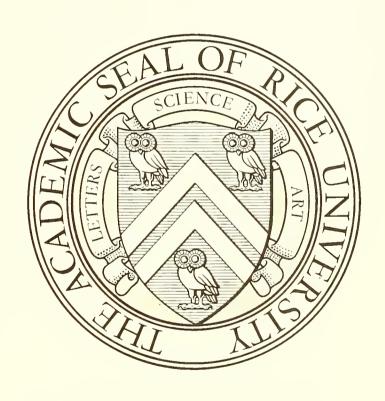
RICE UNIVERSITY



Report of the President 1971-1972 Houston, Texas



Sid W. Richardson College, dedicated October 16, 1971.



Commemorative Plaque for Lovett College, unveiled by Edgar Odell Lovett II, grandson of the Founding President, left; and H. Malcolm Lovett, son of the Founding President and then Chairman of the Board of Governors.



Edgar Odell Lovett College, dedicated August 26, 1971.



Cleveland Sewall Hall, dedicated September 29, 1971.

ADMINISTRATION WILLIAM MARSH RICE UNIVERSITY

Houston, Texas



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JAMES CADDALL MOREHEAD, JR., B.Arch. Registrar

DOROTHY LOUISE IRRGANG, B.A. Director of Financial Aid

CHARLES FRANK MOSER, B.A. Assistant to the President for Development

HENRY RUSSELL PITMAN, B.A. Assistant to the President

REPORT OF THE PRESIDENT, 1971-1972 Published for its alumni and friends by William Marsh Rice University, P.O. Box 1892 Houston, Texas 77001.

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Mrs. Blanche Harding Sewall '17, and Mrs. Norman Hackerman unveil cornerstone of Cleveland Sewall Hall.



George F. Horton presents Cleveland Sewall Hall to the Board of Governors.



At the Richardson College dedication: Mrs. Lady Bird Johnson, George R. Brown, Mrs. Perry Bass and Richardson College President Jerold C. Gallagher.



At the dedication of Herman Brown Hall, Oveta Culp Hobby, Rice Trustee, pays tribute to Herman Brown, "A Progressive Leader of Men."



The Honorable Lyndon Baines Johnson and Mrs. Norman Hackerman at the dedication of Richardson College.



Chairman of the Board of Governors H. Malcolm Lovett presents the President's Medal of Office to Norman Hackerman.



Logan Wilson delivered the main address at the inauguration of Norman Hackerman as fourth president of Rice University on September 24, 1971.

The State of the University

By Norman Hackerman

The 1971-1972 academic year was one of continuing adjustment of the University's structure to meet existing needs and new challenges. A great deal of time and effort was devoted to devise an operational system in which expenditures would not exceed the University's real income. While expenses did increase during the year, economies were effected to prevent a further rise in the future. We are working toward balancing the budget by no later than the 1974-1975 academic year without harming the central purpose of the University.

The year saw enhancement of this central purpose through the establishment of the new Department of Biochemistry, the appointment of a Dean of Advanced Studies and Research, reorganization of student services under the Director of Academic Records, and the establishment of a Deanship for our School of Architecture.

This actual growth of the University's educational, research, and administrative operations was accomplished with a net reduction in the number of faculty members. At the same time we began a close and continuing examination of the total Rice curriculum to make sure that we do not offer courses our students do not need while continuing to make available those that are needed. We also reviewed the viability of college courses within the context of the total Rice program.

This has been a year of self-assessment for Rice and of self-determination of how we shall fill our role and scope. We continue to strive for and remain close to that position of high-quality learning, preprofessional training, and intellectual stimulation that a relatively small, good-quality institution in the private sector of the higher-educational enterprise can provide.

The continued vitality of Rice University was not found wanting. It is true that in the near future there will at best be limited expansion beyond the areas already cited. It should be stressed however that any expansion of existing programs or the introduction of new programs has to meet certain rigorous criteria: they must fit into the total Rice educational program; they must be of high quality; they must be endowed to the point where their future is assured.

If Rice has anything to offer it is not egalitarian education — a very important current societal need — but elite education, the only thing Rice is equipped to provide. If we do not want to stay on this Rice-traditional course we must say so quickly. Quality education is a tremendously important concept that the institution has to affirm and reaffirm or become just another university. Maintaining academic eliteness is a legitimate goal but we ought to pursue it with our eyes open. It is well worth the effort of trying to maintain the established nature of Rice and provide that incremental support without which it could not succeed. There was tangible evidence of this support in the work that went into our Rice University Fund Annual Drive during the year. Many alumni and friends of the University participated generously in expressing their determination to help Rice maintain its high standing among the nation's outstanding institutions.

The concept of private higher education may be wrong. If that is the case, we are obviously in the wrong place. But I fully believe that it is not wrong. I moved here from a public university because I am concerned about the way universities are being perturbed by the drive for universal higher education. The thrust toward universal higher education does not bother me; in fact, it has merit. But I think it

is essential that institutions which retain the concept of the university in its historic form should not be allowed to disappear.

How do we keep this kind of institution alive? We must convince others that the kind of university Rice represents offers an island of a different quality. It is hard to say this without making people think of intellectual snobbery, but that above all must not be the case at Rice.

I strongly believe that no one is "better" or even wiser by virtue of having somewhat higher mental capabilities. But there are differences in individuals; the society and the individual should take advantage of these differences. The proper use of this University is one good way of doing so.

One of the things Rice must consider is how to direct its academic quality and its apparent high average mental capability beyond the realm of scholarship. While there may be some vague feeling in most of us that we would like to be considered scholars, it does not follow that all our students should be forced into the scholarly mold. We ought to use Rice for the scholars, but they should not be more than some fraction of the total. The rest should be professionals of one sort or another, plus those who want some vistas opened in a way different from what they would get in other universities.

We should not follow the lead of the public higher institutions which have their well-defined and important function. If we do, I think we are lost. If we do not, we must be able to deliver something that is worth the extra cost. And I think we can. Rice may well have gained its earlier reputation in an era when it was largely an undergraduate institution, when it was predominantly The Institute. But its current standing in the world is based, in part, on its activities in research areas.

All parts of the University contributed toward maintaining and enhancing that standing during the past year.

This is a most appropriate time to emphasize the record of leadership the trustees and governors have given since the Rice Institute was chartered in 1891. The growth of the University, its facilities, its reputation, and its endowment, are tribute to devoted service of an exceptional order.

On January 27, 1972, H. Malcolm Lovett '21, Chairman of the Board of Governors and son of the Founding President, Dr. Edgar Odell Lovett, retired to Trustee Emeritus. His close relationship with Rice University continues in his leadership of the Community Division of the Rice University Fund Annual Drive.

He was succeeded as Chairman by another distinguished alumnus, Herbert Allen '29. James U. Teague '30 was elected Vice Chairman. Two men who were serving terms as governors were elected trustees, Robert R. Herring and William H. Lane. E. D. Butcher '35 and C. W. Duncan, Jr. '47 were elected term members to fill those positions on the Board of Governors. Baine P. Kerr and Ralph S. O'Connor were elected term members, and Talbott Wilson '34 was elected alumni governor.

SOME SPECIAL EVENTS

Early in the academic year the Board of Governors and the University dedicated the Herman Brown Hall for Mathematical Sciences and the Edgar Odell Lovett College. Both events were held on August 26, 1971, with members of the Brown and Lovett families and many friends present.

On September 24, 1971, I was privileged to be inaugurated as the fourth President of this University. When the inauguration was first proposed, I thought we could dispense with the ceremony. But under the persuasion of Mr. Lovett, then Chairman of the Board of Trustees, I perceived that the ceremony was not a tribute to an individual; it was a tribute to the continuity of the idea and ideals of the University. That continuity provides the depth of background which enables us to save the best of other times and pursue the best of the present. The ceremony was a symbolic act—a rededication of the aims and purposes of a fine institution as defined by its founder, set in motion by its first president, and continued expertly by its second and third presidents.

On the following day the newest building on campus, Cleveland Sewall Hall, which adjoins the University's first building, Lovett Hall, and carries out its architectural design, was dedicated. Mrs. Cleveland Sewall and members of her family and friends were present. This building completed the academic quadrangle 60 years after the first building was opened.

On October 16, 1971, the Sid W. Richardson College was dedicated by Former President Lyndon B. Johnson and Perry Bass, with dedicatory remarks and reminiscences of Sid Richardson.

FACULTY AND STUDENTS

There have been, during the year, the usual ongoing fine educational and scholarly activities of our faculty. They have continued their deep interest in instruction and advising, which is quite notable on this campus. Along with this, books, scientific papers, musical compositions and works of art have flowed from the campus throughout the year, bringing added recognition to the University.

While much of this activity has enriched the community at large, our students were its first and most direct beneficiaries.

Rice's traditionally close faculty-student relationship was maintained during the year. Our student body continued to be largely self-selected, coming within a relatively narrow band high in the intellectual spectrum.

FONDREN LIBRARY

Fondren Library, one of the heart chambers of the University, experienced respectable growth and development during the year. Increased emphasis on service to faculty and students by volunteer reference librarians drawn from the staff and through rearrangement of some areas and collections helped to underline the library's determination to be a source of information as well as a repository of materials. We must protect these services to the University.

By June 30, 1972, the holdings in the Fondren Library had risen to 698,320 volumes. This represented a net gain of 37,746 volumes during the year. In addition, our holdings

of microfilm and other microforms increased by 51,930 to a new total of 496,801 items. The Public Services Division circulated 156,781 books and other materials to members of the Rice academic community and others, and received and answered some 18,539 reference questions in both the Humanities and Science departments. By virtue of its openstack, open access policy and arrangements, and almost one hundred hours of opening each week, there was heavy use of materials within the library that is not reflected in these figures.

As a part of our effort to hold down costs and improve services, especially in the area of providing access to infrequently used and expensive research materials, the decision was taken in May to join the Center for Research Libraries. This library of research-level materials will supply our faculty and students with materials on loan that might otherwise have to be purchased.

The Friends of the Fondren Library, an organization now more than twenty years old, elected new officers this year who have determined with renewed vigor to support the growth of the library's collections and to sponsor again meetings and lectures devoted to books and reading.

An outside management survey of the Fondren, completed during the fall of 1971, concluded that "... by any reasonable standard that can be applied, Rice has, for the size and character of the University, one of the better medium-sized research libraries in the country."

INSTITUTE FOR COMPUTER SERVICES AND APPLICATIONS

Our computing services have undergone substantial change. M. Stuart Lynn joined the University at the beginning of the year as the first full-time Director of what was formerly the Rice Computing Center and which has now been expanded in concept to the Institute for Computer Services and Applications (ICSA).

ICSA is an administrative unit within the University. It brings together the interests of those at Rice presently and potentially involved with computers and their application to provide information processing services to the University community. It hopes to lead in the understanding of future implications of the role computers play in our environment; and to provide a vehicle for interaction with the Rice community and external institutions on matters involving computer applications.

ICSA is organized into five major components: Management and Administration, Information Processing Services, Education, Feasibility Studies and Applications Development

A Rice University Advisory Council to ICSA was formed under the Chairmanship of E. J. Shimek of the Rice Board of Governors. Those who agreed to serve on the Council are: A. Ross Eckler, Retired (formerly Director, U.S. Bureau of the Census); C. L. Hogan, President, Fairchild Camera and Instrument Corporation; Nat S. Rogers, President, First City National Bank, Houston; William M. Rust, Professor of Geology, University of Texas; and Michael Shannon, Treasurer, Gulf Oil Company.

One of the highlights of the year has been the purchase of an IBM 370/155 to replace the existing Burroughs 5500 computer. This will substantially increase the computer capabilities of ICSA. Faculty and students will be able to engage in many important educational and research activities involving uses of the computer which were previously impossible or extremely cumbersome to implement.

A new fiscal method of operation for ICSA became effective July 1, 1972. All Rice budget funds previously assigned directly to ICSA are now allocated to user departments throughout the University for procurement of computer services from ICSA. ICSA will charge for all services offered. In this manner, the University is able to control expenditures and to ensure that they reflect true priorities and needs.

In cooperation with other departments, principally Mathematical Sciences, ICSA has been awarded a \$99,000 contract by NASA for investigations into the computer analysis of remotely sensed data in support of NASA's program in Earth Resources Management. ICSA has also been actively cooperating with faculty members from several departments in securing a grant from the Sloan Foundation for familiarizing engineering students with the tools of the social sciences.

Election Central, a Houston consortium of newspapers and TV stations which is responsible for unofficial tabulation of election returns, has contracted with ICSA to manage its activity. The data accumulated in this undertaking will be of considerable educational and research value to the University's Sociology and Political Science Departments.

THE NEW BIOCHEMISTRY DEPARTMENT

The new Biochemistry Department has been organized under the direction of George J. Schroepfer, Jr., a nationally-known biochemist distinguished both in research and administrative fields. Dr. Schroepfer is believed to be the first physician to become a full-time Rice faculty member.

Three major innovations in the undergraduate biochemistry program are being implemented:

The first involves complete revision of the introductory lecture course in biochemistry. The new course offered in Fall 1972 is a more comprehensive and intensive introduction to the chemistry of life processes.

The second is the replacement of the former demonstration-type laboratory instruction by an intensive course involving very high student-faculty interaction and the use of modern scientific equipment, facilities and procedures.

The third major change is the development of an undergraduate major program with provision for supervised but independent research study at the advanced undergraduate level.

Students and faculty in the new department have ample opportunity for collaborative research because of the proximity of Rice University to the Texas Medical Center. Dr. Schroepfer is seeking the formation of a Houston Biochemical Society to support joint research activities and to provide a forum for the sharing of knowledge gained from

biochemical investigations. Plans also call for a community research center for large-scale laboratory experiments that could not be supported by one institution. These opportunities will put our new Biochemistry Department in an excellent position to offer quality graduate and postgraduate education.

THE SCHOOL OF ARCHITECTURE

The appointments of David Crane as Dean of Rice's School of Architecture, and Alan Y. Taniguchi as its Director, signal a vigorous search for solutions to urban design problems. Our advisory selection committee made a careful study of the shifting trends in urban planning and architectural design. After a two-year search for leadership, the committee suggested a new thrust, based on the sound record of achievement of the Rice School of Architecture and the ideas of the new leadership team it recommended.

Metropolitan Houston and our School of Architecture have simultaneously arrived at a critical point in need and know-how relative to the regional environment. This places new demands on architectural education.

The first goal of Rice's School of Architecture is to create in the 1972-1973 academic year an important laboratory for bringing together the diverse disciplines necessary to provide intensive clinical education.

A Center for Community Design and Research was planned and is to be incorporated in the near future. This will enable the School of Architecture to bring to bear innovative ideas of urban planning and construction on actual projects for better living in the Houston area and, possibly, apply them to other "real world" conditions throughout the nation. Students will serve internships in this program.

THE OFFICE OF ADVANCED STUDIES AND RESEARCH

The Office of Advanced Studies and Research, with a new Deanship, planned in the year under review, was instituted on July 1, 1972. John L. Margrave, a distinguished chemist with a national reputation and Chairman of the Rice University Chemistry Department for the past five and one-half years, is the Dean of Advanced Studies and Research.

This office coordinates: the Graduate Division, previously administered by the Dean of Graduate Studies; Research Administration, transferred from the Campus Business Office; proposals for major programs and support for research and graduate activities, previously initiated by individual departments and divisions; the external distribution of information regarding research activities of the faculty and the publication of results, previously handled through the Development office; and the Office of Continuing Studies, formerly under the Dean of Science and Engineering.

These functions are interrelated and I believe that in operating them under a single Dean, we can achieve significantly better results in terms of external funding for our graduate and postdoctoral programs. It will also help ad-

vance our position as a University oriented toward academic excellence and original scholarly works, fulfill our responsibilities to assist in the continuing education of graduates and others in business and industry and make for improved general administration.

REORGANIZATION OF STUDENT SERVICES

In March 1972, Richard N. Stabell, then Director of Admissions at Rollins College, Florida, was appointed to the newly-created position of Director of Academic Records. He assumed his duties July 1. Mr. Stabell has been given primary responsibility for the supervision of the Office of Admissions, the Registrar's Office, the Financial Aid Office, and the Placement Office. He will make the adjustments of forms, procedures, schedules and personnel necessary to provide effective handling of the sensitive problems of student needs.

In October 1971, Miss Dorothy Irrgang was appointed Financial Aid Officer. Since then the records of the office have been reviewed in detail, completely reorganized and several new procedures adopted.

Students were given information forms to fill out prior to the Christmas holidays. Thus, financial need requirements were determined sooner than in past years and students were informed much earlier of the assistance they might anticipate. While this was better than it has been in the past, further improvements are anticipated.

Mrs. Jo Anne Greene was designated Loan Officer and assigned full responsibility for the loan programs. On June 26, 1972, David Scott was appointed Assistant Director of Financial Aid.

The Placement Office, which seeks jobs for students on campus and helps secure employment for them off-campus, was moved to Lovett Hall for better student service. The combination grant-loan-work package is now coordinated for each student according to individual needs and interests.

OTHER STUDENT SERVICES

In March 1971, John Parish, professor of English, was appointed Coordinator of Undergraduate Advising with the primary responsibility for the *academic* counseling of freshmen and sophomores. This need was brought about through the adoption by the faculty four years ago of a provision allowing freshmen and sophomores more latitude in selecting and structuring their courses of study. Mr. Parish consults with and coordinates the activities of the college masters, college associates and departmental advisors on matters concerned with academic regulations.

In another important area I asked Frederic A. Wierum, the Dean of Students, to explore the possibilities for improved health services for our students. After studying four proposals by organizations in the adjacent Texas Medical Center, Dean Wierum recommended acceptance of the proposal submitted by Kelsey-Seybold Clinic.

A student committee headed by Barbara Richmond was asked to look at the program, and was aware that such improvements would require an increase in the health serv-

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ice fee paid by each student. Discussions among the committee, the Dean of Students, and the Kelsey-Seybold representatives gave every consideration to providing the best and most needed improvements in the health services offered for the most reasonable increase in per-student cost. Following this an expression of student opinion was obtained by placing the fee increase on the ballot for the Student Association general election on April 25, 1972, and it was approved by a vote of 954 to 200. The Dean of Students recommended that the health service fee be increased from \$23 to \$33 per student per year, and the Kelsey-Seybold Clinic provides the expanded services.

The University's athletic program was reorganized during the year under review. A. M. "Red" Bale was appointed Director of Athletics and Charles Moore Assistant Director of Athletics. Al Conover was appointed Head Football Coach. Separating the directorship from the coaching position has permitted each man to focus all his attention on the specific needs of his immediate area of responsibility.

Beyond our continuing studies for the future we are giving a great deal of consideration to our need for additional space in our student center and relief of the crowded conditions in the gymnasium, which is heavily used by students for their own recreation.

PROJECTED SCHOOLS

Serious efforts were made during the year to secure the services of a Director for the Shepherd School of Music. These efforts are continuing. The search aims at a program and leadership which will be a true asset to the University's educational curriculum and a credit to its traditional position as a strong factor in the cultural life of Houston and Texas. The director selected will be one who recognizes that this has to be done while operating within the income from the endowment under which the Shepherd School of Music was created.

The projected School of Management still commands the attention of our planning for the University's future. Its establishment hinges on the availability of funds for its endowment. A School of Management undoubtedly would add to Rice's already substantial contributions to the ranks of the nation's business and industrial leadership.

At some future point, and contingent upon adequate endowment, there should be a School of Fine Arts at Rice. The creative base for such a possibility certainly exists in the high quality of the programs already underway in our Fine Arts Department and the Institute for the Arts.

RICE AND ITS ALUMNI

Alumni and University cooperation was indeed close during the year. In connection with discussions of the goals and objectives of the University, the alumni were invited to participate with our faculty in this venture. It is evident that by virtue of their interest and experience, alumni should be involved in this undertaking.

There was alumni participation in the recruiting of new students, and I anticipate increased activity here.

To fill approximately 590 places in the freshman class for the 1972-73 academic year, we received slightly more than 2,000 applications last year. Although this was about 100 more applications than we received the year before, the advantage may not persist, with the high cost of private higher education being the most inhibiting factor.

Alumni obviously can play an important role in maintaining a suitable number of applicants and in keeping their quality high.

As the ranks of alumni increase with each graduating class, their link with the University grows stronger. As they look back, I hope the facts are that they can realize that Rice has helped shape their lives. As they look ahead, they should know that the University wants them to help share its future.

STUDENT STATISTICS

CHARACTERISTICS OF THE FRESHMAN CLASS

	1969	1970	1971
Average College Board			
Scores	670	668	660
Scores by Division —			
Academic	658	654	655
Science-Engineering	682	Sc. 687	674
		Eng. 671	654
Architecture	638	644	631
Scholastic Standing —			
National Merit			
Scholarships	51	59	65
Valedictorian	117	116	96
Salutatorian	57	35	39
Upper 5% of Graduating	2.001	2007	0.507
Class	66%	63%	65%
Number of Students			
Entering Freshmen	668	577	684
Men	482	427	526
Women	206	150	158
CEOCD ADMIC ANALYSIS	OF STU	DENT ENDO	TIMENT

GEOGRAPHIC ANALYSIS	OF STUE	ENT ENRO	LLMENT
	1969	1970	1971
Entering Freshmen —			
From Texas	427	361	410
From Other States	239	200	251
From Foreign Countries	22	16	23
Total Undergratuates —			
From Texas	1525	1543	1576
From Other States	731	794	881
From Foreign Countries	60	74	105
Graduate Students —			
From Texas	228	156	160
From Other States	430	392	349
From Foreign Countries	187	162	160

TOTAL ENROLLMENT

	1969	1970	$\frac{1971}{}$
Enrollment —			
Undergraduate	2316	2297	2454
Fifth Year Students	32	114	108
Advanced Degree Studer	its 806	699	656
Undesignated &			
Special Students	7	11	13
Grand Total	3161	3121	3231

STUDENT HONORS

Number of Students on the President's Honor Roll

	1969-1971	1970-1971	1971-1972
Fall	673	848	953
Spring	750	928	972

Rice students of the Class of 1972 obtained a number of graduate fellowships and awards. Two students were awarded Fulbright-Hayes Grants for Studies Abroad and two other students are the recipients of Thomas J. Watson

Foundation Fellowships which provide them with a first postgraduate year of independent study and travel abroad. In addition, 35 students were named NDEA Fellows and 18 received National Science Foundation Fellowships.

COMMENCEMENT

Willis Tate, Chancellor of Southern Methodist University, gave the Baccalaureate Address May 20, 1972 at combined Baccalaureate-Commencement Ceremonies. President Norman Hackerman summarized the year in brief comments.

A comparative summary of degrees awarded from June 1970 through June 1972 follows.

Undergraduate Degrees	1970	1971	1972
Bachelor of Arts	394	465	448
Bachelor of Commerce	23	18	27
BS in Health & Physical Education	10	5	-
BS in Accounting	6	6	7
Bachelor of Architecture Total Undergraduate	8		
Degrees	394*	519*	503*

Since 1967-1968 Rice has offered a Professional Master's Degree in Engineering as an alternative to the Bachelor of Science degree awarded at the completion of a five-year integrated program in Engineering. It is felt that this designation more precisely indicates the level of achievement of the candidate.

Graduate Degrees	1970	1971	1972
Master of Chemical Engineering	23	18	21
Master of Civil Engineering	2	1	3
Master of Electrical Engineering	23	30	23
Master of Materials Science	_	1	1
Master of Mechanical Engineering	7	15	8
Master of Architecture	10	11	12
Master of Architecture in Urban Design	_	10	7
Master of Arts	56	65	70
Master of Science	23	35	34
Doctor of Philosophy	122	128	104
Total Graduate Degrees TOTAL DEGREES	266 707*	314 833*	283 786*

^{*}Selective service regulations require students proceeding to fifth-year to postpone their B.A.'s in order to retain their student deferments.

FACULTY RECORDS

ACHIEVEMENTS AND HONORS - 1971-1972

John A. S. Adams served as President of the Houston Philosophical Society and was named a Principal Investigator by the National Aeronautics and Space Administration to study the emanation of radon from lunar materials.

William W. Akers was named a 1972-73 National Lecturer for the American Institute of Chemical Engineers.

George Edward Antunes received a National Institute of Mental Health Post-Doctoral Fellowship.

William H. Austin was awarded the Younger Humanist Fellowship for 1972-73 by the National Endowment for the Humanities.

Stewart A. Baker was elected Chairman of the Comparative Literature Section of NEMLA.

Frank Bearden received Honor Award of the Texas State Association for Health, Physical Education and Recreation and was elected Vice President for the Southern District of the Association for Health, Physical Education and Recreation.

W. E. Billups was elected to membership in the New York Academy of Sciences.

André Bourgeois was elevated to the rank of Commander of the French Order of Academic Palms.

Ray M. Bowen was inducted into the Society of Scholars at Johns Hopkins University in Baltimore.

Hubert Evelyn Bray received the Association of Rice Alumni Gold Medal for Distinguished Service.

Arthur W. Busch took a leave of absence to accept a position as Regional Administrator of the Environmental Protection Agency.

William T. Cannady received the 1971 Honor Award at the 32nd National Conference on Religious Architecture of the Guild for Religious Architecture for the design of St. Barnabas Episcopal Church in Houston, Texas.

Samuel M. Carrington was elected Secretary of the Houston Philosophical Society.

James M. Castañada served as Executive Secretary of the South Central Modern Language Association and President of the Institute of Hispanic Culture of Houston.

Alan J. Chapman served as Vice President of District 6 of the National Collegiate Athletic Association and as Consultant on Environmental Control to the Manned Spacecraft Center Crew Systems Division of the National Aeronautics and Space Administration.

John W. Clark, Jr. served as Chairman of the IEEE Group on Engineering in Medicine and Biology, Houston Group.

, Joseph Cooper received a Senior Fellowship from the National Endowment for the Humanities for the study of party leadership in the House of Representatives.

Jean-Claude De Bremaecker served as Secretary General of the International Association of Seismology and Physics of the Earth's Interior.

Alexander J. Dessler was appointed to the Space Science and Technology Panel of the President's Science Advisory

Committee and was elected to the six-man Executive Board of the International Association of Geomagnetism and Aeronomy.

Terrence Doody received Brown College's Teaching Award for the Humanities.

Wilfred S. Dowden was awarded a National Endowment for the Humanities grant.

Joe L. Franklin, Jr. served as Director-at-Large of the American Society for Mass Spectrometry and as Chairman of the Awards Nominations Committee of the Southeastern Texas Section of the American Chemical Society.

Charles Garside, Jr. served as a member of the Executive Board and Treasurer of the Houston Philosophical Society.

Edmund A. Gehan served as President (1972) of the Biometric Society (ENAR) and as Chairman (1972) of the Biometrics Section of the American Statistical Association.

Kristine Gilmartin was elected President of the Texas Classical Association.

William E. Gordon was awarded a Guggenheim Foundation Fellowship to perform theoretical and experimental studies in the physics of the atmosphere.

Norman Hackerman was elected a member of the American Philosophical Society and Vice Chairman of the Governing Council of the Universities Research Association, Inc.

Robert C. Haymes was appointed to the Advisory Panel of the National Center for Atmospheric Research.

Bonnie C. Hellums was named Chairman of the Membership Committee and member of the Executive Board of the National Association of Women Deans and Counselors.

S. W. Higginbotham was a member of the Steering Committee of Historical Editors of the American Historical Association and the Executive Council and Executive Committee of the Southern Historical Association, and edited the book, The Inauguration of Norman Hackerman.

 $\it Joe~W.~Hightower~served$ as a member of the Board of Directors of The Catalysis Society.

 $\it Dieter\, Heymann$ was selected Editor of the Geochemistry volume of the Proceedings of the Third Lunar Science Conference.

Harold M. Hyman was selected to serve as a Pulitzer Prize Juror in History for 1972, received a Senior Fulbright-Hayes Lecturing Award for April through July of 1973, is general co-editor of a series of histories, one volume of which, Righteous Empire: The Protestant Experience in America, received the 1972 National Book Award in History, and became General Editor of Publisher Alfred A. Knopf's 15-volume series, The Impact of the Civil War.

William H. Jaco received a 1971-72 National Science Foundation Postdoctoral Fellowship.

Kenneth W. Kennedy, Jr. was the recipient of the Founders Day Award for Scholastic Excellence from New York University.

Riki Kobayashi was Chairman of the National American Institute of Chemical Engineers Committee on Thermodynamics and Transport.

Marian Krzyzaniak was appointed to the Editorial Board

of Public Finance Quarterly and to the International Editorial Board of the Irving Fisher Graduate Monograph Award and the Frank W. Taussig Undergraduate Article Award.

- J. Venn Leeds, Jr. was appointed to the Atomic Energy Commission's Atomic Safety and Licensing Board Panel.
- T. W. Leland was elected Executive Committee Member of the South Texas Section of the American Institute of Chemical Engineers.
- David C. MacDougall received the Grand Prize for his film To Live With Herds at Venezia Genti competition at the Venice Film Festival in 1972 and received a Guggenheim Foundation Fellowship which will enable him to film in Uganda a portrait of the marriage of a Jie tribesman.

James T. McIntosh was named Co-recipient of the Museum of the Confederacy's second Annual Founder's Award for The Papers of Jefferson Davis.

Larry McMurtry received an Oscar nomination and the New York Film Critics' Award for the Best Screenplay of 1971 for the film The Last Picture Show based on his novel.

Angelo Miele received the honorary rank of Knight Commander in the Order of Merit of the Italian Republic.

Edward Norbeck was named a Piper Professor of 1972 by the Minnie Stevens Piper Foundation of San Antonio.

Richard O'Keeffe was elected Vice President and President-elect of the Texas Library Association and received a fellowship from the Council on Library Resources.

Gerald C. Phillips was Consultant to the U. S. Nuclear Data Committee of the U. S. Atomic Energy Commission; Regional Trustee of the Universities Research Association, Inc., Chairman of the Division of Nuclear Physics of the American Physical Society, and Chairman of the Universities Research Association, Inc. Scientific Committee.

Charles W. Philpott was named a Danforth Associate.

Hally B. W. Poindexter is Vice President-elect of the Physical Education Division of the Texas Association for Health, Physical Education and Recreation and Vice President-elect of the Southern Association for Physical Education of College Women.

R. John Rath was elected a Corresponding Member of the Austrian Academy of Sciences and served as a Special Consultant on a research committee of the Canadian government on Austrian History, as a U. S. Delegate to the Study Center for Eastern and Southeastern European Cultures and as a member of the final selection committee for senior fellowships of the National Endowment for the Humanities.

Frederick D. Rossini was elected to a four-year term as National Treasurer of the Society of Sigma Xi.

 $\it M.\ L.\ Rudee$ was the recipient of a Guggenheim Foundation Fellowship.

Lewis B. Ryon received the Association of Rice Alumni Gold Medal for Distinguished Service.

Monroe K. Spears was awarded a Guggenheim Foundation Fellowship to write a book entitled Space and Time in Modern Poetry.

Charles Stewart received a National Institute of Health Career Development Award.

Frank K. Tittel served as 1971-72 President of the Gulf Coast Section of the Optical Society of America.

Anderson Todd was appointed a consultant to the National Endowment for the Arts Division of Architecture and Environmental Arts and became a member of the College of Fellows of the American Institute of Architects.

- Frank E. Vandiver was named to the National Council of Humanities and received the first gold Sabine Pass Medal presented by the Texas Chapter, Order of the Stars and Bars.
- A. S. Veletsos served as Chairman (to October 1971) and subsequently as a member of the Executive Committee and the Advisory Board of the Engineering Mechanics Division of the American Society of Chemical Engineers.
- G. King Walters spent the 1971-72 academic year on leave at the National Bureau of Standards as Chief of the Fire Technology Division.

Chao-Cheng Wang was inducted into the Society of Scholars at Johns Hopkins University in Baltimore.

C. H. Ward was appointed to a second term on the Life Sciences Committee of the National Aeronautics and Space Administration's Space Sciences Advisory Council and was Chairman of the American Institute of Biological Sciences Environmental Biology Advisory Panel.

James L. Wilson received a Fulbright Fellowship to research and lecture at the Institut fur Paleontologie und historische Geologie-Universitat Munchen during his 1971-72 sabbatical.

Geoffrey L. Winningham was awarded a Guggenheim Foundation Fellowship to make photographic studies in Texas.

GEORGE R. BROWN PROGRAM FOR EXCELLENCE IN UNDERGRADUATE TEACHING AT RICE UNIVERSITY

GEORGE R. BROWN PRIZE FOR EXCELLENCE IN TEACHING

Alan Grob, Associate Professor of English

GEORGE R. BROWN AWARDS FOR SUPERIOR TEACHING

Franz R. Brotzen, Professor of Materials Science Katherine Tsanoff Brown, Lecturer in Fine Arts B. Frank Jones, Professor of Mathematics John E. Parish, Professor of English Harold E. Rorschach, Jr., Professor of Physics Trenton W. Wann, Professor of Psychology

Ronald L. Sass, Professor of Chemistry, was presented a Certificate of Highest Merit in recognition of having been three-times recipient of the George R. Brown Prize for Excellence in Teaching.

ADMINISTRATIVE APPOINTMENTS (effective July 1972 unless otherwise noted)

Mino D. Badner, Chairman, Department of Fine Arts

Ray M. Bowen, Chairman, Department of Mechanical and Aerospace Engineering and Space Science

Charles Sidney Burrus, Master, Edgar Odell Lovett College

James H. Chillman, Jr., Agnes Cullen Arnold Professor of Fine Arts (January 11, 1971).

David A. Crane, Dean, School of Architecture

Robert H. Dix, Chairman, Department of Political Science Joe Louis Franklin, Jr., Chairman, Department of Chemistry Louis C. Griffin, Assistant to the Dean of Advanced Studies and Research

Kingsley Hawthorne, Director of Planned Giving (December 1971)

Dorothy Irrgang, Director of Financial Aid (October 1971)

A. L. Jansen (Capt. USN), Chairman, Department of Naval Science.

Nat W. Krahl, Chairman, Department of Civil Engineering

M. Stuart Lynn, Director, Institute for Computer Services and Applications (November 1971)

Carl M. MacDowell, Assistant to the Provost

John L. Margrave, Dean of Advanced Studies and Research

John E. Merwin, Associate Chairman, Department of Civil Engineering

Madeleine R. Raaphorst, Chairman, Department of French and Italian

Clark P. Read, Chairman, Department of Biology (January 1971)

Gaston V. Rimlinger, Chairman, Department of Economics and Accounting and Reginald Henry Hargrove Professor of Economics

George J. Schroepfer, Jr., Chairman, Department of Biochemistry.

Richard N. Stabell, Director of Academic Records

Alan Y. Taniguchi, Director, School of Architecture

Virgil W. Topazio, Favrot Professor of French

Hector N. Urrutibeheity, Chairman, Department of Classics, Portuguese and Spanish

Radoslav A. Tsanoff, Carolyn and Fred McManis Professor of Philosophy (January 11, 1971).

John W. Van Woerkom, Assistant to the Department Chairman and Laboratory Director, Chemistry Department

G. King Walters, Acting Dean, Science and Engineering (July 1972-July 1973)

Klaus H. M. Weissenberger, Chairman, Department of German and Russian

James L. Wilson, Harry Carothers Wiess Professor of Geology

TRUSTEE DISTINGUISHED PROFESSOR 1971-1972

Floyd S. Lear, History

PROFESSORS EMERITUS

Effective July 1, 1972

Andre M. G. Bourgeois

Gilbert L. Hermance

Bradford B. Hudson

A. N. Jitkoff

Floyd E. Ulrich

FACULTY APPOINTMENTS — 1972-1973 PROFESSORS

Patrick Brady, French

David A. Crane, Architecture

Alan L. Jansen (Capt. USN), Naval Science

George J. Schroepfer, Biochemistry

Alan Y. Taniguchi, Architecture

Frederick T. Wall, Chemistry

ASSOCIATE PROFESSORS

Stephen Louis Klineberg, Sociology

ASSISTANT PROFESSORS

Max I. Apple, English

Cynthia, Caples, German and Russian

John Deegan, Jr., Political Science

Arnold Eskin, Biology

Dorothy M. Hanks, German

Paul A. Harcombe, Biology

James J. Havel, Chemistry

Richard C. Helt, German

Michael A. Kessick, Environmental Science

Edward P. Levine, Political Science

Kathleen S. Matthews, Biochemistry

Florante Quiocho, Biochemistry

Frederick B. Rudolph, Biochemistry

William L. Wilson, Jr., Electrical Engineering

Ernest Young, Jr. (Maj. USA), Military Science

INSTRUCTORS

Harry I. Barney, Health and Physical Education

Susan Marie Courtney, Health and Physical Education

Richard S. Elman, Mathematics

Myrtle L. Francis, Health and Physical Education

Walton C. Gregory, Mathematics

Wayne M. Lawton, Mathematics

Kathryn K. McMahon, French

Peter Rowe, Architecture

Kenneth J. White, Economics

E. B. Williams, Mathematics

Neil R. Wright, Economics

ADJUNCT APPOINTMENTS 1972-1973

Arthur D. Dyess, Associate Professor of Architecture Craig Jay Hartley, Assistant Professor of Electrical Engineering

Harvey J. Nudelman, Assistant Professor of Electrical Engineering

Raymond Skaggs, M.D., Professor of Health and Physical Education

Paul M. Stevens, Associate Professor of Bioengineering Paul Tobias, Assistant Professor of Psychology

VISITING FACULTY 1972-1973

Richard E. Casey, Assistant Professor of Geology M. C. Forbes, Professor of Environmental Science and Engineering

Sarah Ann Burnett Frates, Assistant Professor of Psychology Ulrich Gaier, Professor of German

Gregory A. Johnson, Instructor of Anthropology
Kenneth D. Johnson, Assistant Professor of Mathematics
Anthony W. Knapp. Associate Professor of Mathematics
Michael Maschler, Associate Professor of Mathematical Sciences

Diana Pickett Rathjen, Assistant Professor of Psychology H. P. Rosenthal, Associate Professor of Mathematics Suresh P. Sethi, Assistant Professor of Economics Phillip V. Starnes (LCDR, USN), Assistant Professor of Naval Science

James Kenneth Monts, Assistant Professor of Sociology

Wayne R. Thirsk, Assistant Professor of Economics Roberto Luis Vaccaro, Assistant Professor of Spanish Jacques F. Yates, Assistant Professor of Psychology Ernest Young, Jr. (Maj. USA), Assistant Professor of Military Science

LECTURERS AND VISITING LECTURERS — 1972-1973

Paul A. Ballonoff, Anthropology
James B. Blue, Fine Arts
David C. Borbridge, Religious Studies
Cassius B. Bordelon, Jr., Health and Physical Education
Mozelle Edelstein, Music
Victor L. Emanuel, Political Science
Thomas F. Freeman, Religious Studies
Osman I. Ghazzaly, Civil Engineering
Kathleen R. Gibson, Anthropology
Walton Gregory, Mathematical Sciences
Patricia P. Griffin, Political Science
Luisa Lopez-Grigera, Spanish
John Rains Kelly, Economics
Anita Kiperman, Spanish

ATHLETIC DEPARTMENT APPOINTMENTS — 1972-1973

G. Ray Alborn, Coach of Freshman Football
Jack Allshouse, Academic Counselor
John Amorelli, Equipment Manager
Charles B. Bailey, Assistant Coach of Football
Allen M. "Red" Bale, Director of Athletics
Albert P. Conover, Head Coach of Football
James P. Elam, Graduate Football Assistant
Richard Barrett Faulkner, Graduate Football Assistant
Steven E. Goldman, Assistant Coach of Football
Leslie Edward Hanley, Assistant Coach of Football
McCoy McLemore, Assistant Coach of Football and Basketball

Charles Edward Moore, Jr., Assistant Athletic Director

A. Lance Van Zandt, Assistant Coach of Football

FACULTY PROMOTIONS Effective July 1, 1972

To Professor

Donald R. Baker, Geology
John W. Freeman, Space Science
R. C. Haymes, Space Science
Neal F. Lane, Physics and Space Science
J. Venn Leeds, Electrical and Environmental Engineering
Charles E. McLure, Economics
Robert Stevens, Chemistry
William A. Veech, Mathematics

To Associate Professor

Paul A. Cloutier, Space Science
Roy G. Jones, Russian
Loren D. Lutes, Civil Engineering
Peter Papademetriou, Architecture
Thomas W. Parks, Electrical Engineering
Spencer Parsons, Architecture
Richard A. Tapia, Mathematical Sciences
Hector Urrutibeheity, Spanish
John E. Warme, Geology
Martin J. Wiener, History
Michael Winkler, German

ON LEAVE OF ABSENCE -1971-1972 For all or a portion of the academic year

John S. Ambler, Professor of Political Science
William H. Austin, Assistant Professor of Philosophy
Stewart A. Baker, Associate Professor of English
Herbert W. K. Beckmann, Professor of Mechanical Engineering

Stanley M. Besen, Associate Professor of Economics W. Edwin Bosarge, Jr., Lecturer in Mathematical Science

Carol B. Kuykendall, Education

Frank Magrino, Economics

REPORT OF THE PRESIDENT, 1971-1972

Herman Bultmann, Assistant Professor of Biology
 Donald D. Clayton, Professor of Physics and Space Science
 Derek C. Dyson, Associate Professor of Chemical Engineering

Elinor L. Evans, Professor of Architecture
Frank M. Fisher, Jr., Associate Professor of Biology
J. W. Freeman, Jr., Associate Professor of Space Science
Edwin S. Harwood, Assistant Professor of Sociology
John Hempel, Associate Professor of Mathematics
William H. Jaco, Assistant Professor of Mathematics
Nat W. Krahl, Professor of Structural Engineering
Robert R. Lankford, Associate Professor of Geology
Maria Teresa Leal de Martinez, Associate Professor of Portuguese and Spanish

Humberto Lopez-Morales, Professor of Spanish David C. MacDougall, Visiting Assistant Professor of Fine Arts

William C. Martin, Assistant Professor of Sociology Allen J. Matusow, Professor of History Frank Curtis Michel, Professor of Physics and Space Science Philip Oliver-Smith, Assistant Professor of Fine Arts Robert E. Pendley, Assistant Professor of Political Science Paul E. Pfeiffer, Professor of Electrical Engineering and Mathematical Science

Ronald Provencher, Assistant Professor of Anthropology
Gaston V. Rimlinger, Professor of Economics
Mervyn L. Rudee, Associate Professor of Materials Science
Richard J. Sclafani, Assistant Professor of Philosophy
Ronald Soligo, Associate Professor of Economics
Richard B. Turner, Professor of Chemistry
Floyd E. Ulrich, Professor of Mathematics
Mercedes V. Valdivieso, Lecturer in Spanish
William A. Veech, Associate Professor of Mathematics
G. King Walters, Professor of Physics and Space Science
Richard D. Young, Professor of Economics and Mathemati-

DEPARTURES FROM THE FACULTY Effective July 1, 1972

PROFESSORS

William W. Caudill, Architect

*James H. Chillman, Jr., Fine Arts

*Carey Croneis, Chancellor Emeritus

Eugene Guth, Physics (visiting)

Ferdinand K. Levy, Economics

William E. Peterson, Athletic Department

E. H. Potter, Jr., Capt., Naval Science

Helmut Rehder, Germanics (visiting)

*Richard B. Turner, Chemistry

Jerome D. Wiest, Economics

ASSOCIATE PROFESSORS

David A. Bowers, Economics (visiting)
Lionel E. Davis, Electrical Engineering
J. O. Jirsa, Civil Engineering
Robert R. Lankford, Geology
Wolfgang Lockemann, Germanics
Larry McMurtry, English (December, 1971)
Robert R. Mollenhauer, Germanics (visiting)
N. A. Norman, Bio-medicine (adjunct)
O. W. Riemenschneider, Mathematics (visiting)
Clifford A. Soons, Spanish (visiting)

ASSISTANT PROFESSORS

Angel Manuel Aguirre, Spanish and Italian Neil M. Branston, Electrical Engineering Robert D. Bruner, Biology B. S. Duran, Mathematical Sciences (adjunct) Robert M. Eisenberg, Biology Edwin Harwood, Sociology Katherine A. Hinckley, Political Science Frank L. Huband, Electrical Engineering John F. Logan, History (visiting) Samuel A. Morley, Economics (visiting) Robert E. Pendley, Political Science Manfred E. Schubert, Germanics Mary E. Sheldon, Sociology Raymond J. Struyk, Economics (visiting) J. B. Thompson, Naval Science William P. Vann, Civil Engineering J. E. Vroom, Naval Science (visiting) Alan R. Westfall, Naval Science

INSTRUCTORS

David R. Adams, Mathematics
Barry Jacobson, Chemistry
Daniel B. Kotlow, Mathematics
T. Allen Lambert, Sociology (visiting)
Hugh R. Pate, Naval Science
Janet Jo Robbins, Health and Physical Education
M. K. Smith, Mathematics
W. R. Zame, Mathematics

LECTURERS

Earle V. Britton, Architecture (visiting)
Albert F. Chalk, Jr., Economics
D. L. Creson, Anthropology
Eldon H. Degge, Religious Studies (visiting)

cal Science

L. Elson, Health and Physical Education
Evelyn M. Hake, Biology
O. G. Johnson, Mathematical Sciences
Brian D. Jones, Political Science (visiting)
P. A. Kennon, Architecture
Michael D. Kudlick, Mathematical Sciences

M. McCarthy, Fine Arts
Gerald S. Pfeffer, Architecture
Thomas E. Pulley, Biology
Eve Sonneman, Fine Arts (visiting)
H. B. Steele, Economics and Accounting
Shirley W. Wiley, Education

NECROLOGY

July 1971 — June 1972

BULLARD

Daniel Raleigh Bullard, Trustee Emeritus, died April 16, 1972. A member of the Rice Board of Governors since 1953, Mr. Bullard became a Trustee of the University in 1961. He was also retired President and Executive Officer of the Robert A. Welch Foundation and an attorney and certified public accountant.

CHILLMAN

James Henry Chillman, Jr., Agnes Cullen Arnold Professor of Fine Arts, died May 13, 1972. Mr. Chillman joined the Rice Faculty in 1916 as an instructor in architecture. He became professor of architecture in 1947, professor of fine arts in 1960 and Trustee Distinguished Professor of Fine Arts in 1971.

CRONEIS

Carey Croneis, Chancellor Emeritus, died January 22, 1972 at age 70. Dr. Croneis joined the Rice faculty as Provost and Harry Carothers Wiess Professor of Geology in 1953 to effect his plan for the Geology Department at Rice. Acting President of Rice in 1960, he served as Chancellor from 1961 until he became Chancellor Emeritus in September 1971.

FENDLEY

Francis Tarrant Fendley, Governor Advisor, died December 7, 1971, at age 78. Mr. Fendley received a B.A. degree in architecture from Rice in 1917, and served as a term member of the Rice Board of Governors from 1949 until 1955 when he became Governor Advisor. Also a Rice Associate, he was retired Purchasing Agent for Humble.

MOORE

Harold Paul Moore, Assistant Director of Security, died May 27, 1972, at age 50.

SUMAN

John Robert Suman, Governor Advisor, died January 5, 1972, at age 81. Mr. Suman, a member of the Rice Associates since 1954, became a member of the Board of Governors in 1956.

TURNER

Richard Baldwin Turner, Professor of Chemistry, died December 22, 1971, at age 55. A member of the Rice faculty since 1951, Dr. Turner served as Chairman of the Chemistry Department from 1960 to 1963. He was elected to the prestigious National Academy of Sciences in 1964 and also was a member of the American Chemical Society, the Swiss Chemical Society, the Chemical Society of London and Sigma Xi.

FINANCIAL REVIEW

RICE UNIVERSITY

HOUSTON, TEXAS 77001

COMPTROLLER

Dr. Norman Hackerman President Rice University SUBJECT: FINANCIAL REVIEW

In response to your request I submit a financial review of the University's operations.

During the year ending June 30, 1972, the principal of the endowment funds at Rice University increased \$6,148,862 over the previous year due primarily to realized gains, gifts and oil and gas revenues. During the same period, however, the expenditures for current operations, \$24,723,951, exceeded available current fund revenue to the extent of \$1,554,065.

This excess of expenditures after certain adjustments resulted in a cumulative net unfunded deficit of \$1,084,135, which in reality reduces our total endowment to \$124,440,548 on a cost basis (\$170,325,324 at market) at June 30, 1972.

There are set forth on pages 22 thru 27 herein the financial statements of the University for the year ending June 30, 1972 together with the opinion of our auditors, Arthur Andersen & Co.

The "Statement of Current Funds Operations," page 26, sets forth in detail the excess of operations expenditures over revenues, while the "Statement of Changes in Fund Balances" sets forth in detail the changes in our various funds.

There follows a Financial Review with commentaries which explain the highlights of the current year's operations and some interesting historical data on University operations.

Sincerely,

J. R. Persons

INTRODUCTION

Universities, unlike business organizations, do not have a recognized measure of performance in terms of profit or loss. Special understanding is required to interpret the financial reports of most institutions of higher education and to compare one with another. However, one of the best available measures of an institution's financial performance is its ability to generate sufficient operating income over the long term to cover its operating expenditures.

The accompanying statement of current funds operations illustrates the effects on Rice University of the financial crisis occurring in higher education. Rice has experienced operating deficits since the year 1963.

The deficits through 1970 were covered by Undesignated Campaign Gifts and a Reserve for Contingencies which had been accumulated in past years. These reserves were depleted during 1971 leaving an unfunded deficit at June 30, 1971 of \$446,000. To this must be added the 1972 operating deficit, bringing the unfunded deficit after certain adjustments to \$1,084,000 as of June 30, 1972. The following data depicts the years during which Rice has had operating deficits.

TABLE I — OPERATING DEFICITS

		De	ficit Funded Fr	om
Year	Deficit	5% Contingency Reserve	Undesignated Campaign Gifts & Other	Unfunded
1963	s 150,127		\$ 150,127	
1964	269,526	\$ 269,526		
1965	858,312	858,312		
1966	1,132,082	1,132,082		
1967	352,786		352,786	
1968	252,872		252,872	
1969	627,662		627,662	
1970	1,387,470	972,027	415,443	
1971	1,832,174	1,013,345	352,537	\$ 466,292
1972	1,554,065	299,974	200,051	1,054,040
Tot	al			\$1,520,332
	s Adjustments			436,197
Net	Unfunded Def	icit at June 30,	1972	\$1,084,135

As evidence of concern for its financial future, the University has just completed a five year forecast of income and expenditures. Plans call for up-dating this annually. The result of the forecast through 1977 shows a potential widening of the gap between expenses and income, if current trends continue.

It also indicates that although the endowment or permanent funds continue to grow, the rate of growth has steadily decreased.

In addition to the "Statement of Current Funds Operations," the financial report also includes the "Combined Balance Sheets" and the "Statement of Changes in Fund Balances" for the year ending June 30, 1972.

University and business accounting methods differ in that the basic entity of the University is a "fund" whereby assets are committed to carry out specific activities or attain certain objectives. The accompanying "Combined Balance Sheets" present the combined assets, liabilities and fund principals of all the University's separate funds at June 30, while the "Statement of Changes in Fund Balances" summarizes (by class of fund) changes in fund principal for the years ended June 30, 1972 and 1971.

Classes of funds are summarized as follows:

Current Funds — These funds reflect the normal operating activities of the University, and maintain the University's reserves for year to year fluctuations.

TABLE II — HIGHLIGHTS AT 5 YEAR INTERVALS

Student Loan Funds — These maintain the gifts received from donors, Government grants, as well as Rice University's own monies which have been loaned to students.

Endowment Funds — These funds hold the gifts received from donors which must be maintained in perpetuity or for a specific period of time. They also contain funds designated by the Board of Governors to function as endowment funds. The income generated by these funds comprises a major part of current funds revenues.

Plant Funds — These record the funds invested in the University's plant and unexpended funds designated for future plant expansion or major renovations.

Retirement Funds — There are two retirement plans operating for the benefit of employees of the University. The first is administered by TIAA/CREF and is not reflected in the financial statements. Payments to date to this plan amount to \$2,859,000. The second is the Rice retirement plan which has a total recognized equity of \$4,042,000.

		YEA	RS ENDING JUN	NE 30	
	1952	1957	1962	1967	1972
OPERATING EXPENDITURES	6 0 500 054	C 4 10 1 00 1	0.010.741	0.01.150.014	0.04.700.051
Total Operations	\$ 2,502,254	\$ 4,194,004	\$ 8,012,741	\$ 21,159,044	\$ 24,723,951
Instruction	737,715	1,654,701	2,871,241	5,774,981	7,993,940
Sponsored Research & Training	100,902	209,494	948,838	9,216,980	5,496,901
Library	136,342	208,470	412,906	758,319	1,047,169
Plant Operations	369,429	429,673	609,646	725,629	1,330,267
SOURCES OF FUNDS FOR OPERATION	S				
Student Tuition and Fees	210,185	234,503	228,641	2,339,939*	6,150,806
Gifts and Bequests	69,723	760,070	240,726	483,419	462,918
Endowment Income	1,344,099	2,730,474	3,908,257	5,244,588	6,157,054
Sponsored Research & Training	122,242	285,478	1,112,227	10,340,807	6,794,612
GIFTS					
Total Gifts Received	1,932,356	4,117,919	1,726,501	6,114,293	4,748,303
To Endowment Funds	1,775,042	1,339,679	923,622	1,104,692	1,430,935
To Plant Funds	87,591	2,018,170	561,953	1,962,747	420,311
STUDENT AID					
Scholarships & Fellowships	64,051	419,999	Not Avail.	881,578	2,463,213
Loans to Students	Not Avail.	24,327	135,422	214,195	501,631
ENDOWMENT					
Estimated Market Value	42,061,995	70,240,241	89,517,207	115,886,234	170,325,324
PLANT EXPENDITURES	282,605	4,223,198	671,455	3,756,860	2,846,861
STUDENTS					
Enrollment — Undergraduate	1,366	1,629	1,641	2,077	2,562
- Graduate	143	150	351	691	669
*Tuition was not charged prior to 1965					

STUDENT AID

In 1965 Rice University for the first time began charging tuition. In that year the enrollment was 1,802 undergraduates and 607 graduate students. By 1971/72 enrollment had climbed to 2,562 undergraduates and 669 graduate students who were charged tuition and fees amounting to \$6,151,000. Of this amount the University granted tuition aid to students of \$2,463,000 so that the net remaining for operations was only \$3,688,000.

Rice further assists students through jobs on campus and fellowships which in 1972 amounted to \$1,349,000. Additionally, private sources and government grants furnished aid amounting to \$1,569,000 making total student assistance from all sources \$5,381,000.

The University, through the National Direct Student Loan Program, makes loans to students at no interest while the borrower pursues his education. Only 3% interest is charged during the repayment period, which may last for 10 years. Rice supplies one-tenth of these funds and the

government nine-tenths. In addition to this program there are several privately sponsored loan funds. This year the Board of Governors approved sponsorship of a Rice University loan program up to a maximum of \$500,000 to be handled on the same basis as the National Direct Student Loan Program. Loans totaling \$163,000 were made in 1972 under this authorization.

Currently the unpaid balances on outstanding student loans amount to \$1,824,000 of which 81% has come from government funds.

TABLE III - GROWTH OF FACILITIES

During the period between 1952 and 1972 the Plant Funds of the University have increased from \$14,400,000 to over \$73,500,000. In that period, 19 new buildings have been constructed and nine have been enlarged. Available building space has been increased from 700,000 square feet to 1,866,520, or an increase of 167%. Also Lovett Hall, Chemistry Laboratories, Mechanical Laboratory Building and the Physics Laboratories were modernized without addition of space. The central plant and utilities distribution system were enlarged and the old residential college buildings were air conditioned. These buildings and improvements were funded from three sources.

Gifts	\$20,000,000
Government Grants	7,800,000
Rice Funds (Primarily Endowment)	45,700,000
Total	\$73,500,000

Buildings constructed since 1952:

	YEAR	SQ. FOOTAGE
T. W. Bonner Nuclear Laboratories	1952	6,920
Mary Gibbs Jones College	1957	76,510
Keith-Wiess Geological Laboratories	1958	50,745
Anderson Biological Laboratories	1958	47,300
Rice Memorial Center and Chapel	1958	56,398
Hamman Hall	1958	22,000
Rayzor Hall	1962	30,166
Physical Plant Building	1964	3,456
Margarett Root Brown College	1965	72,699
Central Kitchen	1965	23,316
Ryon Engineering Laboratory	1965	48,367
Space Science and Technology Building	1966	70,608
Allen Center for Business Activities	1967	44,600
Herman Brown Hall for Mathematical		
Sciences	1968	57,230
Edgar Odell Lovett College	1968	81,050
Rice Museum	1969	12,000
Media Center	1970	12,000
Sewall Hall	1971	99,033
Sid W. Richardson College	1971	81,922
Total		896,320

Building additions:

	YEAR	SQ. FOOTAGE
Baker College	1957	26,300
Hanszen College	1957	36,600
Wiess College	1957	14,800
Will Rice College	1957	36,600
Robert and Agnes Cohen House	1958	6,300
T. W. Bonner Nuclear Laboratories	1961	10,100
Anderson Biological Laboratories	1967	39,000
Gymnasium and Autry Court	1968	2,500
Fondren Library	1968	98,000
Total		270,200
Total Building S	Space Adde	d 1,166,520

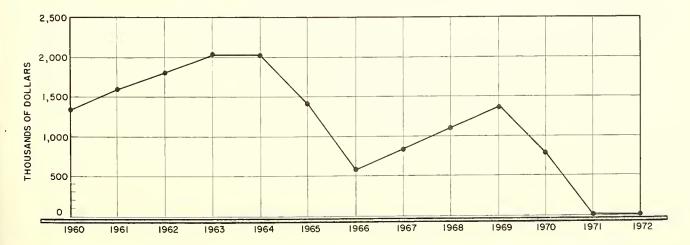
RESERVE FOR CONTINGENCIES

In 1952 the Board approved a policy of reserving 5% of the annual income from all sources, except Organized Research and tuition, as an income reserve. By 1963 this reserve for contingencies had grown to its peak of \$2,050,000. Beginning in 1964, however, this reserve began to decrease because of operating deficits as shown on Table I. The decrease became more pronounced with the beginning of the Ten Year Plan of 1965 which called for expansion of

academic programs and the increase of student enrollment.

The chart shows an increase in the reserve during the years 1966 through 1969. During those years the excess expenditures were being met with gifts received from the \$33 Million Dollar Campaign. As of today, however, because of the continuing inflationary pressures, it has been necessary to use the entire reserve by June 30, 1972. The reserve has been completely exhausted, and in addition, the University finds itself with an unfunded deficit of \$1,084,000.

CHART 1 — CONTINGENCY RESERVE



COMMENTS ON FINANCIAL OPERATIONS

CURRENT FUNDS OPERATIONS

Revenues

Revenues increased \$1,250,000 in 1972 to \$23,170,000 with tuition revenue accounting for \$734,000 of this increase and revenue from auxiliary enterprises accounting for the major portion of the remainder of the increase.

Expenditures

Expenses increased \$972,000 to \$24,724,000 resulting in a net excess of expenses for the year of \$1,554,000. This compares to an excess of \$1,832,000 in 1971.

The increase in expenditures occurred in the following major areas:

General and Administrative	\$ 264,000
Instructional Departments	500,000
Auxiliary Enterprises	457,000
Institute for the Arts	(488,000)
Plant Maintenance & Other	239,000
Net Increase	\$ 972,000

The increase in General and Administrative is due primarily to the cost of the Texas Unemployment Tax (which for the first time applied to the University), increases in interest on Rice Retirement funds, F.I.C.A. taxes and other uncontrollable expenses.

The increase in the cost of the instructional departments was caused primarily by merit and cost-of-living raises. The payroll increased \$310,000, although there was a decrease

of 10 in the number of full-time faculty positions and 21 other employees. The major portion of the \$190,000 remainder was due to the change in the method of charging telephone bills to the departments.

CAPITAL EXPENDITURES

During the year additions to the plant amounted to \$2,846,800 of which \$1,043,000 was equipment purchased from current funds, \$1,080,600 from plant reserves and the balance of \$723,100 from endowment funds.

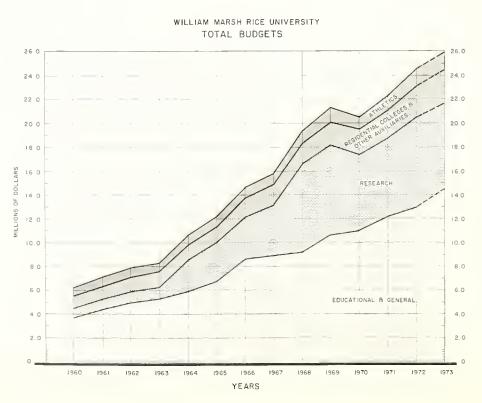
The major capital expenditures made from the latter two sources were:

Army R.O.T.C. — Basement Central Kitchen	\$ 56,400
Bio-Chemistry Renovation	127,400
R. Room — Stadium (self funding)	193,600
Power Plant Increase	305,900
Sewall Hall & Furnishings (Completion Costs	828,700
Other	291,700
Total	\$1,803,700

GROWTH OF OPERATING BUDGET

Since 1960 the Rice student body has grown from 1,986 to 3,231 students. During this period the academic and research programs have been expanded particularly as the Ten Year Plan went into effect in 1965. These factors, together with inflationary pressures, have caused a continuing increase in the University operating budget. The chart below shows the growth by years.

CHART 2 - TOTAL BUDGETS



REPORT OF THE PRESIDENT, 1971-1972

ANNUAL SUPPORT PROGRAM

During the year Rice held its second Annual Fund Drive aimed at raising much needed funds for the operation of the University. Although the drive did not reach its goal, it is gratifying that the alumni, friends and business community have indicated clearly that they will support Rice University. They recognize that although Rice has a large endowment it is not sufficient now to maintain fully the standards of excellence expected of this University.

We are pleased to report that receipts of monies given

for operating purposes amounted to \$520,000 under this annual drive while an additional \$220,000 was received from payments on prior campaign pledges. This \$740,000 will be used to help defray current operating costs.

An additional \$4,008,000 was received from donors whose gifts were restricted to endowment, capital projects, scholarships or operation of a specific program such as the Institute for the Arts. Further, the University received during the year title to the Rice Hotel and Rice Hotel Garage which it is now operating.

AUDITORS' REPORT

ARTHUR ANDERSEN & Co. HOUSTON, TEXAS

September 22, 1972

To the Board of Trustees,

William Marsh Rice University:

We have examined the combined balance sheets of William Marsh Rice University (a nonprofit Texas corporation) as of June 30, 1972, and the related statements of current funds operations and changes in fund balances for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances. We have previously examined and reported on the financial statements for the preceding year.

In our opinion, the accompanying financial statements present fairly the financial position of William Marsh Rice University as of June 30, 1972, and the results of current funds operations and changes in fund balances for the year then ended, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

arthur Audusen 900.

WILLIAM MARS

COMBINED BALANCE SHEE

	June 30		
	1972	1971	
ASSETS			
CASH, RECEIVABLES, AND PREPAYMENTS:			
Cash	\$ 422,850	\$ 589,890	
Accounts receivable and accrued interest (Note 2)	753,122	271,174	
Notes receivable, student loan funds	1,846,669	1,460,305	
Prepayments, etc.	232,518	193,100	
Total cash, receivables and prepayments	\$. 3.255,159 \$ 2,514,469		
INVESTMENTS, at cost or fair market value at			
date of acquisition:	\$ 0.40.000	* 400.070	
Funds on deposit	\$ 846,860	\$ 490,278	
Bonds and certificates of deposit, quoted market of	20.000.100	12 702 225	
\$19,982,000 and \$16,086,000 at respective dates	20,923,136	16,566,227	
Stocks, quoted market of \$140,729,000 and	20,000,000	04 005 040	
\$130,820,000 at respective dates	93,903,088	91,987,363	
Mortgage and collateral loans	7,624,215	9,933,653	
Oil and gas properties, less amortization of	. 212.212		
\$26,097,000 and \$25,674,000 at respective dates	4,619,913	5,022,920	
Real estate, less allowance for amortization of	222 5 772		
\$4,827,000 and \$4,582,000 at respective dates	6,936,759	6,470,030	
Undeveloped real estate and other	997,793	995,432	
Total investments	\$135,851,764	\$131,465,903	
SECURITIES HELD IN TRUST	\$ 64,010	\$ 58,414	
EDUCATIONAL PLANT, at cost (Note 1):			
Land	\$ 444,480	\$ 444,480	
Buildings and improvements	54,802,462	48,550,465	
Other property — furniture, equipment, and			
library books	16,486,386	15,910,688	
Reserve for depreciation and amortization	(2,863,662)	(2,668,787)	
Construction in progress	733,666	5,468,794	
Total plant	\$ 69,603,332	\$ 67,705,640	
TOTAL ASSETS	\$208,774,265	\$201,744,426	

ICE UNIVERSITY

JUNE 30, 1972 AND 1971

	1972	1971
LIABILITIES AND FUND BALANCES		
LIABILITIES:		
Accounts payable and deposits	\$ 1,972,886	\$ 2,381,218
Advances from Federal Government for		
student loan fund	1,580,315	1,332,941
Total liabilities	\$ 3,553,201	\$ 3,714,159
		<u></u>
FUND BALANCES:		
Income restricted —		
Current funds	\$ 2,644,643	\$ 2,803,562
Endowment funds	26,787,426	24,849,782
Bidownicht fands		
	\$ 29,432,069	\$ 27,653,344
Income unrestricted —		
Current funds	\$ (1,084,135)	\$ (374,704)
Endowment funds	98,737,257	94,526,039
	\$ 97,653,122	\$ 94,151,335
		
-		
General —	o	ф 90 <i>C 777</i>
Student loan funds	\$ 501,184	\$ 206,777
Plant funds	73,592,863	72,238,179 3,780,632
Retirement funds	4,041,826	
	\$ 78,135,873	<u>\$ 76,225,588</u>
Total fund balances	\$205,221,064	\$198,030,267
TOTAL LIABILITIES AND FUND BALANCES		\$201,744,426
TOTAL LIABILITIES AND FUND DALANCES	φ200,114,200	ΨΔ01,111,120

June 30

WILLIAM MARS STATEMENT OF CHANGE FOR THE YEARS ENDE

			Year End
	Income R	Income	
	Current	Endowment	Current
ADDITIONS TO FUND BALANCES:			
Provision for contingencies	\$ -	\$ -	\$ 299,974
Excess of current restricted income over expenditures Investment earnings and interest allowed	743,144	-	-
applicable to endowment, loan, and plant funds	_	26,462	-
Oil and gas royalties and bonuses- Rincon properties	_	_	_
Other	_	_	_
Gain (loss) on sale of investments	_	(119,783)	_
Gifts and bequests	_	1,122,658	200,051
Equipment purchases from current funds	_	_	_
Earnings from Rice Land Lumber Company	_	_	_
Excess of contributions and interest earned over payments		_	_
Prior years' accrual of interest on			222.524
investments (Note 2) Miscellaneous additions to fund balances		— 7.514	366,504
		7,514	
Total additions to fund balances	\$ 743,144	\$ 1,036,851	\$ 866,529
DEDUCTIONS FROM FUND BALANCES: Excess of current fund expenditures over income	\$ —	\$ —	\$ 1,554,065
Assets retired during year Miscellaneous deductions from fund balances			
Total deductions from fund balances	<u>\$</u>	<u>\$</u>	\$ 1,575,960
TRANSFERS BETWEEN FUNDS:			
Plant and equipment additions from endowment	\$ —	\$ —	\$ —
Other	(902,063)	900,793	
Total transfers between funds	\$ (902,063)	\$ 900,793	<u>\$</u> —
Net increase (decrease) for the year	\$ (158,919)	\$ 1,937,644	\$ (709,431)
FUND BALANCES, beginning of year	2,803,562	24,849,782	(374,704)
FUND BALANCES, end of year	\$ 2,644,643	\$26,787,426	\$(1,084,135)



ICE UNIVERSITY

FUND BALANCES

NE 30, 1972 AND 1971

June 30, 1972

Unrestricted					General							
Endowment		Lo	Student		etirement			-	Total		1971 Total	
	\$	_	\$	_	\$	_	\$	_	Ş	8 299,974	\$	308,398
		_		_		_		_ _ _		743,144		349,654
		24,832		22,580		_		1,608		75,482		245,816
	1,6	05,707		_		_		_		1,605,707		1,214,954
	1,5	29,613		_		_				1,529,613		1,439,707
	1,5	56,264		_		_		_		1,436,481		2,009,903
	3	08,277		_		_		420,311		2,051,297		4,412,032
		_		_		_		1,043,090		1,043,090		1,187,856
	1	17,474		_		_		_		117,474		116,729
		_		_		261,194		_		261,194		241,424
		_		_				_		366,504		_
		77,497						1,069		86,080		152,466
	\$ 5,2	19,664	\$	22,580	\$	261,194	\$	1,466,078	\$	9,616,040	\$1	1,678,939
	\$	_	\$	_	\$	_	\$	_	\$	1,554,065	\$	1,832,174
		_		_				754,294		754,294		609,783
		_		13,501				81,488		116,884		697,224
	\$	_	\$	13,501	\$	_	\$	835,782	\$	2,425,243	\$	3,139,181
		23,118)	\$	_	\$	_	\$	723,118	\$	_	\$	_
	(2	85,328)		285,328				1,270				
	\$(1,0	08,446)	\$	285,328	\$		\$	724,388	\$		\$	
	\$ 4,21	11,218	\$	294,407	\$	261,194	\$	1,354,684	\$	7,190,797	\$ 8	3,539,758
		26,039		206,777		3,780,632		2,238,179		98,030,267		9,490,509
		37,257	\$	501,184				3,592,863	_			3,030,267
:	Ψυυ, Γι	71,201	φ	=====	\$ 4	,041,826	⊅ / ·	5,074,000	φ <u>4</u> (05,221,064	ф190	5,000,207

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WILLIAM MARSH RICE UNIVERSITY STATEMENT OF CURRENT FUNDS OPERATIONS

FOR THE YEARS ENDED JUNE 30, 1972 AND 1971

	Year E			
	Unrestricted	Restricted	Total	1971 Total
REVENUES:				
Income from investments, net	\$ 5,564,031	\$ 1,505,157	\$ 7,069,188	\$ 6,951,779
Student tuition and fees (net of University granted student aid)	3,687,593	53,924	3,741,517	3,007,050
Gifts and grants	462,918	8,659,602	9,122,520	9,049,730
Auxiliary enterprises	3,567,935	384,143	3,952,078	3,242,074
Other	27,727	_	27,727	18,621
Applied to increase in restricted fund balance	e	(743,144)	(743,144)	(349,654)
Total revenues	\$13,310,204	\$ 9,859,682	\$23,169,886	\$21,919,600
EXPENDITURES:				
General and administrative	\$ 2,921,074	\$ 158,806	\$ 3,079,880	\$ 2,816,149
Retirement contributions	1,088,478		1,088,478	1,018,068
Instructional departments	6,572,211	6,918,630	13,490,841	12,990,549
Institute for the Arts	_	840,346	840,346	1,328,465
Library	996,003	51,166	1,047,169	1,031,162
Plant operations and maintenance	1,330,267	_	1,330,267	1,177,832
Auxiliary enterprises	3,846,970		3,846,970	3,389,549
Total expenditures	\$16,755,003	\$ 7,968,948	\$24,723,951	\$23,751,774
EXCESS OF (EXPENDITURES) OR REVENUES BEFORE TRANSFERS	\$(3,444,799)	\$ 1,890,734	\$ (1,554,065)	\$ (1,832,174)
TRANSFERS:				
Endowed chairs	593,023	(593,023)	_	_
Overhead from contracts and educational allowance	1,297,711	(1,297,711)		
EXCESS OF EXPENDITURES OVER REVENUES	\$(1,554,065)	<u> </u>	\$(1,554,065)	\$ (1,832,174)

WILLIAM MARSH RICE UNIVERSITY NOTES TO FINANCIAL STATEMENTS

June 30, 1972

- (1) Depreciation is provided on that portion of residential colleges not financed by gifts and grants, based substantially on their estimated useful lives. In lieu of depreciation of equipment and movable property, a reserve for replacements has been provided out of current revenues in amounts determined by the Board of Governors. In conformity with institutional accounting practices, no provision is made for depreciation of educational buildings and improvements.
- (2) Prior to June 30, 1971, the University recorded interest income on investments in bonds and mortgage loans as received. During 1972 the University changed to the accrual method for reporting interest income. The effect of this change on the 1972 current funds revenue was not significant; the cumulative effect on prior years is shown in the accompanying statement of changes in fund balances.
- (3) Current funds revenue for 1972 does not include net gain on sale of investments (\$1,436,481), net receipts from certain oil and gas properties (\$3,135,320), gifts and bequests (\$2,051,297) and other receipts (\$1,832,968) not available for current purposes. Such receipts are added to the appropriate fund principal. Income from rents is net of amortization, taxes, and insurance of \$390,379 and \$227,036, and oil and gas royalty income is net of amortization of \$618,881 and \$880,057 for the years 1972 and 1971, respectively.



Herman Brown Hall For Mathematical Sciences, dedicated August 26, 1971.



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WILLIAM MARSH RICE UNIVERSITY

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