
CALL TO CONVERSATION

FROM RICE UNIVERSITY PRESIDENT
DAVID W. LEEBRON

In the year since I assumed the presidency of Rice University, I have had the opportunity to speak with thousands of members of the Rice community—faculty, students, staff, alumni, parents, and supporters—as well as many other people in Houston and beyond who have an interest in the future of Rice. I have learned a great deal and am enormously optimistic about what Rice can contribute.

Institutions of higher education today, including Rice, confront a more dynamic and competitive environment than ever before. Success in that environment requires reevaluation, evolution, and change if we are to maintain the level of excellence and achievement for which we are known. It is therefore time to begin a more focused conversation about the questions we must address and the priorities we must set to build a plan for the time between now and the centennial celebration of Rice's opening in 1912.

We want to engage all members of our community in conversations about the fundamental issues that confront Rice. These conversations will occur in varied settings, formal and informal. We will use existing groups and scheduled meetings—for example, presidential visits and meetings with faculty, students, staff, and alumni—as well as meetings called specifically for this purpose. We hope to facilitate feedback from individuals and groups through a special interactive website (**accessible only via a Rice-authenticated network connection at <http://www.rice.edu/c2c> for the campus community and <http://alumni.rice.edu> for our alumni community**). In the summer and early fall, we plan to hear from our various constituencies on the topics raised in this document. In December, we plan to present for the Rice Board of Trustees' consideration a clear elaboration of Rice's goals and priorities for the decade to come.

Below I have outlined in seven broad topics the range of issues we should address. Although I have set forth some initial thoughts on these issues, I frame them largely as questions, an appropriate way to begin

a dialogue. The ensuing discussions will significantly inform our thinking and planning. Our trustees and the deans of each of our schools naturally will assume leadership in this process. Our vision will be informed by what we learn from all segments of our community.

A document such as this necessarily focuses on areas of change. We are doing, and have done, many things at a high level of success. Moreover, strategic plans for many parts of our enterprise, especially those that rely largely on their own funding sources, will be developed primarily within those parts of our university. Thus, for example, the limited discussion here of our professional schools—architecture, management, and music—and our School of Continuing Studies should not be taken as an indication that these parts of our university are not essential elements of our future. And because the trustees of the university recently and comprehensively have addressed the question of intercollegiate athletics, that topic is not encompassed here.

I. *Our Fundamental Missions, Responsibilities and Aspirations*

From its beginning, our university has been dedicated to three missions: educating and preparing outstanding students for diverse careers and lives; contributing to the advancement of knowledge across a wide range of fields; and being of service to our city, our state, our nation, and our world.

Rice's existing mission statement, developed five years ago by the Faculty Council and adopted by the Board of Trustees, is: *The mission of Rice University, shaped largely by its founder and the first president, is to provide an unsurpassed undergraduate education in science, engineering, the arts, humanities, and social sciences; to produce internationally distinguished scholarship and research and excellent graduate education in carefully focused areas; to insure that such an education remains affordable; to maintain the distinc-*

tive character of a community of learning that is relatively small in scale; and to serve the continuing educational needs of the larger community.

Does this statement fully encompass the current and future missions of the university? If not, in what ways should it be modified to reflect the goals we should have before us? Does it make clear the importance of our mission as a research university dedicated to exploring the frontiers of knowledge and increasing human understanding? Does our mission statement adequately reflect our purpose and ambition of training leaders across a range of endeavors? How should our location in the city of Houston shape our aspirations and mission?

Each of the goals mentioned places on us certain responsibilities. How can we best identify and effectively respond to those core responsibilities? Within the context of these missions, how can we best define our aspirations?

Those aspirations must serve to distinguish us not merely in the high standards we set but in the ways we differentiate ourselves from other universities and institutions of higher learning. Our comparative advantages lie in our relatively small size, our emphasis on undergraduate education, our identification of important but focused areas of strength, the relative ease by which we can foster interdisciplinary study, and possibilities for excellence across the range of human knowledge and endeavor.

At Rice, we often quote Edgar Odell Lovett's statement about building a university "with no upper limit." That vision requires us constantly to set new aspirations and record new achievements and to build on existing strengths and establish new ones. Because we are small, the choices we make are extremely important. We must be prepared not only to begin new endeavors but, in some cases, to reduce our commitment to areas that no longer serve our strategic aims well.

Rice is well poised to make its next leap, namely building multiple areas of outstanding research and teaching achievement, across all schools. I believe that if we act boldly and enlist others in our cause, we can build here in Houston, at Rice, one of the truly great and renowned universities of our nation.

II. *The Size of our University*

The size of our university is one of the most pressing issues, and perhaps an important obstacle to further achievement. I believe we must grow to achieve our ambitions, but it must be growth within the context

of remaining "relatively small in scale." In light of our mission, our aspirations, our history, and our resources, what is the optimal size of our student body and faculty in the years ahead? Can we achieve the national and international prominence we seek in both teaching and research while remaining the smallest full-spectrum research university in the country? Can we grow and still retain our distinction as a small research university, with success in building interdisciplinary endeavors and creating a strong sense of campus community? How does our size affect our ability to serve Houston and Texas? Can we grow in a way that preserves the strength of our commitment to undergraduate education and, in particular, the direct role of professors, inside and outside the classroom, in that education? If we do grow, how shall we best allocate the resources and opportunities required for and generated by that growth?

A number of reasons suggest that some growth is desirable. Research universities require a substantial infrastructure, and that infrastructure is subject to certain economies of scale. Certain departments must grow if they are to achieve a national reputation, and there are new and important areas of teaching and research in which Rice must participate if it is to be competitive. To draw a national student body, we must also be able to attract employers from all over the country; that is a function of both the number of students and their geographic dispersion. A certain size is required to create the necessary "critical mass" for the great variety of student endeavors we aspire to have at Rice. In addition, our growth has not kept pace with both past and expected future growth of our city and our region, suggesting that we need to grow if we are to maintain Rice's historical importance.

Could we achieve such aims while maintaining the quality and sense of a smaller educational community if we grow our undergraduate program by approximately 30 percent, to about 3,600 to 3,800 undergraduate students? This would leave us as the third smallest member of the Association of American Universities, and well below the size of most of our competitors. Indeed, it can be fairly said that in the context of research universities, such growth would move us from being "tiny" to just being small.

Our nonprofessional graduate programs also need to grow selectively if we are to sustain the excellence of our research endeavors across an array of fields. Many departments have indicated that without expansion of their graduate programs, they will not be able to achieve the level of distinction to which they aspire. Although this determination must be made on a school-



by-school—indeed, department-by-department—basis, a rough indication is that we would need approximately 500 to 800 additional graduate students across natural sciences, engineering, humanities, and social sciences.

We would expect in this context to increase our total faculty, although by a lesser proportion than the increase in our student body. As discussed below, such growth must be strategic and selective.

Such an expansion must be undertaken with great care and over several years of planning. We must assure that our students will have small classes and the complete access to professors—whether for teaching, research, or advice—that now characterizes the Rice experience. For our graduate students, we will need adequate laboratory and other research space. Furthermore, we cannot expand without the ability to house our students, especially if we seek to recruit more of our students from outside the region. This will require, at a minimum, the construction of two new colleges and, perhaps, the expansion of several existing colleges, some of which currently expel to off-campus housing a very substantial portion of their rising student populations. For students who do live off campus, should we consider creating housing opportunities closer to the campus that will enable even off-campus students to live close by and have a greater sense of community?



III. *The Undergraduate Experience*

Rice has long been distinguished by the excellence of its undergraduate education. This has been defined by the high quality of faculty teaching, meaningful research opportunities for our students, the residential college experience, and the extracurricular opportunities—intellectual, cultural, social, athletic, and recreational—available to our students. We seek an undergraduate student body of the highest levels of promise, achievement, and ambition. We aspire to bring that population from all over the world to Houston for the very best education possible: one that takes place in the context of a research university and involves direct participation by faculty researcher-teachers in many facets of the undergraduate experience.

To what degree are we succeeding in achieving the high standards we have set, and what areas are capable of improvement? How can we best shape the undergraduate community through our admissions process? What are the best strategies for assuring a diverse community and an education affordable to all students regardless of their family means? From where should our student body be drawn?

I believe that we should aspire to a somewhat more national and international student body. We should remain a distinctively Texas-based university while increasing the percentage of students we attract from outside of Texas. The competition for the best students in Texas will only grow more intense in the years ahead. Continuing to enroll about the same number of students from Texas while growing the number of students from elsewhere would result in a student body that was approximately 40 percent in-state and 60 percent out-of-state. We also should seek an undergraduate student body that is more international, more than doubling the present 2 to 3 percent.

Rice should be committed to an approach to undergraduate education that is holistic in two senses. First, we educate the whole person, inside and outside the classroom. We seek to develop the broad base of knowledge and skills that will serve our students well throughout their lives. Second, we set standards for the education of all our undergraduates. While we must recognize the distinctiveness of education in architecture, engineering, and music, we must, at the same time, develop common standards for a liberal arts education. Do our curricular offerings meet the demands of today's society and provide adequate education not only in the substance of knowledge but with respect to such skills as oral and written communication and presenta-

tion? Do we communicate effectively to our students what leadership entails and train them for succeeding as leaders in the many different endeavors in which they will find themselves? We must make a renewed commitment to developing the skills that our students will need to succeed in the twenty-first century world.

Are we offering, and are our students taking advantage of, the kind of intense, transformative intellectual experiences that characterize the best undergraduate education? We should encourage a greater number of our students to undertake intensive research projects before they graduate, culminating in work that aims to make a contribution to human knowledge, the basic goal of a research university. Rice is perhaps in a unique position among research universities to provide real opportunities for participation in that research by undergraduate students. Our talented students and our engaged and accomplished faculty provide the ideal ingredients for such undergraduate achievement.

Is the quality of our teaching all it could be, and do we provide the necessary support and incentives for faculty to innovate within the classroom? Especially with the rapid development of technology, we must be sure that our faculty have opportunities to develop new and innovative pedagogical approaches.

Do we offer the type and range of international opportunities that are an essential part of higher education today? This requires not merely that we offer opportunities for education abroad but that the education and environment we provide on campus in Houston is truly international as well. Our opportunities for foreign study now consist of placements for one to two students at a time. We should seek to develop, in addition, deeper relationships with partner institutions in selected countries. As explained below, I believe we should focus initially on China and Latin America.

The residential colleges have, for almost a half a century, been an important part of the Rice experience. Are the residential colleges living up to their original aspirations? How might we enhance their roles with respect to the widest group of students? How can we improve the opportunities for intellectual growth within the college setting?

Are our campus facilities adequate for supporting the extracurricular opportunities our students desire and for creating a sense of intellectual and social excitement? It is clear that at least in one area, recreational and athletic facilities for all our students, we lag seriously behind our competitors. We must set as a top priority building a recreational center that can serve our community.

Are we taking full advantage of the opportunities that Houston has to offer our undergraduates? Do our students sufficiently benefit from experiences of civic engagement and public service while they are here? Are we doing all we can to provide the full range of outstanding opportunities to our students upon graduation, including graduate and professional study, fellowships, and employment in the private, governmental, and nonprofit sectors?

IV. Graduate and Post-Doctoral Education

A central component of achieving our research ambitions is the quality of our graduate programs. We must recommit to graduate education, create the support structures and environment that effectively support graduate education and research, and assure that we are attracting the top students from around the nation and the world. Are we providing adequate stipends and benefits to our graduate students? The combination of our present level of stipends (especially in the humanities and social sciences) and benefits for our graduate students is, in many situations, simply not competitive. We must enhance graduate student stipends and benefits so that we are truly able to compete for the very best

students across the full range of our graduate programs.

Graduate students are essential to our research mission and can greatly enhance our community of learning. How can we better integrate our graduate students into the life of the university and, in particular, build better bridges between our graduate and undergraduate populations? Our graduate students have been, for example, largely excluded from participating in the life of the residential colleges, even though such participation was envisioned as part of the original plan. We should explore ways to include graduate students more fully in our community, to better support them in achieving their ultimate aspirations, and to convey to them their value to our university.

In many of our programs, our graduate students seek careers in the academy, and we must improve the opportunities at Rice that will enable them to succeed in that endeavor. What, for example, should we do to provide our graduate students with more teaching opportunities?

We cannot attract the best graduate students if they are not provided the experience here at Rice that will enable them to develop effective teaching skills. We must assure that these opportunities are provided in a manner consistent with the distinctive character of Rice's undergraduate education, namely that the vast majority of courses continue to be taught by faculty members.

In our undergraduate programs, we devote significant effort and resources to the effective recruitment of the students we seek. Are we doing all we need to do, not only within departments but also as part of a university-wide effort, to recruit the best graduate students to Rice? Have we sufficiently defined the unique advantages for graduate students of pursuing an education at Rice? Are there departments that do not presently have graduate programs, but should, and if so, what form should those programs take? Are there departments that have graduate programs but do not have the capacity to achieve excellence in those programs or to secure adequate opportunities for graduate students on the completion of their program?

Postdoctoral students—those between graduate school and their chosen career path, often in the academy—play a central role in the modern research university. Rice has comparatively few such individuals, yet researchers at the postdoctoral level can significantly enrich the experience of both graduate and undergraduate students. They bring diverse experiences and perspectives as well as new ways of approaching research challenges. Postdoctoral students are able to focus on research goals, and they provide daily supervision and consultation to graduate and undergraduate students with whom they work. In our limited experience with



postgraduate students, we have found they bring a dynamic element to both our teaching and research programs. Do we need to provide more opportunities for postgraduate fellows at Rice? What form might these opportunities take? If we enhance the postdoctoral population at Rice, what services will they require to ensure a positive career path from Rice? How can we be more effective in recruiting postdoctoral students to Rice?

Our graduate professional programs have brought increasing distinction to our university. What must be done to maintain and enhance their reputation? In what ways might our schools, especially the Jesse H. Jones Graduate School of Management, be more effectively integrated into both the teaching and research endeavors of the university at large?

V. *Research and Scholarship*

It is not enough that our faculty be engaged—and engage our students—in research and scholarship. We expect them to be researchers and scholars of the highest distinction, working at the frontiers of knowledge and contributing in important ways to the advancement of those frontiers. Through our role in producing new knowledge, we expect to bring new understanding to policymakers, new possibilities for the enjoyment of human life, and new sources of commerce that will broadly benefit people here and around the globe. Our commitment is to contribute to our understanding of the human experience—from our physical world to our emotional life to human technology, culture, and history. Such a commitment requires adequate and competitive resources and facilities.

Rice has achieved distinction for its research across a wide range of fields, yet many of our departments have not achieved sufficient national preeminence and recognition. What must we do to enhance the research productivity and reputation of our faculty? Are we doing all we need to assure that the university's research contributions are widely known and that the research achievements of individual faculty are recognized both within and outside the university? In national rankings of our departments (other than music and architecture), only one is ranked in the top 10. Can we set a goal within the decade of having at least eight departments achieve such recognition?

Are we providing adequate support and incentives for research, and in particular the securing of research funding from outside the university? Do we provide sufficient support for the preparation of grant

proposals? What efforts would enhance and smooth the postproposal administrative process? Is our support staff organized and trained as effectively as possible, and do we need to consider new structures and allocation of personnel? Are compliance issues understood and appreciated by faculty, staff, and others who must respond to federal and foundation demands for information? How can we coordinate these processes better?

Is the increasingly collaborative nature of research adequately supported by our processes and encouraged by our incentive structures? Do we fully recognize the distinctive support required for, and the nature of, research in various fields? What contributions do our interdisciplinary centers and institutes make to furthering our research mission, and how can their relationship with our departments best be supported? Are we building the necessary relationships with other institutions, both here in Houston and around the world, to support the research ambitions of our faculty? How can we best

build on the already important and, indeed, critical research relationships with institutions in the Texas Medical Center?

Outstanding research requires outstanding facilities. Is the quality and quantity of our current space adequate to achieve our high aspirations for participants in the full range of our research endeavors? Science and engineering in particular require expensive and up-to-date facilities, and there is a sense in

a number of fields that our facilities are no longer competitive. How will the planned Collaborative Research Center (CRC) impact our space needs? In the social sciences and humanities, we find we often lack simply the amount of space required to support research programs and, in particular, the graduate students who play a critical role. How can we anticipate and plan for shifts in the directions and requirements for research space? How can we develop more flexible space that can be modified easily for emerging needs?

Research and scholarship require access both to substantive information and to information technology and advanced means to disseminate, display, and process information. How, as a relatively new and small research university, can Rice distinguish itself in the information resources we provide not only to our own community but to the larger research community beyond our campus? In a recent ranking of the libraries of research universities, ours was ranked lower than 100. How, in this digital age, should we think about the role of the library and its staff in supporting our intellectual community at the highest level?

Despite Rice's preeminence in computer sciences, our own technology infrastructure is woefully out-of-date. In the next two years alone, we will invest more



than \$25 million in improving our network infrastructure and security. What other investments must we make in our information technology and resources?

VI. *Our Community*

In constituting our campus community, we seek excellence, diversity, openness, and engagement. How can we best assure the attainment of those goals, and what are the obstacles we now encounter? In aspiring to a diverse community, do we provide the support and encouragement needed by all segments of our community? What must be done to attract the best talent from all segments of our society? What, if any, steps must we take to assure the broadest range of tolerance and openness to ideas and discussions?

This year we have put a great deal of emphasis on how central the city of Houston is to our future. How can we best engage the communities outside of Rice, in the city of Houston and beyond, and make our campus an important participant in their lives and the issues that concern them? Is there a way Rice can make distinctive contributions to some of the fundamental problems that Houston faces, including K–12 education, environmental quality, and the delivery of health care? In fulfilling our mission to educate our broader community, are there new programs our School of Continuing Studies should offer that further our strategic aims?

How can we best build on the relationships we already have with institutions in our city, including, for example, other universities, the research institutions and hospitals of the Texas Medical Center, and the nearby museums in the city's cultural district? What other Houston institutions would serve as good strategic partners as we implement our plans?

Our alumni constitute an essential part of our diverse community. Are we doing all we can to engage them effectively with Rice and make them feel they have a stake in our future? What special opportunities are presented by the large number of our alumni who live in Houston? How can we best communicate with and learn from our alumni across the country and the world? Are we providing our alumni with opportunities for substantive engagement and learning that fulfill our role in life-long education?

VII. *Setting Priorities and the Prerequisites for Achievement*

As indicated above, as a small university, we cannot do everything. Only by focusing our efforts will we be able to achieve the excellence and distinction we seek. We cannot realize our ambitious aims for the university without making hard choices. We must choose our

priorities wisely and engage our community in conversation about those priorities. What criteria should inform us in making these decisions, and what processes shall we use? What decisions should be made at various institutional levels—university-wide, school, or department? How can we assure that we do not simply replicate what we have but, instead, build new endeavors that best address the needs of the future? What areas shall we choose to invest more in now? What areas of our current endeavor should we consider ending? And how, and from what sources, can we best realize the resources and support we will need to bring our plans to fruition?

Priorities will, to a large degree, be set within each of our schools, but to the extent common resources are needed, we must focus on those endeavors that hold the greatest promise for achievement. Six criteria seem most relevant in selecting academic departments or centers for strategic enhancement: 1) the possibility of making new and important contributions to knowledge, 2) the social importance of the subject matter, 3) student demand for courses and teaching in that area, 4) the possibility of achieving national preeminence in that area, 5) opportunities to leverage the endeavor both internally (with other departments and centers) and externally (with other institutions here in Houston), and 6) the availability of entrepreneurial and visionary leadership to guide the endeavor. (The order these are listed does not indicate the relative importance of the criteria, and the weight attached to the six criteria may differ across disciplines.)

Because individual departments are small, interdisciplinary endeavors that strategically combine strengths must be an important part of our plan. Much work remains to be done to identify the strongest contenders for investment but simply to foster discussion, I suggest here some possibilities. Should Rice form a center on the human mind and human reason that would span the departments of psychology, economics, political science, sociology, biochemistry, mathematics, philosophy, religion, and, no doubt, others? Could we integrate such an endeavor with a significant new emphasis on computational and information sciences? Can we distinguish ourselves in the area of American culture by integrating North American and Latin American cultural studies, including ethnic studies? Can we bring together efforts in architecture, sociology, political science, the James A. Baker III Institute for Public Policy, and civil and environmental engineering to create a unique strength in urban studies, one that positions us to make continued contributions to the improvement of Houston and other cities around the world that face similar challenges? Should we commit to greater research strength in various areas relating to energy, given that we are located in the energy capital of the world? Can we build on our successful effort in nanotechnology to reach across even more disciplines and address additional problems of our world?

Given our location in Houston, we must make greater contributions toward education and research concerning Latin America. Although Rice has a number of distinguished faculty across a variety of disciplines focusing on Latin America, we have not yet established sufficient coherence and visibility in the area of Latin American studies. Are we organized in the best way to achieve a stronger contribution and reputation in this area? What special focus and relationships ought we build with regard to Mexico? What other areas of Latin America ought our efforts emphasize?

In addition to a major new focus on Latin America, we must refocus our endeavors toward Asia. Sixty percent of the world's population live in Asia, and six of the ten most populous countries are located there. Asia is home to some of the world's great cultures. China, with the world's largest population, is expected to pass the United States in aggregate GDP within about ten years. India is also a rising economic and cultural power, where the widespread use of English creates unique opportunities. Rice's current organization does not reflect the importance of this region of the world. Should we consider launching, once appropriate resources can be secured, a department of Asian studies, to complement our existing strengths in European literature and studies?

In the 1970s, Rice added important new schools, including the Shepherd School of Music and the Jones School. Are there new schools for which we should seek resources to develop? One possibility might be a School of the Arts, which would complement the endeavors already undertaken by the Shepherd School and the School of Architecture and enable us to build even stronger relationships with the cultural institutions of our city. We should not, however, use the general resources available to fund the launching of new schools, but rather undertake such endeavors only if dedicated resources for that purpose can be secured.

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These are, of course, not all the questions that confront us, but I believe they include most of the important ones. No doubt some of these questions and ideas will be the subject of controversy. That is as it should be. It is the nature of a great university to ask hard questions, not only about the rest of the world but about itself. We must be willing to discuss candidly the challenges and opportunities we confront, to make decisions, and to move Rice forward.

As noted at the beginning of this document, the world of higher education today is extraordinarily competitive and dynamic across every dimension. We cannot realize the ambition set by our founding

president to be among the great research universities if we do not both preserve what is essential about Rice and change what we must to compete effectively. As we undertake the task of defining a plan, essential to its success will be the willingness of all members of our community, even those whose endeavors and preferences may not, for now, be among our priorities, to join with enthusiasm in this effort to advance our university.

I look forward to hearing from you, whether in conversations or in writing (the best means being through the website we have established for this purpose), not only about your thoughts on these questions but on other questions that you think we need to address for Rice to continue its ascendancy as we prepare to celebrate our first century.