This is the hardest State of the University address I have ever had to write. It would not have been difficult on September 10. The incredible successes of last year, in fact, of the last five years, glow—and I was eager to brag about them. But then the tragic events of September 11 exploded. Nothing was or will be the same. And so as we look back on our accomplishments—and there are many—we must also examine how we, as a campus, will change to deal with our irreparably altered future.
We had the highest enrollments ever, easily topping 20,000; our SAT scores improved yet again, as we increased enrollments; we were elected to the America East athletic conference, a great accomplishment for our entry into Division I. We were awarded a Center of Excellence from the Governor, a GENYSIS award from the Senate, and a NYSTAR grant, the three totaling $65 million in research funds—in addition to researchers’ grants from NSF, NIH, the Whitaker Foundation, and other national sources. And we are about to launch our first-ever Capital Campaign.

When I reread my inaugural address recently, I was pleased, and a little astonished, to see that all the improvements I said should be accomplished by 2002 have already been accomplished—with a few extras like taking over management of Brookhaven National Laboratory and joining the AAU. We also successfully achieved the goals of our first five-year plan, and now we have launched our second. Our physical plant has been greatly improved and bit by bit we will continue to develop it.

Priorities for a Changing World
We are now at a crossroads because our intellectual and emotional landscape has metamorphosed into a world we have never known. It is a frightening time; it is an awesome time. Some of us have strong, painful memories of an earlier time when our students were shipped off to war; facing such possibilities again is dishearteningly difficult.

Needless to say, September 11 caused me, as I’m sure it caused you, to think—when I could think at all—about how our University’s future goals have inevitably been affected. Let me share with you some of my thoughts in these dark days. We will—and should—have many debates and discussions ahead.

One thing is certain—as a university we must respond promptly and firmly to our altered national agenda. I am pleased that the Provost has begun this fall to engage faculty, the University Senate, and administrators in developing a plan for our academics in which we identify objectives and match them with our best estimate of our resource streams. I am looking forward to the results of his planning.

We are known as a strong science university, and we will continue to be known for our excellent science. But in striving to achieve top quality in the sciences and technology in a very short time, we have tended to gloss over our responsibilities in the humanities and social sciences. That is not to say we have not achieved excellence—the Graham Diamond Study ranks our social sciences even more highly.
than our sciences. But we have not focused, as most great universities do, on expanding and developing new programs in the humanities and social sciences for some years. We have excellent faculty, but the departments are small compared with those of other institutions. I cannot say we have focused, at least in recent years, on these fields as determinedly as on the sciences and engineering.

September 11 was not a failure of science; in fact, it was our technology that was used to destroy the World Trade Center and damage the Pentagon. The failure was our lack of understanding of the cultural history and mindset of our enemies. American universities are notably short on scholars of the languages, cultures, arts, religious beliefs, and economic aspects of life in countries far away and very different from ours. We have got to pay attention.

The National Defense Education Act, enacted by Congress in 1958, was a response to another international crisis, the launching of the Russian Sputnik. It created fellowships for students to do graduate work not only in science but also in languages and area studies. I still marvel at the wisdom of that congressional legislation. At Stony Brook we have reduced the size of our European language departments, and we have not significantly increased programs in other languages, even Asian languages, although we are creating an Asian Studies Department.

To be a great university, we must balance our excellence in science and technology with serious attention to the arts, humanities, and social sciences. We must broaden our academic coverage of the world’s cultures, and we must increase interdisciplinarity so that our scholars in various fields work together to teach students more than we ever learned about civilizations around the world. We must also work with world arts—there is no more universal language than the arts. We must encourage our students to take greater advantage of the various arts programs, lectures, and forums that we have on campus.

**Taking Undergraduate Education Seriously**

We also need to go about the business of improving undergraduate education. I chaired the Boyer Commission; our report has quite literally transformed American undergraduate education not only in research universities, but in colleges, too—and it has had an unexpected worldwide impact. I originally grew interested in the subject because when I came to Stony Brook, our Middle States accreditation was in dire jeopardy over the quality of undergraduate education. Three years after the Boyer Report was issued, we are still seriously behind other research universities in following the recommendations of that report. For example, a recent survey for the Boyer
Commission showed that 80% of responding research universities now offer freshman seminars, with 45% enrolling half or more of their freshmen. We have not begun. Moreover, at 45% of the universities, half or more of the students conduct undergraduate research or individual creative activities. Although we have some great undergraduate research projects in science, we do not serve large numbers of students and we still have not progressed far enough in the social sciences and particularly the humanities: I think it is probably harder in these fields to devise research projects. The Ivy League institutions are far ahead of us—they can afford to be. They are investing additional millions of dollars in undergraduate education. The best state universities are, too. To be up-to-date with the best institutions, we simply must focus more attention on our undergraduate students.

Taking Graduate Education Seriously
We are all worried right now about what will happen to student visas. Some of our Ph.D. programs rely on international students—in one case, 80% of Ph.D. students are international, and in another highly enrolled program, 60%. Many other programs rely heavily on international students. If, in these perilous times, international student numbers decline, either because of visa restrictions or for other reasons, our

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Ph.D. programs will be seriously threatened. We simply must grow our own doctoral students—and that means taking undergraduate education seriously. We are certainly not alone in these concerns. In a recent article in *The Chronicle for Higher Education*, educators in England said they are deeply concerned about finding enough graduate students in the humanities and social sciences to meet the demand for faculty.

To keep enrollment numbers up, we also need to improve graduate education. Our responsibility in graduate school is to give students what they need to succeed in their chosen vocation. Graduate school is vocational—as surely for the English or physics major as for the doctor or lawyer. If we could understand that our responsibility to graduate students in every field is as serious and as prescribed by professional goals as medicine is, we could meet the issues of graduate education head-on. Instead, too often, graduate students are considered an economic necessity rather than a key academic responsibility. We cannot figure out how to survive economically without TAs and RAs. We must plan their education to suit their needs, not just ours.

More than 50% of Ph.D.s pursue teaching, and only about a fourth of those, 12% or so, go to research universities. But our graduate programs still do too little—there are certainly exceptions—to hone their teaching skills other than throwing TAs, often with poor preparation, into classrooms.

Suitable speaking and writing skills are too often taken for granted as expectations that will be met without organized effort, perhaps because they were presumably acquired in undergraduate studies. Yet we know this assumption is false. Good writing and speaking skills are often not a requirement for receiving a doctoral degree, although they are needed for corporate as well as academic careers.

It seems a given that in the coming years graduate programs will expand—both to serve a growing demand for college-level teachers, and to serve business and industry. We must meet the challenge.

### Redoubling Our Commitment to Research

We need to increase our research dollars, build external funding, win prizes, and garner friends for the University. Those things we think about a lot; we know how to do them; we will continue. Now it is time to reconnoiter, to look at the importance of other areas, and understand how central they are to our eminence as a leading institution. We need to look at our students and how to prepare them for the world ahead.

Increasingly, the east and west sides of campus need to take advantage of our proximity in both educational and research missions. The Health Sciences Center is initiating a new Public Health Program—I can think of no more propitious time. Interdisciplinary relationships that cross Nicolls Road are one example of how we need to focus our resources on future needs and anticipate questions that will jump to the forefront in the immediate future.
While we prepare for the challenges ahead, it is important that we reflect on what has happened over the past year, and yes, laud our successes to date. Our accomplishments are perhaps more extraordinary because as such a young institution we have moved ahead despite standstill State budgets. We have learned that we must seek many sources of income in order to develop our research and educational programs.

Our campus is full of more places to go, more comfortable sites for study, a more attractive landscape. It not only looks better, but works better, too.
Where The Money Comes From
This year the “bare bones budget,” which is what State funding for SUNY is called in Albany, provided $230 million (Graph 1). Our total operating budget, including the hospital but excluding fringe benefits either from the State or from our own income in self-support operations, is about $1 billion. Tax support and tuition provide 22% of the total; health care accounts for more than 51%, research for 15%, and self-support operations for 12% (Graph 2).

If you wonder how SUNY Performance Based Budgeting (PBB) determines our budget, about half of it, $111 million, comes from tax support based on enrollments (Graph 3). An additional $62 million comes from tuition return to campus and $9 million in the form of graduate tuition waivers. The match of 20 cents on the dollar for sponsored research provides $23 million, and approximately $16 million more comes from tax support for special programs.

This year we received $23.7 million more from SUNY than last year,
What Makes Up the $23.7 Million Increase in the 01/02 Financial Plan?

- $9.9 Million Enrollment-Driven
- $5.1 Million Tuition/Fees
- $1.2 Million RF Match
- $6.9 Million Salary Increases
- $0.7 Million Misc. Inflation/Elimination of Collar

History of State Support

- Actual Funding vs. Inflation Adjusted Funding

Funding History

How Much of Our Funding is Supported by Tuition?

RF Expenditures: 1980-2001

A History of Impressive Achievements

Over the past 15 years, tuition targets have increased from less than $25 million to more than $71 million, including $9 million in graduate student support (Graph 6). That means that tuition is a far bigger factor in our budget than it was 15 years ago. But tuition charges have not been increased for six years, so there has been a very steady number from 1996 until now—the only increases were due to larger enrollments. This year, however, tuition increases were approved for medicine and dentistry, and those increases are covered in this year’s tuition target.

Similarly, if you look at actual state support, we are slightly higher than we were 11 years ago (Graph 7). However, if you adjust that figure for inflation, the “real” value of our state support has plunged almost $30 million, from approximately

about 11%. Of that amount, approximately $10 million were enrollment-driven; in other words, our enrollment increases have improved the budget significantly. The second largest piece, about $7 million, is for the contractual salary increases; about $5 million derives from an increase in tuition and fees; $1.2 million comes from the research match; and $700,000 more comes from an inflationary increase and the elimination of the collar imposed earlier to prevent a dramatic change in the budget of any one college (Graph 4).

How is the budget distributed?

There are really no surprises. Approximately two-thirds goes to salaries and one-third to supplies and other operating expenses (Graph 5). Again, fringe benefits are not included in this graph. Major equipment is only 2% and utilities, 4%. However, I should point out that last year alone, utility costs were up $3 million over budget, and, of course, we must expect those kinds of expenditures again this year.

Note: Numbers have been rounded. Excludes State, DIFR, HIFR, and IFR fringe benefits.

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Enrollments have increased by about 4,000 students.

$125 million in 1988 dollars to approximately $95 million in 2001 buying power.

Clearly tuition has become a bigger percentage of our State budget. Whereas tax support has grown very little, enrollments have increased by about 4,000 students, and tuition revenue has almost tripled (Graph 8).

Fortunately, Research Foundation expenditures have doubled in those same 15 years, and increased sixfold in 21 years (Graph 9). Although the actual numbers for 2000-2001 are slightly down from the previous year, we believe this anomaly occurred because of the manifold problems of the new Oasis system, which was installed without maintaining the legacy system, and which caused our researchers monumental problems. In the first quarter of the current fiscal year, the campus showed a 15% increase over that of last year, and we certainly see the upward trend continuing, particularly given the increases in the NIH budget. Please note the significant increases in every scientific and technical area; funding available in the social and behavioral sciences, humanities, and arts does not enable such growth, but I hope we will win increasing numbers of grants in those fields.

Considering the relative proportion of tax support, tuition, and research funding over the past ten years in our all-funds budget, tax support has plunged from 30% to 15%, tuition has remained fairly steady, and research has increased by half as a factor in our funding (Graph 10).

The same comparison over a five-year span shows very little change in the proportions of the three (Graph 11).
We have been fortunate to rise to 12th in the nation in terms of royalty revenue, ahead of Harvard and Johns Hopkins. In the past five years, we have risen from a few hundred thousand dollars to well over $8 million, excluding the inventor’s portion (Graph 12). A single drug, ReoPro, discovered by Dr. Barry Coller, who is no longer on our faculty, has accounted for almost the entire amount. If, as Barry never fails to warn me, a better or less expensive drug comes on the market, this income stream could end abruptly. The dip this year occurred because of a cheaper rival drug; however, it has been found to be less effective, so we are hopeful our royalties will increase again next year. ALL funds from royalty income are used for research expenses—all of them. Half the funds, which I control, have been used to pay for scientific equipment. These include the large annual payments required for the Oasis system, other RF Central costs, and research. The other funds are controlled by Provost Robert McGrath and Vice President Norman Edelman and are used purely for research costs.

Our Stony Brook Foundation gifts, which almost doubled in 1999-2000, dipped distressingly last year (Graph 13). The large increase in the prior year was due in some part to major equipment donations; the decrease is a matter of concern for all of us. It occurred during the year we were searching for a Vice President for Advancement, and I am pleased that we now have Bill Simmons on board—and assume our numbers will soon double again. Even with last year’s decrease, the annual numbers have more than tripled since 1995-96. These figures do not include the Charles B. Wang Asian American Center, which has not yet been completed and presented to us.

In the same period, the value of our Stony Brook Foundation endowment has tripled, thanks to an
outstanding investment committee (Graph 14). Last year we were recognized in *The Chronicle* for having the best percentage growth in the country. Although no one is expecting investment values to rise significantly this year, I am altogether hopeful that we will do better than most.

**The Stony Brook University Community**

More good news—our faculty numbers have grown. We have increased by nearly 100 full-time faculty over the past five years (Graph 15). This year we increased by 21 faculty campus-wide, 13 on the West Campus. In the Provostial area, we hired 67 full-time faculty, half in tenure-track positions, to more than offset retirements, departures, and other changes.

Our full-time faculty ethnicity still leaves much to be desired. The preliminary data for our tenure-track faculty shows that 83% are Caucasian (actually not a bad number compared to national statistics), 10% Asian, and still only 4% African origin and 3% Hispanic (Graph 16). We have made some outstanding hires this year, and slowly our statistics are changing. But when we hire at a rate of about 5% of the tenure-track faculty each year, it takes a long time for statistics to change. We must continue to try harder to diversify—our students’ learning depends on it.

In all, our workforce comprises 12,500 employees, making Stony Brook University a community of about 32,000 people (Graph 17). We continue as the largest single-site employer on Long Island and we are certainly an economic force to be reckoned with. Fortunately, our neighbors increasingly recognize all that we
Enrollment is another good story. During the past 20 years, we zigzagged upward in enrollments, achieving 1,000 more enrollments in 1996 than 1980 (Graph 18). From there, the trajectory has been dramatic; in five years, we have increased our enrollments by 3,500 students (Graph 19). Two-thirds of those are undergraduates, one-third are graduate students (Graph 20). The number of freshmen has jumped all over the place in the past 20 years, but it increased dramatically over the past few years until this year when it slipped slightly (Graph 21). However, since we have increased the number of freshmen over the past several years, there were more in the pipeline and our total increase this year over the prior year was more than 900 students (Graph 22). At the same time, SAT scores of all regularly admitted students have risen about 80 points, the average having ascended from 1093 to 1172 in the six years since the SAT scores were recentered (we cannot compare in a meaningful way before the recentering) (Graph 23); and of all students including EOP, second language students, and other special programs, also about 80 points, from 1070 to 1147 (Graph 24). Obviously, our selectivity has improved; we now take far more from the top groups of students.

And we are doing much better at attracting the very best students, thanks in part to new merit scholarship programs that focus on attracting them. This year 17 freshmen were either National Merit finalists, semifinalists, or Intel semifinalists, and 27 were valedictorians. And we awarded an additional 80 merit-based scholarships.

Our geographical spread continues slowly. Seven years ago, 32% of our freshmen came from Suffolk County; now 24% do (Graph 25). We have a higher percentage of freshmen from New York City,
This year 17 freshmen were either National Merit finalists, semifinalists or Intel semifinalists, and 27 were valedictorians. We awarded an additional 80 merit-based scholarships.

particularly Queens and Brooklyn, and slightly more from other parts of New York and from out of state.

Our students have also become more diverse, but it is hard to track the numbers because—and here is an interesting comment on our times—14% do not specify ethnicity (Graph 26). Seven years ago, only 5% didn't specify. Religious preferences are also of interest. The 68% of freshmen who responded to our survey reported the following: one-third are Catholic, 22% are other Christian, 7% are Jewish, 5% are Islamic, 4% are Buddhist, and 7% are other (Graph 27). Twenty-two percent reported no religious preference. Again, this is a very diverse group.

What do our undergraduates study? Forty percent are undecided when they arrive as freshmen; 20% are interested in computer science, 14% in the biological sciences, only 78, or less than 4%, in other fields of engineering, and 68 in the arts and humanities (Graph 28). When they actually settle into majors, however, the biggest number choose psychology, followed by computer science, business management, biology, and economics (Graph 29). The largest number graduated with a degree in psychology, followed by biochemistry and biology, computer science/information systems, economics, and business (Graph 30). Students change their minds and majors.

Our graduate enrollments have also been growing. Although Medicine is mandated not to grow and Dentistry is limited by facilities,
since 1996, we have increased graduate enrollments by approximately 1,200 students (Graph 31). The majority of those students are in our master’s programs, such as teachers seeking advanced courses, but our number of Ph.D. students has also increased. New full-time graduate students on West Campus have increased dramatically in the past few years, in part because of additional funding allocated for graduate student stipends (Graph 32). Moreover GRE scores have risen 100 points in the past two years (Graph 33).

One-third of the new full-time graduate students are international, one-third hail from Long Island, and one-third come from New York City, other parts of the state, and other areas of the United States (Graph 34). The ethnicity of our graduate students is significantly different from that of our undergraduates because people tend to enroll in terminal master’s and certificate programs close to home, and Long Island is by no means as diverse as Stony Brook (Graph 35).

The ten largest graduate programs may be a surprise. Biggest by far is liberal studies, followed by nursing, then medicine, then social work (Graph 36). The sequence continues, with much smaller numbers, in computer science, music, physics, dental medicine, chemistry, and applied math and statistics. Doctoral studies (much smaller numbers, of course) are first medicine and dental medicine, followed by chemistry, music, psychology, physics, and English (Graph 37). Conflating these numbers—undergraduate majors, graduate majors, and doctoral majors—certainly leads to some interesting conclusions—or at least conjectures. Students obviously come here as undergraduates undecided, thinking they like one field—and then they discover that they really get excited about some-
thing else. I think that is as it should be. Graduate students, on the other hand, have specific career goals and rarely change their sights. That is also as it should be.

**Building and Growing**

Our facilities improvements, although slower than we might wish, are beginning to add up—this campus looks better, and it works better. I confess that I am delighted when I see the campus full of students on a Friday afternoon—and it is full. There is more to do, there are more places to go, more comfortable sites for study, a more attractive landscape. We are moving ahead with construction on a number of fronts:

- Having completed an $81 million project to renovate all the student residence halls—the biggest such program in the country—we began to construct our first undergraduate apartment-style residence hall. It was to be completed for the fall semester, but is regretfully running a few months late, a delay that caused students considerable discomfort. By spring, there will be ample accommodations for students, even with the growth in enrollment.
- The Childs Mansion is being used now for retreats, meetings, and receptions; it is a great addition to our facilities.
- Sunwood should be completed within a year.
- The development of campus signage continues, both for street signs and for the buildings.
- Stony Brook Manhattan is complete. The second floor of the building on the southeast corner of Park Avenue South and 28th Street (401 Park Avenue South) provides 11 classrooms plus offices, conference rooms, and a large multipurpose space that will be used for many things—public lectures, meetings, luncheons for prospective donors, alumni gatherings, and recruitment. It will enable us to teach classes without using our campus facilities; already classes, particularly in Social Work, are being taught there. It comprises about 15,000 usable square feet, and it is beautiful. You must come by and discover for yourself. The entrance for events is at 401 Park Avenue South, and the student entrance to the classrooms is on 28th Street. Its uses will only be limited by our imagination.

We’re branching out into Manhattan.