

UC Santa Barbara Strategic Academic Plan 2007-2025

I. INTRODUCTION

The last UC Santa Barbara Long Range Development Plan (LRDP) addressed the period 1990–2005. In this period the campus projected managed growth to a maximum Fall-Winter-Spring (FWS) average headcount of 20,000 students. As noted below, this growth, combined with strategic use of the resources it generated, has allowed UC Santa Barbara to make great advances in campus standing. The purpose of the current Strategic Academic Plan is to guide the LRDP for the next phase in UC Santa Barbara’s development by addressing the period 2007-2025 and building on the tremendous progress we have made in the last decade and a half. The planning horizon of 2025 aligns with that of the University of California as a whole. The intent of the Strategic Academic Plan is to identify our strengths and opportunities, as well as the broad challenges we face, rather than detailing specific areas of growth. The Long Range Development Plan will subsequently address the issues of land use; instructional, research and support space; housing; and infrastructure that will be necessary to accommodate the opportunities identified in the Strategic Academic Plan. Once a Long Range Development Plan is developed and approved, effective implementation of the broad goals of the Strategic Academic Plan will be driven by the creative and entrepreneurial skills of the faculty and enabled by the administration. This will in turn rely on the consultative processes that have long been a strength of the UC Santa Barbara campus to convert strategic goals into operational plans.

A. UC Santa Barbara Today

UC Santa Barbara has risen to the top tier of research universities. In 1995 we were elected to the prestigious American Association of Universities, representing the top 62 of over 4000 universities in North America. The quality of programs is high across the spectrum of academic endeavor represented on campus: education, engineering, fine arts, humanities, science, and social science. This is illustrated in the 1997 Graham-Diamond report, which ranked UC Santa Barbara second among American public research universities (after UC Berkeley). In the indexed rankings of the public institutions among the “Fifty Leading Public and Private Universities,” UC Santa Barbara ranked seventh in social science, sixth in the science, and second in arts and humanities.¹ Programs in engineering and science rank among the world’s best in impact.² Excellence is reinforced by distinctive choices of scholarship and research. The campus serves as the home of five Nobel Laureates, 24 members of the National Academy of Engineering, 25 members

¹ Hugh Davis Graham and Nancy Diamond, *The Rise of American Research Universities: Elites and Challengers in the Postwar Era* [Baltimore: Johns Hopkins University Press, 1997].

² *Essential Science Indicators*, 2007, http://www.in-cites.com/institutions/phy_1995-2005.html, http://www.in-cites.com/institutions/mat-sci_1996-2006.html

of the National Academy of Sciences, 27 members of the American Academy of Arts and Science, and 80 recipients of Guggenheim Fellowships. In the last decade, extramural research support has doubled to more than \$150 million per year and private giving has quadrupled to nearly \$70 million per year. Relationships with local and international companies, from start-ups to multi-national corporations, are providing jobs and generating life-improving, new technologies for society. The campus has become world renowned not only for its outstanding faculty and excellent individual programs, but for the ease with which faculty, students and staff can collaborate across disciplinary boundaries and pioneer exciting new interdisciplinary fields. Major interdisciplinary research centers abound. Growth in diversity is reflected in a top 25 ranking of schools graduating Hispanics,³ and a top 50 ranking of schools for Diversity Best Practices.⁴ The physical location on the California coastline not only attracts scholars from around the world, but serves as a unique laboratory and resource, as well as a crossroads of international exchange.

B. UC Santa Barbara Future

It has taken years of hard work and the investment of significant resources to achieve the present level of distinction and impact. We are now faced with the question of how we can continue to advance the campus. We must answer this within the context of the University of California, and the need to be responsive to the enrollment pressures on the University as a whole. The conclusion to which the current planning process leads is that further advancement of the campus will require building on established strengths as well as engaging new opportunities. Coincident with the need to fulfill our obligation to the State and the University of California, this will require some additional managed growth. It will also require strategic responses to a substantial potential turnover in faculty due to retirements. Moreover, the campus needs to build on a foundation of diversity to anticipate a changing demographic. The evolving vision evokes an interdisciplinary and collaborative environment exemplified by a number of themes that run not only among divisions and colleges, but through the entire campus. These can be used in conjunction with proven strategies of excellence on campus to guide future academic development. Such enrollment and faculty growth requires the campus to commit to substantial efforts to augment its state budget with other sources of financial support, not only to maintain but to improve the quality of the instructional and research environment that has made UC Santa Barbara so attractive. UC Santa Barbara also needs to work to ensure that the campus that attracts world class faculty and students maintains its outstanding environment over a period of managed growth.

1. Vision

At UC Santa Barbara, our vision is to set new standards of excellence in learning, discovery, and engagement. As we build on our distinguished record of achievement and our extraordinary potential, we will continue to foster a culture of creativity,

³ *Hispanic Outlook Magazine*, <http://www.hispanicoutlook.com/top100>

⁴ *Women and Diversity College Enrollment Report*, Diversity Best Practices/Business Women's Network, 2004.

collaboration, and innovation across the academic disciplines. We will engage our students fully in the pursuit and dissemination of knowledge, striving for the best of learning environments. We will honor our responsibilities as a global university by strengthening our partnerships with scholars and institutions around the world. We will celebrate and enhance the diversity that enriches our living and learning environment. We will draw on the tremendous intellectual vitality of our faculty, staff, and students, as well as on the unique educational and research opportunities offered by our spectacular natural setting. Our interactions with our sister campuses in the University of California system and our peer institutions nationally and internationally will also continue to be a source of stimulation and strength for our vibrant academic community. Together we will fulfill our promise to future generations of students by constantly exploring the endless frontiers of knowledge, and by creating new fields of inquiry that will shape our understanding of ourselves and the universe around us.

2. Mission Statement

The University of California, Santa Barbara is a leading research institution that also provides a comprehensive liberal arts learning experience. Because teaching and research go hand in hand at UC Santa Barbara, our students are full participants in an educational journey of discovery that stimulates independent thought, critical reasoning, and creativity. Our academic community of faculty, students, and staff is characterized by a culture of interdisciplinary collaboration that is responsive to the needs of our multicultural and global society. Our commitment to public service is manifested through the creation and distribution of art, culture and knowledge that advances the well-being of our state, nation, and world. All of this takes place within a living and learning environment like no other, as we draw inspiration, opportunity, and advantage from the beauty and resources of UC Santa Barbara's extraordinary location at the edge of the Pacific Ocean.

3. Core Values

- Advancing the pursuit of knowledge
- Upholding the principles of freedom of information, academic freedom, and open communication
- Fostering innovation, exploration, and interdisciplinary collaboration within a world-class research environment
- Striving for excellence in teaching
- Engaging our students as partners in the research enterprise and supporting their personal and academic growth as valued members of our community of scholars
- Promoting the principles of scholarship, leadership, and citizenship among our student body and providing them with an outstanding academic life
- Respecting and providing a welcoming environment for people of diverse backgrounds, beliefs, and points of view
- Embracing our global commitment through meaningful connections, understanding, and interactions with our community, nation, and world

- Affirming our commitment to the principle of sustainability as we strive to be good stewards of our natural and built environments
- Cultivating a workplace of trust, respect, civility, and collegiality

II. CAMPUS PLAN

As noted earlier and discussed in more detail later, the campus anticipates both some additional managed growth, as well as a substantial turnover in faculty due to retirements. Both call for a framework within which future resource allocations can be made. The strategy that has emerged from these considerations has several important elements as discussed briefly below. While these elements are to a large extent independent of any growth in the size of the campus, the tactics for implementing them will vary with the availability of resources.

A. Framework for Resource Allocation

1. Balanced Commitments and Selective Investments

The specific shape of our academic development, like the specific shape of future knowledge, is difficult to predict. However, a path to the future should lead from a history of building strengths. As noted earlier, UC Santa Barbara has become a leading public research university with a strong past in providing a liberal arts education. UC Santa Barbara certainly has notable strengths at the departmental level, and such departmental strengths will undoubtedly warrant continued investment. Indeed, unit by unit plans for growth will involve balancing the need to provide students access to core knowledge with the need to foster the evolution of new areas and subjects. This in turn will require attention both to instructional needs and programmatic opportunities, as well as righting imbalances that currently exist. The factors to be balanced are somewhat different across disciplines, but the principles – commitment to both the transmission and the production of knowledge – are similar. From a broad campus perspective, the shape of growth will require balancing our responsibilities as a research university to the advancement of knowledge with our responsibilities as an institution to educate our students for enlightened citizenship and economically productive lives.

Although we will have a large number of faculty appointments to make in the coming period, nonetheless, resources will be finite. This means that units will need to be selective in their investments, make strategic choices and acknowledge that achieving distinction merely through size and coverage is not the likely path to success for any department or program.

2. Building Outstanding Departments

There are a number of departments and programs on the UC Santa Barbara campus that are exemplary success stories of such selective investment. Although these examples span the disciplinary mix of UC Santa Barbara, they share common attributes. As the campus strives to develop excellence across many fronts with finite resources, the

elements gleaned from these past successes can serve as guidelines for future decision-making. In each case, success was achieved with the following:

1) *Focused Excellence*: At an early point in each of the departments, a critical decision was made to emphasize **one or a few selected area(s)** in which to become recognized and expert. This decision was simultaneous with a realization that resources were limited and insufficient to compete, in terms of size alone, with large programs elsewhere. Hence, the area(s) selected generally were those which would provide UC Santa Barbara with a competitive edge relative to other universities. The area(s) selected for emphasis varied among these departments, and ranged from disciplinary content to research perspective to methodology. But the key was intelligent and **selective** choice.

2) *Persistence*: Once the decision was made, the strategy involved both a **persistent commitment** by the department to this decision as well as a consistent argument presented to the campus review agencies and administration to sustain the flow of necessary resources.

3) *Hiring Philosophy*: Within the broad areas selected, the hiring philosophy generally consisted of several elements. First: **hire the best** available junior and/or senior faculty, often with the goal of improving the quality of an already distinguished faculty. Second: look outside of the standard discipline for faculty in the broad area of interest, where individuals shared a common interest and ability in the selected area.

4) *Collegiality*: In all cases, the success of the department in employing this approach required a willing and **collegial faculty** to implement and support it.

5) *Leverage*: Success was at least accelerated if not enabled by the existence or development elsewhere on campus of **support capabilities**. This was in the form of clusters of excellence in other, cognate departments, and/or the result of the development of one or more related ORU's/Centers. The existence of these additional resources, and the ability and willingness of the faculty to access them, certainly leveraged the nucleus of faculty in the early stages, but also enhanced the programs as they grew and matured. For those seeking extramural support from funding agencies, this broad-based **interdisciplinary campus structure** has been a great advantage in securing contracts and grants that have in turn helped foster the strengthening of the discipline. This has been supplemented by the strategic use of matching funds to attract contract and grant money, and the promise of rising programs to attract private sources of funding in the form of endowments and/or program support.

6) *Institutional Reward*: The elements above would not have been successful without institutional recognition and reward in the form of additional faculty FTE's, space, budget, staff, graduate assistantships, etc. However, this last element is a **necessary but not sufficient condition** for success, and the reward was always in response to

demonstrated success in moving forward with the initial decision. Too often programs argue for this step out of sequence: that is, **resources alone have not been a key to success**; a demonstrated path and commitment has led to success which has in turn been rewarded; and success beget success.

Hence, strategic decision-making in the future should draw from the lessons learned in these past successes, and selective investments should be made when the case for such opportunities is well-demonstrated.

3. Professional Schools

Specific professional schools were not identified as part of this planning process. The campus has certainly fostered excellence in professional training in areas like engineering, education and environmental science and management. And although there is no explicit resistance to the establishment of professional schools, the result of previous planning exercises has made it clear that UC Santa Barbara does not wish to initiate such a school unless there is a clear plan to achieve a top-rated school, commensurate with the level of excellence we have achieved in our existing academic programs across the campus. The managed growth proposed in this Strategic Academic Plan certainly provides the capacity to pursue such an opportunity, if it evolves during the planning period.

4. Diversity

The University of California has recognized diversity as critical to its future, and has adopted the position that diversity enhances all aspects of the University through the breadth of perspectives, interests and experiences that a diverse population brings to each campus. As we enter the next phase of UC Santa Barbara's development, diversity is one of the core principles on which we will build. It is clear that to be a successful top tier research university in a changing world, we must continue to work on developing a student body that reflects the diversity of our society and a faculty and staff that reflect the diversity of our student body.

Many of tomorrow's faculty are very likely to come from segments of society for which a college education, let alone an advanced degree, has not been the norm. Moreover, many disciplines have yet to attract women and underrepresented minorities to the degree that reflects the composition of society and is required to sustain the discipline into the future. Hence, developing a diverse faculty is essential to attracting these students to higher education, mentoring them and ensuring their – and thus our – success.

In the last 15 years under-represented minorities in the student population have grown from about 10% to 24%. However, it is anticipated that in the near future California will undergo a dramatic demographic change, with minorities quickly comprising a majority of the state population. To achieve its full potential in this changing demographic, UC Santa Barbara must continue to make concentrated efforts in attaining a diverse student enrollment across disciplines that reflects this State population change. This will require

exceeding past successes at both the undergraduate and graduate level, and aligning campus goals with national efforts to provide a “diverse, globally oriented workforce”⁵ that is inclusive of women, minorities and persons with disabilities.

At the same time, the opportunity for faculty and staff growth and renewal identified in this plan offers a tremendous opportunity to significantly improve the gender and ethnic diversity at UC Santa Barbara. While the campus has historically made steady progress, the significant hiring opportunities afforded by managed growth and renewal challenges the campus to accelerate its efforts and develop a faculty and staff whose diversity is true to its vision and core values.

5. Interdisciplinary Themes

In addition to building departmental and programmatic strengths, it is likely that the excellent opportunities to build distinction will be at the interfaces among disciplines. As noted above, interdisciplinary activity is already an important campus strength.

This interdisciplinary strength at UC Santa Barbara has its roots in many disciplines across campus. Indeed, individual academic units ranging from Classics, to ethnic and women’s studies programs, to Environmental Studies are themselves founded on integrating a range of disciplines. It has also found its way among disciplines. Indeed, the Interdisciplinary Humanities Center, the Carsey-Wolf Center for Film, Television, and New Media, and the Center for Information Technology and Society are all examples of successful efforts growing out of an appreciation for the power of collaborative research on issues that range many disciplines. Cross-disciplinary activities throughout the science and engineering sectors are envied by competitor institutions; indeed, as a visible outcome of this success, there are numerous institutes and centers today which are internationally renowned for fostering this approach, from the Kavli Institute for Theoretical Physics, to the California Nanosystems Institute, to the National Center for Ecological Analysis and Synthesis. The strong bonds forged among science and engineering departments and programs have provided one of the attractors for some of the world’s leading scientists and engineers at UC Santa Barbara, including our Nobel Laureates in physics and chemistry; and this has positioned our science and engineering departments to compete at the highest levels for faculty and students.

The growing successes and appreciation for interdisciplinarity have fostered an interest in building upon existing programs as well as exploring new interdisciplinary areas in both teaching and research. In the humanities and fine arts this includes visual studies, languages and literacies, American studies, Medieval studies, and performance studies. In the social sciences this includes new race studies and culture. In science and engineering, emerging areas include nanotechnology, brain/mind studies, energy engineering and biotechnology.

⁵ National Science Foundation. *Women, Minorities and Persons with Disabilities in Science and Engineering*: 1998. Arlington VA, 1999 (NSF 99-338).

Indeed, interdisciplinarity has become a hall mark of entire campus. It has forged connections both within⁶ and across colleges and divisions, with academic programs like Media Arts and Technology and research centers like the Center for Nanotechnology and Society. It has served as a unifying theme for colleges and schools, with the Donald Bren School of Environmental Science and the College of Creative Studies both building excellence based on this characteristic.

This interest in interdisciplinary studies has grown to the point on campus that four campus-wide themes emerged as part of the planning process. It is unusual for even one, let alone four, campus-wide themes to emerge; and the fact that four emerged is exemplary of the extent to which interdisciplinarity exists at UC Santa Barbara. The brief sketches that follow do not attempt to describe these areas in full or to provide anything like a catalogue of strengths and lacunae. Moreover, they are described here, not to suggest they will have particular status vis-à-vis other themes in future, but merely to illustrate the campus-wide nature of the themes and the powerful opportunities that such themes provide.

Environment

Given the history of Santa Barbara as a center for environmental concern at least since the 1969 oil spill, our location provides a competitive advantage for continued development in the study of environmental issues. The Bren School, Department of Geography, and Environmental Studies Program are examples of academic programs where this strength exists; the Marine Science Institute, together with other strengths in climatology, ecology, biodiversity, and satellite remote sensing, suggest further resources. Interest in environmental subjects reaches into engineering where attention is increasingly being focused on relevant energy issues; into the social sciences where there is a strong cluster of scholars concerned with environmental policy and economics; and into the arts and humanities where there are relevant strengths in various departments and where a new program in Architecture and Environment is under development. It is also notable that the Carsey-Wolf Center for Film, Television, and New Media is developing an Environmental Media Initiative in conjunction with the Bren School and the Marine Science Institute. The current pursuit of sustainability as a campus practice also grows from the long historical interest in the environment at UC Santa Barbara.

Global and International Issues

Like the environmental theme, concerns with global and international issues run through the entire campus. The recently established Global and International Studies Program has added a graduate program, and the Orfalea Center has been established to support and enhance efforts in global and international studies across the campus. At the same time, our social science departments are developing a strong cohort of faculty who are examining exchange and social change on a global scale; global

⁶ Interdisciplinary themes identified in the deans' reports can be found at http://www.evc.UC Santa Barbara.edu/evc/academic_plan/index.cfm

issues are an integral part of the ethnic studies programs; many units in arts and humanities, including, for example, drama, ethnomusicology, and art history, have taken what might be called a global turn. Indeed, a cluster of four Mellichamp endowed chairs has recently been gifted to UC Santa Barbara to spark creative new efforts in “globalization” within the divisions of Humanities and Fine Arts and Social Sciences. Many programs in earth science, including for example the Institute for Computational Earth System Science, are essentially global in scope; and various programs in engineering such as the emerging International Materials Research Center develop international collaborations. Moreover, UC Santa Barbara offers instruction in twenty languages and expertise in linguistics and language pedagogy. As the home of the UC Education Abroad Program, UC Santa Barbara has long regarded itself as having a special identity with respect to international studies; moreover, California’s distinction as the nation’s most multicultural and multilingual state, with a remarkable number and variety of religions, provides an appropriate context for the development of this broad topic.

Digital Studies

As one of the first four nodes in the ARPANET, UC Santa Barbara has a substantial history in this area. The College of Engineering has been a catalyst for the development of strong expertise in digital processing hardware and software, especially in Electrical Engineering and Computer Science. The Department of Geography is world renowned for its expertise in Global Information Systems. UC Santa Barbara has also been a widely recognized leader in digital mapping; as host to the Alexandria Digital Library, the UC Santa Barbara Library features extensive digital image and map collections. We are also well recognized for expertise in the area that has come to be known as the digital humanities – the Voice of the Shuttle, arguably the most influential humanities resource on the web, is a UC Santa Barbara project – as well as in digital art. Other resources include the Media Arts and Technology program, a pioneering collaboration that involves art, music, electrical engineering, and computer science; the Center for Information Technology and Society, the College of Creative Studies Archive Initiative, and the Transliterations Project. Moreover, the reach of this broad subject extends into campus collaborations in nanotechnology and biotechnology as well the new discipline of informatics.

The Academy and Society

This is a broad theme that emerges at the point of intersection between the university and the public sphere and that to some degree encompasses and involves each of the other campus-wide themes. Environmental, global, and digital studies all have manifest social consequence. So, too, does the work of the Gevirtz Graduate School of Education. More specifically, the College of Engineering is currently building a Technology Management Program that has great potential to impact, among other things, the local economy; and the Division of Social Sciences has identified public policy studies as a central priority that unifies a range of its activities, including those of the ethnic studies departments and their related centers. The UCSB Libraries serve

as a community as well as a campus resource, and the Arts and Lectures program involves the community not only in performances but in interactions with the artists, lecturers and performers themselves in workshops, schools, and community venues. Meanwhile, the campus is host to a spectrum of other enterprises including the Walter H. Capps Center for the Study of Ethics, Religion and Public Life; the Public History Program, concerned with, among other matters, training students to apply historical skills in public settings; and the Rupe endowment to foster the study of the social effects of mass communication.

Thus it becomes apparent that there are broad academic themes that go beyond individual departments, and even divisions and colleges, and that, in several cases, thread through the entire campus. The various programs that contribute to these themes are not always well integrated. Moreover, identifying themes and the lacunae in campus strengths that could be filled is merely a first step for UC Santa Barbara to reach its full potential as a leader in interdisciplinary research and activities. Nonetheless, it is also apparent that interdisciplinary themes represent areas in which calculated investment combined with attention to organizational issues and better academic integration could give our campus a clearer and more compelling academic profile.

6. Criteria for Thoughtful Choices

As noted earlier, the future development of the campus will require thoughtful choices. Selective investment will guide how the campus balances its commitment to building on existing strengths, identifying new opportunities, and realizing the potential inherent in interdisciplinary areas that transcend departments and may in some cases run through the campus. In addition, we need to consider how to fully integrate students into the learning and discovery processes that must evolve hand-in-hand with the academic strengths.

Given these goals and conditions, how should thoughtful choices be made? The following criteria reflect the attributes of our past successes and may provide guidance to future decisions:

- ***Quality.*** Do our programs in a given (or proposed) area have distinction or can they realistically achieve distinction?
- ***Social needs and consequence.*** Will investment in a given area be responsive to real social and civic needs? Will investment in a given area have positive effects on the community at either the local or state levels in ways that encompass all of its diversity? Will investment in a given area have possible national or international consequence?
- ***Student demand and preparation.*** Will investment in a given area meet existing or potential student demand? Does the quality of the existing or potential student pool warrant the proposed investment? Will investment provide an improved educational experience and better prepare our students as an educated citizenry? Will our graduates in this area be in demand?

- ***Coherence.*** How well do programs in a given area relate to other activities at UC Santa Barbara? Will investment produce synergetic effects? How central are the programs to the university's mission? Does the faculty have the commitment and collegiality to sustain the effort to build the program(s)?
- ***Comparative advantage.*** Are we in a favorable position for investing in a given area? Compared to other UC campuses and elite institutions beyond UC, do we have an identifiable advantage in a given area by virtue of history, geography, diversity or a particular constellation of talents?

As we move forward, these elements of the framework for resource allocation can help guide the discussion and consultation processes required to move a strategic plan into actual implementation, with the ultimate goal of moving UC Santa Barbara forward along the path of growing distinction and international impact.

B. Managed Growth

The campus plan projects a gradual increase in FWS enrollment at an average annual rate of 1% (about 250 students per year to 25,000 students by 2025) and corresponding growth in summer and off-campus programs, with a significant growth in the graduate student population. The enrollment growth is driven by a number of factors, predominantly by the need to accommodate enrollment growth in the UC as a whole and the inherent civic responsibility to contribute to California's educated work force. The proposed growth also aligns with the campus sense that it has yet to achieve its optimum academic and intellectual dimensions.

Yet any growth will be confronted by a number of challenges. The anticipated turnover of a large fraction of the faculty during the planning period compounds the challenge and opportunity provided by managed growth. Growth in student population, and especially in the fraction of graduate students, will require an intentional effort to garner the financial resources necessary to create an improving environment. Staffing levels will need to improve, and the very nature of support will need to evolve as technology and changing priorities dictate. Housing will be a continuing challenge for the campus, and the campus physical facilities will need to undergo the requisite expansion and renewal to accommodate enrollment growth and programmatic development.

1. State and Community Context

There is a broad context for considering some enrollment growth. Under the recent compact with the governor, UC enrollments are anticipated to increase from 180,000 to 240,000 in the next decade. Moreover, it is expected that as freshman enrollment increases begin to slow down in the following decade, UC enrollments will continue to grow with increasing transfer and graduate student populations. These increases will have to be absorbed at the established campuses as well as at the new UC Merced campus, and there is an expectation that UC Santa Barbara will take its share of the

growth. As part of an emerging Strategic Plan for the University of California, the Santa Barbara campus is now slated to grow at a rate of about 1% per year to a total FWS enrollment of 25,000 within the 2025 planning horizon. Concomitant growth in summer and off-campus programs can be expected as well. However, the growth will be larger for the graduate student population, with a goal of achieving at least 17% graduate students within the planning period.

Of course enrollment growth in UC as a whole, and UC Santa Barbara in particular, is driven not only by California's population but by societal needs. For instance, it is well-known that there is a projected shortage of scientifically and technically trained graduates in California as in the nation at large,⁷ and we need to help meet the demand for students trained in these areas in order to maintain the state's technological edge. Moreover, graduates in the humanities, arts, and social sciences contribute decisively to the economy, particularly in California where cultural industries are prominent. At the same time, the humanities, arts, and social sciences are crucial in maintaining an enlightened, literate, and responsible citizenry, and we have a social responsibility to provide education for all our students in these areas. Furthermore, the need for more and better-trained education professionals – superintendents and principals as well as teachers – is essential to maintain and improve our base of human resources as California's population expands.

There are also economic and civic reasons for us, along with our sister campuses, to meet the demand for additional places at the university. The vast majority of students who graduate from UC stay and work in California, where the present economy depends upon a workforce capable of effective communication and critical thinking, a knowledge of other cultures, and scientific and technical literacy.

2. Academic Context

The need for managed growth at UC Santa Barbara also aligns with departmental and divisional/college long range plans. Nearly all academic units have concluded that intellectual and curricular imperatives require them to request increases in faculty strength to maintain and reinforce their core excellence. As noted earlier, it is also evident that interdisciplinary activities have given UC Santa Barbara a clear competitive edge both for attracting outstanding faculty and students and for securing essential federal and state grants as well as crucial private support. To maintain and advance UC Santa Barbara's position in the top tier of research universities these strengths must continue to develop. Such an agenda is extremely challenging, if indeed possible at this point, under conditions of fixed faculty size -- and thus student body -- since any growth would have to be offset by reductions in existing areas. The campus has certainly begun to realize this difficulty in the last several years of capped enrollment and faculty size. Given the effort and resources to grow existing programs to their current levels, managed growth,

⁷NATIONAL SCIENCE BOARD, THE SCIENCE AND ENGINEERING WORKFORCE: *REALIZING AMERICA'S POTENTIAL*, National Science Foundation August 14, 2003; National Science Board Committee On Education And Human Resources Task Force On National Workforce Policies For Science And Engineering, Joseph A. Miller, Jr., Chair, George M. Langford, *Vice Chair*.

rather than maintaining a fixed size, is the better scenario to realize the return on what has already been a substantial investment.

The proposed growth in the proportion of graduate students is also consistent with academic needs identified in the planning process. Graduate students play a critical role in a research university, performing research under the mentorship of the faculty and providing instruction as they prepare themselves for their respective careers. Hence, the ability of the university to generate knowledge, attract the extramural resources for its research mission, instruct its student body, and fulfill its obligation to produce the next generations of advanced scholars scales in direct proportion to its graduate student population. The campus has been under-enrolled in its graduate student population for a tier I, AAU research university. At 13% graduate students, we have begun to face a shortage of trained graduate students for instruction (largely as TA's) and to support the research activities of a highly productive faculty. A goal of at least 17% graduate students from its current composition of 13% would move the campus toward a much improved level of functionality, and would improve our graduate/undergraduate distribution relative to our UC and AAU comparison institutions.⁸

3. Additional Challenges

Accomplishing some managed growth has its own challenges. Among these are providing instructional and research space, housing and infrastructure to accommodate this growth on the land that currently comprises UC Santa Barbara. Accomplishing this within the Santa Barbara community poses an additional set of considerations. Certainly providing the support budget to attract and retain the high quality faculty, staff and students requisite for a top tier research university will also require ongoing attention. In addition, over the next two decades we anticipate significant renewal of a large fraction of the faculty and staff. In moving forward it is important to recognize and identify these challenges as an additional set of inputs to the Long Range Development Plan.

a) Faculty Growth and Renewal

Our current budgeted faculty FTE is 1,054 of which 870 are permanent ladder faculty. A growth in FWS student enrollment to 25,000 and corresponding growth in summer and off-campus programs could mean an increase to 1,467 budgeted FTE and an increase in filled FTE to about 1,120. Thus over the next two decades the campus might anticipate adding approximately 250 permanent faculty or on average about 12 FTE net new per year.

In addition, the campus must plan to replace faculty that will be lost over this period through retirement or other separations. In the last decade, as a consequence of the VERIP programs of the early 1990's, our retirement rate has been low, but our faculty is now significantly older than it was a few years ago and our retirement rate will increase. Assuming that faculty now 50 or more years old retire at some point before 2025 and that other separations occur at rates similar to those we have historically experienced, it can

⁸ Academic graduate student populations range from 13-65% in AAU universities and 5-25% in UC's.

be estimated that well over half of our current faculty will need to be replaced during the current planning period. Some departments will of course be harder hit than others, and planning will be required to insure that programs are not negatively impacted by a large number of separations over a short period of time.

Combining the projected addition of new positions with the need for replacements, we can estimate that we may be making almost 800 new appointments in the next two decades.

Clearly UC Santa Barbara has a tremendous opportunity. The combination of managed growth and faculty renewal will allow the campus to advance multiple goals for academic development, and strategic decisions over the next 20 years can optimize the outcome of this development to greatly strengthen the academic standing of the institution. However, as noted below, such growth and renewal is not without its challenges, housing being foremost.

b) Staff Growth and Renewal

Staff members occupy a principal role in the successful operation of the University. They have many distinct responsibilities that serve to enhance the University's reputation and national standing. Any growth in faculty and student body size will need to be accompanied by planning and actions to ensure that the campus is adequately staffed to provide the services necessary to support this growth. This will need to account for the ever changing roles of staff as the work becomes more complex, the impacts of technology more profound and the need to provide training to respond to these changes more acute. Moreover, after several cycles of budget reduction, the staff-to-faculty and staff-to-student ratios have been reduced to the point of severely taxing the existing staff. Hence, faculty and student growth will need to be accompanied by staff growth that follows a plan that accounts for these current and evolving conditions. In addition, the campus can also anticipate a turnover in staff proportional to the faculty, due to separations and retirements, to the year 2025. As with faculty, housing is a challenge for both staff growth as well as renewal.

c) Housing

Enrollment growth poses a major housing challenge for the campus. With a median housing price on the South Coast that is exceeding \$1 million, the provision of affordable housing for faculty and staff represents perhaps the greatest single tactical challenge that the campus faces. Accommodating enrollment growth and a significant population of replacement faculty and staff significantly compounds the problem. The Long Range Development Plan will have to address the potential for accommodating housing for all three populations. But, daunting as the problem is, multiple projects now under construction, planning, and consideration⁹ suggest that it may in fact be solvable within the time frame of the present academic plan.

⁹ San Clemente graduate student housing, North Campus faculty housing, Sierra Madre family student housing, Ocean Road development, and the projects identified in the Housing Capacity Study

d) Student Support

Another major challenge is adequate resources to provide and improve upon the educational environment for both undergraduate and graduate students. As with all public universities, the state support in California for UC over the last three decades has been systematically reduced, with increases in student fees being the primary source of replacement revenue. At the same time, many forces have contributed to increasing expenses in educating students,¹⁰ ranging from an increasingly competitive market for top faculty, to the need to stay current with instructional technology, to increasing needs to provide financial aid to maintain access in a time of rising costs. All of this has led to an increasing challenge to provide adequate resources for the academic enterprise. Of course, this has all been compounded by the recent budget constrictions. Thus, the general campus concern about enrollment growth has focused on whether adequate resources will be forthcoming. Enrollment growth, then, can only be a conditional goal, in that it can be accomplished only if the institution (UC) and the campus (UC Santa Barbara) are intentional and successful in improving the revenue streams to support the academic enterprise. This is particularly true for any growth in graduate enrollment, given the current differential between graduate student support levels on campus compared to our competition and given the local cost of living (both now and in the future).

In particular, we must ensure that adequate financial support is secured through state funding, student fees, extramural support, private giving and other sources, so that resources afforded for teaching and research continue their upward trend, following this most recent period of budgetary constraints. Increasing the graduate enrollment in particular must go hand-in-hand with increasing financial support for graduate students. This must include increased graduate fellowship and GSR funding to attract the best students; and it will require working towards a goal of providing sufficient graduate student financial support so that TA-ships can be used as they were intended -- primarily as instructional training for graduate students and undergraduate student educational enhancement, not graduate student financial aid. Increased undergraduate scholarships will also be required to attract the best students, and the campus will continue to need to supplement state funding for buildings and operations with other sources.

Concern has also been raised about the very rate of proposed graduate student growth compared to historical achievements. To achieve a graduate population of 17% for a total enrollment of 25,000 would require increasing the graduate student population by an average of about 70 students per year. This is aggressive relative to the last 30 years (where the campus averaged additions of about 35 per year), but there have been periods of time in which the campus exceeded this growth rate. The most recent high growth rate occurred in the late 1990's, when UC Santa Barbara grew by almost 130 graduate students per year, and it accomplished this under the current student funding formula.

¹⁰ Total expenditures per student at UC Santa Barbara increased from 1993 to 2003 (in constant 2003 dollars) from about \$22,000 to \$25,000 per year

Hence, as with the overall enrollment goal, this provides an achievable albeit ambitious challenge.

e) Community

Growth on the UC Santa Barbara campus must consider the constraints as well as opportunities within the entire Santa Barbara community. As noted earlier, the proposed enrollment (and thus staff and faculty) increase is roughly equivalent to 1% per year. This is similar to the average growth rate at UC Santa Barbara in the last 15 years, and it is similar to the growth rates projected for the population in the city and county of Santa Barbara in the next several decades.

Since the proposed net growth is likely to be confined by the current campus land capacity and associated resource requirements, it serves as an upper bound on what the campus can achieve within the 2025 planning horizon.

As noted above, housing will be a major constraint for any enrollment increase, and for both the growth and renewal of faculty and staff. The Long Range Development Plan will have to address this issue. A related issue is traffic impact, as the local community resistance to growth is tied to both housing and traffic. By locating new faculty, staff and student housing close to campus on land already owned and occupied by the University, both the housing and traffic impacts can be addressed, and to some extent mitigated, simultaneously. Indeed, these elements should comprise part of a larger sustainability plan for the campus in developing its LRDP, consistent with its core values.

It should be noted, however, that UC Santa Barbara also has positive impacts on the local region, and these should be part of the discussion with the Santa Barbara community in developing the Long Range Development Plan. UC Santa Barbara provides a wide array of social, cultural and recreational resources to the community. UC Santa Barbara is the largest employer in Santa Barbara County, and currently spends nearly \$400 million annually in the region.¹¹ Moreover, our students annually spend almost \$570 million in the region, and visitors attracted by the university another \$23 million. It is notable, too, that most students, faculty and staff perform important community services on a volunteer basis,¹² and that university research endeavors have spun off many valuable new companies in Santa Barbara. Thus UC Santa Barbara has a significant positive impact both economically and culturally on the local community and managed growth can enhance this impact.

¹¹This annual figure includes \$384 million in current funds – approximately 80% of our current fund budget – and \$8 million in capital construction projects.

¹²An average of six hours per person; see UC Santa Barbara Economic, Social and Cultural Contributions to the Santa Barbara Region, UC Santa Barbara Economic Forecast Project, May 7, 2004.

f) Resource Management

As noted above, the current land capacity limits the absolute size of the population at UC Santa Barbara. The land use planning, building capacity, infrastructure needs and housing that will accompany any growth will be addressed in the Long Range Development Plan that incorporates this Strategic Academic Plan. This will also integrate the planning and operational practices arising from sustainability studies that are currently underway.

Meeting our academic and social goals within the context of managed growth will make new demands on our physical as well as intellectual infrastructure. Modernizing and incorporating evolving technology into the classrooms, building and equipping state-of-the-art research laboratories, and keeping pace with information technology and networking the campus will add to the challenge. Moreover, UC Santa Barbara Libraries will play a critical role in anticipating and responding to these demands; these will range from the need for expanded instructional and informational services for a growing, diversifying academic community to the challenge of incorporating a wide and rapidly-changing array of information technologies into its services.

As already noted, housing will be a key element in the Long Range Development Plan, for faculty as well as staff and students.

Beyond the assurance that such enrollment and population growth is physically possible, the campus will also need to address quality of life and quality of campus issues as it moves forward with any growth.

III. SUMMARY AND CONCLUSION

UC Santa Barbara has many notable departmental and programmatic strengths that must be maintained and further developed. At the same time, interdisciplinary activities have contributed substantially to the remarkable achievements of the last 15 years and have given the campus much of its competitive edge. Indeed, the planning process has identified a number of broad interdisciplinary academic themes that go beyond individual departments, divisions, and colleges and that in some cases thread through the entire campus. Identifying these themes can help to guide the future development of UC Santa Barbara in such a way that the campus becomes much more than the sum of its parts. Given the range of opportunities, managing the campus's future will require thoughtful choices, selective investments and balanced commitment. Therefore academic development needs to be guided by explicit criteria that can assist in achieving consensus about the shape that our institution is to assume in the next, and potentially most exciting, phase of its history.

The Strategic Academic plan proposes managed enrollment growth of about 1% per year to the year 2025 with an upper limit of FWS enrollment of 25,000 students and concomitant growth in summer and off-campus programs. This enrollment growth

should be accompanied by a substantial increase in the graduate student population to at least 17%. Gradual enrollment growth will allow us to fulfill our obligation as part of the University of California, to meet our academic ambitions and responsibilities, and to maintain a favorable position in the ecology of the university as a whole and in the culturally diverse communities we serve. The projected 1% per year growth will allow us to add some 250 permanent faculty or about 12 FTE per year. Combined with the likely need to replace over half of our current faculty due to retirements and separations, the campus can expect to make almost 800 new appointments in the next two decades.

Clearly, this provides both major opportunities as well as challenges. Implementation of the broad goals of the Strategic Academic Plan will ultimately depend upon the creative and entrepreneurial skills of the faculty and the consultative processes that prevail at UC Santa Barbara to convert strategic goals into operational plans.