

Strategic Futures Committee Interim Report

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Strategic Futures Committee Interim Report

Executive Summary

Two committees have been appointed as part of the campus process to update the UC Santa Cruz long range development plan. As one of its tasks, the [Strategic Futures Committee](#)¹ (SFC)—charged with considering possible enrollment trajectories for UCSC over the next fifteen years—was asked to recommend an on-campus enrollment scenario for the year 2020. This scenario initiated an iterative consultative process between SFC and the [LRDP Committee](#)² designed to evaluate the land-use implications of such an enrollment level, to understand its implications for campus quality of life, and to explore ways in which the campus and the community can work together creatively to ensure that University and community growth and development is planned synergistically to the benefit of both parties. It was this latter expectation that prompted the University to synchronize its LRDP planning horizon with that of the next Santa Cruz City General Plan. Informed by these conversations, SFC will issue its final report and recommendations later this school year or in early summer 2004. The scenario—or more precisely, the working number—outlined in this communication is a refinement of the four scenarios previously provided and allows the analysis process to proceed to the next phase.

From the perspective of its first four decades, UCSC is now looking fifteen years into the future with its fifth Long Range Development Plan. As we sought to arrive at a working number, foremost in our thinking was the balance between how much the campus wants to grow in order to implement its academic vision and how fast the campus and the community could reasonably accommodate that growth—i.e., what *rate* of growth is appropriate. Over the last fifteen years, the campus grew at an average annual rate of nearly four percent; we believe that over the next fifteen years, the campus should grow at a slower rate—perhaps averaging half that of the previous period.

The challenge we now face collectively is to plan intelligently for the decade and a half ahead, using the best available information, data, and input, listening to all of the varied and diverse viewpoints, but also retaining flexibility for the unknown opportunities of the future. All academic institutions evolve and change over time in response to changing demographics, societal needs and values, and technological developments, as well as external challenges, economics, and employment opportunities. This fact has been recognized in each of the campus' previous physical plans. The first LRDP, completed in 1963, recommended, "*the campus should retain flexibility.*" The subsequent 1971 plan stated that physical development should be phased to the paced growth of the academic plan such that

¹ <http://planning.ucsc.edu/sfc/>

² <http://planning.ucsc.edu/lrdp/>

adequate space and *flexibility* were retained for future growth and change. Seven years later, the 1978 LRDP affirmed, "*The LRDP will change as issues change. Its intent is to guide growth and development at Santa Cruz until it, like earlier plans, needs changing to reflect future needs.*" Similarly, the 1988 LRDP set aside inclusion areas and campus resource lands to address those changing needs—including growth and development beyond 2005. It is anticipated and expected that all future long range plans will need to be updated periodically to keep up with a changing world and society. The 2005-2020 LRDP is no exception and will need to be crafted to accommodate that requirement.

A number of internal and external factors will influence the analysis of campus enrollment growth. The Strategic Futures Committee focused its attention on three primary factors and organized itself into subcommittees to analyze each:

- The campus' aspirations—including its desire to enhance the distinction of its current academic programs and, in particular, the quality and effectiveness of its graduate programs—require that the campus make provision for sufficient numbers and breadth of faculty to fully develop its existing and newer programs as well as be competitive in emerging fields;
- The opportunities and potential for new graduate programs and professional schools in emerging or new disciplines, the flexibility to support new research activities and centers consistent with the campus' existing strengths, future opportunities, and regional connections; and
- The University of California's responsibility to the people of this State to provide higher-education access requires that the campus accommodate its share of California's growing number of academically prepared and increasingly diverse high school graduates, community college transfers, and those requiring post-baccalaureate (graduate or professional) education.

The Committee's investigation revealed that an analysis using any one of these perspectives provides ample justification to achieve or exceed a total three-quarter-average on-campus enrollment of 25,000 FTE—the "responsive" scenario cited in my [December 19, 2003 letter](#)³ to the campus community. The fact that all three lead to the same conclusion makes it even more compelling.

Recognizing, however, that this pressure for significant growth through 2020 and beyond needs to be balanced by countervailing academic principles, SFC created a team to articulate a vision for the UC Santa Cruz of 2020 with a special emphasis on those qualities that will affect a sustainable quality of life for faculty, staff, students and the surrounding community. This fourth subcommittee reviewed existing campus strategic and vision documents to identify the values, principles, and qualities of UC Santa Cruz that must be preserved as the campus considers growth associated with the next stage of its development. Principal among these were the campus' Millennium Committee recommendations and the goals shaping the campus' most recent ten-year planning effort.

External factors beyond our control include the numbers of UC-eligible graduating high school seniors, the number of community college transfer applicants, as well as the economic health of the State and, therefore, the resources available to the

³ <http://messages.ucsc.edu/03-04/12-19.strategic-futures.html>

University to meet these enrollment demands. Factors internal to the campus include achieving the balance between graduate and undergraduate enrollment and the rate of new student enrollment that can be supported and sustained—which, in turn, is influenced by the hiring of new faculty, time required to develop and gain approval for new graduate programs and professional schools, construction of facilities, adequate staff, and infrastructure. We feel strongly that flexibility for change and growth beyond 2020 needs to be maintained in campus planning.

Based upon its deliberations and consultations thus far, the Strategic Futures Committee is committed to a growth rate that is careful, responsible, and strategic; is consistent with an emphasis on quality; and is consistent with campus values—including the campus' desire to work with the Santa Cruz community to seek practical solutions to the inevitable challenges of change and growth. Therefore, the Strategic Futures Committee is forwarding this initial recommendation to the Chancellor and Campus Provost and to the LRDP Committee that the campus' 2005-2020 LRDP accommodate a three-quarter-average on-campus enrollment of up to 21,000 FTE—a greater proportion (15%) of which are graduate and professional students. This more conservative scenario represents growth of 400 new students/year, on average, and equates to a growth rate of 2.7% in 2005, falling to 1.9% in 2020—a significant reduction from the average annual growth rate of 7.3% for the last five years and 3.8% for the last fifteen years.

The Strategic Futures Committee sees this step, the recommendation of a growth rate and enrollment scenario for 2020, as the end of Phase 1 and the beginning of Phase 2 of the planning process. We look forward to reviewing the land use, environmental, and community implications of our suggested 2020 enrollment as it is tested by the LRDP Committee and its workgroups. We also look forward to hearing from the broader campus community about this recommendation. To that end, we encourage you to send us email at sfc@ucsc.edu or to speak individually with any of our members.

Introduction

As we plan to accommodate the expected new students of the future, it's important to remember that when UCSC welcomed its first class in the fall of 1965, technological, social, and political forces were vastly different from today. In the subsequent nearly 40 years, the population of California has increased 65% and become much more diverse. The State of California, the City and County of Santa Cruz, and the University have undergone profound changes over the past four decades. Few of these changes could have been predicted by the initial administrators and faculty.

Almost 45 years ago, in 1960, the City and the County of Santa Cruz conveyed their enthusiasm to establish a University of California campus. The City stated that it was exceptionally able to handle a sudden influx of new growth, as demonstrated by its ability to serve the needs of thousands of summer tourists and visitors. The City and the County also promised to provide roads, water supply, and sewerage at no cost to the University. Prepared by the City and County in 1960, that initial prospectus envisioned a campus of 25,000 students, and schools of engineering, journalism, home economics, law, public health, social work as well as a department

of military sciences and a golf course.⁴ Needless to say, the campus that developed was somewhat different than originally envisioned.

The challenge we now face is to plan intelligently for the decade and a half ahead, using the best available information, data, and input, listening to all the varied and diverse viewpoints, but also making provision for the unknown opportunities of the future. From the perspective of its first four decades, UCSC is now looking 15 years into the future with its fifth Long Range Development Plan. All academic institutions evolve and change over time in response to changing demographics, societal needs and values, technological developments as well as external challenges, economics and employment opportunities.

Because of the difficulties of predicting future research and educational trends, issues, priorities and needs, we, like our predecessors, feel strongly about maintaining flexibility for future campus growth and evolution. In our principles we have attempted to provide reasonable guidance as to which directions and priorities we feel will best guide the campus over this time period. Therefore, the Committee recommends that land use planning for the UC Santa Cruz of 2020 be set in the context of a *campus master plan* that will accommodate growth and development beyond 2020 consistent with the key academic and demographic rationales identified by the Committee

analysis—in particular, that the land use plan specified by the 2005-2020 LRDP allow further growth and development should the committees assigned the task of developing the campus' next LRDP find that these rationales remain relevant in 2020.

As we have contemplated the academic future of UCSC, we have reviewed earlier academic plans and priorities, solicited broad input, and discussed what makes UC Santa Cruz unique and distinguished. We have considered our obligation as a University of California campus to serve the State's qualified students and to produce the well-informed and capable leaders of tomorrow. We also need to keep in mind that we are an integral part of a larger community and bring many benefits but also produce a number of impacts.

Campus growth and development needs to be planned strategically and directed to achieve agreed-upon campus priorities in order to increase the breadth and quality of education and research at UC Santa Cruz. Otherwise that development (especially physical development) may foreclose future options and/or the impacts of growth may not advance articulated goals. It is important that, on an on-going basis, the campus evaluate its development—considering both the benefits and detriments on the campus' academic and research mission. Therefore, the Committee examined existing campus strategic and vision documents to identify the values, principles, and qualities of UC Santa Cruz that must be preserved as the campus considers growth associated with the next stage of its development. Principal among these was the

The Planning Context

- The challenge ahead is to plan intelligently for the next fifteen years while retaining flexibility for the unknown opportunities of the future.
- Land use planning should be set in the context of a campus master plan that will accommodate growth and development beyond 2020.
- Campus growth and development needs to be planned strategically, evaluated on an on-going basis, and directed to achieve agreed-upon campus priorities.

⁴ See http://planning.ucsc.edu/sfc/docs/SC_Proposal-to-Regents_Dec1960.pdf.

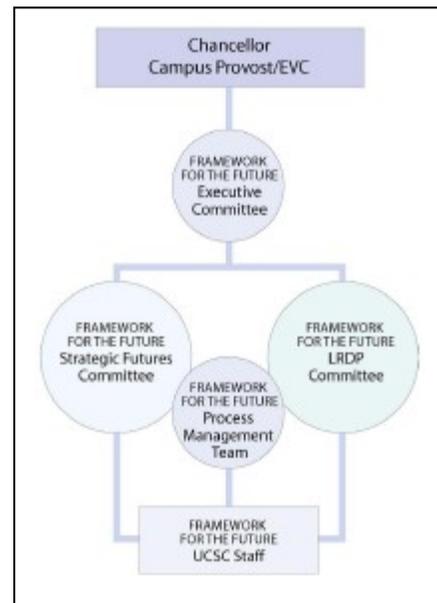
campus' Millennium Committee recommendations⁵ and the goals articulated in its most recent planning effort.⁶ To aid the LRDP Committee (and its consultants) in applying such principles to the development of the campus' next long-range development plan, the Strategic Futures Committee crafted a vision for the UC Santa Cruz of 2020 with a special emphasis on those qualities that will affect land use, infrastructure, and building design. That vision for the campus in 2020 is included as an appendix to this report.

The Committee Task

The *2005-2020 Framework for the Future* process commenced in fall 2003 with the appointment of a [Strategic Futures Committee](#)⁷ and a [Long Range Development Committee](#)⁸ engaged in parallel efforts. The LRDP Committee will prepare working papers on a number of physical planning topics (e.g., land use and environment; housing and student life; transportation and circulation; and infrastructure and technology) to test the physical implications of alternative enrollment scenarios.

At a very broad conceptual level, the SFC was charged with

- articulating the academic rationale and principles associated with growth;
- identifying the factors (e.g., significant research growth, new professional schools, mix of on- and off-campus programs) that drive requirements for physical facilities and infrastructure;
- identifying significant/emerging academic directions;
- quantifying the future capital requirements in detail sufficient to enable the LRDP Committee to define building masses and infrastructure requirements; and
- articulating the qualities of the built UC Santa Cruz campus that should be addressed in the LRDP.



In this draft report, the key deliverable is an examination of the factors that drive academic and research program growth and thus total UC Santa Cruz enrollments in the year 2020—in particular, the basis for its recommendation for an initial working number for on-campus student enrollments during the traditional fall/winter/spring quarters. The Committee seeks input from the campus community on its recommendation—one that considered not only the enrollment and faculty needed to achieve the campus' academic vision, but also how fast both the campus and the

⁵ *UCSC at a Crossroads: Advisory Report of the Millennium Committee* (<http://www.ucsc.edu/planbudg/chanc/millcom/mcreport.pdf>)

⁶ *Planning for the UC Santa Cruz of 2010* (<http://planning.ucsc.edu/plans2001/>)

⁷ <http://planning.ucsc.edu/sfc/cmte/>

⁸ <http://planning.ucsc.edu/lrdp/cmte/committee.pdf>

community could accommodate that growth—i.e., what *rate* of growth is appropriate and sustainable.

The land use, environmental, and community implications of this enrollment scenario will be tested as part of the work of the campus' physical planning consultants, the LRDP Committee, and its work groups. That analysis—as well as direct input from the campus community and from the Santa Cruz and other regional communities—will inform the recommendations in the final report of the Strategic Futures Committee (currently anticipated in June 2004).

Principles Guiding Growth and Development

Throughout the nation, public higher education is facing major challenges—the challenges of constrained state resources, increasing demand for services, and increasing expectations—as our society looks to universities for answers to our most pressing problems. Similarly, local university communities such as Santa Cruz are also experiencing the pressure of constrained resources and increasing demand for local services. The Committee believes that both locally and nationally, the University needs to (and, in collaboration with its local and regional communities, can) be a leader in confronting the local, regional, State, and national challenges and in pursuing the opportunities of this new era.⁹

UC Santa Cruz' role as a campus in the University of California system defines our role as a public land grant research university. Although UCSC is a relatively young campus, it has already established itself as a world-class institution that balances its commitments to undergraduate education, graduate training, and research. UCSC academic plans have consistently articulated a campus vision having a breadth and depth of undergraduate academic programs, a fully developed range of academically focused graduate programs, and appropriate professional degree programs. A vibrant research enterprise—coupled to and growing from these academic and professional programs—contributes to the quality of undergraduate and graduate education, to faculty quality and satisfaction, and to the ability of UCSC to contribute to its service mission. This mission includes generating new ideas and providing solutions to the challenges facing our region, State, nation and world, broad service to the academic community nationally and internationally, and public service and outreach activities focused at the local, regional, and national levels. In addition, UCSC has a regional role as the central coast campus of the University of California.

Program Growth and Development

- Promote vision-based campus growth and development
- Strengthen research and scholarly accomplishment and distinction—foster interdisciplinary programs at all academic levels
- Achieve the campus' long-standing goals for graduate and professional education—including its goal to grow graduate enrollments to around 15% of total enrollments

⁹ Higher education has long been considered an economic driver for the nation, e.g., Federal Reserve Board Chairman Alan Greenspan observed that “if we are to remain preeminent in transforming knowledge into economic value, the U.S. system of higher education must remain the world's leader in generating scientific and technological breakthroughs and in preparing workers to meet the evolving demands for skilled labor” (<http://www.federalreserve.gov/boarddocs/speeches/2000/20000711.htm>).

As a research university within the University of California system, UCSC has a civic obligation to address and solve societal problems through research and education in public and environmental health, the sciences, the arts, and humanities. These broad social and disciplinary concerns will drive future enrollment ranges for UCSC, described below.

Graduate Programs and Professional Degree Programs. The California Master Plan for Higher Education designates UC campuses as research institutions housing master's and doctoral programs and professional degree programs. These are viewed as integrally interwoven with the undergraduate teaching mission; graduate and professional education is a distinctive feature of the University of California. UCSC has long articulated a goal of increasing the number of graduate and professional students, including the establishment of new degree programs and professional schools.

As part of the campus' most recent long-range academic planning effort, several principles have guided the development of the campus' graduate and professional degree programs:

- Excellent graduate education is an indispensable aspect of a research university, and UCSC needs to take deliberate steps to give graduate education and professional school development a greater role on campus. There exists a long-standing goal to grow graduate student enrollments to around fifteen percent of total campus enrollments.¹⁰ Deliberate steps should be taken to maintain and develop thriving graduate programs and new professional schools in order to make progress towards achieving this goal.
- A range of research-based master's and Ph.D. degree programs, certificate programs, and professional programs/schools addresses UCSC's role as a research university, promotes programmatic quality and internal coherence, and should be focused to attract and retain excellent students. This benefits undergraduate education as well.¹¹ UCSC needs to proactively target graduate and professional growth, building from areas of existing strength and future opportunity.
- UCSC should examine regional, state and national needs, exploit regional opportunities and initiatives, and explore the potential for developing professional degree programs that would address these needs. Plans for growth and change in graduate programs must be both responsive and responsible—expanding programs and enrollments where needs are greatest and contracting or maintaining a steady state where job prospects are less promising.

¹⁰ This is consistent with the winter 2002 resolution of the UCSC Academic Senate, (AS/SCP/1336, <http://planning.ucsc.edu/plans2001/as/scp/1336.pdf>): Therefore be it resolved: "That UCSC commit itself to growth in graduate and professional programs, both existing and new, with the goal of attaining a student population of at least 15% graduate students; and That the UCSC Senate and Administration jointly develop a plan aimed both at establishing this student population and guiding the annual targets."

¹¹ "Explicit in these goals is a new focus on graduate education and research. I want to emphasize that this does not imply less attention to undergraduate education. Rather, they are intertwined. Vigorous research activities are integral to developing a quality graduate program. And a mature graduate program is essential to the quality of undergraduate education, which is enhanced by the work of inspiring young scholars in the undergraduate classrooms and laboratories." (M.R.C. Greenwood, http://www.ucsc.edu/administration/mrc/speeches/01.10.02-leading_millennium.pdf)

- Graduate and professional school and research growth should be focused in emerging disciplines where the campus has core strengths and can attract quality faculty, in areas where the regional resources will place us at a competitive advantage, that are responsive to societal needs, and that can attract extramural support. UCSC must invest in targeted areas of established and emerging excellence and distinction.¹²

Academic and Research Excellence for UCSC.

In addition, campus trajectories should sustain excellence in departments at near-mature size, allowing the timely replacement of departing faculty and some growth in faculty numbers. Additional space (for research, for intra- and cross-departmental research activities, for professional programs) in excess of enrollment growth will be required for these departments as extramurally funded research and interdisciplinary connections increase. Maturing departments require selective faculty growth, with larger proportional growth often needed to support recently and newly established programs or those at much less than optimum size. Faculty numbers also will grow to support new programs within departments that are still expanding, across and between disciplines and divisions and schools, to support professional programs and schools, and for areas not yet envisioned.

Integrating Education and Research

- Growth of existing graduate programs and introduction of new programs, schools, and research institutes advance the campus' stature as a research institution—which, in turn, attracts the best faculty and graduate students
- Research generated resources are critical to support a high quality research university
- Breadth and depth in research and graduate programs increases opportunities for intensive research experiences for undergraduates—including internships and collaborations with graduate students—which, in turn, attracts the best undergraduate students

A Vision for the UC Santa Cruz of 2020—those qualities that should inform the development of a 2005-2020 LRDP. UC Santa Cruz' growing reputation as a public education and research university of distinction has been fueled, in part, by the pursuit of guiding principles that seek to integrate education and research.

In order to facilitate the application of such principles to the development of the campus' next long-range development plan, the Strategic Futures Committee crafted a vision for the UC Santa Cruz of 2020 with a special emphasis on those qualities that will affect land use, infrastructure, and building design.

Included as an appendix to this report, the Strategic Futures vision has six major components:

- *Serving Society and the Region*—priorities that drive the campus' educational and service missions;
- *Discovering and Advancing Knowledge*—the campus' commitment to the development of high-quality, internationally-recognized research programs;
- *Transmitting Advanced Knowledge*—the campus' commitment to intellectual life that characterizes its undergraduate and graduate/professional education;

¹² Furthermore, as part of its approval process, the campus is careful to focus its new program proposals in areas that complement rather than emulate/duplicate programs at other regional institutions

- *Preserving Advanced Knowledge*—in support of dynamic intellectual engagement across disciplines and in support of an open, democratic, and informed society;
- *Maintaining Our Public Research Emphasis*—whose education, research, and engagement in public discourse is socially relevant and serves diverse constituencies; and
- *Valuing Our Physical Space*—a commitment to long-term stewardship of our physical assets in service of societal needs and state-wide/regional commitments, and a commitment to being a good neighbor as an integral part of our local community.

This vision, and the principles and values on which it is based, acts as a lens through which to view the internal and external forces that will shape our future—permitting the campus to choose intelligently among the options and opportunities that present themselves.

Realizing the Current Campus Academic Vision and Potential— An Academic Rationale for Growth

The program aspirations of faculty, their departments, and their divisions—as articulated in the recent planning process—informed planning for growth. However, five additional point of views set a broader context for the Committee’s examination of potential growth beyond 2010: the faculty view about growth as articulated by the Academic Senate; basic principles for expanded growth articulated UC-wide; the University of California’s tripartite mission of teaching, research, and service on behalf of the citizens of the State; the need of UC’s key stakeholder (and source of basic core funding)—the State of California—to accommodate the growing number of undergraduates seeking a UC education; and the experience of other UC campuses and comparison public research institutions.

- *The UC Santa Cruz faculty view*.¹³ “For the campus, the choice is whether and how growth might help us to become better at our core mission of teaching and research.”
- *Basic academic principles for expanded enrollment*.¹⁴ The following are among the principles that have been articulated by the Office of the President:
 - Sustaining commitment to the Master Plan;
 - Ensuring quality;
 - Fostering graduate education and research;
 - Implementing growth systemwide; and
 - Expediting time to degree.
- *The UC core mission—meeting State/regional needs for instruction and research*.¹⁵ In that the campus’ core I&R support, including its capital program, is fundamentally linked to its success in fulfilling its teaching and research mission, it must participate actively in meeting State needs as part of its

¹³ Santa Cruz Academic Senate Committee on Planning and Budget, (AS/SCP/1373, 1/27/2003, <http://senate.ucsc.edu/cpb/cpb1373.htm>).

¹⁴ UC Office of the President, (3/1/2000, <http://www.ucop.edu/planning/rulesofthegame/basicprinciples.html>).

¹⁵ UC Office of the President (<http://www.universityofcalifornia.edu/aboutuc/mission.html>)

partnership with the State. Growth to enable additional programs—especially those in emerging disciplines where the campus has core strengths and in areas where the regional resources will place us at a competitive advantage—will best position the campus to meet State instructional and research needs.

- *The State's need to educate undergraduates.*¹⁶ In fulfillment of its fundamental responsibility as a land grant university to help produce an educated population, the California Master Plan for Higher Education obligates the University of California to accommodate the top 12½% of high school graduates. It provides the basis for concern about access in that UC must accommodate as many as 12,000 new college-going students above that in previous estimates. This UC system- and Statewide obligation presents this campus with an opportunity to extend its long-term commitment to diversity and to help to shape the next generation of students graduating from the UC system.
- *The experience at other UC campuses.*¹⁷ "Size does have certain advantages. It supports the comprehensive scope of our academic enterprise, the equal of any university in the world, and provides the critical mass required to maintain our many unique programs."

For the purposes of this interim report, the Strategic Futures Committee considered possible future growth and development requirements mandated by the campus' mission independent of the possible land use impacts of such growth. The Committee's conclusions are organized below according to the three perspectives represented by its subcommittees: the campus' academic aspirations; opportunities and potential for new graduate programs, research centers, and professional schools in emerging or new disciplines; and the University's responsibility to the people of California to provide higher-education access.

Instruction and Program Development—Enhancing Excellence, Responding to Societal Needs. As a comprehensive public research university, the campus' academic plans have consistently articulated a vision for having a breadth and depth of undergraduate academic programs, a fully-developed range of academic focused graduate programs (certificate, masters, and Ph.D. level), and appropriate professional programs. It is widely acknowledged that each program requires a critical mass of faculty to support quality education and the strength of the intellectual community. Departments, whether in new or emerging fields or in traditional disciplines, are a community of colleagues rather than simply an administrative unit. As such, departments must be large enough to provide a "critical mass" of interaction and ensure the stability of the curriculum and program governance. As noted in the recently-completed long-range academic plans, many campus departments are not yet of a size that is both fully sustainable and comparable to highly-rated departments at peer institutions—campus growth would help address this situation.

In that the campus' core instruction and research support, including its capital program, is fundamentally linked to its success in fulfilling its teaching and research

¹⁶ California Master Plan for Higher Education
(<http://www.universityofcalifornia.edu/aboutuc/masterplan.html>)

¹⁷ This statement (June 2002, <http://spc.vcbf.berkeley.edu/document/AcademicStrategicPlan.pdf>, page 11) prefaced the UC Berkeley academic strategic plan for 2010-11. As part of the SFC analysis, statistics about the size/quality of comparable programs at each UC campus—as well as other selected public research universities—were reviewed.

mission, it must participate actively in meeting State needs as part of its partnership with the State. Growth to enable additional programs—especially those in emerging disciplines where the campus has core strengths, and in areas where the regional resources will place us at a competitive advantage—will best position the campus to meet State instructional and research needs.

In the mid-1980's, when the campus was contemplating its development through 2005, it enrolled about 7,500 students, offered about thirty academic programs, and had a budgeted faculty numbering 370 FTE. While some departments had grown to nearly 30 faculty members, others were quite small and found it difficult to mount viable programs. Even programs of "average" size^{18,19} were finding it difficult to mount competitive Ph.D. programs. The just-completed *Twenty-Year Academic Plan*²⁰ set a goal to increase the number of departments to forty with each averaging twenty permanently-assigned faculty FTE.²¹ By bringing the current programs up to the twenty-faculty member threshold cited in the *Twenty-Year Academic Plan* the campus intended to ensure their viability as research and teaching units, to offer the breadth of curriculum needed to support diverse student interests, and to more fully develop the existing departments, while launching a modest number of new programs.²²

1985-86 Instruction (Degree) & Research Programs

Arts

Art*
Art History*

Music*
Theater Arts*

Humanities

American Studies*
History*
History of Consciousness*
Language Studies
Legal Studies

Linguistics*
Literature*
Philosophy*
Women's Studies*

Natural Sciences

Astronomy/Astrophysics*
Biochemistry & Molecular
Biology
Biology*
Chemistry*
Computer Engineering*
Computer & Information
Science*

Earth Sciences*
Marine Sciences
Mathematics*
Physics*
Psychobiology
Science Communication

Social Sciences

Anthropology*
Applied Economics
Community Studies*
Economics*
Education*
Environmental Studies*

Latin American Studies
Modern Society and Social
Thought
Politics*
Psychology*
Sociology*

* = department (with ladder faculty appointed)

Programs listed in green are undergraduate only
Programs listed in brown are graduate (certificate, MA/MS, PhD) only

¹⁸ In that UC policy requires that at least 10% of all faculty positions be held in a temporary pool, the average program size in 1988 was smaller than 11 FTE.

¹⁹ For planning purposes, about 85% of the campus' faculty positions can be "permanently assigned" to an academic department. The balance is held in temporary pools (either centrally or within the academic divisions) for short-term instructional appointments (e.g., a temporary faculty appointment to teach a single course or for a single term/year), for college-based curriculum, and for other purposes (e.g., a reserve for Academic Senate and other comparable service).

²⁰ See http://planning.ucsc.edu/sfc/PDFs/1985_20YrPlan.pdf.

²¹ At the time, the 950 faculty FTE positions required to achieve the goals articulated in the 1985 *Twenty-Year Academic Plan* translated (see http://planning.ucsc.edu/sfc/PDFs/1988_AcadPlanStudy.pdf) into a campus enrollment of 15,000 FTE students. In that student/faculty funding ratios have deteriorated since that time, the campus would need to grow to 18,525 FTE students to justify the same number of faculty (using 2003-04 funding formulas; the Governor's 2004-05 budget proposes even higher student/faculty ratios).

²² In 1985, many programs were only partially developed and faculty recruitments restricted to a few major sub-disciplines; as a result, these programs did not have the flexibility for research inquiry in emerging fields of study. A study of programs at comparison institutions provided statistics support for qualitative assessments such as these.

Today, the campus has nearly reached the enrollment of 15,000 students projected in the 1988 LRDP, has 34 departments with permanently-assigned ladder faculty,²³ and undertakes research/offers curriculum in about 60 fields.

It is interesting to observe that these include many programs not anticipated by campus academic planners when the 1985 *Twenty-Year Academic Plan* was written—including some that today are among the campus' signature programs. Other fields upon which today's programs are built did not even exist at that time—e.g., bioinformatics, biomolecular engineering, digital arts/new media. This growth and development of campus programs has resulted in major contributions to research (e.g., the draft assembly of the public human genome²⁴) and instruction (e.g., an interdisciplinary program²⁵ in the arts and engineering) unimagined just a few short years ago. All of these were, and are being, enabled by campus growth. The campus needs to decide how significant its influence will be in these emerging fields²⁶ and whether growth would help it achieve such objectives.

2003-04 Instruction (Degree) & Research Programs

Arts

Art*
Digital Arts/New Media
Film and Digital Media*

History of Art & Visual Culture*
Music*
Theater Arts*

Humanities

American Studies*
Classical Studies
German Studies
History of Consciousness*
History*
Italian Studies

Language Studies
Linguistics*
Literature*
Philosophy*
Women's Studies*

Engineering

Applied Math & Statistics
Bioinformatics
Biomolecular Engineering*
Computer Engineering*
Computer Science*

Electrical Engineering*
Information Systems Management
Network Engineering

Physical & Biological Sciences

Applied Physics
Astronomy & Astrophysics*
Astrophysics
Biochemistry & Molecular Biology
Biology
Chemistry
Chemistry & Biochemistry*
Ecology & Evolutionary Biology*
Earth Sciences*
Environmental Toxicology*

Health Sciences
Marine Biology
Marine Sciences
Mathematics*
Molecular, Cellular, & Developmental Biology*
Neuroscience & Behavior
Ocean Sciences*
Physics*
Plant Sciences
Science Communication

Social Sciences

Anthropology*
Applied Economics
Business Management
Economics
Community Studies*
Economics*
Education*
Environmental Studies*
Global Economics

International Economics
Latin American & Latino Studies*
Legal Studies
Politics*
Psychology*
Social Documentation
Sociology*

* = department (with ladder faculty appointed)

Programs listed in green are undergraduate only

Programs listed in brown are graduate (certificate, MA/MFA/MS, PhD) only

²³ In 2003-04, budgeted faculty FTE totaled 753 FTE; about 85% of these may be filled with ladder rank faculty (see footnote 19).

²⁴ See <http://genome.ucsc.edu/>.

²⁵ See <http://digitalarts.ucsc.edu/>.

²⁶ As an example of important emerging disciplines, seventeen new fields are being included in the National Research Council (NRC, <http://www.nationalacademies.org/nrc/>) survey of doctoral programs: agricultural economics, *American studies*, *applied mathematics*, communications, *developmental biology*, *East Asian literatures*, entomology, food science and food engineering, immunology, *microbiology*, *molecular biology*, Near Eastern literatures, nutrition, *plant sciences*, Slavic literatures, and *theater and performance studies*. In addition, the panel is starting to gather and report data about other "emerging" fields including *bioinformatics*; *cognitive studies*; *computational biology*; *feminist, gender, and sexuality studies*; *genomics*; *nanoscience*; and *race, ethnicity, and postcolonial studies*. The Santa Cruz campus has already established signature programs in many of these areas, and overall has current or nascent strengths in the majority of the emerging disciplines listed by the NRC (those shown in *italics* above). Source: "Survey of Doctoral Programs Should Include More Fields and Opinions of Students, Panel Suggests," *Chronicle of Higher Education* (<http://chronicle.com/>), 12/20/2002.

External developments have opened up opportunities for expansion of recently-established programs, while suggesting new areas of inquiry not previously contemplated. Therefore, in 2000-01, the campus evaluated its current academic programs, reflected upon the goals articulated in its *Millennium Committee* report,²⁷ and articulated plans for further academic program development—as well as for the introduction of instruction and research in a limited number of new fields.

In developing updated ten-year plans,²⁸ deans and faculty were asked to work within the boundaries of the likely resources the campus could anticipate through 2010—i.e., the resources generated by three-quarter-average enrollments of 16,900 FTE (plus 315 FTE summer enrollments) and the additional extramural resources they could reasonably anticipate (e.g., through fund raising; from successful contracts and grants proposals). Even so, their planning statements suggested academic programs that would require FTE enrollments of about 19,000 in 2010; furthermore, these plans did *not* fully anticipate possible professional schools nor did they adequately investigate potential new programs for which there is not currently a faculty constituency. In addition, the divisional visions that informed these plans were at varying stages of maturity—some plans were fully developed while others were in a more exploratory phase; and given the resource boundaries, many departments planned for incremental growth rather than considering the options available for creating distinction through more significant growth (e.g., through cluster hires). None-the-less, these plans show potential for substantial growth and development beyond 2010. For example, in the area of graduate programs alone, approval for new graduate programs are now pending in three fields; graduate program proposals are underway for five additional fields (by 2006); and graduate programs in an additional nineteen fields are in the general 2010 planning horizon.²⁹

Principles on which Academic Program Aspirations are Built

- UCSC is committed to the development of high quality, internationally-recognized research programs, encourages faculty initiatives to build and maintain excellent programs, and takes risks when the potential rewards are great.
- UCSC will commit itself to high-quality production and transmission of knowledge across all disciplines.
- UCSC is committed to an undergraduate education characterized by disciplinary depth, rigorous breadth, and by direct interaction with faculty.
- UCSC will preserve, refine, expand, and share our knowledge base in support of dynamic intellectual engagements within and across disciplines, and as a crucial resource to an open, democratic and informed society.
- UCSC is committed to growth of a variety of graduate and professional degree programs that provide an outstanding education.

Therefore, in addition to considering the recently-completed divisional ten-year plans (through 2010), the Committee interviewed deans and department chairs to confirm their long-term academic goals as well as explore opportunities to extend the applicability of instruction (and research) to societal issues through pursuing new, emerging fields of study often characterized by interdisciplinary collaboration.

²⁷ See <http://www.ucsc.edu/planbudg/chanc/millcom/mcreport.pdf>.

²⁸ See <http://planning.ucsc.edu/plans2001/>.

²⁹ See <http://planning.ucsc.edu/sfc/docs/gradpgms.04-05-04.pdf> for a graphical overview of the history of graduate degree programs at UC Santa Cruz.

Since individual UCSC departments are at different stages of development, the Committee observed a range of desired growth. While there are a few departments that have already attained a size appropriate to their discipline and their aspirations for excellence within this planning period, most departments cited programmatic or teaching load reasons for additional growth. The focus for some is to hire additional faculty to enable them to offer or expand graduate programs; others desire to supplement the talent and expertise within their departments to offer additional courses and instructional programs relevant to California’s population or to pursue new directions of inquiry—particularly in emerging inter- and cross-disciplinary fields; and still others desire to build new professional schools consistent with campus strengths and values. Recognizing the difficulty of predicting the long term evolution of academic programs, the Committee recommends that the campus make provision for several yet-to-be-designated academic disciplines.

In framing the academic vision that is the basis for its recommendations, the Committee placed its emphasis on the campus’ pursuit of excellence—*not* on an assumption of growth. Furthermore, when considering new program development, the Committee was careful to focus in areas that build upon campus strengths and complement rather than emulate/duplicate programs at other regional institutions. In analyzing how other public research universities achieved various markers of excellence (e.g., specific academic programs or professional schools recognized as being in the top tier of their discipline, etc.), however, campus size was often a factor. Thus the Committee’s conclusions are based on a combination of departmental vision and the analysis of the campus’ peer institutions.

Pursuit of Excellence

- In framing the academic basis for its recommendations, SFC placed its emphasis on the campus’ pursuit of excellence—*not* on an assumption of growth.

The Committee concluded that as many as an additional 560 faculty FTE would be needed to achieve this academic program development. At 2003-04 student/faculty ratios, this increment growth in faculty FTE suggests the need for an enrollment increment of 10,400 FTE students over the campus’ 2003-04 budgeted allocation of 14,600 FTE students.

The following summarizes those numeric findings:

	<u>Type of development needed</u>	<u>Required number of faculty</u>
Offer graduate degrees in existing programs	<ul style="list-style-type: none"> • 6 departments with newly established graduate programs requiring additional investment • 8 departments desiring to develop graduate degrees but currently without graduate programs 	180 faculty FTE (based upon analysis of comparison institutions)

<i>(continued)</i>	<u>Type of development needed</u>	<u>Required number of faculty</u>
Build and extend existing programs development—for those already offering both undergraduate and graduate degrees	<ul style="list-style-type: none">• Expand programs to develop a faculty cadre with sufficient depth and breadth to develop and sustain world-class research programs—including interdisciplinary inquiry• Accommodate instructional demand at undergraduate and graduate level in impacted and/or emerging fields	310 faculty FTE (based upon analysis of comparison institutions)
Inaugurate new professional programs and/or schools	<ul style="list-style-type: none">• Several new schools that represent either natural development of existing programs or entirely new directions were identified³⁰	60-70 faculty FTE (based upon analysis of comparison institutions) to launch (but not fully develop) two or three new professional schools

These plans and aspirations suggest that (assuming current student/faculty funding ratios³¹) the campus *could* grow to an enrollment of 25,000 FTE (or more).³²

Research and New Programmatic Directions—Advancing Future Benefits to Society. Though UC Santa Cruz is a relatively young campus, it has already established itself as a world class institution that balances its commitments to undergraduate education, graduate training, and research. In order to advance the campus' vision of increasing its depth and breadth in disciplinary and interdisciplinary education and research, and hence advance in stature as an academic research institution over the next fifteen years, the campus will need to expand existing graduate and research programs and also develop new programs, schools, and research institutes. This will promote advances in basic and applied research, increase opportunities for graduate training, and provide research experiences, including internships, for undergraduates. These efforts will also ensure that UC Santa Cruz remains responsive to current and emerging State needs.

In order for UCSC to remain competitive in its position as a first rate public research university, the campus must ensure sufficient numbers of faculty to be competitive in emerging fields and to support new models for research activities. Specifically, department size needs to be optimized to sustain programmatic breadth at both the

³⁰ For illustration purposes only, among the suggestions were a school related to commerce, business, and information technology management; programs and/or schools in social policy, public advocacy, digital arts, environmental and coastal management, education, forensics, and biomedical sciences and engineering.

³¹ The 2004-05 Governor's budget proposal recommends a further deterioration in UC student/faculty funding ratios; if accepted by the Legislature, this would affect the student FTE figures cited here.

³² While program-by-program tabulations derived from departmental/divisional interviews were compiled in considering the potential development of campus academic programs (and thus in estimating student enrollments), these are not detailed here. While the Strategic Futures Committee thought about the range of potential academic and research programs that might be considered by UC Santa Cruz between now and 2020, it *specifically avoided recommending changes to divisional academic plans*. Concurrently, as part of their academic planning responsibilities, the UCSC academic deans (both individually and collectively) are updating and extending their academic plans to coincide with the 2020 timeframe.

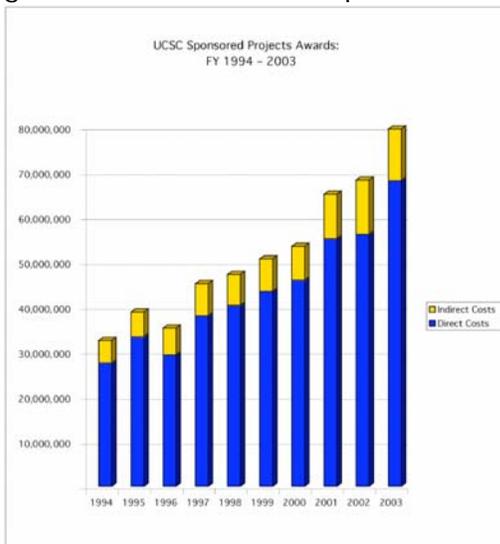
undergraduate and graduate levels and simultaneously build breadth and depth in research.

To achieve the campus' priority to strengthen research and scholarly accomplishment and distinction—including markedly increasing external support—UCSC will need to increase the number of large research initiatives, multi-investigator research programs and grants, and total research gifts and contracts over the next five years. This suggests that PIs and administrators will have to employ processes other than incremental growth of ladder rank faculty obtained from enrollment increases to achieve this goal. To make progress towards this goal, the campus will need (i) more ladder and research rank faculty of distinction who have written, lead, and obtained large collaborative research program grants; (ii) more people who can successfully manage large research efforts; and (iii) the requisite staff infrastructure to help obtain and administer this higher level of contracts and grant activity. The campus' ability to build these capabilities more quickly is enabled through strategic growth.

Principles Associated with the Pursuit of New Programmatic Directions

- UCSC is committed to its distinctive tradition of fostering interdisciplinary research and extending its intellectual reach in exciting new directions.
- UCSC recognizes the importance of graduate and professional education to the development of any top-ranked research university.
- UCSC will strengthen research and scholarly accomplishment and distinction; and will markedly increase external support, from grants and contracts as well as private fund raising.
- UCSC will develop innovative programming in non-traditional areas—including the Silicon Valley Center, State-supported summer instruction, and other off-campus enterprises (e.g., distance learning, EAP, UCDC, others).

In recent years, the campus has made significant strides towards its dual goals of strengthening research and scholarly accomplishment and distinction and markedly increasing external support, from grant/contract as well as private fundraising. Research contracts and grant awards totaled over \$79 million in 2002-03, up from \$35 million in 1995-96. This growth is expected to continue.³³



Strong research and academic programs are interdependent. Quality research programs enhance the campus' intellectual environment which, in turn, attracts and inspires the best faculty and graduate students. Strengthening the campus culture of creativity and discovery is essential to continuing the campus' distinction as one of the finest public research universities in the nation for undergraduate education.

Increasing both the breadth and depth of our research programs at UCSC will contribute to

³³ For this reason, one of the Committee recommendations is that to facilitate and accommodate planned research growth at UC Santa Cruz, LRDP projections for future research space (both "sponsored" and "unsponsored") be based upon combination of 100% of the guideline space suggested by the CPEC standards plus a 50% increase above all current/planned ORU/ORR space.

an increase in the breadth and quality our academic programs, both at the graduate and undergraduate levels. Quality research programs provide the optimum training opportunity for graduate students, and also offer unique opportunities for undergraduates early in their academic careers to become involved in intensive research experiences—as well as internships and “capstone” educational experiences. The interdependence of research and graduate training is further underscored by the increased graduate funding support opportunities that are made available for all graduate programs through a robust research enterprise operating on a large base of extramural funding support. Thus, growth in research will promote advances in basic and applied research, and increase opportunities for graduate and undergraduate training. These efforts will ensure that UCSC remains responsive to current and emerging State needs in the areas of the arts, education, environmental and health sciences, the social sciences, and technology, among others.

Campus divisions, departments, and faculty are pursuing many emerging research themes that were not evident at the time the last LRDP was developed—including biomolecular engineering, film and digital media, and social policy and public advocacy.

1985-86 Research & Professional School Profile

(\$12 million in sponsored research activity)

ORUs/ORAs

- Center for Marine Studies (CMS; now IMS)
- Santa Cruz Institute for Particle Physics (SCIPP)
- University of California Observatories/Lick Observatory (UCO/Lick)

Professional Schools

None

2003-04 Research & Professional School Profile

(an estimated \$91 million in sponsored research activity)

ORUs/ORAs

- Center for Adaptive Optics (CfAO)
- Center for Agroecology & Sustainable Food Systems (CASFS)
- Center for Biomolecular Science & Engineering (CBSE)
- Center for Information Technology Research in the Interest of Society (CITRIS)
- Center for Justice, Tolerance, and Community (CJTC)
- Center for Molecular Biology of RNA
- Center for Research on Education, Diversity & Excellence (CREDE)
- Dickens Project
- Institute for Humanities Research (IHR)
- Institute for Quantitative Biomedical Research (QB3)
- Institute of Geophysics and Planetary Physics (IGPP)
- Institute of Marine Sciences (IMS)
- Santa Cruz Center for International Economics (SCCIE)
- Santa Cruz Institute for Particle Physics (SCIPP)
- STEPS (Science, Technology, Engineering, Policy, and Society)
- Institute for Innovation in Environmental Research
- University of California Observatories/Lick Observatory (UCO/Lick)

Professional Schools

- Jack Baskin School of Engineering³⁴

The Committee’s analysis³⁵ of research potential and academic program development identified potential “catalytic” research initiatives that could result in significant

³⁴ The Jack Baskin School of Engineering, like other engineering schools, offers a mix of professional and academic degree programs. Its primary mission is research-focused BS, MS, and PhD degrees, but maintains undergraduate accreditation and part-time MS programs to serve those desiring to immediately become, or who already are, in the profession of engineering.

growth in research activity, should the campus consider new research themes,³⁶ research institutes, and professional schools/programs.³⁷

Selected Examples of Future Opportunities

Research Themes

- Applied mathematics and statistics
- Biomedical sciences
- Biomolecular engineering
- Coastal and marine studies
- Coastal & marine policy
- Comparative US studies
- Environmental engineering
- Feminist studies
- Film and digital media
- Information systems and technology management
- Music composition
- Performance practice
- Social Documentation
- Social policy and public advocacy
- Software engineering
- Visual art
- Visual culture
- Web and Internet engineering

Research Institutes

- Biomedical sciences
- Digital media
- Environmental sciences & policy
- Social policy
- Technology

Professional Schools

- Architecture
- Business
- Education
- Environmental Resource Management
- Management
- Public Policy

This potential for multifaceted growth of graduate and research programs, the opportunities for new research institutes, and the potential for new professional schools is predicated on the foundation of strong academic programs articulated in the previous section (and hence has implications for potential enrollment growth). Furthermore, it requires that the campus' 2005-2020 LRDP accommodate substantial increments of new research space (for both sponsored and unsponsored activities).³⁸ In that future research fields will cross historical disciplinary boundaries, campus space planning should reflect the impact of diverse faculty groups working together.

UC's Responsibility to the People of California—Providing Higher Education

access. The University of California has a very important pact with the people of California to provide higher education access for all qualified students. The demand for a University of California education by undergraduate students is projected to increase significantly over the decades ahead, with factors external to UCSC driving

³⁵ While the Strategic Futures Committee thought about the range of potential research themes/institutes as well as professional schools that might be considered by UC Santa Cruz between now and 2020, it avoided ranking/recommending specific initiatives. Consideration of such possibilities is occurring in other forums—e.g., by the UCSC academic deans (both individually and collectively) as well as by faculty.

³⁶ Many of these emerging academic and research themes at UC Santa Cruz are similar to emerging collaborative research themes identified by the National Research Council (e.g., *life sciences*—including biotechnology; and systems biology; *physical sciences, mathematics, and engineering*—including nanoscience and nanotechnology; and information science; *arts and humanities*—including race, ethnicity, and post-colonial studies; feminist, gender, and sexuality studies; and film studies; and *social and behavioral sciences*—including science and technology studies). This inventory of emerging fields (<http://www7.nationalacademies.org/resdoc/Taxonomy.html>) was prepared in anticipation of the upcoming NRC assessment of doctoral programs.

³⁷ As was the case with academic program ideas, an inventory of emerging research themes, opportunities for research institutes, and potential professional schools derived from departmental/divisional interviews was compiled; these, however, are not detailed here.

³⁸ See footnote 33.

this change. The number of graduating California high school students is projected to increase as the demand by California citizens for a UC education broadens to an increasingly diverse population—51.5% of public high school graduates in the early 1990's are already from non-Euro-American ethnic backgrounds. Furthermore, improved student retention and the demand by those outside the traditional 18-year old new-student cohort (e.g., community college transfers, older students returning to college) represent demand in addition to the increasing number of graduating high school seniors.

As a public research university, our commitment to access, equity, and opportunity for California's citizens is part of the "contract" UC and UCSC have with the State. Improving the academic preparation of this growing, and more diverse, student population will continue to fuel the local, State, and national economy. Under the State Master Plan for Higher Education, UC accepts students from the top 12½ percent of California's high school graduating class each year as well as a four percent enrollment target from all California high schools. The UC Office of the President has stressed that the University intends to continue fulfilling that social compact and has asked campuses to plan for those students who will earn a place in the UC system. To provide for a growing body of UC-eligible students, UC is pursuing a dual strategy of building a new campus, UC Merced, and expanding the capacity of existing campuses.

The Committee examined California Department of Finance projections of UC-eligible enrollment demand and estimated what it might take for UC Santa Cruz to contribute its share toward meeting this extraordinary challenge.

Principles Associated with Providing Access to Higher Education

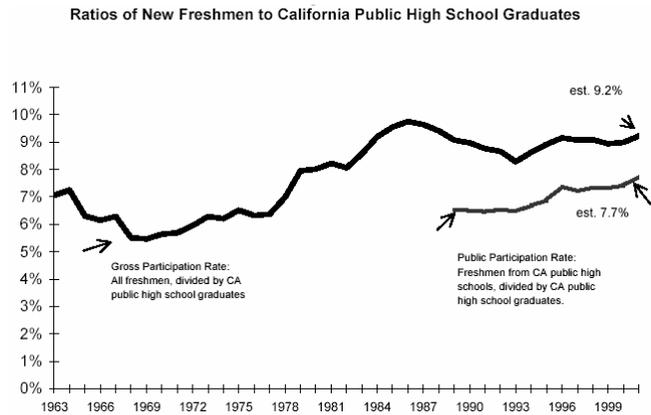
- Fulfilling its fundamental responsibility as a land grant university, UCSC shares UC's commitment to providing access under the California Master Plan for Higher Education.
- UCSC will serve California by providing an outstanding education to its increasingly diverse population.
- UCSC will offer an education that will enable our students to become tomorrow's leaders and prepare them for a lifetime of learning.
- To realize the benefits of graduate education for its research programs as well as its undergraduate teaching efforts, UCSC remains committed to increasing the proportion of graduate students to fifteen percent.

Four factors³⁹ contribute to enrollment projections:

- *Projections of California high school graduates, the primary source of UC freshmen.* The number of high school graduates is now projected to be 5-10 percent higher than that previously projected by the DOF (when the UC developed its 1999 enrollment plan).

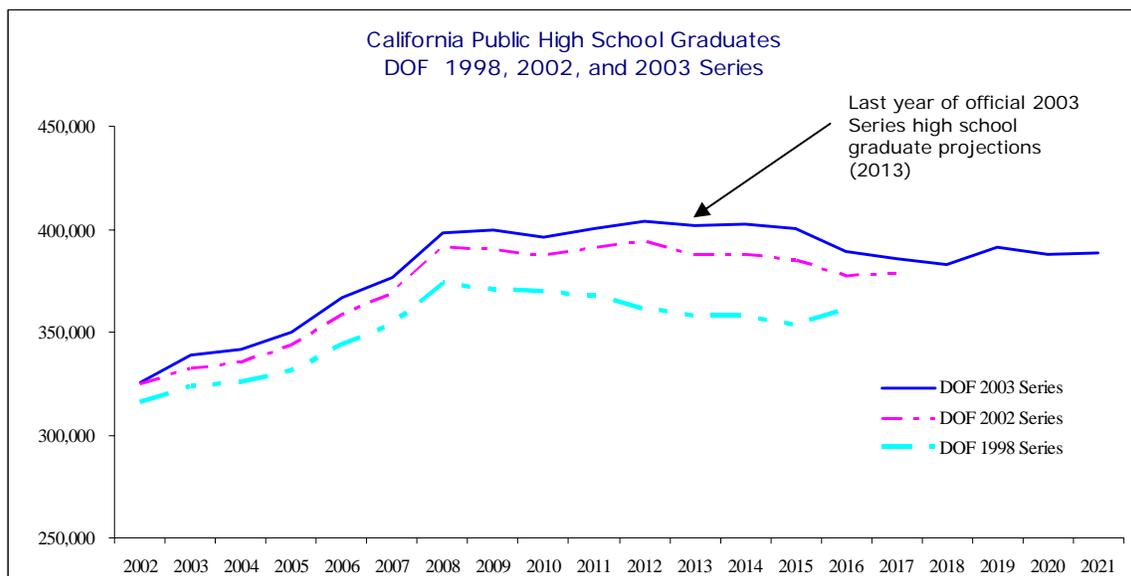
³⁹ Please see <http://www.ucop.edu/planning/enrollmentprojections2002.pdf> for a more detailed explanation of these factors.

- The rate at which eligible students enroll as freshmen—also known as the “participation” rate.* Previous UC plans assumed that the “participation” rate would remain relatively constant; instead freshman participation has risen to 7.7 percent (from 7.3 percent) and out-of-state and private high school students will account for an additional 1.5 percent for a total “participation” rate of 9.2 percent used in current UC plans.



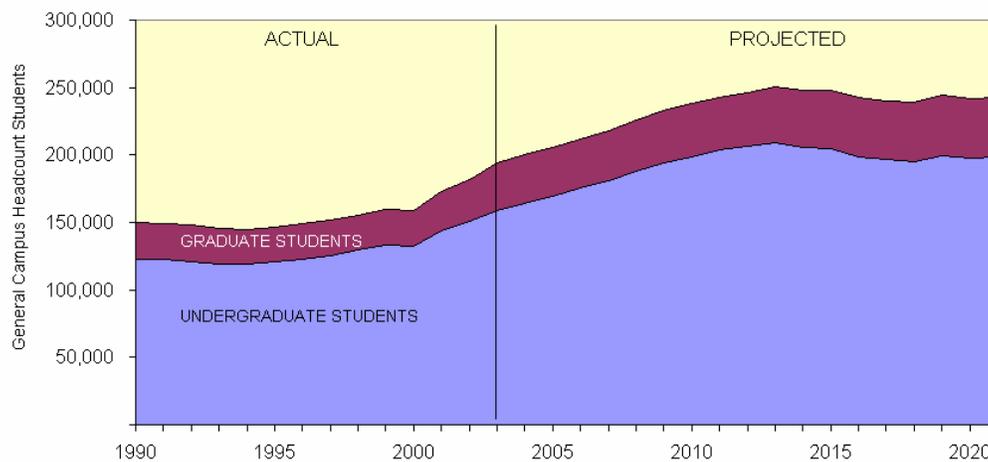
- Transfer student enrollments.* Previous (e.g., the 1999) UC plans assumed a goal of 10,300 community college transfers by 2005-06; the Partnership Agreement with the Governor set a higher goal of 15,300 transfers for that same timeframe. In current UC plans for 2005-06 and beyond, the number of community college transfers is expected to grow at the same rate as new freshmen.
- Graduate student enrollments.* The current UC systemwide enrollment planning assumptions are that graduate enrollment growth would keep pace with undergraduate growth, at a level of about 18 percent of total enrollment.

While the California Department of Finance (DOF) projections through 2020-21 are not yet officially released, Committee staff determined (based on the DOF estimates of K-12 enrollments) that the number of high school graduates will peak at around 402,000 in 2014, then decline through 2016, and then start to grow again through 2020 and beyond. Using this methodology, the chart below extends the officially-released high school graduation projections through 2020-21; it should be noted, however, that this methodology will tend to underestimate population growth.



DOF population projections, along with an understanding of the four UC enrollment growth factors, are used to project demand for a UC education. The DOF assessment of demand⁴⁰ suggests that total University of California enrollment will grow by 58,200 students, or 30.9 percent, from 2003 through 2012. Using the extended projections of high school graduates (above) as well as projections of transfer and graduate enrollments, Committee staff estimated UC enrollments through 2020 (the planning horizon for the campus' new LRDP). A conservative enrollment planning assumption was made—that the target for UC (and thus UCSC) enrollments should be neither the peak (2014) nor the valley (2017) but the end point of this planning period.

UC SYSTEMWIDE ENROLLMENT GROWTH



The Santa Cruz campus share of enrollment growth was derived by taking into account the full growth potential at the other UC campuses—including UC Merced—and considering possible UC Santa Cruz enrollments under different distribution-by-campus scenarios. This fair-share methodology⁴¹ would suggest that Santa Cruz enroll 24,000 students by the year 2012; conservatively adding 1,000 additional students over the next eight years, the subcommittee concluded that if the campus were to fulfill its obligations under the Master Plan, campus enrollments could grow to 25,000 FTE by 2020. This of course, does not in itself provide justification that UCSC *should* grow to this size—only that demographic demand could potentially fuel this level of growth.

⁴⁰ See <http://www.dof.ca.gov/HTML/DEMOGRAP/Post2nd.xls> for the “2003 series” projections.

⁴¹ UC Santa Cruz is one of the largest campuses in the UC system in terms of acreage—yet one of the smallest in terms of enrollments. The “fair share” methodology assumes that although Santa Cruz would take a slightly larger share of the total UC growth during the 16 year time frame, at the end it would still be one of the smallest campuses, second only to Merced and perhaps Santa Barbara. These estimates also acknowledge land use considerations and other pressures being brought to bear on other campuses. Constraining growth on the Santa Cruz campus increases expectations of the others; limiting Santa Cruz enrollments to 25,000 in 2020 requires five UC campuses to enroll over 30,000 students (including health sciences) and two campuses to approach 34-35,000—a number considered untenable by those same institutions.

Although state demographics are the driving force, UCSC's response to this undergraduate demand can be accomplished in ways to address campus needs as a research university, to promote campus excellence, and to retain academic flexibility and responsiveness to new opportunities.

Enrollments in 2020

The campus is committed to growth that is careful and strategic, is consistent with improving the quality of education and research, and is consistent with its values—including the campus' desire to work with the Santa Cruz community to seek practical solutions to the inevitable challenges of change and growth. The principles and vision that SFC has articulated (as well as anticipated community concerns about the impacts of accelerated campus growth) suggest that the campus grow at a slower rate during this next phase of its development than indicated by the "responsive" (25,000 student FTE) scenario⁴² suggested by the convergence of the three perspectives outlined above.

Therefore, the Committee recommends to the Chancellor and Campus Provost that the campus' 2005-2020 LRDP accommodate in 2020 a three-quarter-average on-campus enrollment of up to 21,000 FTE.

This more conservative scenario represents growth of 400 new students/year, on average, and equates to a growth rate of 2.7% in 2005, falling to 1.9% in 2020—a significant reduction from the average annual growth rate of 7.3% for the last five years and 3.8% for the last fifteen years.

However, given UC's obligations to the people of California, the campus' academic and research potential, and the need for long term flexibility, the Committee further recommends that the 2005-2020 LRDP plan this growth in the context of a master plan designed to reserve the capacity to accommodate potential additional on-campus enrollments in future decades—while maintaining the qualities of the built UC Santa Cruz campus articulated elsewhere in this interim draft. Both the LRDP and this master plan should accommodate alternative models of growth—including both incremental growth (e.g., in response to new enrollments) and strategic/opportunistic growth in specific areas (e.g., in response to research initiatives).

Principles that Guide Strategies for Growth through 2020

- Growth should be used to enhance the quality and diversity of academic programs and campus life—requiring careful academic planning and close attention to the deployment of resources that come with growth.
- The UCSC Senate recommends that enrollment growth be linked to the availability of infrastructure (e.g., ASF consistent with CPEC standards).
- UCSC will plan its growth and development with attention to sustainability and in consultation with the larger external community.

In the period following the adoption of the 2005-2020 LRDP (and its EIR) by The Regents, the Committee recommends that the University and the surrounding communities actively pursue creative approaches whereby further campus growth

⁴² For a fuller description of the "responsive" scenario, please see the "Initial Enrollment Scenarios" Appendix to this report.

and development can benefit the University and complement the communities that surround it.

Moving Forward

The Strategic Futures Committee sees this step, the recommendation of a growth rate and enrollment scenario for 2020, as the end of Phase 1 and the beginning of Phase 2 of the planning process. We look forward to hearing from the broader campus community about this recommendation.

APPENDICES

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Strategic Futures Committee Vision for the UC Santa Cruz of 2020

UC Santa Cruz is a public research and teaching institution committed to serving society by creating, transmitting, and preserving advanced knowledge. We meet our commitments through thoughtful stewardship of our physical environment and natural resources, strategic planning to achieve our academic goals, preserving and enhancing our existing strengths and unique characteristics while embracing change, pursuing exciting new opportunities, and being a good neighbor and active contributor to the public life of our region, state, and nation. We affirm the central value of a thriving public university to the preservation and enhancement of human life, take pride in the historical contributions of UC Santa Cruz to this cause, and commit ourselves to helping our campus realize its full potential.

Serving Society and the Region

Our emphasis on ethics, social justice, responsibility, tolerance, empathy, and respect for others drives our educational and service missions.

- We serve California by providing an outstanding education to its increasingly diverse population. We serve our local and regional community through the participation of students, faculty and staff in numerous voluntary and educational endeavors, sharing our effort, expertise, knowledge, insight, and inspiration with others. In addition, we bring a global vision to California that acknowledges both the opportunities and challenges of an interdependent world.
- Our service obligations arise in a period notable for the continuing expansion of the human population, growing economic production and disparities, and their impacts on the natural environment.
- Our basic research serves as a foundation for future advancements of direct benefit to society. Our applied research is problem-oriented, cutting across disciplinary boundaries as needed. This includes drawing from all academic disciplines, both to delineate social and economic problems and to identify and develop solutions.
- We set an example through our commitment to the long-term investment in intellectual traditions as well as in the unique beauty and ecological values of our physical and natural surroundings. Through our scholarship, teaching, and actions, we work to set an example of openness, respect for diversity and dissent, democratic process, and outstanding achievement.
- We further contribute to the cultural life and environment of our region through numerous public programs and events occurring throughout the year, including public lectures, athletic events, performances, and our distinguished libraries.

Discovering and Advancing Knowledge

UCSC is committed to the development of high-quality, internationally-recognized research programs, encourages faculty initiatives to build and maintain excellent programs, and takes risks when the potential rewards are great.

- Scholars engaged in the production of knowledge bring the inspiration and excitement of discovery into their classrooms. As a leading research university, we provide conditions for the development of advanced knowledge across the disciplines and also in emerging fields. We strive to maintain and enhance an intellectual environment that attracts and inspires the best faculty, and also attracts the first-rate undergraduate and graduate students and postdoctoral fellows who will comprise the next generation of academic, social, and industry leaders.
- Scholarly work is an essential component of faculty activity that vitalizes the educational environment. UCSC will commit itself to helping faculty members secure the time, financial support, research space, equipment and collaborations needed to maximize their success in the research and other scholarly and creative activities.
- To realize the benefits of graduate education for our research programs as well as our undergraduate teaching efforts, we continue to be committed to increasing the current proportion of graduate students in our student body to a target of 15%.
- We also are committed to retaining our distinctive tradition of fostering interdisciplinary research and extending our intellectual reach in exciting new directions. To maintain and enhance this tradition, our physical space will enable scholars from multiple backgrounds to have ready access to each other, creating both critical mass for large-scale collaborations, as well as opportunities for the serendipitous exchange that launch new intellectual explorations.

Transmitting Advanced Knowledge

UCSC is committed to an undergraduate education characterized by disciplinary depth, rigorous breadth, and a high level of direct interaction with faculty.

We are committed to the growth of a variety of graduate and professional degree programs that provide an outstanding education.

- High-quality teaching and the development of innovations in pedagogy that enhance the learning experience of students and serve society are among our most important goals. Since its founding, UCSC has taken pride in its uncommon commitment to education. We are cognizant of our responsibility and confident in our ability to provide an outstanding education to California's top students.
- We recognize the importance of graduate and professional education to the development of any top-ranked research university. The ties between research and teaching are clear to us: vigorous research activities are integral

to developing a thriving graduate program; and a mature graduate program is essential to the quality of undergraduate education, thereby enhancing the work of young scholars in the undergraduate classrooms, laboratories, and in the field.

- In addition to offering students a broad range of curricular choices and the opportunity to pursue advanced study in specific domains, we emphasize the importance of highly developed critical thinking, creativity, and analytical skills. Education is a collaborative process, and so we prepare our students for a lifetime of learning that includes independent thinking and inquiry.
- We bring humanitarian purpose and a sense of civic responsibility to our basic and applied research and pedagogy, mindful of its impact on future generations. Not limited to the classroom, we encourage the many co-curricular activities that provide students with the opportunity for teamwork, leadership, and experimentation in a variety of venues such as internships, fieldwork, athletics, and student organizations and publications.
- We are heartened by the success of our first school, the Jack Baskin School of Engineering, and our Department of Education; each has demonstrated the capacity to combine the elements of a successful research and professional program.
- We are committed to the development of professional schools that will bring vibrancy to the university through their engagement with timely, applied questions in a variety of disciplines. They provide a service to all the communities with which our graduates are connected: where they choose to live and work, as well home communities that may receive remittances or be the location of new companies or not-for-profit initiatives.
- Professional schools further help our local community both through the presence of highly skilled interns and researchers, as well as through the employment opportunities that arise when graduates build their careers locally.
- We take continuing pride in the bold experiment that launched UC Santa Cruz: we were to be a major research university at which key scholarly engagements occurred as part of the intellectual life of residential colleges. We view the colleges and their physical plant as valuable resources in meeting the needs of our faculty and students.
- We envision colleges as providing intellectual opportunities so compelling to faculty that, while not being permanently located at colleges, they will choose, even compete, to carry out research/teaching programs headquartered at colleges.
- Colleges are places of continuing innovation. We should therefore retain some existing administrative and academic structures and practices, dispense with others, while adopting new approaches. This will require good judgment and bold leadership. The potential benefits for our colleges and campus are great.

- A UCSC education provides more than just increased earning potential to our graduates. It provides California with a renewing resource of engaged citizens; cultural innovators; and thoughtful, skilled business and political leaders: the builders of a brighter future for all Californians.

Preserving Advanced Knowledge

We will preserve, refine, expand, and share our knowledge base in support of dynamic intellectual engagements within and across disciplines, and as a crucial resource to an open, democratic, and informed society.

- Knowledge exists on the UCSC campus in many forms: in our libraries and our laboratories, in textual, visual, aural, and digital media. It also exists in the biological and cultural resources of our open spaces and natural reserves.
- Just as the knowledge and its origins, purposes, forms, and uses differ widely, so will the forms, locations, and modes of access to its repositories differ. Our goal is to make our institutional resources and innovations available to a wide audience regionally, nationally, and internationally.

Maintaining Our Public Research Emphasis

UC Santa Cruz's position as a public research institution means that it is responsible for the social relevance of its research, service to diverse constituencies, and engagement in public discourse.

- UC Santa Cruz is a part of the University of California. We therefore play a role in enabling the University to meet its obligations to the state of California. These obligations include providing undergraduate education to the outstanding graduates of California secondary schools and community colleges; providing graduate and professional education to students from California, the United States, and abroad; and making the fruits of our research endeavors available for the betterment of California's society, environment, and economy.
- Two broad societal trends related to education distinguish our current moment: declining public financial support for higher education and a declining sphere of public discourse. We assert the central importance of public universities in the defense and advancement of human knowledge, and see UC Santa Cruz as playing a leading role in this endeavor. Moreover, UC Santa Cruz works to address the opportunities and challenges presented to public life by ongoing and rapid changes in technology, communication, human culture, and the natural environment.
- UC Santa Cruz will fulfill the fundamental responsibility of a land grant university to help produce an educated population. The California Master Plan for Higher Education obligates the University of California to accommodate the top 12.5% of high school graduates. It provides the basis for our concern about access to higher education for a growing state population, as we must accommodate increasing numbers of new college-bound students. UC's recent refinement of this mandate to include the top 4% of each comprehensive high

school's graduating class presents this campus with an opportunity to extend its long-term commitment to diversity, but will require continued, careful attention to student preparedness to ensure success.

- Meeting the challenges and opportunities of the future requires that this strategic futures process, with its focus on our long-range academic vision, continue as a way of evaluating the incremental changes that characterize university growth. We will keep a continuous eye on the exciting horizon of our potential as a university, evaluating current opportunities in terms of our long-range vision.

Valuing Our Physical Space

We will engage in long-term stewardship of the land, take advantage of opportunities, respond to emerging societal needs, meet our state-wide obligations, recognize our regional commitments, and be a good neighbor.

The scale and forms of our physical space should be as varied as our intellectual endeavors.

- Consistent with the varied and distinctive nature of our intellectual endeavors, our natural and built environment will retain its striking beauty and functionality.
- A familiar symbol of our campus--the redwood tree--has a life span of hundreds of years; we will manage our campus space and resources with a similar long-term perspective that includes preservation and restoration of open space, resource conservation, and innovation in design practices that minimize our impact on natural resources. This vision, and the Long Range Development Plan that will emerge from it, are just two in a set of statements that reach back to before the founding of UCSC and will reach forward in time to the distant future.
- Our campus is unique in that a wide range of coastal ecosystems can be found on campus lands. The close proximity of classrooms and research space to these different habitat types provides a living laboratory for teaching and research. These lands, in concert with other nearby public lands, provide important habitat for a diversity of floral and faunal species.
- The campus is further a site of human cultural heritage spanning the Native American, early settlement, and modern eras. The beauty of these lands, as well as their ready availability as living libraries and laboratories, is a distinctive characteristic that helps to attract high quality students, faculty, and visiting scholars. We are committed to preserving and integrating these unique natural and cultural resources into our research, teaching, and service activities.
- The life of a research university takes place at multiple scales: from large lecture halls to small seminar rooms; from building complexes large enough to accommodate numerous academic departments to small buildings where specialized research programs can thrive; from large dining facilities where colleagues accidentally meet and strike up an idea-forming conversation to

small coffee rooms where that same idea grows into a research initiative. Therefore, the forms that our physical space take should be varied and engaging.

- As our campus has grown and matured, we see the importance of maintaining the physical proximity of faculty to students in order to facilitate intellectual exchange and collaboration.
- At the current time, our faculty have identified numerous exciting and important research and teaching opportunities and we can be sure that others will emerge in the future. Some arise from the ongoing ferment of the scholarly endeavor while others have emerged in the form of obligations to help California and the United States respond to the demands of changing social, political, environmental, technological, biospheric, and economic conditions.
- Meeting these intellectual opportunities and obligations will require additional resources and institutional innovations of many kinds: new faculty; new research institutes and postdoctoral scholars; new and expanded graduate and professional programs; and new laboratory, conferencing, and other spaces.
- We have already identified many of these opportunities and obligations, while the exact nature of others cannot be known in advance. They will require many different kinds of physical, infrastructural, intellectual, and institutional support. UC Santa Cruz must change and grow in ways that meet these opportunities and obligations while also leaving ample capacity and flexibility for future generations of scholars and the society they serve.
- While our main campus will retain its historic centrality to campus intellectual life and the undergraduate experience, we recognize ongoing trends that have expanded our scope of activities into other parts of the city of Santa Cruz, as well as Monterey and Santa Clara counties. These trends have created significant research, teaching, and public service opportunities otherwise unavailable to a single-location institution.
- Our future growth may benefit from the developments of satellite research centers and residential sites. We will plan and undertake the physical and infrastructural changes and growth necessary to fulfill our obligations, meet new challenges, and seize opportunities always mindful of our local impact.
- Our campus is both an integral part of the City of Santa Cruz as well as a community of its own: more than dormitories, offices, and classrooms. Our campus should provide the infrastructure and services that will enable us to be effective as scholars, staff members, and students.
- We will practice open communications and seek practical solutions to the inevitable challenges of change and growth, while also pursuing the many intellectual, cultural, technological and economic benefits a major research university provides to its community.

Additional web-based resources

- *Strategic Futures Committee website* (<http://planning.ucsc.edu/sfc/>)
- *LRDP Committee website* (<http://planning.ucsc.edu/lrdp/>)
- *UCSC at a Crossroads: Advisory Report of the Millennium Committee* (<http://www.ucsc.edu/planbudg/chanc/millcom/mcreport.pdf>)

As articulated in that report, the central principles for the future of UC Santa Cruz are:

- UCSC must be an outstanding research university with an uncommon commitment to high-quality undergraduate education.
 - UCSC will serve the people of the region, the state, the nation, and the world by the engagement, development, and application of knowledge.
 - UCSC will offer an education that will enable our students to become tomorrow's leaders and prepare them for a lifetime of learning.
 - UCSC will attract, retain, and advance a diverse student body, faculty, and staff from many different communities in the state, nation, and world.
 - UCSC will commit itself to high-quality production and transmission of knowledge across all disciplines.
 - UCSC will plan its growth and development with attention to sustainability and in consultation with the larger external community.
- Priorities guiding the 2001-02 long-range planning effort, *Planning for the UC Santa Cruz of 2010* (<http://planning.ucsc.edu/plans2001/>):

Eight priorities that shaped the planning process:

- Strengthen research and scholarly accomplishment and distinction;
 - Markedly increase graduate programs and enrollments;
 - Develop interdisciplinary programs at all academic levels;
 - Enhance faculty, staff and student diversity;
 - Markedly increase external support, from grant/contract as well as private fundraising;
 - Creatively combine present resources with new resources;
 - Develop innovative programming in non-traditional areas, including the Silicon Valley Center (SVC), State-supported summer instruction, and other off-campus enterprises (for example, distance learning, EAP, UCDC, others); and
 - Propose accountability measures.
- *Basic Principles for Expanded Enrollment*—as articulated by UC (in 2000) (<http://www.ucop.edu/planning/rulesofthegame/basicprinciples.html>):

Principles intended to guide UC/campus planning for enrollment increases:

- Sustaining commitment to the Master Plan;
- Ensuring quality;
- Fostering graduate education and research;
- Implementing growth systemwide; and
- Expediting time to degree.

Initial Enrollment Scenarios

Based on its initial analysis, the Committee developed four scenarios for on-campus three-quarter average FTE enrollment in 2020. In all enrollment scenarios, SFC projected graduate/professional enrollment to be fifteen percent of total UCSC enrollment, in accordance with long-standing current campus goals. The lower brackets for 2020 enrollments—the “no growth” and “base” scenarios—were based on the 1988 LRDP projected total FTE enrollment by 2005 and on the near-term projected undergraduate enrollments and the campus’ goal for graduate/professional enrollment, respectively.

The LRDP consultants applied some basic assumptions from the present built campus to project future space needs for each of these enrollment scenarios and then developed preliminary campus planning maps to illustrate the feasibility of possible land use coverage required by each enrollment scenario.

- **"No Growth" scenario (15,000 FTE).** In this scenario, the campus would limit total enrollment growth in 2020 to that articulated in the 1988 LRDP. Given the campus' commitment both to a quality undergraduate experience and to the growth of graduate enrollments (to fifteen percent of overall enrollments), under this scenario the campus would need to reduce the number of undergraduates it currently enrolls.
- **"Base" scenario (17,000 FTE).** This "base" scenario maintains undergraduate enrollment at the levels projected for 2005 by the UC Office of the President while growing graduate enrollments to fifteen percent overall. This "base" scenario maintains the campus's commitment to provide access to a quality undergraduate education at current levels but does not address projected future demand.
- **"Moderate growth" scenario (21,000 FTE).** This scenario is simply the mid-point between the "base" scenario and the one described below. It allows for growth in graduate programs to fifteen percent of total enrollment, and undergraduate enrollment increases by 26% over the "base scenario."
- **"Respond to State demographic demand and campus program aspirations" scenario (25,000 FTE).** In this scenario, the campus would offer admission to its share of the anticipated demand by qualified California high school graduates, as well as community college transfers, for a UC undergraduate education; graduate and professional enrollments would grow to fifteen percent; and existing (as well as a suitable number of new academic and professional) programs would be provided with the resources to expand-- thereby developing greater depth and breadth in the campus's academic offerings.

With the release of the Executive Summary of this Interim Report, the LRDP consultants are focusing their analysis on the land use implications of the 21,000 FTE scenario.⁴³

⁴³ See http://messages.ucsc.edu/03-04/03-19_strategic-futures.html.