with its constituents as well as to serve an important constructive, analytical role with respect to programs and institutional leadership.

8) The University should continue to fund the Bridging Fellowships.

9) The University should develop a mechanism to look systematically at barriers to collaboration identified in this report and to seek ways to lessen or eliminate these. For example, a fund might be established for departments/schools to hire an adjunct periodically to cover a course in the home department, to enable a faculty member to teach or co-teach a course in another department or school. The University should also pay particular attention to the costs and benefits associated with the current tuition transfer policy.

10) The University should continue to gather data on collaborative work across schools (such as tracking the composition of Ph.D. committees) to inform future decision-making.

11) The central administration must develop better performance measures of its development process and the development performance of its units. It needs to establish criteria for comparison in order more effectively to benchmark the University's fundraising results and expenditures against a representative peer group. The central administration should coordinate efforts to establish processes and metrics for fundraising and serve as a repository for data to be shared among units. The central administration also should consider the role of deans in fundraising and how necessary administrative activities are then apportioned within the discrete units. Finally, it should develop mechanisms to foster cooperation among the units and encourage sharing of information.

12) The strategic role of the presidency in fundraising requires coordination with the schools, and in some respects could be coordinated with the public role of the President in community relations, public relations, and government relations to form a consistent portrait of the priorities and direction of the University, particularly over the long term.

13) The administration should work to repair the deficiencies in the University's current gift management processes and systems.

14) The University must seriously consider an investment in its administrative computing systems. There must be executive sponsorship of the undertaking

at the outset and a commitment to follow through and support the initiative throughout research, development, and implementation cycles of any project. All players involved in the process must be present from the outset and must be committed to the long-term outcome.

15) A written statement should exist to clarify the rationale for keeping some services under centralized institutional control.

16) Once a rationale is derived determining which services should be centralized, all services should be examined in that context. Both those services currently centralized and those now decentralized should be reviewed against the rationale. Those not meeting criteria for centralized provision might then be considered for decentralization.

17) Because some services will continue to be provided by centralized units, an effort needs to be undertaken to train middle managers in the academic units in how to obtain services from University-level providers. Program managers need to learn to better articulate their requirements and expectations for service in the context of agreed upon resources and open more channels of communication between service providers, students and faculty.

The Steering Committee also suggests that the University establish a mechanism to continue the process of self-study in order to address those issues that could not be considered during the preparation of this report, such as the way in which our decentralized structure affects our ability to increase diversity among our students, faculty, and staff. Finally, the Steering Committee would like to commend the University administration for taking steps to address some of our recommendations since the distribution of the first draft of this report in the fall of 2003.