

Making a Difference: The Strategic Plan for Duke University

September 14, 2006

The Mission of Duke University

James B. Duke's founding Indenture of Duke University directed the members of the University to "provide real leadership in the educational world" by choosing individuals of "outstanding character, ability and vision" to serve as its officers, trustees and faculty; by carefully selecting students of "character, determination and application;" and by pursuing those areas of teaching and scholarship that would "most help to develop our resources, increase our wisdom, and promote human happiness."

To these ends, the mission of Duke University is to provide a superior liberal education to undergraduate students, attending not only to their intellectual growth but also to their development as adults committed to high ethical standards and full participation as leaders in their communities; to prepare future members of the learned professions for lives of skilled and ethical service by providing excellent graduate and professional education; to advance the frontiers of knowledge and contribute boldly to the international community of scholarship; to promote an intellectual environment built on a commitment to free and open inquiry; to help those who suffer, cure disease, and promote health, through sophisticated medical research and thoughtful patient care; to provide wide ranging educational opportunities, on and beyond our campuses, for traditional students, active professionals and life-long learners using the power of information technologies; and to promote a deep appreciation for the range of human difference and potential, a sense of the obligations and rewards of citizenship, and a commitment to learning, freedom and truth.

By pursuing these objectives with vision and integrity, Duke University seeks to engage the mind, elevate the spirit, and stimulate the best effort of all who are associated with the University; to contribute in diverse ways to the local community, the state, the nation and the world; and to attain and maintain a place of real leadership in all that we do.

Approved by the Duke University Board of Trustees, October 1, 1994. Revised February 23, 2001.

Table of Contents

Executive Summary	
Duke and the Changing Landscape: A Planning Prologue	i
Chapter 1 – Building Distinction at Duke: Past, Present and Future	1
Chapter 2 – Challenges and Opportunities of the Current Planning Environment	9
Chapter 3 – Duke’s Enduring Themes	15
Chapter 4 – Academic Goals and Strategies to Build Distinction	23
Chapter 5 – Transforming the Campus: Central, West, and East	55
Chapter 6 – Durham, Regional, and Global Strategies	61
Chapter 7 – Strategic Investment Plan	67
Chapter 8 – Assessment	71
Appendix I – Executive Summaries of School Plans	79
Appendix II – Executive Summaries of Signature Initiative Plans	117

Table of Contents

Executive Summary

Duke and the Changing Landscape: A Planning Prologue i

Chapter 1 – Building Distinction at Duke: Past, Present and Future 1

Mandates for Planning at Duke 3

Chapter 2 – Challenges and Opportunities of the Current Planning Environment 9

Increased demand for public trust and accountability 9

Increased globalization of research and education 10

Rising cost of education and financial aid 10

Changing patterns in federal research funding 11

Keener competition for faculty, students, and financial resources 11

Changing definitions and methods of teaching and learning 12

Rapidly changing means of information access and learning spaces 12

Renewed call for ethical reflection and commitment 13

*Heightened expectations by undergraduates and their families
for personal services and co-curricular programs* 14

Chapter 3 – Duke’s Enduring Themes 15

Interdisciplinarity 15

Knowledge in the service of society 16

Centrality of the humanities and interpretative social sciences 17

Internationalization 18

Diversity 19

Affordability and access 20

Chapter 4 – Academic Goals and Strategies to Build Distinction 23

Goal 1: Increase the Capacity of our Faculty to Develop and Communicate Disciplinary and Interdisciplinary Knowledge 25

*Enable accelerated and cluster hiring for school and university
strategic priorities* 26

Support strategic hires through startup funds 27

Foster shared searches between schools and institutes and centers 27

Promote diversity through faculty hiring, retention, and program development 27

Facilitate the integration of research and teaching 28

<i>Develop leadership skills in tenured faculty through mentoring</i>	29
<i>Provide initial support for programs, institutes, and centers that advance university strategic priorities</i>	30
<i>Facilitate cutting-edge research through support of shared facilities</i>	30
Goal 2: Strengthen the Engagement of the University in Real World Issues	33
<i>Recommit to successful signature initiatives, enabling them to achieve a new level of excellence</i>	33
<i>The Institute for Genome Sciences & Policy</i>	34
<i>The Social Science Research Institute</i>	34
<i>The John Hope Franklin Humanities Institute</i>	35
<i>The Kenan Institute for Ethics</i>	35
<i>The Nicholas Institute for Environmental Policy Solutions</i>	35
<i>The Sanford Institute of Public Policy</i>	36
<i>Launch two new initiatives that take advantage of the unique strengths of our campus and further our strategic institutional themes</i>	37
<i>The Global Health Institute</i>	37
<i>The Institute for Brain, Mind, Genes, and Behavior</i>	38
Goal 3: Attract the Best Graduate and Professional Students and Fully Engage Them in the Creation and Transmission of Knowledge	39
<i>Increase our distinction by attracting the best students to our signature programs</i>	39
<i>Train future leaders in both disciplinary and interdisciplinary methodologies</i>	40
<i>Continue to strengthen the infrastructure for graduate and professional student development</i>	40
Goal 4: Foster in Undergraduate Students a Passion for Learning and a Commitment to Making a Difference in the World	41
<i>Establish inquiry-based and interdisciplinary learning as the distinctive signature of undergraduate education at Duke University</i>	42
<i>Use our developmental model as a method for integrating and evaluating curricular and co-curricular initiatives</i>	43
<i>Create increased opportunities for experiential learning and civic engagement</i>	44
<i>Develop programs to improve campus culture</i>	45

Goal 5: Transform the Arts at Duke	47
<i>Enrich the student experience in the arts</i>	47
<i>Increase faculty strength in the arts</i>	48
<i>Build national and international arts programming</i>	49
<i>Create vibrant arts facilities on all three campuses</i>	50
<i>Strengthen arts leadership</i>	50
Goal 6: Lead and Innovate in the Creation, Management, and Delivery of Scholarly Resources in Support of Teaching and Research	51
<i>Coordinate and expand library resources and services to maximize support for interdisciplinary initiatives, teaching, learning, and research</i>	51
<i>Exploit digital technology to provide convenient, seamless access to scholarly resources</i>	52
<i>Enhance Duke’s information and instructional technology resources</i>	52
Chapter 5 – Transforming the Campus: Central, West, and East	55
<i>Redevelop Central Campus so that it is a vibrant intellectual and residential community</i>	56
<i>Invest in core West Campus facilities, improving student residences and co-curricular space, arts and library facilities, and space for core academic programs</i>	57
<i>Continue to invest in East Campus facilities as an important home for the academic programs and the arts, with support services tailored specifically to the needs of first-year students</i>	59
Chapter 6 – Durham, Regional, and Global Strategies	61
<i>Duke and Durham: The Neighborhood Partnership and beyond</i>	61
<i>Increase our collaborations with regional universities and institutions</i>	63
<i>Build and enhance international partnerships and programs</i>	64
Chapter 7 – Strategic Investment Plan	67
<i>Resources for Strategic Investment</i>	67
<i>Strategic Investment Plan</i>	68
Chapter 8 – Assessment	71

Appendix I – Executive Summaries of School Plans **79**

<i>Arts & Sciences</i>	81
<i>Divinity</i>	83
<i>Fuqua School of Business</i>	89
<i>Graduate School</i>	93
<i>Law School</i>	97
<i>Nicholas School of the Environment and Earth Sciences</i>	99
<i>Pratt School of Engineering</i>	101
<i>School of Medicine</i>	107
<i>School of Nursing</i>	113

Appendix II – Executive Summaries of Signature Initiative Plans **117**

<i>Institute for Genome Sciences & Policy</i>	119
<i>Social Science Research Institute</i>	123
<i>John Hope Franklin Humanities Institute</i>	125
<i>Kenan Institute for Ethics</i>	127
<i>Nicholas Institute for Environmental Policy Solution</i>	129
<i>Sanford Institute of Public Policy</i>	133

Executive Summary

Starting in the fall of 2004, Duke University has engaged in an intense period of strategic planning. Over this period, schools, institutes, and centers assessed their strengths and weaknesses, provided strategies to enhance their activities, and identified the infrastructures and resources necessary for success. As an institution we have thought creatively and ambitiously about how we could strengthen academic units to achieve their aspirations, build on our institutional priorities, and create synergies across school boundaries. We have ensured that we have the management processes and incentives to target current resources on critical academic priorities and to use our central strategic initiative funds to maximum institutional advantage.

The prologue frames a new paradigm for higher education and how Duke's distinctive advantages position us for leadership.

Chapter 1 discusses the history and trajectory of the university, our distinctive identity and ambitions, and the areas we most need to target for improvement. It is only in this context that our goals and strategies can make sense. Duke's ambition is targeted not towards rankings but rather towards achieving a place of real leadership based on substantive contributions to society through the education we provide, the research that faculty pursue, the lives our graduates lead, and our direct involvement in making our local community a better place to live and work.

Chapter 2 undertakes an analysis of the planning environment in which Duke must operate; one that is common to all universities, but through which we must forge our own unique path, taking advantage of our own particular ambitions and institutional strengths. The common environmental challenges and opportunities include: increased demand for public trust and accountability; increased globalization of research and education; rising costs of education and financial aid; changing patterns in federal research funding; keener competition for faculty, students, and financial resources; changing definitions and methods of teaching and learning; rapidly changing means of information access and learning spaces; renewed call for ethical reflection and commitment; and heightened expectations by undergraduates and their families for personal services and co-curricular programs.

Chapter 3 defines our enduring themes – interdisciplinarity, knowledge in the service of society, centrality of the humanities and interpretative social sciences, internationalization, diversity, and affordability and access – and their implications as hallmarks for our plan. Our distinction rests in how these themes are manifested in our everyday activities, how they build on school and departmental strengths, and how they work together, enabling us to realize our collective institutional vision.

Chapter 4 details strategies to achieve the following six goals:

- **Increase the Capacity of our Faculty to Develop and Communicate Disciplinary and Interdisciplinary Knowledge**

*To enable schools to be responsive to recruitment opportunities that advance either their strategic goals or university-wide initiatives, to retain our best faculty – tenure and non-tenure track, and to nurture those on steep upward trajectories, we will create the **Faculty Enhancement Initiative**. This initiative will enable strategic hiring in an anticipative way: rather than hiring faculty as vacancies occur, schools will be able to make accelerated appointments against expected retirements, planned future growth, and committed, but not yet fully funded, endowed chairs. The initiative also pays attention to current Duke faculty and provides support to enable them to realize their maximum potential in teaching and research.*

- **Strengthen the Engagement of the University in Real World Issues**

*We seek distinction and distinctiveness by creating and nurturing signature academic initiatives that strengthen our engagement of real world issues by anticipating new models of knowledge formation, applying knowledge to societal issues, and providing students with the skills to succeed and lead in these areas. School plans put forth a rich array of academic initiatives that represent strategies for enhancing existing peaks of excellence and establishing new ones. As part of the Faculty Enhancement Initiative we have committed to provide initial support for programs and centers that advance university strategic priorities. It is our hope that some of these, over time, develop into signature initiatives that advance Duke’s distinctiveness. Complementing new centers we reaffirm our commitment to our signature initiatives: the **Institute for Genome Sciences & Policy**, the **Social Science Research Institute**, the **John Hope Franklin Humanities Institute**, the **Kenan Institute for Ethics**, the **Nicholas Institute for Environmental Policy Solutions**, and the **Sanford Institute of Public Policy** and the creation of two new initiatives: the **Global Health Institute** and the **Institute for Brain, Mind, Genes, and Behavior**. These signature initiatives serve as models for other universities. These programs will shape faculty development opportunities through the Faculty Enhancement Initiative, serve as magnets for attracting the best graduate students, and offer exciting educational opportunities for undergraduates.*

- **Attract the Best Graduate and Professional Students and Fully Engage Them in the Creation and Transmission of Knowledge**

Graduate and professional students play critical roles in the generation of new knowledge in cutting-edge fields. They also play an important role in our institutional priority of increasing the “vertical integration” of research, a model by which faculty, postdoctoral fellows, graduate students, and undergraduates collaboratively interact in research teams on pressing problems. For these reasons, we seek to integrate and support these students more fully in the academic community. We affirm the commonality of purpose in research-based

Ph.D. programs: to educate the future intellectual leaders of society, develop new knowledge, build bridges between different fields of knowledge, and enhance the intellectual life of university faculty and students.

- **Foster in Undergraduate Students a Passion for Learning and a Commitment to Making a Difference in the World**

We seek to build a more integrated experience for an undergraduate that provides greater continuity between and among the various aspects of students' lives at Duke. We will focus on making transitions and seamless connections between the East Campus experience and the upper-class years, majors and disciplines, the classroom and co-curricular pursuits, students and faculty (and those in between, graduate/professional students and post-docs), the liberal arts and engineering, and college and life after college. We seek to foster student engagement so that undergraduates assume greater ownership and responsibility for their education rather than seeing it as a means to an end. If students are more fully engaged, they will get more out of their courses and will want to build, through the study of particular subjects, the skills that facilitate critical inquiry throughout their lives. We seek to help our students become active learners and involved citizens and to maximize the benefits that come from close interaction with faculty and peers. We will place institutional priority on community, on students' connectedness to others as well as to the city in which they are located. Community balances both group benefits with individual needs and wants and a Duke identity with the many personal identities based on demographics and interests. We seek to capitalize on the diversity of our varied constituencies by affirming and engaging the value of difference and creating an environment that promotes civility and respect even as ideas are promulgated – and challenged – in an energizing give and take.

- **Transform the Arts at Duke University**

From Duke's founding, the arts have been an expression of university life, bringing together members of our community for concerts, exhibitions, and productions, and giving intellectual and emotional texture to daily experiences, both on campus and in the medical center. Over the years, however, Duke – like other comparable research universities – has struggled to create an environment where the arts are clearly valued and widely supported. As we move forward we will enrich the student experience in the arts, increase faculty strength in the arts, build national and international arts programming, create magnificent arts facilities on all three campuses, and strengthen arts leadership.

- **Lead and Innovate in the Creation, Management, and Delivery of Scholarly Resources in Support of Teaching and Research**

Indispensable to our academic mission, Duke's libraries and advanced technological environment must remain nimble and responsive to the changing needs of faculty and students. Faculty and student expectations for easy and immediate access to information resources of all types will increase dramatically as teaching, learning, and research become more interdisciplinary, collaborative, and interactive. If Duke is to be a leader in

scholarly and pedagogical innovation, we must acknowledge and support the key role of our libraries and information infrastructure, especially in light of rapid technological change. We will ensure that the University Libraries and Information Technology provide transparent and seamless access in support of our academic goals.

Chapter 5 presents the plan for facility infrastructure necessary to support the academic goals. Investments in facilities enable the work of our faculty and students and help create a distinctive campus environment. Through new construction, renovation, and reuse, we must ensure that our facilities are up-to-date and constantly evolving to support the changing needs of our faculty and students. Continuing to develop the facilities on Duke's campus – on Central, East, and West – is essential if we are to create the kind of distinctive community we envision. The centerpiece of the facility plan in *Making a Difference* is the redevelopment of Central Campus as a vibrant intellectual and residential community. The development of Central Campus as a coherent place connecting East and West offers a transformational opportunity in the life of Duke University.

Chapter 6 presents strategies to strengthen and leverage local, regional, and international partnerships. As a vibrant research university where knowledge is pursued and translated for the good of society, Duke is committed to enhancing and drawing from the communities of which it is a member. Large numbers of our faculty, staff, and students live in Durham, and the quality of life that its citizens enjoy and the economic vitality of our city have special importance to Duke. The Triangle region faces many challenges and presents many opportunities; some occasioned by rapid growth and changing demographics, others a function of changes in the area's economic foundations, still others by the presence of outstanding universities with which to partner. The development of the Triangle and state has significant implications for the research, the economics, and the quality of life members of our community share. North Carolina and the Triangle have one of the highest concentrations of international companies in the nation, particularly in critically important high-tech fields where Duke has or is developing significant expertise. The internationalization of the region echoes ever increasing globalization in many other areas, and global challenges now have consequences for our daily lives in ways we never before imagined. Engagement in these local and global communities provides exceptional opportunities for teaching and learning and for connecting knowledge to real world problems. Duke, therefore, gives high priority to reaching beyond its campus and to strengthening local, regional, and international partnerships.

Chapter 7 summarizes our financial plans, including approximately \$1.3 billion of programmatic and capital expenditures in addition to ongoing operating budgets in support of the priorities in the plan.

Chapter 8 describes our assessment strategies to ensure that our initiatives are on track and that the university as a whole is achieving the short term goals and long term aspirations the plan is meant to support.

Taken together, these eight chapters lay out the principles, goals, and strategies for advancing Duke University as a distinctive top-tier private research university. Our goals reflect our ambitions, and we seek and appreciate the guidance and encouragement of the Board of Trustees in carrying out these ambitious objectives.

Duke and the Changing Landscape: A Planning Prologue

Five years ago, in February 2001, Duke University issued a strategic plan entitled *Building on Excellence*. Five years later, this university can look back with satisfaction – and even inspiration – at what it accomplished with that plan’s direction. Candidly assessing Duke’s current state in face of the array of challenges all universities would encounter, that document proposed a set of overarching goals to govern this school’s institutional choices. At the same time that it set these ambitions, Duke also embraced the discipline of designating significant resource streams that would be available only for strategic projects.

Thanks to this combination of ends and means, Duke University as a whole and each of its component parts have become significantly stronger over the past five years. New buildings have created the spaces for pioneering research activities: having embraced the goal of strengthening science and engineering, for instance, Duke opened the Fitzpatrick Center in 2005, and the French Family Science Center is now nearing completion. The difference these splendid facilities make for recruiting top faculty and students is already apparent. New programmatic strengths have arisen together with new buildings. Guided by the commitment to extend our global reach and influence, Duke has become a leader in internationalization, exceeding all American universities in federal support for international area studies and engaging unusually large numbers of students in study abroad. Under the influence of *Building on Excellence*, our core infrastructure has been radically strengthened as well. Duke has changed from a follower to a leader in the use of information technology, and the university’s central academic resource, its library, is being renovated with dramatic results. Since the Bostock Library opened in October 2005, library use has increased by an astonishing 40%.

One less obvious achievement needs noting as well. *Building on Excellence* was a university plan in the sense that its goals were not particular to any individual school but relevant to them all. In addition to their own local strategic priorities, Duke’s various undergraduate, graduate, and professional schools were asked to embrace these shared values and decide how to pursue them to advantage on their own terms. In consequence of this approach, as each unit has become individually stronger, Duke’s component parts have knit themselves together far more closely over the past five years, by working toward common goals. The sense of common purpose and the habits of university-wide collaboration created through *Building on Excellence* are among the most remarkable of its accomplishments.

In many universities, “strategic planning” is an unromantic prospect, a bureaucratic exercise doomed to produce recommendations that will gather dust while the status quo moves forward more or less unobstructed. At Duke, strategic planning is exciting to undertake because it actually makes a difference: it produces visible transformation in the university’s capacities and direction. Having realized many of the ambitions hatched in the last planning period, the time arrives for Duke University to plan the next phase of its evolution. So the question arises, if we really are capable of making a difference, what are the most valuable differences we could seek to make?

Upon arriving at this point, it might seem that the next move is to begin drawing up a wish list of things Duke would like to have and do. But the university will need to make choices among our desires, and to make the choices that will do the most good, we need to think about what fundamentally matters. The last planning document defined the ambition “to be among the small number of institutions that define what is best in American higher education.” That is still the right level for our aspiration; but what is a university at its best? A great university is a great gathering of intelligence: a place where issues of deep human consequence are addressed with profundity and creativity, and where every question interesting to ask is being answered in interesting ways. At such a place, students are not just beneficiaries of, but also central players in this process of exploration. The poet Yeats said that education is not the filling of the bucket but the lighting of a fire. In the logic of this figure, a great university is a scene of constant combustion, a place where energies of intelligence and creativity are being continually released through the encounter of lively minds.

If this is so, the most strategic moves a university can make will be the ones that most further the goals of stimulating inquiry and enlivening education. But in our time, those processes are clearly not static. They are changing in response to a variety of new challenges and forces, and the university that will best serve these ends going forward is one that will best anticipate and accommodate these changes starting now.

To be more particular, universities as we know them are organized around a model of knowledge-production and knowledge-transmission that was consolidated in the 19th and perfected in the 20th century. This model is based on the logic of specialization, the development of powerfully disciplined expertise within tightly bounded areas of inquiry. The logic of specialization gave us not just the great intellectual breakthroughs of the last century but the academic landscape as we know it: the familiar map of academic departments, specialized graduate programs and professional schools, the undergraduate major in a single discipline, and the like. We are clearly not at the end of the day of specialization. To arrive at the point of where we can join in the creation of new knowledge, we still have to travel deep into the territory of specialized expertise. But we have come to a time when the limits of this system have become more apparent, and the need for new forms of knowledge increasingly clear.

In our world, information circulates instantaneously without restrictions of time or space, and virtually every point on the planet has been incorporated into the global networks new technologies have enabled. As economic activity, health menaces, and security threats become increasingly global in their causes and consequences, education more than ever needs to have an international horizon. But this is not the deepest educational challenge posed by a more interactive world. Through this accelerated and ever-more-inclusive process of exchange, understanding itself is continually metamorphosing, so that no single body of learning is likely to supply the enduringly adequate base for a whole career, as was imagined in the not-so-distant past.

In this new order, the complexity of problems will be increasingly apparent. We already begin to understand, for instance, that every health issue has a pathological, genetic, and

an environmental dimension, not to mention a psychological, a sociological, a legal, and a spiritual one as well; and that health care is a problem at once medical, cultural, economic, and policy-dependent in solution. In a world where challenges take this form, an educated person will need to be able to pull together and integrate disparate bodies of knowledge, and to do so not by some fixed formula teachable in advance but improvisationally, opportunistically, in response to changing arrays of facts and resources.

To develop the skills of problem-solving in many-sided and rapidly changing situations, the abstract mental exercises that have formed the staple of education as we have known it will need to be supplemented with the chance to encounter problems in their unabstracted, real-world forms, where the plurality of their dimensions and the specificity of their challenges can be fully grasped. Further, although mental independence and solitary reflection will be as important as ever, many issues will require the sharing or pooling of understanding, the bringing together of bodies of knowledge that no one person could possess alone. Working in teams will be as characteristic of the integrative regime of knowledge as working alone was of the regime of specialization; and learning how to supplement our understanding with that of others with different mental horizons will be increasingly essential.

Seen in this light, many relatively new features that have become familiar in the modern university can be understood not as the separate, add-on developments they first appear but as manifestations of new ways of using and training the mind. Interdisciplinary programs can be seen not as suburbs springing up mysteriously around the standard curriculum but as new-model learning based on the merging, not separation, of intellectual fields. The culture of diversity in universities, the promotion of inclusiveness, cooperation, and respect across boundaries of gender, ethnicity, race, religion, and national culture, originated as (and is still meaningful as) a quest for social justice. But if this value will be more, not less, important in the future, it is because it also promotes the collaboration across horizons that will be the precondition for mental breakthroughs in time to come. There is probably no single greater change in selective American universities in the last thirty years than the explosion of organized extracurricular activities. Some analysts have suggested that this extracurricular mania arises from the will to perfect in youth the overworked, hyperscheduled life-habits that will prevail in successful middle age. But this phenomenon makes a different sense if we recognize that the extra-curriculum has become a prime site for the teaching and learning of the new curriculum, the curriculum of improvisational, team-based, problem-solving education. When students make a film or plan a concert or bring engineering know-how to disaster scenes in foreign countries, they are redeploying skills they had acquired separately and for other occasions to create something none of them could have made alone.

If we are in a transition between one model of knowledge-formation and another, then we have to keep this fact centrally in mind as we plan for the university's future. Duke needs to be strong in every traditional way, but Duke will not realize its potential simply by building to a traditional model of the university. For the good of faculty and students alike, we need to build new versions of those activities based on integration,

collaboration, and reconnecting knowledge to real-world problems as we support the enduringly essential aspects of specialization-based research, teaching and learning. Duke has special advantages in meeting this challenge – not least its relatively weak addiction to the status quo. But the measures we choose for the future cannot just be good things we can do and build. Our plans will be strategic in proportion as they help us accommodate this deep change in the university’s fundamental mission.

Thanks to the work inspired by the last strategic plan, Duke enters this planning period in a significantly stronger position than it had five years ago. As noted, the distinctiveness of Duke’s institutional character also gives it many benefits in facing a challenge all of higher education will share. Duke has long attracted faculty whose interests range across narrow disciplinary boundaries. As a result, interdisciplinarity is a healthy feature of much existing intellectual life, not an imported exotic to be forced unwillingly on hostile departments or narrow minds. The walls between departments and schools are also notably weaker at Duke than at most leading research universities, and collaborations already happen freely and spontaneously across significant intellectual distances. It is a further part of Duke’s institutional culture that while pure research is pursued with great intensity and subtlety, the pursuit of knowledge tends not to stay shut in on itself. It is natural to many Duke faculty to seek to bring their knowledge to bear on real-world problems, and the institution facilitates the passage from inquiry and discovery to translation and real-world service in a number of formal ways. The Sanford Institute of Public Policy facilitates the interchange between pure research and policy application in fields like the welfare of children, global security studies, and international development. The Institute for Genome Sciences & Policy systematically connects genomic research to the devising and testing of new therapies. The Nicholas Institute for Environmental Policy Solutions supplies a point of exchange between academic science and environmental policy-making in government, business, and non-governmental sectors.

The presence of such features means that Duke does not need to make a hard turn to prepare for a new organization of knowledge. Our current situation equips us with highly relevant strengths: indeed, the balancing or blending of specialization with the countervirtues of integration, collaboration, and application is already deeply rooted in our institutional character. Armed with these advantages, it is time to ask in a more comprehensive way how Duke can meet a changing landscape of knowledge and education. The current report looks across the whole university, from the sciences to the arts, and across and the whole range of the university’s activities, from faculty hiring through facilities planning to curriculum design and student life, in the light of that challenge. Working with the best in current practice, we seek to identify a family of concerted moves Duke could make to assure that faculty can seize the most important new opportunities in research and teaching and that students can emerge well prepared for the world of their time.

Like *Building on Excellence*, this is a university plan, to be pursued in conjunction with the planning each school has undertaken to meet its particular circumstances and needs. The plan is itself an example of the virtues it recommends, a collaborative labor profiting from input from deans, administrators, faculty, and students from every school. Duke

University commits itself to this plan in hopes that, under its guidance, we will gain as much ground in the next five years as we have in the five years past. We look forward to making a difference within the university so that Duke faculty, students, and alumni can be fully equipped to make a difference to the world.

Chapter 1 – Building Distinction at Duke: Past, Present and Future

Our planning process has focused on continuing to build and shape a distinctive identity for Duke among the top echelon of research universities. We have witnessed a remarkable rise to prominence since the 1838 founding of Union Institute and James B. Duke’s 1924 transformative gift to Trinity College that created Duke University. Over time, we have developed strong graduate programs that complement core original strengths in undergraduate education in the liberal arts and professional programs. Our standing has extended from a predominantly regional one only a few decades ago to a national and international one at the highest rank. Our trajectory had been steep in recent decades, spurred on by former president Terry Sanford’s vision of “outrageous ambitions” for our university. To continue and further steepen our trajectory of excellence, we will need not so much to seek to replicate the faculty and programs of the schools with which we compete but to strengthen our own distinctive identity. This means drawing on qualities that have already brought us to preeminence and, even more, developing innovative new areas that will make us particularly well-suited to meet the challenges at the intersection between the frontiers of knowledge and changing social needs. In doing so, we will not only attract to Duke the finest faculty and students but also mark Duke out as a flexible institution that best meets the challenges of education, discovery, and service that we believe must be hallmarks of the 21st century university.

To make progress in this way, we must define this distinctive identity to which we aspire and candidly assess our current strengths and weaknesses. It is only in this context that our goals and strategies can make sense. Duke’s ambition is targeted not towards rankings but rather towards achieving a place of real leadership based on substantive contributions to society through the education we provide, the research that faculty pursue, the lives our graduates lead, and our direct involvement in making our local community a better place to live and work. While these ambitions are not unique to Duke, we pursue them and frame our identity in unique ways:

- Duke was founded on a close collaboration of the liberal arts education for undergraduates and training for careers in the learned professions. This is a vital and distinctive legacy at Duke today, where the major schools and programs of the university all operate in close physical proximity to one another and where joint degree programs and interdisciplinary research flourish.
- Through a distinctive combination of schools and the relationships among them Duke combines strength in core arts and sciences disciplines with outstanding programs in business, earth and environmental sciences and policy, engineering, law, medicine, nursing, public policy, and theology. This combination of resources allows us to both deeply explore basic issues in disciplinary research areas and to address enduring and emerging intellectual and policy problems from multiple perspectives, responding rapidly to the needs of our students and the wider society. Out of this combination comes, for example, the ability to address such issues as the care at the end of life, the ethics of the genomic revolution, and the racial components of disease. Our advantage

is not these particular programs, as important as they are, but the institutional resources and culture that allow us to evolve and adapt programs to changing needs.

- Duke is committed to both enduring and emerging fields of knowledge. Universities have a uniquely important societal role in the preservation and understanding of the many strands of our intellectual heritage. The new world we are shaping is inevitably an extension of the past and present and deeply informed by them. Therefore the preservation and critical examination of human experience, thought and invention through the humanities and interpretative social sciences is a critical component of the education of our students, the research of our faculty and of our project to put knowledge at the service of society.
- It is easier at Duke than at most other major private research universities to establish multifaceted relationships that span professional interests. Duke has a culture of innovation and collaboration rooted in its long tradition of academic freedom and the ease of interaction in an academic community of Duke's scale and location.
- Duke expects of its faculty excellence in the classroom as well as in research. Our best researchers and scholars are not given, and do not expect, reduced teaching loads. Classes are typically small, allowing students and faculty to work together closely.
- Duke is a community of deep engagement for students outside the classroom, in community service, the arts, political organizations, and academic competitions. The campus provides an increasing number of opportunities to link classroom and experiential education through opportunities for service-learning, internships, and mentored research.
- We have a strong history of campus spirit fostered through excellence in collegiate athletics. Student athletes engage in the full range of extracurricular sports from intramural and club organizations to nationally ranked championship teams.
- We have a tradition that fosters moral and ethical reflection, responsible leadership, and spirited debate. This tradition permeates Duke in many ways: through the central presence of the Duke Chapel, the broad influence of the Divinity School, the relatively new presence of the Freeman Center, and innovative programs such as the Institute for the Care at the End of Life and the Kenan Institute for Ethics.
- Our robust faculty governance system and the active roles played by students, through such avenues as Duke Student Government and Graduate and Professional Student Council, provide abundant opportunities for leadership, linking faculty and students with each other, campus administrators, and trustees.
- Duke is committed to the value of diversity in all its forms as part of the celebration of human life and as a fundamental foundation for effective teaching, learning, inquiry, and collaboration. This commitment is never perfectly realized; it has deep roots, but requires constant nurturing. A special part of this commitment is our strong support for effective financial aid programs in each of our schools; these programs help ensure that our university is accessible to talented students from many diverse backgrounds and that all our students benefit from participation in a diverse academic community.

- Duke is well managed. Because of its youthfulness, size, and regional base, the university has always had to manage its resources with extreme care, and today's levels of academic excellence are dependent on this continuing stewardship.
- Duke takes pride in the accomplishments of its alumni, their engagement in life-long learning, and their continued willingness to serve and support the university. During the 2006-2007 academic year, we will work with the Alumni Association to determine specific ways the participation of alumni can make a difference to the achievement of the goals and strategies presented in this plan.

Our quest for academic excellence and our determination to be among those institutions that define the best in higher education, both in the U.S. and globally, is inextricably bound up with these principles. Like any other great university, Duke depends on attracting outstanding faculty, students, and administrative leaders. But it is how their talents and energies work together that matters, and Duke is a particularly conducive place for working together to advance knowledge, for interdisciplinary collaboration to address problems, and for the transmission of values and experiences through participation in an intergenerational community in which we learn from each other and challenge each other to excel.

Mandates for Planning at Duke

Duke has long recognized the importance of institutional planning and self-assessment. Five years ago, self-examination and thoroughgoing strategic planning highlighted a degree of unevenness, and even fragility, in our accomplishments. To mention just a few of those areas of concern, our academic facilities, especially in the sciences and engineering, had substantially deteriorated to the point that they were becoming impediments to hiring the faculty and attracting the graduate students we wanted. We also felt strongly that our undergraduate curriculum failed to deliver on the full promise of a true liberal arts education, much less provide our students with the rich intellectual environment and developmental experiences that would be essential to preparing them for the new century. Some of our professional schools were somewhat complacently riding on historical laurels as their competitors refurbished their programs and reputations, while others were riding a crest of innovation without yet having the depth of faculty achievement that would stand them in good stead for the long haul.

Guided by our last strategic plan, *Building on Excellence*, we took steps to shore up these weaknesses to ensure the quality of our programs was fully worthy of our reputation. In this process, we created new excitement in a number of programmatic areas, strengthened our culture of inter- and multi-disciplinary undertakings, and emphasized our collaborative strategic approach to academic and institutional progress. These changes were substantive in quality and substantial in number; in many cases, they are also as much means to ends as the ends themselves. These recent developments have greatly enhanced our ability to become far better, but they do not themselves establish that excellence.

As we proceed with the next phase of institutional life, we have identified five fundamental planning mandates:

1. **We must recognize that the university's work is organized principally, if not exclusively, through our schools, not as islands but as reservoirs of talent and energy whose cross currents connect us in ever changing ways:** We build success by supporting our schools and their investments in faculty and students in ways calculated to build distinctive areas of programmatic strength within and across schools. While this principle is deeply established at Duke, the challenge remains to balance investments in core capabilities of each of the schools with programs and infrastructure that cross school boundaries. The work of the central administration has been precisely to make to the schools stronger and to foster their collaboration.
2. **We must emphasize the quality of our faculty and the support we provide them to achieve their full potential as leaders, scholars, and teachers:** We aim to attract the very best faculty at Duke. But what do we mean by the *best*? It is a question that should not be answered in the abstract, but answered specifically for Duke. What kind of faculty is best for Duke? In the aggregate, we want a faculty that is chosen not only for breadth and depth of their knowledge and skills but also for innovation and flexibility, a faculty that can push the frontiers of knowledge and respond to unforeseeable opportunities and challenges. As individuals, we seek members of our faculty who have not only achieved mastery in their fields with demonstrated or potential national and international leadership capabilities, but also entrepreneurs, risk takers, institution builders and collaborators. We want faculty members who themselves are committed to life-long learning, and who will over time take on new challenges, move on to new problems and into new fields, forming new collaborations and connections with other members of the university community. And we want faculty who care deeply about teaching and the lives of their students. That means faculty who work hard to communicate their materials, innovate in their teaching methods, and engage students in the most effective ways, both inside and outside the classroom. We want faculty who can model not only the life of the mind but the life of engagement in civic issues, the arts, community service, and in the application of their professional knowledge and ethical commitments to the service of society.

Duke is fortunate to have many faculty members who live up to these ideals. But we have work to do, both in encouraging and enabling current faculty to move beyond traditional interests and methods in their teaching and research and encouraging more responsibility for the lives of our students outside the classroom. The demands on our faculty are many and often intense, and we need to keep these pressures in mind as we encourage fresh approaches and new involvements. Overall, our goal now is to steepen the trajectory of faculty improvement to more fully realize these ideals. In some part, this is a matter of nurturing and supporting the many excellent members of faculty now on board. But it also means treating each recruitment as a precious opportunity. If we have attained a solid base of intellectual strength in our faculty in the last decade, with some peaks of excellence, we need now to bring that base to a higher level and to build substantially more areas in which people think that Duke is

the place to go, the place whose lead to follow. This leadership role cannot depend only on individual personalities – although individual leadership is certainly important; rather, to be sustainable, such leadership will depend on the quality of the resources we offer, the programs we mount, the collaborations we build. But above all it will be the product of the aspirations of our schools, departments and interdisciplinary programs, their self-confidence in seeking the best faculty, their patience in attracting them, their willingness to hear their needs, and of the capability of the administration to back these aspirations with the appropriate resources.

3. **We must further develop our capacity to support creative, entrepreneurial, interdisciplinary teaching and research among our faculty and students:** Through these efforts, we aim to institutionalize the conditions for innovation and responsive engagement with emerging fields of knowledge, medical and technological challenges, and public policy issues. While we have made substantial and deliberate progress in launching and supporting interdisciplinary initiatives, significant challenges remain in the areas of faculty appointments – where we have not yet assured that our interdisciplinary centers and institutes can have a significant role in departmental and school hiring – and in facilitating cross-school teaching. We must also assure the longer-term financial viability of our successful major initiatives beyond their initial period of strategic funding. To do so, we must strengthen our resource allocations processes, our space planning, our faculty appointments and mentoring processes, and our mechanisms for cross-school teaching and research.
4. **We must continue our efforts not only to draw the best of students into our applicant pool but to also increase their willingness to come to Duke:** Excellent students want excellent students as their peers, and excellent faculty want excellent students as their students. This is true in all our programs – undergraduate, graduate and professional – and in each of them we are in competition with other fine institutions that have the same ambition. But just as we asked what it means to attract the *best* faculty for Duke, we ought to consider also what we mean by the excellence in our student body, by the *best* students. And again, this question should be answered not in the abstract, but by articulating what is the best student for Duke. We want students who are smart and can master their material, but, just as important, we want those students who are bound to be life long learners, who will learn across fields, who will want to make a difference beyond their own personal gain, who aspire to leadership in their chosen fields, who will welcome collaboration, and who will continually develop their ethical foundations. Such students, we are convinced, are attracted to the programs that best feed those interests and that best attract like-minded students.

By and large, Duke attracts excellent students, and they create outstanding communities within their schools and departments. We know, however, that many of the most talented students in a number of our programs decline our offers of admission for traditionally stronger schools. While we can expect that real program differences will lead individual students to prefer another school, Duke should have an equal chance of attracting top students against any school in the country. In some schools, particularly the Graduate School, our effectiveness is partly a function of our

financial aid offers, and the current Financial Aid Initiative will help address such gaps. More generally, we know that students are attracted primarily by the excellence of the academic programs they are considering. Hence the best means of attracting and engaging the very best students is to ensure that we have outstanding, distinctive programs.

5. **We must ensure that every student who receives a degree at Duke is fully prepared to meet the challenges of life in the 21st century:** We seek to develop students who are intellectually, experientially, and ethically prepared to enter a world characterized by globalization, rapid and constant change, daily encounters with persons of substantially diverse backgrounds and experiences, and have facility with technology and the opportunities and challenges it presents. Every student must be educated in both the disciplines and in the way the knowledge developed in multiple disciplines can be brought to bear to address and solve intellectual and societal problems of great significance. Finally, a well-educated person must be one who has a zest for life-long learning and an ability to learn about and appreciate differences of culture, experience, and background and their implication for the building of relationships and an understanding of the nature of ethical challenges and how they can best be addressed.

These five mandates set the context for our planning process, which began in the fall of 2004 when departments, institutes, and schools were asked to undertake a substantial self-assessment and to examine and identify areas fundamental to their intellectual strength and reputation. In this process, all were asked to evaluate their strengths, provide strategies to enhance their activities, and identify the infrastructures and resources available that were critical for success. Schools were also asked to identify areas of potential comparative advantage that could arise from effective collaboration.

The planning process actively engaged faculty in meaningful ways. The highest priority identified was faculty development. Additional priorities included enhancing the undergraduate, graduate, and professional student experiences; assuring the competitiveness of our Ph. D. programs; and investing in programs and facilities.

The Provost's office also created cross-school faculty working groups, which were given the opportunity to propose new signature academic programs. These planning activities were coordinated with parallel efforts by Duke Medicine. The oversight of Duke's planning efforts has been the responsibility of a faculty-chaired Planning Steering Committee, which evaluated school, institute, and working group reports. In addition, the plan profited from discussion with existing faculty committees, such as the Executive Committee of the Academic Council, the Academic Programs Committee, the University Priorities Committee, the Committee on Faculty Diversity, the Information Technology Advisory Committee, the Library Council, and the Council for the Arts as well as the Dean's Cabinet and the Academic Affairs Subcommittee of the Board of Trustees.

The thoughtful and iterative discussions of these groups have framed the academic plan and its six goals:

Goal 1: Increase the Capacity of our Faculty to Develop and Communicate Disciplinary and Interdisciplinary Knowledge

Goal 2: Strengthen the Engagement of the University in Real World Issues

Goal 3: Attract the Best Graduate and Professional Students and Fully Engage Them in the Creation and Transmission of Knowledge

Goal 4: Foster in Undergraduate Students a Passion for Learning and a Commitment to Making a Difference in the World

Goal 5: Transform the Arts at Duke

Goal 6: Lead and Innovate in the Creation, Management, and Delivery of Scholarly Resources in Support of Teaching and Research

Chapter 2 – Challenges and Opportunities of the Current Planning Environment

Duke must operate within a set of challenges common to all universities and must forge its own unique path through them, taking advantage of our own particular ambitions and institutional strengths. These common environmental challenges and opportunities include: increased demand for public trust and accountability; increased globalization of research and education; rising costs of education and financial aid; changing patterns in federal research funding; keener competition for faculty, students, and financial resources; changing definitions and methods of teaching and learning; rapidly changing means of information access and learning spaces; renewed call for ethical reflection and commitment; and heightened expectations by undergraduates and their families for personal services and co-curricular programs. Following each challenge and opportunity described below are principles that help guide our planning and inform the specific strategic initiatives that follow.

Increased demand for public trust and accountability

The United States' leading research universities have set the standard of quality for world-wide higher education. They are distinctive in their scope, scale, governance, and financial resources and in their intertwined, reinforcing missions of education for undergraduates, advanced training for graduate and professional students, discovery and dissemination of new knowledge, and active service to society. In virtually all public opinion polls today, universities are consistently ranked among the most respected institutions. Elements within our society, however, also question whether we are doing our jobs well enough. Indeed, the public sector is demanding more from our graduates to address the problems facing the world and is pressing government to demand increased accountability. And the public – including those who will possibly send their children to our institutions – want assurances that the quality we provide in terms of research and education is worthy of the esteem we are accorded, the costs that we carry, and the prices that we charge. As a result, institutions of higher education must take increasingly proactive steps to strengthen public confidence in our value, purpose, and societal benefit. Indeed, in the current political climate of growing restrictions on all forms of discretionary funding, research universities cannot continue to succeed in either defending the autonomy of our enterprise or maintaining the funding of research projects, unless we articulate more clearly our real value and the return on society's investment.

- We reaffirm our commitment to the high standards and integrity that underscore basic research activities leading to new knowledge.
- We acknowledge our obligation to apply the knowledge we produce to help address societal problems.
- We recognize that a critical task for universities is to foster understanding in the wider public of what universities do and the role they play in society.
- We recognize the responsibility for universities to foster constructive dialogue, thereby providing a model to the broader society of a place that affirms the rights of, and is welcoming to, all and all opinions.

Increased globalization of research and education

Because of increasing globalization, the United States' educational and research missions are intimately tied to that of other countries. Modern communications connect scholars instantaneously and in real-time across borders, nations, and the globe, making intellectual capital an ever more worldwide commodity. Universities are increasingly seeking to find means to connect and collaborate with talent around the world; indeed, we can hardly consider what science and technology in the United States would have looked like in the last century without the steady in-mixing of foreign-born and foreign-trained scholars. The current explosive growth in technological research at academic institutions in countries such as China and India challenges our national preeminence in these areas and our ability to continue to attract students from these countries. Positioning ourselves as a desirable place for foreign students is a critical task made more difficult by restrictive policies following 9/11 and by heightened efforts of foreign countries to develop their own world-class educational institutions.

- We recognize the need to open the minds of U.S.-born students more broadly to the global world they will inhabit.
- We recognize the need to develop and nurture mutually beneficial partnerships throughout the world.
- We affirm the need to draw international talent so that we can attract the best faculty, researchers, and students to Duke.

Rising cost of education and financial aid

As the great source of inward enrichment and the great enabler of worldly success, education is arguably the premier privilege and asset our world has to offer. Concerns over costs and whether access to education is afforded only to families that have the ability to pay, raise the specter of federal intervention or possible tuition regulation. Universities have faced increased pressures to examine more closely what the major drivers are for their rising costs and to articulate more clearly the value of the education they provide, how their tuition and financial aid policies are determined, and what the impact of those policies is on the distribution of opportunity in our society.

- We recognize the need to exercise careful stewardship over our resources, continually control administrative costs, and ensure that new investments bring genuine benefits to our students and to society.
- We affirm our commitment to affordability through an effective financial aid program based on the principles of need-blind admissions and meeting full demonstrated need for undergraduates. This requires significantly increasing the endowment for financial aid support.

Changing patterns in federal research funding

Federal funding for higher education is changing in significant and often unpredictable ways. For example, over the past decade funding has declined for the humanities, the arts, and the interpretive social sciences; at the same time, funding for the basic medical sciences (and departments such as biology, biomedical and electrical engineering, chemistry, computer science, mathematics, physics, and psychology that pursue the fundamental research on which medical science is based) has grown dramatically, largely due to the doubling of the budget of the National Institutes of Health. This growth has led to an expansion in programs of biomedical research and an increase in personnel supported on soft money – changes which may, or may not, be sustainable long-term. In addition, the current earmarking of funds for specific multi-disciplinary initiatives indicate that federal agencies, the staples of academic funding, will have fewer funds to distribute to top individual research scientists. These trends have significant implications for the role of research within the academy, the distribution of faculty efforts between teaching and research, and the role of cross-disciplinary and interdisciplinary collaborations as models for scientific inquiry. These funding patterns also dramatically impact institutional budgets and indirect cost recoveries. As a consequence, faculty find it harder – and have to expend more effort – to acquire funding for pure research upon which major advances might be made, and universities increasingly struggle to manage and model unpredictable short- and long-term budgets. In spite of these obstacles, the funding climate will nevertheless support the kind of collaborative work that leads to knowledge in the service of society.

- We recognize the need to provide our researchers the facilities and other infrastructure support they need to succeed, to foster research collaboration, and to create an environment that encourages risk-taking and innovation.
- We reaffirm our commitment to foster and support interdisciplinary and multi-disciplinary initiatives that will be attractive to external funding.

Keener competition for faculty, students, and financial resources

Top-tier research universities in the United States increasingly compete for faculty, students, and financial resources. Faculty of national prominence – those particularly sought by leading research universities – often find themselves in a seller's market, and universities strain to woo and retain outstanding candidates, particularly faculty in specialized fields and minority faculty. Top-tier universities expend tremendous effort trying to recruit faculty from the same small pool, often pursuing the same candidates. Moreover, raiding of one another's faculty has become commonplace, with institutions often deriving prestige from their ability to attract key faculty away from peers. This increased competition for faculty serves to drive up salary, generate higher startup costs, and create greater pressures to construct new facilities or renovate old facilities on an ever-accelerating time scale. It also can lead to neglect of the faculty who make enormous contributions to the quality of the university but who are unable or unwilling to move, thereby creating fissures which endanger faculty morale. In addition to contending for faculty, top-tier schools intensely vie for the same top students in the undergraduate

and graduate applicant pools and promote competing, and often parallel, programs. This competition, however, does not take place on a level playing field, because institutions with greater endowments are significantly advantaged in their ability to attract the best faculty and students and to develop signature programs.

- We recognize the need to enhance our competitiveness for the best faculty.
- We affirm the need to develop and nurture innovation in fields and offer programs of distinction.
- We recognize the need to support existing faculty, creating ways for them to sustain their scholarly activities, move in new directions, and balance the multiple expectations of them.
- We acknowledge the need to continue our efforts to expand and matriculate the most selective undergraduate, graduate, and professional students through distinctive programs.

Changing definitions and methods of teaching and learning

Undergraduate education has experienced an intensive period of transition and renewal, particularly at research universities. This period has been characterized by both curricular and pedagogical change stimulated by, and reflected in, a series of national organizations, conferences, and publications, such as the 1998 Boyer Commission's *Reinventing Undergraduate Education: A Blueprint for America's Research Universities*, intent on altering the shape of the undergraduate curriculum. As a result, pressure has been brought to bear to more closely integrate teaching and research, rather than hold each as separate and competing. Significant curricular reform has been undertaken to emphasize general education, blur the dichotomy between general education and the major, foster coherency as well as depth and breadth, sequence learning across the curriculum, cultivate interdisciplinarity and fluency across the domains of knowledge, and promote civic responsibility. Moreover, no longer is the model for teaching and learning the passive receipt of transmitted knowledge, best stereotyped by a professor lecturing at a podium. Rather, students increasingly are engaging as partners in the inquiry enterprise, an enterprise characterized by greater active, student-centered learning, problem-based and experiential learning, and learning guided by mentoring.

- We affirm the need for our schools to continue to renew their curricula, both individually and in partnership.
- We recognize the need to provide opportunities for faculty to reinvigorate their teaching.
- We believe in promoting innovation in teaching and in how students learn.

Rapidly changing means of information access and learning spaces

The accelerating pace of technological change is having an impact on all facets of universities, altering and influencing how students, faculty, and staff interact with the university, with information, and each other. Savvy and visually-oriented students, conversant with technology, expect to interact with peers and professors 24/7 and to have

immediate access to digital resources, instructional technology, and interactive learning. Moreover, online information, sophisticated search engines, digital libraries, and streaming video are transforming where and when students work and what constitutes a classroom. Indeed, learning that was once closely held in designated spaces now becomes available from any location where there is computer access. This ease of access to information, coupled with students' facility with technology and their ability to multitask, puts increasing pressures on faculty and universities to rethink what learning spaces look like and whether current lecture halls and associated approaches to teaching are still as effective. The explosion of information and the complexities of access to it also heighten the importance of teaching not only how to get information but how to evaluate its worth and how to use it appropriately. This only underscores the importance of the roles of faculty and librarians as guides to knowledge-seeking and critical analysis for research in an information-saturated era.

- We acknowledge the importance of developing new classrooms, laboratories, and workspaces to accommodate changes in fields and pedagogical approaches.
- We recognize the need to provide the infrastructure and training so that faculty and students can learn and easily take advantage of new instructional technologies.

Renewed call for ethical reflection and commitment

One of the most pressing challenges of contemporary culture in the United States is to develop understanding about the meaning of ethics and its application to individual and collective behavior. Universities have the responsibility to ask, and to help our students ask, what knowledge is good for and what values are worth pursuing. These questions have taken on an even greater urgency as technology and globalization complicate the ethical environment, magnify the effects of human choice, and raise perennial ethical challenges with renewed force. Universities aspire to shape an institutional culture in which students, faculty, and staff reflect critically on assumptions, deliberate together about ethical issues, and experience what it means to make meaningful ethical commitments. Universities aim to prepare students for lives of personal integrity and engaged citizenship by nurturing reflective judgment and discernment, compassion and courage, and a concern for truth, justice, order, and freedom. The formation of such capacities requires the most open and extensive exposure to the range of ideas and experiences, the mentoring and the embedding of ethical teaching, learning, scholarship, and experiences across the curriculum and in the everyday policies and practices of campus life. It is our firm conviction that this lived aspect of ethics education during the college years is a crucial element of preparation for leading an ethical life.

- We affirm the importance of infusing ethical inquiry and service-learning in the undergraduate, graduate, and professional curriculum.
- We foster a highly active and intellectual culture built around a broad diversity of opinion and widespread opportunities for debate.
- We believe in advancing scholarship that supports and deepens ethical reflection and understanding within and across disciplines.

- We strive to foster personal integrity and accountability.

Heightened expectations by undergraduates and their families for personal services and co-curricular programs

Parents and students, particularly those at private, top-tier universities, have heightened expectations for institutions not only to provide learning in the classroom but also to develop the “whole” individual and to offer an expanding array of personal services responsive to students’ interests, aspirations, and development. The dynamics and relationships between students and parents and the university have altered and become more complicated. “Helicopter parents” and Generation X and Y students have quite different expectations for university services from those of previous generations. Moreover, these services – as well as the baccalaureate degree itself – are all too often viewed as consumer commodities necessary for advancement to professional schools and/or top paying jobs.

With the expectation that our students will become leaders in the future world comes greater need to reinforce learning opportunities for teamwork and ethical and leadership development through residential and co-curricular programming, often linked to what happens in the classroom. With the increasing diversity of our student bodies comes greater need to support cultural and affinity groups and to provide second language services, inter-group education, and funding for student programming. This heightened demand to provide student services places growing pressures on the infrastructure of academic and student affairs.

- We recognize the need to give coherence to the co-curricular undergraduate experience.
- We affirm the need to provide academic and personal support services so that all students can be successful.

As the above critical factors clearly underscore, the environment in which universities plan and the landscape we have to traverse is constantly shifting, filled with challenges that are evolving and not fixed in time. No one university alone can fully meet all these challenges, each has to map and cut its own unique path through them. Our ability to achieve our vision for Duke’s future will be influenced by our acuity in recognizing these evolving trends and by our agility to address them, taking advantage of our own institutional strengths and enduring themes.

Chapter 3 – Duke’s Enduring Themes

We begin our strategic planning process with an affirmation of the centrality and importance of five enduring themes that have defined, and continue to define, Duke:

- interdisciplinarity
- knowledge in the service of society
- centrality of the humanities and interpretative social sciences
- internationalization
- diversity
- affordability and access

While these enduring themes could be common to many universities, Duke’s distinction rests on how they are manifested in our everyday activities, how they undergird our school and departmental strengths, and how they work together to enable us to realize our collective institutional vision. Each of these themes is embodied in what happens in our schools and in the ways that they combine in a kaleidoscopic pattern to give a collective coherence and beauty to the university as a whole. Following each of themes described below are strategic implications that guide this plan.

Interdisciplinarity

Many of the most interesting and pressing problems of today, such as environmental pollution or economic competitiveness, human health or cultural understanding, are deeply interdisciplinary at their core. Consequently, some of the most creative teaching and research occurs increasingly at the intersections and interstices of traditional departments and programs. Faculty and students who are equipped to address these issues most constructively will be those who have learned to work in more than one dimension, using the tools of their own as well as other disciplines, who have been trained to grasp the interaction of many parts of the question and bring to bear multiple sets of analytic skills, and who can collaborate as well as work alone. Duke has long recognized this fact, and perhaps our best known institutional strength is our self-definition as a scholarly community that values, and has a proven track-record of success with, interdisciplinarity. Interdisciplinarity thrives at Duke because faculty tend to be less oriented to a map of the disciplines than to intellectual questions and living human issues, which their knowledge might help to understand. When we are oriented toward challenges of this order, the disciplines are naturally synergistic, since no discipline holds all the pieces of the puzzle to be solved. As a young university, we have been forced to leverage resources and collaborate across departmental and school boundaries, a feat facilitated by our compact campus that joins in close proximity – unlike many other major research universities – our undergraduate, graduate, and professional schools.

This institutional self-identification with interdisciplinarity was crystallized in the 1987 accreditation review and report “Crossing Boundaries,” that placed interdisciplinarity as the foremost of intellectual qualities to which the University sought to aspire. In the late 1990’s, Duke was a leader in establishing a Vice Provost for Interdisciplinary Studies and

through that office has provided faculty development opportunities and university-wide forums to foster interdisciplinary collaborations. Strategic and deliberative actions over the past two decades have seeded and nurtured the creation of a variety of cross-school, multi-disciplinary and interdisciplinary centers and institutes, such as the John Hope Franklin Humanities Institute, the Institute for Genome Sciences & Policy, and the Social Science Research Institute, as well as an innovative framework for seeding, supporting, and evaluating interdisciplinary efforts. Interdisciplinarity, combining and recombining issues and ideas, will remain at the forefront of what we do and continue to be an integral part of Duke's identity, providing a signature strategic advantage.

- We must overcome continuing obstacles for cross-school hiring and teaching, and develop procedures for recruiting and promoting faculty who will contribute to both schools and signature institutes and centers.
- We must improve mechanisms for identifying and delivering resources to interdisciplinary, cross-school activities.

Knowledge in the service of society

The founding indenture of Duke University directed the members of the University to “develop our resources, increase our wisdom, and promote human happiness.” Indeed, we have gone far in achieving James B. Duke's dream to establish a place of outstanding intellectual eminence, “a place of real leadership.” But in Mr. Duke's vision, such leadership also involved harnessing the power of higher learning for the larger social good to meet the world's great needs: for intellectual understanding; for bodily care and healing and for spiritual inspiration; for justice; for economic productivity; and for understanding and caring for the natural world. At Duke, we have taken this charge seriously, and our work – both research and education – does not enclose itself tightly within the confines of ivory towers. Our work forms an arc, spanning from inquiry through discovery on the one end and translation into practice on the other. For example, Duke Medicine advances significant medical discoveries and tests them for their value for human care. Faculty from the Schools of Divinity, Medicine and Nursing collaborate to address the multiple faces of care at the end of life, a fundamental human need. Students in the Law School and the Fuqua School of Business volunteer their time in clinics, giving legal advice to local non-profits or advice to small business owners. Students in Public Policy's Hart Leadership Program collaborate with Duke faculty and community partners to pursue field-based projects in over 35 countries on complex social issues such as HIV/AIDS, economic development, gun violence, and youth empowerment. Scholars in the humanities study language and culture to help students and the wider public understand the nature of human interaction in a contemporary world that brings people of very different backgrounds together on a daily basis.

At Duke, civic engagement and public service are not extraneous to the work of the university; rather, they are outgrowths and extensions of inquiry and discovery – in short, “learning to make a difference.” The culture of societal engagement is strong across this campus because it grows directly from our scholarly activities. Initiatives such as the Duke-Durham Neighborhood Partnership flourish because working for the common good

is rooted our self-definition. Indeed, we believe, as an institution, that we should share the expert knowledge faculty and students bring to bear on pressing societal issues, whether in the schools, health, and legal aid clinics in Durham or in universities and hospitals halfway across the globe. What we get in return, beside the satisfaction of citizenship, is the education that flows back to theory from practice: the learning that arises when theoretical intelligence is tested in the arena of real human needs.

- We must work to create an enduring culture of service.
- We must expand opportunities for students and faculty to apply knowledge in the service of society.

Centrality of the humanities and interpretative social sciences

While Duke, like our society as a whole, is rightly focusing substantial resources on the potential of science and technology to advance knowledge and improve human life, the humanities and interpretative social sciences must remain a critical element of our endeavors. These disciplines not only help to preserve the past (including the history of science, technology and medicine), they also provide the best window on the variety of human experience from which we can learn. But they are much more than repositories; they engage critically the fundamental questions that have shaped humanity's quest for knowledge, our definitions of the purpose of human life, of right and wrong, of the nature of the good life and a just society, the balance of personal freedom and social power. In addition, together these disciplines have the interpretative tools to understand the complex interplay of politics, economics, technology and culture in shaping whole societies and to discern large patterns of society and culture that shape individual choices and experiences, often in ways that individual actors do not fully comprehend. Finally, they are adept at holding us and our society to account when there is a lack of clear thinking about values and first purposes or when our actions and outcomes fall short of them. We have to see our own knowledge projects and institutional aims through the perspectives that the humanities and interpretative social sciences offer, for we are all of us – scientists, engineers and physicians; historians, anthropologists and novelists; students, administrators and trustees – acting on the same human stage illuminated by these fields.

- We must continue to sustain and develop Duke's strength in the humanities and interpretative social sciences, facilitating cross disciplinary conversation and collaboration across these fields.
- We must extend the conversations beyond these allied fields into wider cross disciplinary dialogues involving public policy, science, technology and medicine.
- We must seek ways to expand the voices of the humanities and interpretative social sciences as prominent partners in the ongoing conversation about the character and role of the modern University, and Duke's distinctive role as a leader in the United States, and increasingly international, higher education.

Internationalization

The events of September 11, 2001 and the subsequent invasion of Afghanistan and Iraq changed the world, dramatizing the religious, political, economic, cultural, military, and intellectual challenges that confront the rapidly globalizing, post-cold war world. These challenges have prompted nations, peoples, and institutions to consider more closely how they define themselves, and they have forced universities to frame new paradigms for research and education. Seeking to understand and thrive in this complicated new environment, Duke has increasingly focused on developing a sensitivity to, and awareness of, the fact that we operate in an interdependent world, where what were once hard and fast borders are now permeable, where individuals are part of an increasingly global community, and where problems transcend traditional boundaries. To be citizens of this world, we must be knowledgeable about issues that impact that world, such as global warming, poverty and pandemics, and conflicting cultures, and proactive in using that knowledge to make a difference.

Duke has long recognized that we cannot be a great university without being an international university. Beginning with the 1994 creation of the Office of the Vice Provost for International Affairs, Duke has set an institutional priority on enhancing our internationalization efforts, seeking to draw smart minds from around the world as students, faculty, and stimulating research collaborators. Because the majority of research is now produced by citizens of other nations, our faculty and programs increasingly collaborate with scholars abroad. We have won federal support for more international and foreign area study centers than any other private university in the United States. All of Duke's professional schools are engaged in international activities and partnerships, and more than 500 international post-doctoral fellows carry out research at Duke annually. Similarly, we have sought to open the minds of our students to the global world they will inhabit, giving them skills with which to interact with people from other nations and cultures through Duke course work, academic study abroad, and the non-course based engagements and exposures with foreign cultures. We are proud that a higher percentage of Duke undergraduates study abroad than at comparable schools, and one-third of Duke graduate and professional students are international. By increasing funding for non-US students to come to Duke, we have sought both to take advantage of international talent and to provide a more international experience for all students on our campus. Internationalization at Duke is not a specific or discrete set of add-on activities or units; rather, it is woven into the fabric of all of our efforts to become a world-class institution, thereby better serving the world of which we are a part.

- We must target education and research resources to address significant regional and global issues.
- We must forge international partnerships to enhance education and research.
- We must focus resources on the recruitment, retention, and support of talented international faculty and students.
- We must expand and integrate study abroad experiences with students' overall academic program.

Diversity

Duke University has a responsibility for as well as a practical interest in building the diversity of its faculty, students, and staff. We are also committed to advancing research and teaching on the history, cultures, and contemporary issues affected by and affecting the lives of under-represented minorities in the United States and less economically developed populations abroad. It is only a little more than forty years since the first African Americans joined our faculty and student body. Since that time, Duke has undertaken many steps to foster increased racial presence and better race relations on our campus, and to provide regional and national leadership. We cannot, however, rest on our accomplishments. Too often diversity in numbers is not diversity in the experiences of our students. As changes in our society and the world demand that we bring to our community faculty members and students from a wide variety of backgrounds, we must more fully integrate their experiences and perspectives into our research and educational programs as well as our campus community.

In a world characterized by globalization and increasing inter-cultural interaction, it is critical that our students engage other cultures and the differing perspectives they offer in their daily experiences both inside and outside the classroom. Faculty and students benefit most by interacting creatively and productively with the widest possible range of individuals, ideas, and peoples. We seek to model and teach that the range of human differences in the classroom, in the hospital, and in our laboratories matters at Duke and in the world. How better to learn about other cultures than to participate in a classroom debate with a broad range of people, all with different backgrounds and experiences? How better to understand the challenges we all face in society, this ever-changing and increasingly global world, than to hear our students and faculty share their own creative ideas in a respectful environment? Learning about the myriad beliefs and viewpoints, from world events to religious convictions to preferences in music and film, is part of the excitement of engaging ideas in a community of inquiry such as ours, but engaging the individuals who hold those beliefs is also critical. Diversity is not only about differing viewpoints, perspectives and opinions, but is also about the engagement with the people who are the keepers of those viewpoints, perspectives and opinions. Discovering, through a clash of differing ideas, that a deeply-entrenched belief may not be accurate, can be a thought-provoking – as well as a life-changing – experience. It is also critical preparation for living and working in the world into which our students enter upon graduation.

A second practical concern is equally as important. In the post-Cold War and increasingly globalized world, talent and potential are far more widespread and far more accessible than was true even twenty years ago. If Duke is to achieve the excellence to which it aspires we must seek that talent from all backgrounds and places on the globe. The diversity and excellence of our faculty and students must reflect both that search and our commitment to it.

Over the past two decades, Duke has worked hard to prompt and promote opportunities for faculty and students to engage deeply and genuinely with ideas and with each other. We have affirmed diversity as fundamental to our research and educational goals and

have undertaken significant efforts to transform the campus into a more vibrant and inclusive community. Recognizing the importance of faculty as intellectual drivers, mentors, and role models, we have sought to tap into the widest range of talent by diversifying its members. These steps have included the Black Faculty Strategic Initiative, which more than doubled the number of African-American faculty over ten years (1993-2003); and the subsequent Faculty Diversity Initiative, which maintains our commitment to the growth of African-American faculty, but also broadens the scope of our efforts to encompass a wider range of cultural, ethnic, racial and religious backgrounds and to focus as well on underrepresented groups such as Latinos/Latinas and women in science .

We have also sought to diversify our undergraduate, graduate, and professional student bodies and provide them with depth of understanding of themselves and the world that equips them to become better scholars, leaders, and citizens. Our percentage of African-American undergraduates is among the highest among our peers, and the 2006 entering undergraduate class will represent over 40% students of color. Finally, we have sought to provide both spaces and university-wide programs and events to promote greater understanding about the many expressions of cultural identities, to nurture new sensitivity to and respect for difference, and create an enriched teaching and learning environment for all.

Too often faculty members from underrepresented minorities are faced with extra burdens in their roles as citizens in our community. There remain significant lost opportunities to hire minority faculty and to retain them once they arrive at Duke. And our programs of research do not fully capture the opportunities represented by the expertise and interests of our faculty and students.

- We must continue to diversify the faculty through the Faculty Diversity Initiative, supporting the expansion and retention of African American and other underrepresented faculty members and assuring the appropriate resources to further this goal.
- We must continue to diversify our student body by pursuing aggressive admissions policies and offering as strong a program of need-blind undergraduate financial aid as our resources permit.
- We must work both toward an enduring change in campus culture and toward inclusion through programming on campus and beyond.
- We must seek opportunities to support disciplinary and interdisciplinary research programs on issues of race, ethnicity, and gender in the sciences, social sciences, humanities and the professions.

Affordability and access

Duke's historic commitment to affordability and access was built on the fundamental principle of justice, on our belief that access to higher education – and thereby worldly success – should be available to all, not simply to those who can pay. But in modern America, qualification for college admission has had a high correlation with family

income, and the premier private universities tend to recruit classes substantially tipped toward upper income sectors. Universities alone, of course, cannot affect or right every cause contributing to the unequal preparation of the young. But just for that reason, we have a special obligation to do what we can, and assuming the share of costs that a family cannot afford to pay is our way of assuring that we recruit students on the grounds of ability, dedication, and promise alone, not of family circumstance. Moreover, society has a profound self-interest in seeing that those with talent have access to quality education. We tend to take for granted the dynamism that makes our economy and culture develop wealth and an envied quality of life, but there is no reason to believe these things are self-sustaining. They are driven by human intelligence and creativity, and for renewal, these resources need cultivation and investment. Making sure that those gifted with these traits get the education that will allow them to give the greatest return on their talents is the best way to provide for this social good. It is safe to say that the talent upon which we will someday want to draw is not confined to a single social origin or band of income.

Duke's commitment to financial aid and need-blind admission is the investment we make to produce the trained talent our future world will require – and when we think of graduate and professional schools, this means the talent that will keep our own fields strong and strongly advancing. Some 45% of all Duke undergraduates receive aid from the University. To meet the challenge to be able to ensure that we select and recruit students on the grounds of ability, dedication and promise alone, we have recently engaged in a \$300 million Financial Aid initiative to strengthen Duke's financial aid endowment. We have dedicated our institutional resources to financial aid over time, and launched this focused and substantial fundraising effort, not only because of our responsibility to nurture talent for the good of society at large, but also because we believe that when we enable students to come to Duke from other income groups, other regions, other countries, we create a better experience not just for them but for every member of our common community.

- We must provide increased support to ensure broader access to our undergraduate, graduate, and professional schools.
- We must increase support for professional students committed to less remunerative careers.

Duke's commitment to these five themes – interdisciplinarity, knowledge in the service of society, centrality of the humanities and interpretative social sciences, internationalization, diversity, and affordability and access – drives all that we do and lays the groundwork for our future. Shaping, owning, and building upon these enduring themes, however, has not come about accidentally or instantaneously, but rather because of broad and deep reflection and intentional dialogue within and across the Duke community.

Chapter 4 – Academic Goals and Strategies to Build Distinction

We went through our planning process determined to increase our effectiveness in a changing, challenging environment while building on our enduring themes and distinctive identity. But for this to be *strategic* planning, we have to know what's strategic for Duke and our schools and to direct our efforts and resources accordingly. First, it is strategic to attend to the renewal of core academic strengths and core facilities as our foundations. Second, it is strategic to ensure that we complete what was begun during the last planning phase, ensuring that new facilities achieve their programmatic goals, newly created programs achieve their potential, and projects on the drawing board are completed. Finally, it is strategic to move into carefully chosen new fields of inquiry and teaching with high academic promise and social relevance. Investing our energies and resources along these lines will enable us to reach a new level of sustained excellence that further and distinctively defines Duke within top-tier of academic institutions.

Our goals are both strategic and coupled to realistic and flexible financial planning, which gives assurance that planning strategies can be implemented. The six strategic goals of the academic plan are:

Goal 1: Increase the Capacity of our Faculty to Develop and Communicate Disciplinary and Interdisciplinary Knowledge

We will create a Faculty Enhancement Initiative to hire, retain, and reward the faculty at all levels, and do so in a targeted manner that builds strength in our departments, schools, centers, and institutes.

Goal 2: Strengthen the Engagement of the University in Real World Issues

We recommit to our flagship interdisciplinary programs and will advance new academic initiatives that build upon distinctive university strengths and enduring themes, particularly knowledge at the service of society.

Goal 3: Attract the Best Graduate and Professional Students and Fully Engage Them in the Creation and Transmission of Knowledge

We will strengthen our graduate programs and more fully integrate and support graduate students within the academic community.

Goal 4: Foster in Undergraduate Students a Passion for Learning and a Commitment to Making a Difference in the World

We will continue to develop an undergraduate experience that deeply engages our students and faculty; enables students to respond to the rapid changes in knowledge production, transmission, and application; and prepares them to be citizens of the global community.

Goal 5: Transform the Arts at Duke

We will raise the level of the arts on campus, enhancing programming, expanding curricular opportunities, supporting cross-disciplinary research, improving facilities, and providing ongoing leadership.

Goal 6: Lead and Innovate in the Creation, Management, and Delivery of Scholarly Resources in Support of Teaching and Research

We will ensure that the University Libraries and Information Technology provide transparent and seamless access in support of our academic goals.

The central administration has targeted a strategic investment pool of \$208.8M in support of strategies to achieve our desired programmatic goals. In addition, \$40M has been targeted to assist the development of the School of Medicine and its collaborations across the campus. Additional capital investments also support strategic plan goals.

Goal 1: Increase the Capacity of our Faculty to Develop and Communicate Disciplinary and Interdisciplinary Knowledge

The university's first obligation is to attract, nurture, and retain faculty of the highest excellence, where excellence is understood to include both powerful intellectual creativity and the eagerness to stimulate and support the creativity of students. Our identity is, and will continue to be, driven by the quality of our faculty. We are determined further to raise the intellectual expectations for current faculty and the intellectual caliber of future faculty through strategic appointments in areas where Duke has differential advantages, as identified in both school and university plans. This requires not only recruiting competitively for the absolutely best faculty but also retaining our best scholars when they are being recruited by peer and more highly ranked institutions. We must find ways to break through in our efforts to hire the most outstanding faculty in our priority areas, which, in part, will be the product of the quality of the resources we offer, the programs we mount, and the collaborations we build. But above all, it will be the product of the strategic aspirations of our schools, departments, and interdisciplinary programs; their self-confidence in seeking the best; their patience in attracting them; and of the capability of the administration to back these aspirations with the appropriate resources.

This, in turn, will require not only strong administrative encouragement and steadfast will, but also a sharp strategic eye, a commitment to invest primarily in the strategic priorities presented in our institutional, school, and institute plans, and an ability to build collaborative hires where desirable. And it will require as well some adventurousness, a willingness to take intellectual risks. We will compete for, and be competitive for, the best faculty by identifying and supporting hires that realize our aspirations.

The partnership between the schools and central administration needs to promote the best hiring, allow faculty to make the most of their talents, and assure appropriate rewards so that we retain our best faculty. Together we will target and develop faculty members who are already, or can be expected to become, recognized researchers with national and international impact, who inspire students and set examples for their colleagues in their teaching, and who, through their leadership – both within the schools and campus wide – enhance the research and learning environment for all within the university. We further commit to work with school deans to assure we support efforts to enable faculty to strike a balance between teaching, research, and service. Engagement in interdisciplinary efforts, informal mentoring and service responsibilities, and forging new ways to provide educational experiences are demanding more of faculty time each year. As the responsibilities of faculty evolve, it is essential that expectations and compensation are consistent with these efforts and university priorities.

To enable schools to be responsive to recruitment opportunities that advance either their strategic goals or university-wide initiatives, to retain our best faculty – tenure and non-tenure track, and to nurture those on steep upward trajectories, we will create the **Faculty Enhancement Initiative**. This initiative will enable strategic hiring in an anticipative way: rather than hiring faculty as vacancies occur, schools will be able to make

accelerated appointments against expected retirements, planned future growth, and committed, but not yet fully funded, endowed chairs. The initiative also pays attention to current Duke faculty and provides support to enable them to realize their maximum potential in teaching and research.

Strategies for the Faculty Enhancement Initiative include:

- **Enable accelerated and cluster hiring for school and university strategic priorities**
- **Support strategic hires through startup funds**
- **Foster shared searches between schools and institutes and centers**
- **Promote diversity through faculty hiring, retention, and program development**
- **Facilitate the integration of research and teaching**
- **Develop leadership skills in tenured faculty through mentoring**
- **Provide initial support for programs, institutes, and centers that advance university strategic priorities**
- **Facilitate cutting-edge research through support of shared facilities**

Enable accelerated and cluster hiring for school and university strategic priorities

The centerpiece of this initiative will be to provide bridge funding to encourage hiring in areas of strategic importance, thereby accelerating the process of faculty renewal. The first criterion for accessing these resources is that the hire substantially contributes to a strategic objective of the schools and/or institute, in the latter case bringing to life the intersections between school priorities and the signature university themes. Additional possibilities include whether the hire could facilitate an important change in the direction of a discipline; bring important collaborations to the department, program, or institute; leverage resources; or bring cutting-edge research on a pressing problem into the classroom. In any case, a necessary condition is for the hiring unit to have strong leadership and a clear vision of what it is trying to achieve.

Hiring costs will be directly mortgaged to anticipated growth, future retirements of current faculty lines, or new endowed chairs committed but not yet fully funded. The actual number of lines available annually will vary based on the availability of support and the rate at which mortgaged positions are closed. The Provost's support ends when the slot budgeted in the school becomes available; the school or department then will be fully responsible for the line. In this way, resources from the central administration will be leveraged to accomplish long-term goals more quickly and effectively.

Support strategic hires through startup funds

Providing startup support is one of the major budgetary challenges faced in hiring faculty, particularly in science and engineering. Often the school has the faculty line, but is unable to meet the startup requirements needed to attract to Duke a faculty member of

the highest distinction. To enable schools to recruit the very best faculty, the Provost's office will create a startup fund, from which significant contributions to the one-time startup support for strategic hires can be made. This startup support is also available to those hired using the bridging support mechanism described in the previous section.

Foster shared searches between schools and institutes and centers

We have realized the significant benefits of recruiting faculty into positions that are shared across schools, because such hires attract faculty to Duke who reinforce our vision for interdisciplinary and cross-disciplinary research and teaching. Much of Duke's interdisciplinary efforts are represented by outstanding institutes, including the Institute for Genome Sciences & Policy, the Social Science Research Institute, the John Hope Franklin Humanities Institute, the Kenan Institute for Ethics, and the Nicholas Institute for Environmental Policy Solutions. To advance our signature programs more successfully we must more closely coordinate and consider their aspirations and programmatic needs along side those of the schools.

The Provost recently created the Academic Leadership Council, comprised of the deans of the schools and the directors of institutes that embody university strategic priorities. This group will advise the Provost on annual plans for cross-school and school-institute searches that enhance school, institute, and university strategic initiatives. Early consultation and planning are crucial in interdisciplinary hiring. Achieving this requires, first, that all school's annual hiring plans explicitly address their contribution to Duke's commitment to interdisciplinarity; and, second, that institutes develop their own annual hiring plans for consideration in concert with school plans. Memoranda of understanding are the central mechanism for aligning expectations among the partnering units, must be an integral part of the recruitment process, and must clearly articulate the teaching and service responsibilities of such hires. The "home" of faculty hired remains within a department structure, and the salary will ordinarily be budgeted by the schools involved.

Promote faculty diversity through hiring, retention, and program development

Diversity in our faculty is essential to our success in each and every area we seek to develop. Close attention to hiring and retaining a diverse faculty requires commitment at all institutional levels, ranging from senior administrators and deans to department chairs and search committees. Through focused leadership and training, mentoring, policies, programs, and rewards, we seek to infuse our community more fully with the complete range of perspectives and potential of human difference, including racial, ethnic, linguistic, gender, sexual orientation, physical abilities, geographic backgrounds, religious affiliation, and political convictions. Moreover, because the themes of interdisciplinarity, internationalization, and diversity are often intertwined, we believe that accelerated and cluster hiring will significantly increase our diversity as well as deepen our strength in programmatic areas, broaden the perspectives among our faculty and create a more inclusive university culture and environment.

Duke has witnessed the results of the 1993-2003 Black Faculty Strategic Initiative to recruit African-American faculty, an initiative that more than doubled the number of black faculty. We advance our priority of diversity through a number of mechanisms, including the Faculty Diversity Initiative, which uses central resources to encourage and enable the hiring of women, minority, and minority women faculty in fields where they are underrepresented. The current plan reaffirms this commitment and through outreach and recruitment sets the goal to achieve a net increase of 25 faculty from underrepresented groups over the next five years. We will also continue to press forward on measures to attract, mentor, and support women in science.

The availability of Ph. D. applicants from under-represented groups in certain fields remains a significant issue. To enhance the pool of potential faculty members, we will create a fund to hire post-doctoral fellows from under-represented groups. We will also make special efforts to recruit graduate students from historically black colleges and universities and like places from which we can increase our pool of diverse candidates.

Hiring by itself, however, will not be sufficient. Retaining these faculty members, assuring their ability fully to pursue their research and teaching programs, and building community will also be critical. Minority, women, and minority women faculty members often face demands on their time exceeding other faculty members because they are asked to serve as representatives on multiple committees and because, in addition to their normal advising activities, they are sought out as informal advisors and mentors by minority students. Better accounting for and rewarding these important activities for all faculty will be an administrative priority as will promoting faculty research programs that bring disciplinary and interdisciplinary tools to bear on issues of race, culture, gender, and ethnicity.

Administrative oversight of these activities will be the responsibility of the newly created Vice Provost for Faculty Diversity and Faculty Development.

Facilitate the integration of teaching and research

Undergraduate education occupies a central place in the vision of Duke University and expectations for our faculty. The Faculty Enhancement Initiative must encourage and support the balance between – or perhaps more aptly put, the integration of – undergraduate education and research. For faculty currently at the university, we must provide opportunities, in addition to the normal sabbatical leave, for deepening research, fostering collaborations, learning new methodologies, and creating new courses within and across schools. Through use of strategic resources, several university-wide institutes, such as the Social Science Research Institute, are developing faculty fellows programs. Such collaborative programs impact research through joint grant proposals and interdisciplinary work, as well as advance curricular offerings through development of new first-year Focus clusters and interdisciplinary courses.

Technology and its effective educational applications can also serve as the means for creatively integrating faculty research and teaching. Expanded use of educational

technology allows faculty to bring their own, real-world research projects, data, and experiences into the classroom, thereby strengthening their ownership of the teaching enterprise and making it more personally meaningful. Technology connects students more directly to faculty scholarship, fostering greater engagement with the culture of research. We seek to pursue thoughtful applications of educational technology and to lessen the view – and rewards for the view – that research and teaching are separate and competing endeavors.

Develop leadership skills in tenured faculty through mentoring

The university seeks to have and develop skilled intellectual leaders and to engender an environment in which faculty who are capable of becoming such leaders actually do so. This depends, in part, on mentoring. The university has recently launched a new university-wide Mentoring Initiative that articulates best practices for faculty members, chairs, deans, and central administrators along a continuum. This initiative places emphasis on the role of the chair in creating a local environment in which mentoring can flourish and the roles of the dean and the provost in promoting and monitoring a climate and mentoring culture supportive of all faculty members.

While schools, institutes, and departments currently provide an array of mentoring programs for assistant professors, the same is not true for associate and full professors. Moreover, associate professors are at a point in their careers that is particularly conducive for developing campus leadership, both through scholarship and service opportunities. Increased attention to mentoring of this cohort would enhance continued productivity and greater engagement in the institution. In addition, mentoring full professors may help maintain their peak momentum, support their scholarly and educational activities, and encourage them to collaborate in new and strategic ways.

Responding to the recognized need for greater faculty mentoring, the university will require review of all associate professors as part of the annual salary evaluation. This review will entail a meeting with department chair, or in the smaller schools the appropriate representatives from the Dean's office, so that faculty can receive feedback enabling them to better achieve their maximum potential in research, teaching and service. Moreover, part of this evaluation must address prospects for promotion, thereby enabling schools and the administration either to mentor faculty in areas that could be strengthened or to proactively promote faculty on steep positive trajectories.

As is the case at other universities, Duke struggles with the proper balance of reward and recognition for research, teaching and service. It remains imperative to recognize, however, that faculty can – and do – contribute to the university through a variety of efforts. In recent years, young faculty have tended to place a large emphasis on research, reflecting their experiences as graduate students or postdoctoral researchers. It is our collective obligation to help young faculty develop a balanced portfolio, and this requires mentoring by peers, department chairs, and deans. For those more advanced in their careers, the administration should encourage those whose research activities are less productive to strengthen their university contributions through teaching and service,

accompanied by proper institutional recognition and support for excellence in these efforts.

Provide initial support for programs, institutes, and centers that advance university strategic priorities

Over the last decade, the University has institutionalized its ability to provide seed support to start programs, institutes, and centers that deepen our commitment to cross-school partnerships and advance interdisciplinarity. Duke's flexibility to enable faculty to develop such programs plays an important part in the recruitment and retention of our best faculty and to the ability of our students – both graduate and undergraduate – to gain first hand experiences in cutting edge research.

To ensure our continued capacity to support the creative energies of our faculty in the creation of future signature programs, institutes, and centers, we will develop and implement mechanisms by which the schools will assume the support of successful centers after initial central funding. The Provost's Common Fund and new strategic Faculty Enhancement Initiative funds will provide sources of seed support for faculty groups interested in developing new programs, institutes, and centers. The Provost's office will evaluate proposals for new programs, institutes, and centers, in consultation with the Deans, Institute Directors, and Academic Programs Committee, based upon how the proposed program, institute, or center builds on demonstrated leadership and enhances the intersections between school priorities and the signature university themes. The number of programs, institutes, or centers started annually will vary based on the availability of support and commitments to ongoing efforts, will, in general, be supported for an initial four year period, assessed during their third year, and, if successful, renewed contingent on the development of a walk-down model from central to school support.

Facilitate cutting-edge research through support of shared facilities

The equipment and facilities needed to perform research often exceed what an individual faculty member can acquire, sustain, or optimally utilize. This predicament has been largely limited to science and engineering; it is reflected by such facilities as our Shared Materials Instrumentation Faculty, the NMR Center, the Duke Comprehensive Cancer Center, the Institute for Genome Sciences & Policy, the Interdisciplinary Initiative in Social Psychology Experimental Labs, and the Shared Cluster Computing Resource. Today, however, as the Franklin Center's Technology Center makes clear, sophisticated, technology-intensive facilities are needed in all disciplines for faculty research and scholarship. The creation and development of shared resources is often difficult because of faculty preferences for dedicated facilities, the hesitancy of schools to subsidize one another, and the lack of current financial mechanisms to provide an infrastructure for shared resource partnerships. Through the Faculty Enhancement Initiative, however, the central administration will seek to provide leadership in developing the critical mass of faculty in strategic areas needed to justify and sustain targeted core facilities, whether high end instrumentation for science and engineering or multi-media visualization and

digitization facilities for the arts and humanities. We will also work to provide increased resources for critical, shared facilities, although faculty startup funds available through this initiative can be used towards the purchase of shared instrumentation, potentially leveraging both school and external funding.

Future demand for shared resources is likely to increase, with near-term needs in science and engineering accentuated by current climate of federal funding. The university cannot support all requests for shared facilities but will need to prioritize support activities that bring distinction to our core values and strategic goals. To make such determinations, we will establish a Shared Facilities Oversight Committee, reporting to the Vice Provost for Research, to define the process by which faculty can create shared facilities, prioritize requests for such facilities, recommend the appropriate initial investment, and evaluate proposed business plans to assure long-term viability.

Goal 2: Strengthen the Engagement of the University in Real World Issues

Top-tier private research universities have a remarkable similarity among their academic initiatives, and original, successful, ideas proffered by one or several are often quickly developed and nurtured by others, increasing institutional competitiveness. Our strategy must be to go beyond this traditional mold, to differentiate ourselves within the top group of schools by our capacity to innovate and lead, to seize opportunities that capitalize on our unique strengths. In this plan, we seek distinction and distinctiveness by creating and nurturing signature academic initiatives that strengthen our engagement of real world issues by anticipating new models of knowledge formation, applying knowledge to societal issues, and providing students with the skills to succeed and lead in these areas.

School plans describe a rich array of academic initiatives that represent strategies for enhancing existing peaks of excellence and establishing new ones. In some cases, an individual school is the home of an initiative because of the school's high concentration of faculty connected to that area. In other cases, initiatives provide interdisciplinary and international opportunities, involving faculty both within a single school and collaborations between schools in a university-wide effort. As part of the Faculty Enhancement Initiative we have committed to provide initial support for programs and centers that advance university strategic priorities. It is our hope that some of these, over time, develop into signature initiatives that advance Duke's distinctiveness.

Complementing the new institutes and centers supported by the Faculty Enhancement Initiative, we seek to define and advance our goal to engage in real world problems by pursuing two key strategies:

- **Recommit to successful signature initiatives, enabling them to achieve a new level of excellence**
- **Launch two new initiatives that take advantage of the unique strengths of our campus and further our strategic institutional themes**

Recommit to successful signature initiatives, enabling them to achieve a new level of excellence

We reaffirm our commitment to our signature initiatives: the **Institute for Genome Sciences & Policy**, the **Social Science Research Institute**, the **John Hope Franklin Humanities Institute**, the **Kenan Institute for Ethics**, the **Nicholas Institute for Environmental Policy Solutions**, and the **Sanford Institute of Public Policy**. These signature initiatives serve as models for other universities and require continued and enhanced support. These programs will shape faculty development opportunities through the Faculty Enhancement Initiative, serve as magnets for attracting the best graduate

students, enhance undergraduate educational opportunities, and foster interdisciplinary “vertical integration teams” of faculty, post-docs, graduate and undergraduate students, and practitioners.

The Institute for Genome Sciences & Policy: The creation of this institute in the last strategic planning period resulted from Duke’s recognition of the need to build bridges among researchers, clinicians, policy experts, and scholars based in virtually all of Duke’s schools to ensure that the next generation is broadly trained in the range of experimental, quantitative and social disciplines needed to successfully address the challenges represented by the Genome Revolution. Since its formal launch in 2003, the Duke Institute for Genome Sciences & Policy (IGSP) has become a multi- and interdisciplinary network of centers, research programs, and educational activities that together form an integrated, campus-wide approach to advancing aspects of the Genome Revolution and to addressing its implications for science, health, and society.

In the next planning period, we will put the IGSP on a solid budgetary foundation. As we move forward, the IGSP will expand opportunities for both classroom and inquiry-based learning for undergraduates, redouble efforts in computational and quantitative science and engineering, and seek meaningful partnerships with schools and departments that have not yet been fully engaged. In addition, the institute will define interdisciplinary projects that will engage partners across campus, develop integrated, interdisciplinary space to facilitate efforts that bridge both science and policy, and expand outreach to the public and around the globe. Through scientific discoveries and engaging in the policy decisions that surround genomic science, the IGSP will play a major role in advancing Duke’s commitment to place knowledge in the service of society.

The Social Science Research Institute: Founded in 2003, the Social Science Research Institute (SSRI) catalyzes pioneering research and methods across the social and behavioral sciences. The SSRI provides an integrated set of research facilities focused on the collection, assessment, analysis, and transmission of data at the frontiers of social and behavioral sciences research. The SSRI supports initiatives that foster the development of interdisciplinary teams devoted to creating and disseminating new knowledge within areas that promote excellence among Duke scholars, are relevant to policy, and hold intellectual importance.

Three years into its development, the SSRI is poised to achieve excellence and distinctiveness through an ambitious series of interrelated efforts that connect research – both basic and applied – and teaching. Noteworthy among these are the SSRI Faculty Fellows’ Program, its series of peer-reviewed conferences, and the SSRI’s proposed interdisciplinary initiative in social science statistics, designed to provide graduate and undergraduate students with quantitative skills needed to work at the forefront of social and behavioral research. Understanding how to create, evaluate, and transmit new knowledge is essential if our students are to become leaders in academia, industry, science, and management, and the SSRI programs support and train scholars at all levels so that they have the skill sets to assume these roles.

The John Hope Franklin Humanities Institute: The John Hope Franklin Humanities Institute (FHI) was founded in 1999 to be an interdisciplinary center dedicated to supporting the humanities. The institute encourages serious humanistic inquiry across a wide range of disciplines throughout the university and fosters an awareness of the centrality of the humanities to a broad, historically grounded university education. Through an array of innovative programs, the FHI seeks to encourage conversations, partnerships, and collaborations that stimulate humanistic research, writing, and teaching.

Building on the legacy of Dr. John Hope Franklin and affirming that humanistic scholarship can and should inform and enrich present debates, policies, public discourse, and community life, the FHI will seek to stake out a more directly engaged public role for the Duke humanities. Among its advancement strategies, the FHI will enable more opportunities for unrestricted faculty research fellowships in residence. To diversify the cultural scope of Duke's curriculum and further infuse interdisciplinary and inquiry-based learning into undergraduate education, the FHI will also devote considerable effort to curriculum development, such as interdisciplinary gateway courses for humanities majors and team-taught by distinguished senior faculty.

The Kenan Institute for Ethics: From its beginnings in 1995, the Kenan Institute for Ethics (KIE) has grown into one of the most active and respected ethics centers in the country. A university-wide initiative housed under the Provost's Office, the Institute supports the study and teaching of ethics and works to infuse moral deliberation, commitment, and courage into the fabric of Duke and beyond. The KIE has already had a significant impact both as an ethics "think and do tank" and has served the university in many ways as a consultant, facilitator, and convener for ethics-related activities across the curriculum and in campus life.

Enhancing Duke's undergraduate experience and placing knowledge in the service of society require us to reflect on the core values and purposes of creating and transmitting knowledge. The KIE is uniquely positioned to lead such discussions as it focuses its attention on three core areas: moral development, organizational ethics, and civic and global ethics. In its second decade of work, the KIE seeks to recruit a cluster of ethics scholars with joint appointments between the Institute and another department or school; to expand curricular opportunities in ethics and develop approaches to evaluating and improving ethics teaching and practice; and to launch a cluster of ethics-related programs focused on campus life. The institute will also continue to promote ethics in K-12, higher education, and business.

The Nicholas Institute for Environmental Policy Solutions: The Nicholas Institute for Environmental Policy Solutions (NIEPS), launched in the fall of 2005, is to be the translational arm for environmental research on campus, and by doing so, to become a unique and distinct broker in the often divisive debates that characterize the arena of environmental policy. The environmental policy dialogue has become polarized, with most participants perceived to be aligned with one or other political party. The NIEPS will work to catalyze progress on environmental problems in ways that work toward a

consensus or common understanding of the problems, thereby reducing adversarial debate.

The NIEPS builds on the strength of the Nicholas School. Nicholas faculty are enthusiastic about interdisciplinary cooperation across campus and working collaboratively on policy-relevant projects. Because of the close partnerships between the NIEPS and various schools, the institute's work will have the credibility that comes from an exhaustive faculty review process, yet be produced on a schedule that comports with the decision-making cycles of government, industry, and other institutions. Drawing on faculty expertise and its core group of professional staff, the institute will focus on the translation of this knowledge to guide decision makers in the public and private sectors. Because the institute's ability to access the relevant decision-makers will evolve from leveraging established relationships; a permanent presence in Washington, D.C., the location of many of the environmental debates with which the institute will concern itself, will be strategic. Not only will this enable the faculty and staff associated with the NIEPS to build and maintain relationships with policymakers, but it will afford important research learning opportunities for undergraduate and graduate students interested in environmental policy.

The Sanford Institute of Public Policy: The Sanford Institute, founded in 1994, has brought Duke distinction through its innovative approaches to fuse disciplines and address complex policy questions, paired with active engagement in real-world policy issues. During the planning process, a task force explored the critical question of whether our core values and strategic goals would be better served by creating the Sanford School of Public Policy. Given the strength of Sanford's current faculty, the quality of its instructional programs, the productivity of its research centers, and the extent of its facilities, investing in a Sanford School of Public Policy would significantly enhance Duke's capabilities as a national and international leader in the field of public policy.

A Sanford School would create a concentrated home of expertise, teaching, and research that could be a catalyst and resource for activities throughout the university that bear on public policy broadly defined. This furthers Terry Sanford's vision of an enterprise that would serve to improve the quality of decision-making in society through an innovative, experimental, interdisciplinary curriculum that integrates analytical rigor with ethics and service learning; that emphasizes research, teaching, and engagement; and that develops centers to interface with the outside world. The synergies between centers and teaching programs provide a rich educational environment for Duke students, while mentorships and internships engage Duke students directly in the world's problems, nurture their interests in trying to solve them, and, in the process, help develop their critical reflection and leadership abilities.

A Sanford School would contribute to our commitment to internationalization and help students recognize the impact of globalization, that all of us are citizens of an increasingly interdependent world, with all the responsibilities that this citizenship entails. Educating students to understand these responsibilities – in areas such as the environment, health, development, demography, the relationship between media and

democracy, and broad issues of social policy and international security – increases the importance of maintaining the analytical rigor that has always been part of Sanford’s mission. But this educational mission also requires that Sanford broaden the earlier framework to include a less parochial, more interdependent world, and that it seek to effect a closer integration between analytical methods and the more diverse social and cultural contexts within which those methods can be applied to real-world problems.

Launch two new initiatives that take advantage of the unique strengths of our campus and further our strategic institutional themes

In addition to reaffirming and strengthening the above six current signature programs, we will develop and make major commitments to two new interdisciplinary signature initiatives: the **Global Health Institute** and the **Institute for Brain, Mind, Genes, and Behavior**. These two new institutes build on Duke’s strengths and exemplify the integration, collaboration, and connection of knowledge to real-world problems.

The Global Health Institute: Duke’s Global Health Institute will address one of the most important problems of our time: the health disparities both in our local community and worldwide. Global poverty, mal-distribution of resources between developed and developing nations, lack of infrastructure in developing countries, global climate change and environmental pollution, all contribute to the inability of societies to deal with problems that adversely affect global health. Adding to these factors are immigration from developing countries, military health issues, bioterrorism, biologic agent threats, and naturally emerging, new infectious diseases. Health issues are now global in scope, both in terms of disease prevention and therapy, and research on infectious diseases and the applications of that research require an equally global dimension.

We see in these global health challenges a particularly promising opportunity to expand our research and educational programs, with potential that will directly allow Duke students and faculty to contribute to global health. Global health is not only a moral imperative but also a key to global stability. As a result, the world’s governments and multilateral institutions have begun to commit serious resources to address global health issues.

Duke’s Global Health Institute will bring together interdisciplinary teams to work with partners to solve highly complex health problems and to train the next generation of global health scholars. With the fundamental goal to improve the human condition, this program could be solely focused on the medical center and health system. We recognize, however, that the ability to affect strategies for improving global health requires not only understanding transmission and prevention of diseases, but how different cultures view their health concerns, how medical realities are embedded in psychosocial, historical, demographic, economic, legal, management, and political contexts, how to best relate the advances afforded by modern medicine to a variety of cultures, and how human impact on the environment affects disease. The humanities and their ability to examine and convey understanding about cultures are essential; indeed, science divorced from an understanding of human cultures and their interactions is unlikely to effectively improve the human condition.

The Institute for Brain, Mind, Genes, and Behavior: Increasingly, researchers must meld different – and often historically unconnected – disciplines if they are to develop an understanding of the human brain, mind, and behavior. Duke is well positioned to become a dominant force in the study of brain, mind and behavior, if we coordinate activities on campus and build on the collective strength of our interdisciplinary teams to address the field’s most important problems. To do so, we will create a new institute for interdisciplinary research and scholarship that can respond quickly to new developments and research trends at the intersection of brain sciences, behavioral sciences, and genomics. This effort builds upon our departments, such as philosophy, psychology, psychiatry, and neurobiology, as well as interdisciplinary centers, such as the Brain Imaging and Analysis Center, the Center for Cognitive Neurosciences, the Conte Center for the Neuroscience of Depression, the Center for Neuroeconomic Studies, the Center for the Study of Aging and Human Development, and the Institute for Genome Sciences & Policy. Taking advantage of these collective assets and empowering collaborative work among these units, we will mount distinctive efforts in imaging brain structure and function, examining the co-variation of genetic variability with behavioral traits and cognitive competences, the development of drugs that alter mood or enhance or diminish memories, relating brain function to ethical and moral behavior, and relating economic decisions to brain states. The institute will also assume a translational function so that interdisciplinary research is applied to issues of health and/or policy, as appropriate.

Goal 3: Attract the Best Graduate and Professional Students and Fully Engage Them in the Creation and Transmission of Knowledge

Graduate and professional students play critical roles in the generation of new knowledge in cutting-edge fields. They also play an important role in our institutional priority of increasing the “vertical integration” of research, a model by which faculty, postdoctoral fellows, graduate students, and undergraduates collaboratively interact in research teams on pressing problems. For these reasons, we seek to integrate and support these students more fully in the academic community.

Because of differences between the needs and demands of the different professions (e.g., Law, Business, Medicine), there is no one-size-fits-all strategy to achieve our goals for graduate student recruitment, training, and development. We do, however, affirm the commonality of purpose in research-based Ph.D. programs: to educate the future intellectual leaders of society, develop new knowledge, build bridges between different fields of knowledge, and enhance the intellectual life of university faculty and students. Accordingly, we will pursue three strategies to enhance the role and development of graduate students:

- **Increase our distinction by attracting the best students to our signature programs**
- **Train future leaders in both disciplinary and interdisciplinary methodologies**
- **Continue to strengthen the infrastructure for graduate and professional student development**

Increase our distinction by attracting the best students to our signature programs

The quality of the faculty and graduate students are inextricably intertwined, and we must not overlook strengthening our graduate programs if we are to realize our institutional aspirations. The best students seek universities that have an excellent faculty and cutting-edge programs, and the best faculty are drawn to universities where they can work with the brightest and most motivated students. In addition, graduate students play an important role in undergraduate teaching, as teaching assistants, partners in independent research, and role models and personal mentors. Thus, increasing the vibrancy and vitality of our graduate programs enhances the quality of all facets of our academic community.

We have made strides in developing a rich array of graduate programs. The quality of our programs, however, varies considerably. Moreover, our stipend levels have fallen below the median of our peer institutions. As we move forward, we must continue our efforts to enhance graduate student diversity. We must also redress the financial situation, raising

stipend levels at least to median levels, doubling the number of James B. Duke fellowship awards for incoming graduate students, and significantly increasing the number of summer research awards in the humanities and social sciences. It will not be possible to enhance all programs simultaneously; thus, we must use a strategic eye to build or create programs that take advantage of our strengths and leverage our differential advantages. For our strategic academic initiatives to flourish, we must make targeted efforts to attract graduate students of exceptional intellectual promise.

Train future leaders in both disciplinary and interdisciplinary methodologies

Graduate and professional training must address that more baccalaureate students than ever are continuing for graduate degrees, more employers are requiring technological sophistication and advanced training, and the expansion of knowledge within and between disciplines is requiring more study than ever before to solve important and complex problems. To train future teachers and leaders to be able to meet these challenges requires not only building disciplinary depth but developing the skills to synthesize different types of knowledge and apply them to real-world problems. While it will be important to sustain disciplinary strengths, there is increasing demand for programs that cross the traditional boundaries of disciplines and departments, programs involving scholarship that has traditionally been classed as “applied” rather than “basic”, and programs geared to the needs of specific clientele.

Continue to strengthen the infrastructure for graduate and professional student development

With the influx of more international graduate students, women, students from historically underrepresented groups, students with young children, and individuals who increasingly do not fit the traditional model of a full-time, residential graduate student, we must increase our efforts to provide a stronger infrastructure. Duke places a high value on listening to, and addressing the needs of, graduate and professional students. The Graduate School has played a leadership role in developing programs, such as Training in Teaching, Preparing Future Faculty, English for International Students, and Training in Responsible Conduct of Research. Collaborative efforts, such as the *Power of their Presence* production and the *Where Your Presence Matters* video, help orient students about what it means to be a Duke graduate student. The success of the Graduate Student Research Day and the Dean’s Award for Excellence in Mentoring have affirmed the place of the graduate students in the life of the university. The Professional Schools have all placed a strong emphasis on leadership and community. In this next phase of our institutional development, we will redouble our efforts to understand and address all segments of the graduate and professional student population, particularly international and under-represented students. We will continue to work aggressively to create an environment that more completely supports all students’ social, emotional, and academic needs.

Goal 4: Foster in Undergraduate Students a Passion for Learning and a Commitment to Making a Difference in the World

Building upon efforts over the past ten years, Duke University is on a path toward creating a premier educational experience for undergraduates, one that is distinctive for engaging the resources of a research university in furthering undergraduate learning and connecting to real world issues.

Three values inform our planning for undergraduate life: integration, engagement, and community. Each of these is intended to promote achievement, excellence, a passion for learning and the intellectual, social, and ethical values and skills among our students that can best prepare them for the world into which they will enter and mature.

We seek to build a more integrated experience for an undergraduate that provides greater continuity between and among the various aspects of students' lives at Duke. We will focus on making transitions and seamless connections between the East Campus experience and the upper-class years, majors and disciplines, the classroom and co-curricular pursuits, students and faculty (and those in between, graduate/professional students and post-docs), the liberal arts and engineering, and college and life after college.

We seek to foster student engagement so that undergraduates assume greater ownership and responsibility for their education rather than seeing it as a means to an end. If students are more fully engaged, they will get more out of their courses and will want to build, through the study of particular subjects, the skills that facilitate critical inquiry throughout their lives. We seek to help our students become active learners and involved citizens and to maximize the benefits that come from close interaction with faculty and peers.

We must place institutional priority on community, on students' connectedness to others as well as to the city in which they are located. Community balances both group benefits with individual needs and wants and a Duke identity with the many personal identities based on demographics and interests. We seek to capitalize on the diversity of our varied constituencies by affirming and engaging the value of difference and creating an environment that promotes civility and respect even as ideas are promulgated – and challenged – in an energizing give and take.

Over the past ten years, we have worked to develop a more robust undergraduate experience. Over this period we have developed East Campus as a first-year community and implemented a new residential plan for upperclass residential life. We have implemented a new curriculum, both in Arts & Sciences and in the Pratt School of Engineering, that raised the bar for students and faculty and that takes greater advantage of the special resources afforded by a research university.

We are currently undertaking initiatives to make mentored research experiences and graduation with distinction through excellence in senior honors thesis work more

normative for undergraduates and to make learning within and outside of the classroom better integrated. These individual and small group learning experiences better prepare our students to become intellectual leaders in their chosen careers by equipping them with the intellectual independence and skills to meet the challenges of a life environment in which the analytical and ethical challenges are multiple and rapidly changing.

While we are proud of our accomplishments, we are not content to rest where we are; rather, we must continue to work to establish a culture of inquiry and develop a greater sense of community. In doing so, we must adapt to the changes in knowledge production, transmission, and application that are occurring in the work of the academic community. We must increasingly focus on creating opportunities for experiential learning, such as service learning, internships, field-work, and research service learning. Adaptation also requires creating dynamic spaces, such as workshops and studios, that facilitate the discovery and learning processes and provide the necessary social context for making meaning of complex information. And we must take care to build a campus culture that is respectful and open to the contributions of others with varied backgrounds and experiences.

In advancing our undergraduate experience, we will pursue the following four strategies:

- **Establish inquiry-based and interdisciplinary learning as the distinctive signature of undergraduate education at Duke University**
- **Use our developmental model as a method for integrating and evaluating curricular and co-curricular initiatives**
- **Create increased opportunities for experiential learning and civic engagement**
- **Develop programs to improve campus culture**

Establish inquiry-based and interdisciplinary learning as the distinctive signature of undergraduate education at Duke University

To advance Duke's distinctiveness in undergraduate education, we must more closely align our scholarly and undergraduate educational activities in dynamic areas of faculty and institutional strength. Inquiry, discovery, and the application of knowledge are increasingly interdisciplinary and collaborative processes, and we seek to more closely link interdisciplinary faculty scholarship to undergraduate education. In this process, we will take greater advantage of our professional school faculty and real-life, problem-based, learning opportunities as well as technology. We will promote interdisciplinary teaching and learning by expanding the Focus program, creating course clusters, and developing a wider array of certificate programs around strategic interdisciplinary themes.

We must also recognize this important interdisciplinary dimension in how we organize student learning. Traditionally, undergraduate education has been characterized in two dimensions: general education and the major. Increasingly, we know the importance of three categories of knowledge, all of which are important in the ideal educational process: general education, in-depth knowledge in a field or major, and interdisciplinary knowledge, which is synthesis of separate intellectual domains. Accordingly, departments must examine their majors and course offerings to ensure that they are appropriately designed and sequenced and that they contribute to the university's emphasis on interdisciplinarity. Institutes and centers should make their own particular contributions to the undergraduate curricula and, where appropriate, so should professional schools. As a part of this process, departments and programs may need to redistribute resources to appropriately balance general education, disciplinary, and interdisciplinary learning.

We believe strongly that research experiences are no longer just preparation for graduate school but rather preparation for leadership in the knowledge-based economy. Research experiences require faculty mentorship. We seek to recruit, support, and retain faculty who integrate their research with their teaching and mentoring, who wish to have an impact on the intellectual and personal development of undergraduates, and who will be catalysts for change in the faculty and student cultures. We seek to double over the next five years the number of students participating in substantive undergraduate research. Increased engagement in research should also lead to an increased number of students excelling in the senior honors thesis work, measured by those that graduate with distinction. To do so, we will support faculty teaching with facilities and other resources, re-evaluate our reward systems, and recruit faculty mentors more widely across the full array of Duke's schools.

Use our developmental model as a method for integrating and evaluating curricular and co-curricular initiatives

Our approach to undergraduate education is based on the understanding that intellectual, personal, and social maturing is a progressive process, involving transitions that are often transformative. Fostering this developmental process is the task that can serve to integrate academic, residential, and social life. As Duke students develop over their four years, we must enable them to take increasing ownership and responsibility for their own education and social behavior. While the diversity of our students precludes a single approach to, or model of, the Duke experience, we seek to be more intentionally guided by a progressive model – from the first to fourth year – of students' cognitive, psychological, and social growth. At the same time that we foster a student's growth toward independence, we will ensure that knowledgeable and compassionate mentors are part of the process so that students gain the benefit of the mentoring and guidance that experienced adults can provide.

The first year is an inward-looking, transitional period, where students are acculturated to the primary values of the academic community – integrity, freedom of inquiry and expression, respect for individual difference, reliance on reason and evidence, and

competition of ideas. Students develop the foundational knowledge, skills, and dispositions needed to be active participants in the community, including how to join an intellectual conversation, formulate and support an argument, make claims in public space, and go beyond tolerance to an affirmation of the value of difference. The first year is a time for students to begin to figure out who they are and to be taken seriously for the quality of their thoughts and ideas.

The sophomore and junior college years are a time for building particular intellectual, personal, and leadership competencies and a depth of knowledge through majors, interdisciplinary study, and experiential learning (e.g., study abroad, service learning, research, and internships). This is also a time for deepening social entrepreneurship and civic engagement by learning how to link academic inquiry to the social good, and developing the capacities for discernment and commitment.

We will place special emphasis on the sophomore year because, as is the case nationwide, the sophomore year is not currently as robust as the first or latter years: some of the sense of community built on East Campus is lost with the move to West Campus, classes for many are appreciably larger, and choosing a course of study and a major brings challenges. A key strategic goal will be to reconceptualize the sophomore year in light of specific developmental challenges and to provide curricular and co-curricular opportunities targeted at making this decisive year more meaningful. We will work with departments and programs to develop courses more responsive to this cohort, and we will collaborate more closely with student affairs to increase co-curricular opportunities that align with sophomores' developmental needs and capabilities.

The senior year refines and consolidates intellectual and personal skills and transitional in the move to greater autonomy and self-regulation. Our efforts to create Central Campus as a culminating and transitional space reflects this final stage of undergraduate development. As we seek to further enhance the undergraduate experience, we will work to more expressly map new initiatives and programs onto this multi-year student development model so that undergraduates are supported as they grow intellectually and personally throughout the course of their Duke experience.

Create increased opportunities for experiential learning and civic engagement

The developmental model for undergraduate education emphasizes our institutional priority of fostering engagement on the part of our students with the wider world. This experience is important for the development of students' identities as they learn how to link inquiry to the social good and strengthen their capacities for discernment and commitment. Because learning is most effective when it is active, problem-based, and collaborative, we seek to focus more clearly on experiential learning inside and outside the classroom. We seek to provide increased opportunities for students to reflect on ideals and values and to find their own paths toward meaningful community engagement.

We will build on the work of the Hart Leadership Program and the Kenan Institute for Ethics, which have taken national leadership roles in the development of research service

learning. Through the newly established Council on Civic Engagement and our “Learning to Make a Difference” website, our new Global Health Institute, and opportunities for experiences abroad, we commit to enhancing opportunities for students to learn how to connect inquiry to the social good. The Civic Engagement Council works to maximize the impact of faculty, students, staff, and alumni to identify, understand, and address areas of public concern and to coordinate community interactions that have evolved over time through academic affairs, community affairs, and student affairs.

Two specific steps have already been taken. A “Learning Through Service” office is being established to provide an infrastructure to support both service learning and research service learning programs and the necessary faculty commitments and community partnerships. This office reflects the transition from primarily externally grant-supported initiatives to core support for community-based experiential pedagogy. In addition, Student Affairs is currently rethinking the role of the Community Service Center in our efforts to make civic engagement a cornerstone of the Duke undergraduate experience.

Develop programs to improve campus culture

The culture of the campus outside the classroom is a critical component in developing the intellectual, social and ethical qualities of our students. We must, therefore, dedicate substantial attention and resources to assuring that campus culture supports the values we seek to promote. While we have engaged in various initiatives over the past ten years to address issues of campus culture, we intend to sharpen our focus on issues of the relationship between the non-curricular opportunities and choices we offer our students and the ones they seize or make on their own, and the broader culture of learning and individual and community development we seek to foster. This focus must include issues of difference and respect, campus and community, race and gender, but also how individuals form and live by their own values and act responsibly consistent with them.

The Campus Culture Initiative, launched in April 2006, will help us develop a clear vision of the values and behaviors that should guide Duke students in their relations with others. We will examine educational practices inside and outside the classroom; evaluate the ways students develop personal responsibility, social responsibility, and civic engagement; and assess how students relate to each other and other members of the campus and community across bounds of race, gender and other social divisions. In the course of our work, we will support and align curricular and co-curricular opportunities, including programs in residential and social life, to help students gain greater perspective on their actions and to foster greater empathy for others.

As we seek to improve campus culture, we will be aided by efforts to bring a greater wholeness to our administration of undergraduate education. Initial steps include more integrated oversight by the Provost, who has established an Undergraduate Leadership Group that brings together, on a regular basis, leaders in academics, athletics, and student life, and a restructuring of the Board of Trustees committees to allow for more comprehensive consideration of issues related to a Duke undergraduate’s experience.

Goal 5: Transform the Arts at Duke

The arts are vital to reaching the fullness of human experience and achieving a well-rounded education. They give intellectual and emotional texture to daily life and create community through the sharing of concerts, exhibitions, readings, and productions. The arts are, therefore, fundamental to Duke's teaching and research mission, providing historical and cultural insight, offering diverse perspectives on human behavior and concerns, and affording students opportunities to experience artistic creation and production. Over the years, Duke – as other comparable research universities – has struggled to create an environment where the arts are central to the university and where they are clearly valued and widely supported. In promoting this revitalization of the arts, we seek to integrate the creative and interpretative dimensions of the arts, so as to encourage closer interaction between theory and practice, the intellectual and the avocational.

The opening of the Nasher Museum of Art in 2005 is a milestone in the university's full recognition of the importance of the arts. Since its inauguration, it has become a major cultural force, serving as a destination for the campus as well as the wider community. As we have come to learn, a dynamic campus arts scene is essential for recruiting and retaining the highest quality undergraduate, graduate, and professional students, and for attracting the most outstanding faculty and researchers, who often seek to live and work in an environment where the arts are of the highest quality.

As we move forward, we will focus on five areas:

- **Enrich the student experience in the arts**
- **Increase faculty strength in the arts**
- **Build national and international arts programming**
- **Create vibrant arts facilities on all three campuses**
- **Strengthen arts leadership**

Enrich the student experience in the arts

Students find the arts in a variety of ways and at different times in their lives. Some come to Duke with years of experience and well-developed talent in the arts, while others have had little exposure. Our strategy for enriching the undergraduate arts experience is to create multiple avenues for students to deepen their understanding of the arts, while increasing their engagement in artistic creation, performance, and related activities.

In the curriculum, the Provost will work with the Deans to increase the number and variety of courses in the arts. These will include additional courses that connect the arts to the humanities and other disciplines and intellectual currents, that give students a broad

overview of one or more arts disciplines, or that give students experience in the practice of the arts (such as acting, creative writing, or photography). In keeping with Duke's strength in interdisciplinary study and research, we will support new certificate programs in the arts (such as the recently approved program in cultural policy and arts management) and research into the intersections between arts, society, and technology, which bring together students and faculty in multiple schools such as Arts & Sciences, Business, Divinity, Medicine, Engineering, or Law.

Outside the classroom, we will increase support for student-directed and student-initiated arts activities. Such investment not only shows the university's support for students giving expression to their cultural experience, but also helps create future traditions that will contribute to making for a more richly varied student scene. To facilitate these sorts of activities, we will build new arts spaces in or near residential units, as older living and social spaces are renovated on East and West Campus, and as new spaces are constructed on Central Campus.

Increase faculty strength in the arts

A flourishing campus arts scene needs both resident and visiting artists who are well connected to the practice of their disciplines and who complement faculty development in artistic fields. Resident faculty artists provide ongoing mentoring, instruction, and inspiration for students. Visiting artists provide students (and resident faculty) with the stimulation of fresh ideas and the daily connection with professional worlds beyond the Durham campus. To transform Duke into an attractive place for outstanding artists, we will undertake a series of initiatives.

Resident faculty artists need to perform or exhibit their work in locations away from campus; both the artist and the university benefit when faculty work is shown in New York, London, or other centers of the arts. To encourage resident faculty artists to lead active professional lives with national and international dimensions, we will develop a leave program that takes into account the realities of the artist's schedule and ensures the integrity of instruction in the classroom while the artist is away from campus. This program will be competitive and include short as well as long term leaves. In addition to performing or exhibiting work off campus, faculty may use their leaves to develop new work on campus, when possible, in collaboration with other resident or visiting artists, and new facilities will be designed for this purpose.

We will develop a new and substantial visiting artist program to support the work of resident artists and bring innovative and distinguished artists to campus for short or long term residencies. Support will include the necessary infrastructure, such as administrative support, stipends, commissions, housing, faculty oversight (to ensure collaboration across disciplines and schools), and new facilities on Central Campus.

Build national and international arts programming

Duke has traditional and emerging areas of strength in university-level arts programming that serves the wider community. Over the next planning period, we seek to be recognized for national and international excellence in our arts programming. Stronger investment toward this goal will heighten our standing and visibility and attract more students and other members of our community to cultural events on campus.

The Nasher Museum of Art is rapidly moving forward to achieve its goal of being one of the finest university museums in the country. To fully realize the Nasher's promise, we will provide support for its operation and programming so that it can partner with major museums in attracting the highest quality of exhibitions, such as the upcoming Velasquez exhibit in conjunction with the Museum of Fine Arts in Boston.

The Center for Documentary Studies (CDS) has established a strong identity as an artistic and social consciousness at Duke and has developed a national reputation as a destination for serious documentary artists and students. We will support its closer academic links with Trinity College, particularly in the development of a new digital media lab on Central Campus. With the possible move of CDS to Central Campus, we will seek to increase collaboration between CDS and other parts of the university, while supporting its efforts to maintain its strong links to both the local, national, and international communities.

Duke Performances has witnessed a 300% student attendance increase since it introduced its discount ticket program two years ago, and over the past decade it has grown in importance as a cultural force on campus. Just as the Nasher brings some of the finest visual art to campus, Duke Performances is positioned to play a similar role in the performing arts. Over the next five years, we will increase support for its programming, encourage national and international partnerships, and plan and implement major improvements in facilities.

Duke's location in Durham offers special opportunities that we will capitalize on during the planning period. We will strengthen our growing partnership with the internationally acclaimed Full Frame Documentary Film Festival, which has yielded new course offerings and increased student internships and fellowships. Likewise, our relationship with the renowned American Dance Festival (ADF) – in residence on the Duke campus each summer since 1978 – will be examined to see if both ADF and Duke might benefit from academic year residencies of ADF's talented choreographers and dance companies (perhaps in partnership with Duke Performances). Finally, we will work to forge closer ties between Duke and other vital arts programs in Durham, supporting community-based arts programs in the public schools and other arts education initiatives, and encouraging collaborations and student engagement in the larger community.

Create vibrant arts facilities on all three campuses

Duke seeks to transform each of its three campuses – Central, East, and West – with vibrant new and renovated arts facilities. On the new Central Campus, several arts programs and departments will be brought together in distinctive new facilities. Central will be the home for the Department of Art, Art History and Visual Studies, the Program in Film/Video/Digital, and possibly the Center for Documentary Studies. Also under consideration are facilities for creative writing, dance, digital music, theater, and a visiting artist program; a film theater is envisioned that will serve both the academic programs as well as the wider community. In planning these facilities, we will ensure that there are strong southward pedestrian connections to the Nasher Museum.

East Campus will become a center for dance, theater, and particularly music. We began implementing this strategy in the summer of 2006 when the Branson Building was renovated as the home of the Brody Theater. In the near future we will both transform Baldwin Auditorium into a first-class concert hall for music and address other needs of the Music Department, which may involve modest renovations in the Biddle Music Building and the Nelson Music Room in the East Duke Building. Finally, the historic Ark will continue to be used as a dance rehearsal and performance space.

West Campus is the home for creative writing and our major facilities for artistic performance. The opening this fall of the new West Campus Plaza began the process of renovating a series of surrounding buildings. As part of this project, Page Auditorium will be re-imagined and rebuilt as a modern performing arts hall, which, when complete, will complement the performing arts facilities of the Reynolds, Sheaffer, and Griffith Theaters, forming a performance complex in the heart of West Campus.

Throughout all three campuses – and with particular emphasis on Central – we will build or identify informal and flexible spaces for student arts activities, spaces that can be re-made according to the evolving needs of students. Such spaces might include coffeehouses for readings or performances, “garage” spaces for musical rehearsal and performance, and studios for dance and theater rehearsals.

Strengthen arts leadership

A sustained effort to take the arts to a higher level at Duke requires effective leadership and coordination, and we will implement administrative structures to guide and oversee our arts initiatives, working closely with the Dean of the Humanities, the Council for the Arts, and faculty, particularly faculty artists. The administrative leadership must also enhance university-wide arts communication, fundraising, and audience development.

Goal 6: Lead and Innovate in the Creation, Management, and Delivery of Scholarly Resources in Support of Teaching and Research

Indispensable to our academic mission, Duke's libraries and advanced technological environment must remain nimble and responsive to the changing needs of faculty and students. Faculty and student expectations for easy and immediate access to information resources of all types will increase dramatically as teaching, learning, and research become more interdisciplinary, collaborative, and interactive. If Duke is to be a leader in scholarly and pedagogical innovation, we must acknowledge and support the key role of our libraries and information infrastructure, especially in light of rapid technological change.

To do so, we will pursue the following three key strategies:

- **Coordinate and expand library resources and services to maximize support for interdisciplinary initiatives, teaching, learning, and research**
- **Exploit digital technology to provide convenient, seamless access to scholarly resources**
- **Enhance Duke's information and instructional technology resources**

Coordinate and expand library resources and services to maximize support for interdisciplinary initiatives, teaching, learning, and research

The interdisciplinary initiatives that increasingly characterize Duke will not succeed without deeper and more visible collaboration among all campus libraries, i.e., those of the Perkins system and the professional schools. All libraries share the responsibility of supporting and serving the broader campus information needs and new academic initiatives, many of which cross not just departmental, but also school lines. It is essential that the libraries develop a shared vision and mission; maximize communication; pool knowledge, resources, and perspectives; and create common policies and efficiencies to provide the highest level of service and satisfaction to the wider Duke community and its component parts. To do so, we must strengthen and preserve collections, reorganize staff to serve interdisciplinary centers, and expand instruction programs in cross-disciplinary areas. Strong library collections and convenient access to them – services that not only respond to needs but anticipate them – and inviting facilities will attract and help retain excellent faculty and students.

Capitalizing on the success of Bostock's new library spaces and the von der Heyden Pavilion, completing the Perkins Project, and defining the scope of our other library facilities will be critical in the coming years. Including flexible teaching spaces will enhance the centrality of the libraries and further integrate technology with information resources. With the relocation of materials and services to a new Central Campus library facility in support of the study of visual culture, Lilly Library will realize its full potential

as a first-year gateway to library collections and services. A planned expansion of the Library Service Center will allow for the ongoing transfer of selected low-use print materials to an offsite facility.

The traditional organization of library collections, services, and facilities around individual academic departments and programs is not effective for supporting an interdisciplinary environment. The Duke Libraries must integrate science and engineering collections and services into the Perkins/Bostock complex, creating a truly interdisciplinary library. Satellite library resource centers will complement Perkins/Bostock in various campus locations, and more effective collaboration of services and collections will be needed across all campus libraries.

Exploit digital technology to provide convenient, seamless access to scholarly resources

“Library” is a rapidly evolving concept that connotes easy access to information and scholarship in multiple formats and languages, expert personal assistance, and technological tools that facilitate teaching, learning and research. The library is both a physical – and virtual – place of tremendous importance to the university’s intellectual life as it connects people to ideas, images, data, and an array of other resources. Librarians, facilities, and collections all play a critical role in supporting the scholarship and education of faculty, graduate students, and undergraduates.

Library users increasingly expect simplicity, immediate rewards, and more independence in locating and using information. We will work to present online library resources through a simple web interface, provide integrated and portable access to library content, invest in extensive e-journal legacies to provide convenient access to more scholarship in digital form, and integrate library content more fully with course management systems and other teaching and learning tools. Because undergraduates increasingly undertake challenging original research assignments that necessitate rapid access to primary sources and data, we will work to build distinctive subject and special collections and innovate in instruction and outreach.

Enhance Duke’s information and instructional technology resources

Duke has undergone an enormous transformation over the last decade, becoming a progressive leader in the innovative application of technology to education and the efficient modernization of administrative systems. Extensive and reliable technology infrastructure – from telephones to computer networks, financial systems to course management systems, email applications to web-based portals – is essential to the university enterprise. When designed, implemented, and maintained properly, this complex infrastructure should be invisible and taken for granted. To maintain this level of reliability and transparency, however, this infrastructure cannot be neglected, and priority must be placed on assessing potential vulnerabilities while mitigating risks.

The University’s technological infrastructure and support capabilities must be responsive to the need for high-speed connectivity in support of videoconferencing and the

transmission of massive amounts of data across organizational, institutional, and geographic boundaries. Likewise, that infrastructure must support high-performance computing, along with robust storage and back-up services that provide protection without limiting access to data.

Expanded use of educational technology will empower faculty and students by ensuring that faculty time spent on course preparation and delivery is used for the most important activities in teaching: engaging students actively in the learning process, supporting curricular goals, and closely linking teaching and research. To enhance Duke's leadership in education, we must provide faculty and students with resources and services that are easy to use and well-matched to their needs. Duke students, having grown up in a networked world, arrive on campus with high technology expectations. They regard visual media as their vernacular, multitasking as a way of life, and working in teams as their preferred mode of learning. Faculty, on the other hand, need to be adept at and trained with using new technologies. Thoughtful, innovative uses of technology will encourage active, inquiry-based learning, foster communication and interaction, and maximize opportunities to learn inside and outside the classroom. Technology will also play an important role in increasing our international perspective, facilitating service learning, and preparing students for lifelong learning.

Faculty and students expect to collaborate with equal ease with peers across campus or the nation, and technology will play an increasingly critical role in the expansion of global learning. We will work to build a technology support structure responsive to these demands, one that provides a consistent baseline of classroom technology, offers increased support for teaching innovation and experimentation, and preserves digital resources through central data storage, digital archiving, and backup services.

Chapter 5 – Transforming the Campus: Central, West, and East

Investments in facilities enable the work of our faculty and students and help create a distinctive campus environment. Through new construction, renovation, and reuse, we must ensure that our facilities are up-to-date and constantly evolving to support the changing needs of our faculty and students. Continuing to develop the facilities on Duke's campus – on Central, East, and West – is essential if we are to create the kind of distinctive community we envision.

In recent years, we have become far more deliberate about the role of facilities in institutional planning:

- The 2000 Campus Master Plan and subsequent 2002, 2004, and 2006 Action Plans have provided a framework for campus development understood throughout the campus community.
- The Provost created the Academic Space Planning Working Group in the summer of 2003 to identify long-range space planning issues and ensure that academic space is allocated efficiently to the highest priorities.
- The Executive Vice President introduced a more disciplined capital budget process and a parallel capital projects approval process.
- The Provost and Executive Vice President have jointly supported efforts to improve reliability of, and access to, space utilization data and corresponding floor plans as well as related financial data, facilitating planning, decision making, and project management.

Guided by the goals in *Building on Excellence*, the university is nearing completion of a set of major projects, with new projects on the horizon. New facilities such as the Bostock Library and von der Heyden Pavilion, the Fitzpatrick Center for Interdisciplinary Engineering and Applied Sciences, the School of Medicine's Snyderman Building and MSRB II, the Westbrook Addition and Goodson Chapel, the West-Edens Link (Keohane Quad), the Fox Student Center, the Bell Tower Residence Halls, Rubenstein Hall, Genome Sciences Research Building II, and the Nasher Museum of Art, all dramatically underscore how space and facilities can enhance our institutional environment and culture, helping to attract the type of faculty and students we seek and facilitating our work in productive scholarship and education. In winter 2007, the French Family Science Center is slated for completion. From 2000-2005, Duke's net investment in property, plant and equipment increased by approximately \$600M. We know that many other institutions invested at similar rates, many critical projects are underway on those campuses, and those capital investments in key priorities are continuing, and so must our own.

As we move forward advancing the goals for the next stage of Duke's development, we must continue to invest to ensure that our facilities can support our institutional vision.

To do so, we anticipate a total facilities investment of approximately \$551M over the next six to eight years plus an additional \$350M for the first phase of Central Campus redevelopment. In addition to Central, these investments include \$202M in the West Campus core, including Arts & Sciences and Engineering academic space, undergraduate residential and co-curricular space, performance spaces, and library facilities; \$185M for projects in the School of Medicine; \$139M for the other professional schools; and \$25M on East Campus, primarily to renovate the old art museum for academic programs and improve arts facilities. The investments will support the following overall strategies:

- **Redevelop Central Campus so that it is a vibrant intellectual and residential community**
- **Invest in core West Campus facilities, improving student residences and co-curricular space, arts and library facilities, and space for core academic programs**
- **Continue to invest in East Campus facilities as an important home for the academic programs and the arts, with support services tailored specifically to the needs of first-year students**

Redevelop Central Campus so that it is a vibrant intellectual and residential community

The development of Central Campus as a coherent place connecting East and West offers a transformational opportunity in the life of Duke University. The Central Campus Planning Committee overseeing this opportunity is pursuing a staged approach to its development. While the full completion of Central will take decades, the first phase, targeted for completion in 2009 and including residential, academic space, and campus services space, will embody our commitments to interdisciplinarity, internationalization, the arts, and the integration of learning and living. The educational model driving the conception of Central is explicitly developmental, fostering students' intellectual and personal growth through academic, social, and residential engagements. East provides the inward-looking gateway that welcomes first-year students into Duke's academic and social communities; West provides more focused intellectual and social experiences as sophomores and juniors; and Central will offer upperclass and graduate students the outward looking portal to the world beyond Duke. Thus, Central will provide both culminating and transitional space – culminating in the sense of refining and consolidating intellectual and personal skills and the capacities for autonomy and self-regulation and transitional in the sense of fostering engagement with the Durham community and the larger world.

This definition of Central as a vibrant place for discovery and learning suggests that it will be a natural home for the arts and interdisciplinary research centers, bringing together faculty, students, and outside professionals. This intellectual model has been

guided by the concept of Central as an “academic village.” As such, it will draw all members of the community together – faculty, students of all levels and schools and staff – to interact and to engage and exchange with, and beyond, the Durham community. Central’s major program elements include student housing, dining, recreation and social spaces; an Alumni and Career Development Center; and exhibition and performance space complementing a strong academic core. Current planning involves the language, literature and culture departments; the Department of Art, Art History and Visual Studies, the Center for Documentary Studies, the Program in Film and Video, the Program in Dance, and the Department of Theater Studies; the Center for International Studies and related area studies centers and support offices; and the John Hope Franklin Center for Interdisciplinary and International Studies. Central campus will feature shared facilities for digital media production, student performance and exhibitions, and teaching and learning space designed primarily to meet the needs of the resident departments and programs. Central will be supported by a library resource center focusing on visual studies but including access points to the full range of library services and information resources.

We are well aware that the development of Central campus must be consistent with, and support, the ways in which the academic community will do its future research, teaching, and learning. The environment needs to support processes of discovery, teaching, and learning that are increasingly based in the social context of interpersonal and small group relationships and that build upon the model of the vertical integration of undergraduates, graduates, postdocs, and faculty. This will require break out rooms, labs, and spaces that are amenable to the processing of information in multiple formats, such as film/video, texts, and data sets – types of classrooms for which we have particular current need. In addition, we anticipate the development of centralized facilities, such as a film/video/digital production media lab, which will serve students across the visual arts and documentary studies. To meet the needs of academic and extracurricular programs, a film theater on Central is contemplated. Finally, Central must include study space and meeting space to facilitate social interaction and access to information. While this space will not replicate libraries and facilities currently on East and West, it will nonetheless be critical in supporting Duke’s integrated intellectual and social experiences.

Invest in core West Campus facilities, improving student residences and co-curricular space, arts and library facilities, and space for core academic programs

The revitalization of Central Campus, setting a new standard for integrating living and learning and for providing effective, modern facilities, will dramatically affect future planning on both West and East Campus. On West Campus, much of our planning and investment will involve facilities directly supporting the student experience. The first phase of this process is currently underway, with the completion of the West Campus Plaza, which will serve as the “living room” of West Campus, providing gathering, programming, and related spaces. The scale and flexibility of the plaza will support many uses, from casual conversation to formal performances, by placing high quality, user-friendly outdoor space in a central location. The plaza will connect the complex of buildings which currently constitute Duke’s student center: the Bryan Center, West

Union, Flowers, and Page. Future student center plans focus on an array of dining and function services along the plaza perimeter and require significant renovations and improvements to the West Union and the Bryan Center. Planning for the complete renovation of West Union is under way.

A related component of West Campus planning involves renovations over time to the residence halls. We have learned much in constructing Keohane Quad and the new Bell Tower Dorm on East. While the older residential quadrangles on West present obvious constraints, the recent major renovation of Kilgo Quadrangle demonstrated what can be accomplished. Similarly comprehensive renovations are needed in the other three gothic quads on West Campus: Craven, Crowell, and Few. New housing capacity on Central should make it possible to undertake these renovations efficiently and with minimum student disruption.

In terms of academic space on West Campus, the combination of Central Campus (releasing space for language, literature and culture departments in the Languages Building, Old Chem and on Campus Drive) and the planned construction of a new facility to unify the Nicholas School (releasing space in Old Chem) will provide significant opportunities to address long-standing academic needs. Completion of the Perkins Project is dependent on incorporation of the Languages Building into the Perkins-Bostock complex. Planning is underway to include a cluster of modern, flexible centrally managed teaching and learning spaces in Perkins-Bostock as part of the current phase of renovations to provide a core facility comparable to what we envision on Central. In addition to completing the Perkins Project, primary objectives for West are to use available backfill space as efficiently and effectively as possible to meet the needs of West Campus departments and programs, such as the unified psychology department.

In support of the Arts, Page Auditorium will be renovated, and we are developing new management strategies to ensure that performance spaces in the Bryan Center remain up-to-date. In addition, as we systematically renovate student residence halls, a focused effort will be made to create new student arts spaces, including music practice rooms and spaces large enough for small performances and concerts within residential units.

With regard to West's role in supporting science, engineering, and medicine, the Fitzpatrick Center for Interdisciplinary Engineering Medicine and Applied Sciences, the French Family Science Center, and new medical research buildings along Research Drive have already begun to transform the science end of campus. The new facility for the Nicholas School and the Nicholas Institute for Environmental Policy Studies is in the final planning stages and will occupy the site of the Paul M. Gross Chemistry Building. The new Nicholas Building will create a significant backfill opportunity in A-wing of the Levine Science Research Center, allowing us to meet current and future needs of Arts & Sciences, the Pratt School of Engineering, and the School of Medicine. While no specific commitments have been made potential new construction includes a joint facility for Pratt's department of electrical and computer engineering and Arts & Sciences' department of computer science, including substantial teaching laboratory space for Engineering. In addition, the

School of Medicine has suggested the possibility of building a new building on Research Drive to serve as its signature facility.

We recognize that we must continually respond to the ongoing space needs of our professional schools and we anticipate over the next planning period, capital investments in all schools, with the exception of Divinity. The Fuqua School of Business broke ground this summer on a \$40M classroom building, to be completed in summer of 2007, and discussions are underway about an addition to the Thomas Center to better support Fuqua's temporary residency programs. The Law School has nearly completed its renovation master plan with two significant exceptions: the renovation of the Law School library and creation of a central social space, which are expected to be completed over the next two to three years.

Continue to invest in East Campus facilities as an important home for the academic programs and the arts, with support services tailored specifically to the needs of first-year students

On East Campus, several important changes are currently underway. The Art Building, vacated last fall after the opening of the Arts, Culture and Technology studios in the Smith Warehouse, is being renovated as the new home of the University Writing Program, which will vacate a cluster of trailers that have housed it for more than a decade. By summer 2007, the old Art Museum will be renovated to house more appropriately the Program in Literature, Cultural Anthropology, and African and African-American Studies. The possibility of creating a visual studies library on Central, with the relocation of the film and video collections, will allow decompression of Lilly Library and more focused attention on the needs of first-year students. The relocation of the Department of Art, Art History and Visual Studies to Central Campus will provide opportunities to address constraints currently facing other academic departments and programs. As part of our plan to improve arts facilities, we will renovate Baldwin Auditorium to serve as a serious concert hall, make improvements to the Nelson Music Room to make it a more comfortable venue for small concerts, and address the studio needs of the Dance Program. East Campus dormitories also need attention in the longer run, but the initial focus for residence hall improvements will be on West.

Chapter 6 – Durham, Regional and Global Strategies

As a vibrant research university where knowledge is pursued and translated for the good of society, Duke is committed to enhancing and drawing from the communities of which it is a member. Large numbers of our faculty, staff, and students live in Durham, and the quality of life that its citizens enjoy and the economic vitality of our city have special importance to Duke. The Triangle region faces many challenges and presents many opportunities; some occasioned by rapid growth and changing demographics, others a function of changes in the area's economic foundations, still others by the presence of outstanding universities with which to partner. The development of the Triangle and state has significant implications for the research, the economics, and the quality of life members of our community share. North Carolina and the Triangle have one of the highest concentrations of international companies in the nation, particularly in critically important high-tech fields where Duke has or is developing significant expertise. The internationalization of the region echoes ever increasing globalization in many other areas, and global challenges now have consequences for our daily lives in ways we never before imagined. Engagement in these local and global communities provides exceptional opportunities for teaching and learning and for connecting knowledge to real world problems. Duke, therefore, gives high priority to reaching beyond its campus and to strengthening local, regional, and international partnerships. To do so, we will pursue three key strategies:

- **Duke and Durham: The Neighborhood Partnership and beyond**
- **Increase our collaborations with regional universities and institutions**
- **Build and enhance international partnerships and programs**

Duke and Durham: The Neighborhood Partnership and beyond

Duke and Durham are inextricably linked. The economic vitality and quality of life in our city and its cultural, educational, and recreational opportunities are important to the university's ability to recruit and retain talented faculty, students, and staff. Duke contributes to Durham's life through the employment opportunities and medical services we offer and the cultural facilities and programs we provide. Recognizing our responsibility to be a constructive citizen of Durham, in 1996, the Board of Trustees endorsed the creation of the Duke-Durham Neighborhood Partnership, a structured alliance between Duke, the 12 neighborhoods surrounding its campus, and the seven public schools that serve them. The Neighborhood Partnership, supported by over \$10 million in the past five years, is based on fundamental principles of mutual trust, community empowerment, and collaboration. We commit to continuing to build the programs in the Neighborhood Partnership, with particular emphasis on K-12 education and youth development, neighborhood stabilization, support for our non-profit partners, and engagement of Duke students in the life of Durham.

Moving forward, the revitalization of downtown Durham and areas adjacent to Duke's Central and East Campuses will be a high Duke priority. We intend to build upon Duke's leadership as an anchor tenant in the American Tobacco Project in the heart of downtown, as well as Blue Devil Ventures and other downtown developments, which are estimated to have catalyzed more than \$400 million in downtown investment over the last five years. We will strengthen our partnership with Durham to help build the downtown area, West Main, and the 9th Street district, into vibrant places to live, work, shop, and enjoy cultural and recreational opportunities. This will require an increase in resources and administrative emphasis, as well as a more active role in partnering with the city, citizens and developers.

Creating the new Central Campus, one of the most significant projects in Duke's history, is a key component in our Duke-Durham relationship. The first phase of the project, due to open in the fall of 2009, is primarily a place for Duke students, faculty, and staff to live, study, and work. Yet, its success must foster, and is also dependent upon, the vitality of Duke's neighboring residential and commercial communities. Development of the Central Campus will need to complement Duke's broader strategy in Durham and Central Campus must be a resource for the cultural development of both the Duke and the Durham communities. The Nasher Museum will be an important component of the cultural complementarity. So too will the Center for Documentary Studies and the John Hope Franklin Center, both of which are expected to be located on Central, with their wide range of campus and community programs.

As an educational institution, Duke has particular interest in helping to improve the quality of education in Durham. The performance of K-12 education is a special area of opportunity, and Duke reaffirms its commitment to systematically engage members of its faculty and staff in the public schools and in related programs where Duke's expertise and resources can enhance the educational achievement of local youth, particularly in partnership neighborhoods. We also recognize that North Carolina Central University (NCCU) and Durham Technical Community College (Durham Tech) present opportunities for educational partnerships that can not only serve the needs of students at all three institutions, but can serve the Durham community. For example, NCCU and Duke are both making major investments in biotechnology, and these universities have been partnering with the Durham Public Schools to strengthen student performance with a focus on closing the achievement gap through Duke's Project HOPE and NCCU's Project CARE. Durham Tech works closely with Duke's School of Nursing and other programs to help ensure that the technical and literacy skills needed to sustain the continued strength and career advancement of Duke's workforce, and we will actively exploit such collaborations in the future.

Our greatest strengths and opportunities for partnerships to improve the quality of life in our community are in education and medical care, and we are committed to extend these to Durham in a more targeted way. Durham and its people will be a major focus – and a major beneficiary – of Duke's Global Health Institute. Duke is acutely aware that global health issues include local as well as distant challenges. The development of community-based health clinics, among numerous other Duke University Health System sponsored

programs serving Durham, is only one aspect of Duke's efforts to address health inequalities in our closest communities. Alleviating some of these inequalities through community partnerships and providing the necessary infrastructure, often in partnership with local government, will continue to be a priority for Duke's engagement.

Finally, we recognize that Duke is the largest employer in Durham. This gives us a particular responsibility to ensure that our policies and practices support our belief that working at Duke should be a positive experience, with employees treated fairly and encouraged to develop to the best of their abilities and talents. Over the next planning period, we will focus efforts on learning more about the experience of our employees and addressing issues that emerge so that Duke is not only Durham's largest employer but also its most respected.

Increase our collaborations with regional universities and institutions

As a nexus of major nationally ranked and historically important research universities, the region is able to attract a highly educated work force and provide an intellectual ambiance that fosters creativity and innovation. In addition to our growing partnerships with NCCU and Durham Tech, our proximity to UNC and NCSU facilitates faculty collaboration on an array of projects ranging from statistical modeling and child and family programs to government policy and the arts. As an indication of the extent of collaborative research, some 81 cross-institution subcontracts received \$30M in funding this past year. Students also have easy access to inter-institutional programs, resources, and facilities. They benefit from joint agreements that enable regularly enrolled students to take course work for credit at neighboring universities. In addition, we are intentionally developing programs such as the Robertson Scholars Program that build shared communities of students whose educational experiences are enhanced by access to more than one campus.

In addition to research universities, the region is also home to nationally recognized centers and institutes such as the National Humanities Institute, the Research Triangle Institute, the Renaissance Computing Institute, the Triangle Universities Center for Advance Studies, the North Carolina Biotechnology Center, the National Institute of Environmental Health Sciences, and the Environmental Protection Agency. These are complemented by the presence of major corporations such as GlaxoSmithKline and IBM. Duke has benefited significantly from this confluence of talent and research that drove the original founders of the Research Triangle Park to create the shared research venue that is now home to more than 36 companies employing some 38,000 workers. We cannot take the future of Research Triangle Park for granted, however, and Duke and the region will need to invest in its continual renewal and advancement.

Strategic partnerships between Duke, area universities, and these public and private institutions advance research and leverage resources otherwise not possible. Partnerships with the Research Triangle Institute enable the development and translation of knowledge generated by the university for societal benefit. For example, Duke, UNC, and RTI International have jointly developed the Triangle Center on Terrorism and Homeland

Security to address terrorism and homeland security. Faculty at Duke, UNC, and NCSU collaborate in the area of marine sciences. The Pratt School of Engineering and RTI have collaborated to create TechEval to evaluate and bring research products to market. The Institute for Genome Sciences & Policy has partnered with RTI to create a “biorepository” of medical samples, part of which will contain samples for the development of biologically-based assays for Chernobyl radiation exposure. Beyond the confines of the Research Triangle Park, Duke is actively engaged with such additional public and private partners as the Oak Ridge National Laboratory, a multi-program science and technology laboratory managed for the U.S. Department of Energy in which scientists and engineers conduct basic and applied research and development to strengthen the nation's leadership in key science areas. Finally, efforts are underway to build the North Carolina Research Campus in Kannapolis – just outside of Charlotte – that will house research laboratories from the Triangle universities, Dole Foods Research Labs, corporate research laboratories, and numerous biotechnology companies.

As we move forward, we seek to more systematically coordinate and leverage our inter-institutional partnerships and to increase regional partnerships that enhance our strategic initiatives. Many external funding agencies require multi-institutional or public and private collaboration, and we seek to take greater and more aggressive advantage of this funding type in support for our research endeavors. In particular, we hope to facilitate collaborations that address the region's own challenges and opportunities, ranging from transportation and solid waste to water quality and health care.

Duke must also develop more tightly organized administrative leadership and a strategic plan for our regional partnership efforts. It continues to be important for Duke University to be involved in RTP and its efforts to assure future innovation and growth in the region. At the same time, new regional partnerships must be pursued. The creation of the North Carolina Research Campus in Kannapolis, in particular, provides a creative physical and intellectual model for the Triangle universities to engage in and one in which Duke should take a leadership role. This opportunity must be coordinated with ongoing and future efforts within RTP as both compete for faculty engagement, student recruitment, and institutional resources. Because of the growth of research centers within the state and the increasing importance of developing regional partnerships in support of the university's strategic goals, now is the time to reconceptualize our approach and organize ourselves administratively so that we are able to take best advantage of opportunities in a deliberative and effective manner.

Build and enhance international partnerships and programs

The end of the Cold War, the acceleration of globalization, and the pervasiveness of the internet have fundamentally altered the scope of universities' responsibilities, opportunities and challenges throughout the world. No longer can we prepare our students as if they are likely to pursue careers based in the United States, without much international contact or experience, and with little contact with colleagues from other nations and cultures. No longer can it be assumed that the best research will be done in

the United States and Europe and by scholars and researchers trained within our institutions. No longer is it the case that problems to which we apply our knowledge will be remote to our own concerns or that the solutions will be sought and sponsored primarily through governmental policies.

These changes have profound implications for the international strategy of the University with respect to its students, faculty and international reputation and presence. For students, preparation for the world requires substantial opportunities for cross-cultural encounters and the development of skills to navigate cultural interactions if they are to become citizens and professionals in an interdependent society. Five years ago, we introduced strategies to strengthen the international dimensions of a Duke education through increasing the percentage of international students on campus, developing interdisciplinary foreign language and area centers, enhancing study abroad opportunities, and developing educational partnerships with foreign institutions. These commitments have driven major progress during this period. International representation in the undergraduate incoming class grew from 1.5% in 1992 to 7% in the fall 2006 (the COHFE average is 6%). Graduate enrollments are now 35% international, on par with the national average, and there is significant representation of international students in our professional schools (e.g., Engineering 54%, Fuqua 34%, and Law 20%). In the 2003 and 2006 competitions for Federal Title VI awards, Duke was successful on six applications, more than were awarded to any of our peer institutions. The Duke liberal arts curriculum now requires that undergraduates to study a language and take courses in cross-cultural inquiry. Duke leads its peers in the percentage of undergraduate students that participate in study-abroad.

While we have made important strides forward, Duke's international reputation does not yet match its reputation in the United States nor reflect the quality of its teaching and research programs. If we are to meet our ambitious goals in research, teaching and service, this gap must be aggressively closed and Duke will follow three broad strategies.

Duke will work to attract the best faculty from around the world, both to enhance our teaching and research missions and to strengthen Duke's ability to be of service to the world. Our efforts to recruit foreign faculty must be fully commensurate with our commitment to recruit the finest researchers and teachers regardless of national origin.

Duke will work to attract the best international students – undergraduate, graduate, and professional – regardless of their ability to pay. This will require a commitment to increase the amount of financial aid funding available for foreign students. As we continue to grow the number of international students on campus – and to expand the financial aid to support more of them, regardless of need – we must increase the degree to which we support them through campus programs and take full advantage of our increasingly diverse student body through campus curricular and co-curricular programming. At the same time, we will increase opportunities for Duke undergraduate, graduate, and professional students to have foreign experiences. Exposure to other cultures is not the same as development of true knowledge and real cross-cultural understanding. Many of our students do not venture out of their cultural comfort zones,

studying abroad in places that are linguistically, economically, and culturally only modestly challenging. Accordingly, we will encourage study abroad in developing countries and to more fully prepare our students to take the best advantage of their overseas study experience and to foster greater and deeper engagements with fellow students and faculty upon return, we will seek to better integrate course work and study abroad.

Finally, we will seek new and innovative ways to bring our knowledge and experiences into foreign settings through strategic and beneficial partnerships. We will build on successful models such as Duke Corporate Education. This program was developed through the Fuqua School of Business, is ranked first in the world in providing on-site training to corporations world-wide, and has established collaborations with the Indian Institute of Management in Ahmedabad and the London School of Economics. Other successful models include the Duke Center for International Development, a leader in professional outreach and training to enhance world development; and the DukeMedicine partnership with the government of Singapore to establish a Medical School based on our medical education model. We are currently exploring establishing a public policy institute in India, a partnership between Fuqua and the Institute for Economy in Transition to develop an MBA program at the National Academy for the Economy in Moscow, and a collaboration between the School of Nursing and the Modi Institute of Education in India to oversee its curriculum. We will also pursue international collaborations focused on environmental issues.

To reach these internationalization goals will require that we rethink how best to organize our internationalization efforts. Much of our progress in the last decade has been accomplished by decentralized entrepreneurial activities by faculty and schools, sometimes encouraged by the infusion of central initiative and financial support from the Vice Provost for International Affairs. Future strategic initiatives, however, especially in the areas of international service and institutional building, will require greater coordination and targeted strategic and entrepreneurial effort. How best to organize ourselves to assure continued entrepreneurial initiatives on the part of our schools and institutes while increasing our capability for more centrally coordinated strategic undertakings is a major administrative challenge.

Chapter 7 – Strategic Investment Plan

Our planning has highlighted a number of ongoing priorities and critical new investments in programs and facilities that we must support financially if the plan is to succeed. Our Strategic Investment Plan will provide a blueprint for future resource development and allocation. Specific financial commitments for annual program expenses and individual capital projects will be determined by the senior officers in the course of the regular operating and capital budget processes and subject to normal Board of Trustees review and approval through those processes. We will monitor the short and long-term effects of our strategies and investments, and the Board of Trustees will participate regularly in the assessment of the overall effectiveness of the plan and its execution.

Resources for Strategic Investment

Duke operates through a resource allocation system of managed decentralization. While our schools have considerable latitude in prioritizing expenditures and strong incentives to generate funds and allocate them wisely, we have also developed strong central funding mechanisms to supplement school resources to achieve critical priorities. These central strategic investment funds provide a critical component of our overall resource allocation system and are allocated by the senior officers for both programmatic (typically as seed money) and capital purposes with the approval of the Board of Trustees. Allocations are typically based on: 1) strategic importance of the investment to the advancement of the institution or a particular school; 2) the ability of the central commitment to leverage additional resources, either provided by the school or from external resources such as philanthropy or sponsored research; and 3) sustainability of the program once central funds are expended. In essence, we have created a renewing pool of strategic investment funds so that Duke can continually invest in projects that promise a high academic or financial return and can become self-sustaining in the long run.

Several strategies implemented converge to create these strategic investment funds. Funding sources include:

- “Virtual Equity” derived from deposits in the institutional reinvestment account (IRA) and depends on the spread between the IRA investment return and the rate paid to depositors. The university formed the IRA in 1994 as an “internal bank.” Equity is generated by paying depositors a rate equal to the 30-Day T-Bill, while investing the assets in longer-term vehicles which generate returns greater than the pay out rate to depositors (the current asset mix for investments is approximately 60% long-term pool and 40% short-term account). The university can take dividends (i.e., discretionary income) when the equity generated exceeds 6% of the fund’s liabilities.
- Strategic Investment Funds allocated in the university operating budget. In May 2000, the Board of Trustees approved a new spending rate and distribution structure and at the same time approved creation of new line appropriations in the university operating budget to support the strategic fund. Strategic funds in each of the schools

are allocated to deans' priorities after approval by the provost and for the Schools of Medicine and Nursing, with the concurrence of the chancellor for health affairs. In addition, a central strategic funding source has been created under the president for investment in central strategic initiatives.

- Uncommitted Unassigned Income derived from interest income from the university's working capital and internal overdrafts, unrestricted operating support from The Duke Endowment, and income from university unrestricted endowments. According to the policy announced by the senior officers in January 1997, all growth in university unassigned income above the FY 96/97 base is allocated by the president for specific strategic purposes.

These central resources provide tremendous leverage to finance our strategic investment plan when combined with other academic resources, fundraising and opportunities for tax-exempt financing. The Executive Vice President has formed a working group to evaluate additional opportunities to enhance the strategies already in place to ensure that Duke continues to have substantial central resources.

Strategic Investment Plan

The planning process has identified a set of specific investments where central support is critical to achieving the goals of the plan: enhancing our faculty, strengthening our graduate programs, improving the undergraduate experience, broadening the impact of the arts, and completing key facilities investments. The investment plan has been developed based on careful review of costs, resources, and priorities.

The Strategic Investment Plan is summarized in the tables below. Table 1 shows totals by expenditure category and funding source. Table 2 provides greater detail on expenditure categories. The plan includes the academic investment proposals and facilities projects that have been endorsed by the senior officers through the planning process for central support, including debt financing. The core operating budgets of the schools will also advance many strategic priorities that are not specifically accounted for here.

The Strategic Investment Plan calls for a total investment over the next six to eight years of approximately \$1,300.7M, of which \$248.8M is for academic programs and related support (\$208.8M on campus and \$40M through the School of Medicine), \$350M is for the Central Campus project, \$551M is for other facilities, \$50.9M is for related debt service during the planning period, and \$100M is earmarked for future opportunities and contingencies. Approximately \$479.3M or 37% of the total plan commitments will be funded by school or other unit resources (primarily for capital projects) while \$821.5M or 63% of the total will be a central responsibility. We expect at least \$150M of the needed central funds will come from fundraising, approximately \$325M from tax exempt debt, and the remainder of approximately \$346.5M from the central strategic resources described above. This breakdown assumes that all future opportunities/contingencies come from these central strategic funds; more likely, costs would be apportioned across multiple central and unit funding sources.

Table 1
Summary of Central Strategic Investment Plan
6 to 8 Year Totals, in Millions

	Central		
	<u>Total</u>	<u>Admin.</u>	<u>School/Unit</u>
1 <u>Uses of Funds</u>			
2 Academic Programs	248.8	248.8	-
3 Facilities (Capital Cost)	551.0	195.0	356.0
4 Central Campus	350.0	250.0	100.0
5 Debt Service during Planning Period	50.9	27.7	23.3
6 Future Opportunities and Contingency	100.0	100.0	-
7 Total Uses	<u>1,300.7</u>	<u>821.5</u>	<u>479.3</u>

	Central		
	<u>Total</u>	<u>Admin.</u>	<u>School/Unit</u>
1 <u>Sources of Funds</u>			
2 Fundraising	333.0	150.0	183.0
3 Tax Exempt Debt	598.0	325.0	273.0
4 University Operating Funds	23.3	-	23.3
5 University Strategic Funds	346.5	346.5	-
6 Total Sources	<u>1,300.7</u>	<u>821.5</u>	<u>479.3</u>

Notes:

\$100M Future Opportunities/Contingency included in University Strategic Funds.

Includes full estimated costs of facilities projects.

Excludes school matching resources for faculty development/programs.

The Strategic Investment Plan will underwrite the implementation of the university strategic plan, providing a clear guide to priorities, and a resource allocation blueprint for program support and capital projects. Expenditure targets and resource commitments will evolve as specific projects are approved. Expenditure plans will be managed to fit available resources. Our general expectation is that programmatic support from central funds will not continue beyond five years; funding will shift either to external grants and contracts, new endowment income, or the budgets of the schools. Programmatic support is thus a form of bridge funding. Maintenance and operating costs of new facilities will be the responsibility of the schools. Allocation decisions will be incorporated into our ongoing operating and capital budget cycles, but central strategic investment funds will be separately identified and managed. The Board of Trustees will play a major role in this ongoing process through its regular reviews of budget issues and capital projects and through our specific reporting on the strategic plan that is part of the assessment framework described below.

Our strategic investment plan is linked to a program of assessment and financial checkpoints intended to keep us moving towards our strategic goals while guarding against over-commitments. Overall, we think we are likely to identify the needed resources to enable us to move forward with this program. At the same time, we are prepared to make the necessary midcourse corrections and tradeoffs (delaying, trimming, finding alternative revenue sources) that may be necessary should the resource outlook

prove less favorable. We will revisit these issues often as a part of our ongoing planning for budget and capital program as well as regular assessments of plan implementation discussed in Chapter 8.

Table 2

**Strategic Investment Plan Commitments 2006
Investments Expected Over 6 - 8 Years**

	Total	Central	Unit
	Investment	Total	Total
Program Support			
Faculty Enhancement Initiative	100.0	100.0	-
Faculty Diversity Initiative	10.0	10.0	-
Academic Program Initiatives	40.0	40.0	-
Graduate School Enhancement	7.5	7.5	-
Undergraduate Experience	20.0	20.0	-
Enhancing the Arts	11.3	11.3	-
Libraries	5.0	5.0	-
IT Pool	15.0	15.0	-
Subtotal Campus Programs	208.8	208.8	-
SoM Academic Programs	40.0	40.0	-
Subtotal Program	248.8	248.8	-
	Total	Central	Unit
	Investment	Total	Total
Capital -- University Priorities			
Central Campus (Phase 1)	350.0	250.0	100.0
Perkins Phase II	30.0	15.0	15.0
West Union	20.0	20.0	-
Page Auditorium	20.0	20.0	-
Baldwin Auditorium	5.0	5.0	-
Bryan Center	10.0	10.0	-
Old Art Museum	10.0	10.0	-
Technology Infrastructure	20.0	10.0	10.0
West Dorm Renovations (Phase 2)	25.0	25.0	-
Subtotal University Priorities	490.0	365.0	125.0
	Total	Central	Unit
	Investment	Total	Total
Capital -- School Priorities			
FSB Classroom Building	40.0	-	40.0
Law School Library Renovation	6.0	-	6.0
Law School Atrium Project	8.0	-	8.0
Nicholas School/Inst	85.0	20.0	65.0
Pratt SMIF	17.0	-	17.0
Pratt Teaching Facilities	40.0	10.0	30.0
SoM Signature Building	95.0	40.0	55.0
SoM Vivarium	40.0	-	40.0
SoM Renovations	50.0	-	50.0
Academic Renovations (Phase 1)	30.0	10.0	20.0
Subtotal School Priorities	411.0	80.0	331.0
Debt Service During Planning Period	50.9	27.7	23.3
Contingency/Future Development	100.0	100.0	-
Grand Total	1,300.7	821.5	479.3

Chapter 8 –Assessment

Making a Difference embodies the university's broad intention to ensure its continuous improvement through planning, execution, and assessment. But continuous improvement is not enough. Through shrewd strategy and skillful execution, Duke must achieve a rate of improvement greater than other comparable institutions; only in this way can we gain ground and ensure our position among the small number of institutions that define what is best in higher education, both nationally and globally.

Our assessment strategies will continue processes developed under *Building on Excellence*. The Board is an active partner in our assessment strategy, and regular discussions with the Board are essential. We will provide a comprehensive biannual assessment for discussion with the full Board in the fall of 2008 and in the fall of 2010. In addition, progress reports on specific planning goals and initiatives will be discussed as a regular part of the agendas of appropriate Board committees. Comprehensive updates on the sources and uses of funds to support the plan will be made at least annually. The Board of Trustees will also approve annual programmatic budget allocations and specific capital financing plans through established Board processes.

We expect the specific strategies and focused investments outlined in the plan to advance Duke's broad ambitions, and thus the assessment of the plan cannot be separated from our ongoing, overall assessment of our institutional health and progress. Assessment operates at many levels at Duke, from individual student course evaluations to broad institutional accreditation reviews. Several of these ongoing mechanisms will be of particular importance in assessing our progress as we implement the strategies of institutional improvement outlined in *Making a Difference*; we expect continued absolute improvement in all of them and notable relative improvement in relation to our peers in a number of them. Significantly, Duke's institutional self-study and external review for reaccreditation by the Southern Association of Colleges and Schools, a process that occurs every ten years, will take place over the next two and half years and will include a substantial focus on institutional assessment and improvement. The most significant university-wide assessment mechanisms are the following; in addition each school maintains data and undertakes analyses for self-assessment and professional accreditation and reports regularly to the Provost regarding the quality of graduate and professional schools' admissions.

- Since 1997, we have compiled strategic indicators at the request of the Board of Trustees to monitor institutional "vital signs" related to finances (endowment, sponsored research, and philanthropic support), faculty (size and composition, salary trends, faculty honors), and students (quality measures, applications, selectivity, yield, overlap, financial aid and survey satisfaction measures). This report was modified in 2004 to provide more detail at the individual school level.

- Since 2001, we have provided an annual report on the faculty to the Board of Trustees. This includes a statistical profile showing the size and distribution of the faculty over time, demographics, age and tenure profiles, and turnover rates. The Provost uses this data as a foundation for remarks on faculty development. We anticipate that there will be an increase of faculty in a stage of their career in which they can exercise critical leadership in our departments, interdisciplinary units, and schools. In addition, we will be working with each dean to assure that the profile of faculty members in their units is well-structured to promote a vibrant culture with strong faculty leadership.
- The Trinity College Office of Assessment and the Trinity College Student Information System collaborate in an ongoing assessment of undergraduate teaching and learning. The Assessment Office tracks specific indicators and benchmarks on all students (such as grades and graduation with distinction, study abroad and mentored research experiences) and designs outcome assessment protocols for particular curricular or pedagogical experiences (such as Focus, research service learning, or certificate programs).
- Duke has an active survey research program in place through the institutional research group in the Provost's Office. The surveys are conducted collaboratively with other institutions through organizations such as the Consortium on Financing Higher Education and the Association of American Universities, which provides a comparative framework for Duke's findings. We have been surveying entering freshmen and graduating seniors annually for more than a decade, and we have also participated in periodic alumni surveys for many years. Recently we extended our survey program to graduate and professional students and to members of the faculty. Optional questions on these surveys can be targeted to enhance our understanding of whether we are achieving specific planning objectives.
- Every academic program at Duke is evaluated by external reviewers approximately every six years. These reviews are preceded by self-studies that are reviewed during the site visit. The reviews cover the intellectual coherence and quality of the undergraduate and graduate curricula as well as the quality and relevance of faculty research.
- The Provost provides for the Board of Trustees an annual "state of the schools" report that provides a comprehensive assessment of each school's leadership, program development and finances informed by all of the sources above as well as his direct experience with the appointments, promotion and tenure process.

In thinking about broad-based institutional assessment, we believe that five key areas – faculty quality, student quality, student experience, Duke's role as a regional, national and global citizen, and Duke's standing in the wider world need – must be addressed, bringing to bear all of the assessment tools at our disposal. The fundamental assessment

questions for each of these five areas are framed below together with key assessment strategies and some specific near term benchmarks we hope to achieve as we implement the strategies in *Making a Difference*. The strategies and investments (both in programs and facilities) outlined in *Making a Difference* as well as in the individual school plans should help us move forward in all these areas. These plans include new departures but are built on a solid foundation of ongoing activities whose quality we are committed to sustaining and improving.

Faculty Quality

Are we improving the quality of our faculty as inspired teachers who develop the best capacities of our students and creative scholars who make substantial contributions to the discovery and dissemination of knowledge that not only advance particular disciplines but also help address the multidisciplinary challenges of the real world?

Assessment Strategies:

- Ongoing analysis of faculty demographics, including racial and gender diversity, age structure, and tenure rates.
- Examination of teaching records, including student course evaluations, as part of the AP&T process and as part of the annual performance review process.
- Student survey satisfaction with the quality of instruction, accessibility of faculty, and their overall Duke experience.
- Faculty climate surveys.
- Teaching feedback from departmental reviews.
- Examination of research and scholarship achievements as part of the AP&T process and as part of the annual performance review process.
- Success in attracting sponsored research support.
- Success in winning foundation and other fellowship support.
- Notable publications.
- Election to national academies and other faculty honors.

Key Expectations for this Planning Period:

- At least 75% of faculty hires will be in fields of strategic importance outlined in *Making a Difference* or the plans of the school, with a substantial number of appointments facilitated financially by the Faculty Enhancement Initiative. These faculty hires will reflect the strategic importance of interdisciplinary knowledge in the service of society. The remaining hires are anticipated to meet emerging priorities that will arise at the university and school levels.
- An increase of 25 in the number of faculty from under-represented groups.
- Increase the number of nationally and internationally recognized artists on the Duke faculty, both resident and visiting.
- Growth in externally sponsored research administered by the federal government at a rate greater than the budgetary expansion of each program.

- An increase in the rate at which Duke faculty members are elected to national academies.
- An increase of the number of faculty who receive national competitive fellowships and international awards.
- Improved support for interdisciplinary and translational teaching, research, and scholarship.
- Improved alignment of our faculty evaluation and reward systems with actual performance of our faculty in priority areas of teaching, research, and service.
- Significant improvement in the quality of classrooms and other teaching facilities.

Student Quality

Are we bringing to Duke the students – undergraduate, graduate, and professional – most capable by virtue of their intelligence, character, ambition, and diverse backgrounds of taking best advantage of a Duke education and of contributing to the Duke community, both as students and as alumni carrying Duke’s legacy to the wider world?

Assessment Strategies:

- Tracking the qualifications of applicant pools, admitted applicants and enrolling students. For undergraduates, this means an emphasis on Reader Ratings scores and the growth in the number of students with special talents (e.g., the arts) as identified in our admissions strategy. For graduate and professional students, each school is charged with identifying and tracking the qualifications assessed in their admissions processes germane to their student populations and reporting these results regularly to the Provost.
- Application volume, selectivity and yield for all students.
- Academic performance at Duke for all students.
- Undergraduate students’ non-academic activities and engagements at Duke.
- Each school will track student activities related to our strategic goals of civic engagement and knowledge in the service of society.
- Short and long-term commitments after graduation, including career placement and development and/or further education.
- Socio-economic, ethnic, gender and other forms of diversity in the undergraduate, graduate, and professional student bodies.
- Student survey perceptions of campus climate for diversity, community involvement, and extra-curricular activities.

Key Expectations for this Planning Period:

- Key admissions indicators of student quality and competitiveness will improve in all schools of the university.
- At the undergraduate level, Duke’s yield will improve overall and improve in competition with peer schools. We expect similar yield improvements across the graduate and professional schools.

- Duke will maintain or improve the socio-economic, ethnic and international diversity of its undergraduate, graduate and professional student bodies and in the case of the undergraduate population, increase the numbers of students identified as having talents that make special contributions to the community.
- Duke will double its commitment to international need-based aid for undergraduates.
- An increase in the rate at which graduate students are awarded national fellowships.

Student Experience

Are we providing our undergraduate students with a genuinely transformative experience whose benefits include not only professional attainments but also deepened understanding and broadened curiosity across the many domains of human experience and endeavor as well as greater self-confidence, integrity, maturity, and a passion for making a difference? Are we providing our graduate and professional students training that ensures deep grounding in their disciplines and the ethical principles that guide them, preparation for professional practice and leadership, and opportunities to participate fully in the community life of their schools, the wider university and the Durham community?

Assessment Strategies:

- For graduate and professional students, each school is charged with identifying and tracking the metrics germane to their student populations and reporting these results regularly to the Provost.
- Student survey results related to learning outcomes
- Alumni survey results related to career and life-satisfaction and civic engagements.
- Opportunities for and participation in mentored research experiences.
- Balance of student choice across the curriculum.
- Database on student activities.
- Student engagement outside the classroom.

Key Expectations for this Planning Period:

- Increased participation of undergraduates in mentored research experiences.
- Increased opportunities and participation of undergraduates in interdisciplinary learning experiences.
- Greater participation of undergraduates in arts-related coursework and activities.
- More responsible student behavior as evidenced by greater adherence to the Duke Community Standard and fewer breaches of academic and social policies.
- Improved undergraduate housing through redevelopment of Central Campus and renovations of West Campus quads. It is also anticipated that there will be significant new housing for graduate and professional students on Central Campus.

- Increased opportunity for graduate and professional students to develop satisfying mentoring relationships and identify faculty role models
- Greater opportunities for all students to engage faculty outside the formal classroom settings.
- Increased participation of all students in community service and service/learning opportunities.
- Increased opportunity to use advanced technologies in classroom experiences and assignments.
- Improved space for student interactions and activities and for campus cultural activities on West Campus through renovation of the West Union Building, the Bryan Center and Page Auditorium.
- Competitive graduate stipends with peer institutions.
- Creation of a Graduate Student Center.

Duke as a Regional, National and Global Citizen

Is Duke as an institution setting and living up to the highest possible standards as an employer and citizen of the wider communities – regional, national, and global – of which it is a part not only in the scope and impact of its teaching and research but also in its investment in Durham community and in its administrative practices, environmental stewardship, and fiscal integrity?

Assessment Strategies:

- Number and quality of substantial local (e.g., Duke-Durham Partnership), regional (e.g., Cooperation and cooperative ventures with the UNC System and with UNC-CH, NCCU and NCSU), national (e.g., National Lambda Rail Project) and international (e.g., the Graduate Medical School in Singapore) partnerships and engagements involving teaching, research, service, and the arts.
- Leadership positions of Duke administrators in national professional organizations.
- LEEDS certifications and environmental impact data trends.
- Minority business contracting.
- Internal/external audit findings.

Key Expectations for this Planning Period:

- Successfully endow the Duke-Durham neighborhood partnership.
- Develop significant collaborative programs with North Carolina Central University.
- Assume a leadership role in defining and initiating the North Carolina Research Campus in Kannapolis.
- Substantial increase in Duke's international reputation as measured by international assessments.

- Substantial growth in the number of cooperative overseas ventures by its individual schools and the University as a whole.
- Substantial research, education and service outcomes from a broader range of substantive collaborations with institutions in other countries.

Duke's Standing in the Wider World

Is Duke receiving the recognition and support it deserves based on its real achievement and future plans both in terms of regional, national, and international recognition and in terms of more tangible support from parents, alumni, foundations, corporations, and government agencies?

Assessment Strategies:

- News clipping and other media-monitoring studies.
- National rankings.
- Duke commissioned opinion surveys.
- Philanthropic and corporate support (both number of contributors and dollars contributed).
- Membership in the alumni association.

Key Expectations for this Planning Period:

- Increased levels of respect for, and confidence in, Duke as an institution both nationally and internationally.
- Media reliance on Duke faculty expertise for background and commentary on national and international issues.
- Continued growth in philanthropic and corporate support to the university.
- Improved national rankings for schools, departments, and programs.
- Improved viability and visibility of interdisciplinary structures, scholarship, teaching, and translational research and engagement.

Making a Difference sets an ambitious agenda of aspirations supported by specific strategies and programmatic and capital investments. The planning process this document embodies will surely make a difference in the life of the university, focusing our resource allocations and management actions on achieving those aspirations. Duke has the vision, leadership, and resources to succeed and thus deepen our capacity for making a difference in the broader sense – of sustaining productive faculty careers, of providing transforming educational experiences to our students who will go on to be ethically grounded individuals, outstanding citizens and leaders in their professional fields, and, through the work of our faculty, students and administrators, devoting our efforts to improving the lives of the regional, national, and global communities of which we are a part.

