UNIVERSITY OF CALIFORNIA, SANTA CRUZ

AFFIRMATION OF ACCREDITATION

SELF-STUDY REPORT

March 1994
March 14, 1994

Dr. Stephen Weiner, Executive Director
Western Association of Schools and Colleges
Mills College
P.O. Box 9990
Oakland, CA  94613

Dear Steve:

RE: WASC Accreditation Review — Self-Study

We are pleased to submit this self-study report as part of the process of reaffirmation of accreditation, leading to the May visit of the WASC external review team. We certify that the attached report has been prepared with broad participation on the part of the many and diverse groups that constitute the UCSC campus community.

It is our belief that this self-study fairly represents the state of campus practice and sentiment on key issues that will continue to preoccupy our internal discussions as UCSC plans for the challenges of the twenty-first century. We look forward to the opportunity to meet with you and the members of the review team at the time of the upcoming visit.

Chancellor Karl S. Pister

Executive Vice Chancellor R. Michael Tanner

cc: President Peltason (w/enc.)
Summary Data Form

March 1994

Institution: University of California, Santa Cruz

President/CEO: Karl S. Pister

1. Year Founded: 1965
2. Sponsorship and Control: Public
3. Degree Levels Offered: Master's, Professional Certificate, Bachelor's, Doctorate
4. Calendar Plan: Quarters
5. Current Enrollment:

<table>
<thead>
<tr>
<th></th>
<th>Headcount</th>
<th>FTE (3 Qtr. Avg. 1992-94)</th>
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<td>A. Undergraduate</td>
<td>9,017.3</td>
<td>8,902.0</td>
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<tr>
<td>B. Graduate</td>
<td>968.0</td>
<td>966.1</td>
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<tr>
<td>C. Non-degree</td>
<td>4.0</td>
<td>Combined with UG FTE</td>
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<tr>
<td>Total</td>
<td>9,989.3</td>
<td>9,868.1</td>
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6. Current Faculty:

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<tr>
<th></th>
<th>Headcount</th>
<th>Full-time: 403</th>
<th>Part-time: 142 (10/31/93)</th>
<th>FTE Student/FTE Faculty: 20.8:1 (1992-93)</th>
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<tr>
<td>Ratio:</td>
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7. Finances:

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<tr>
<td>A. Annual Tuition Rate: Undergraduate: $3,762 Graduate: $4,300 (1993-94)</td>
<td></td>
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<tr>
<td>B. Total Annual Operating Budget: 196.7 million (1993-94)</td>
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<td>C. Percent from Tuition and Fees: 20 percent</td>
<td></td>
</tr>
<tr>
<td>D. Operating Deficit(s) for Past 3 Years: none</td>
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<tr>
<td>E. Current Accumulated Deficit: none</td>
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8. Governing Board:

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<tr>
<td>A. Size: 18</td>
<td>B. Meetings a Year: 9 during 1993-94</td>
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9. Off-Campus Locations:

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<tr>
<td>A. Number: 3</td>
<td>B. Total Enrollment: 31,170 (spring 1993-winter 1994)</td>
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<td>(These are University Extension sites and do not include field studies sites. See item 14 sent to review team.)</td>
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10. Library: McHenry and Science Libraries

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<tr>
<td>A. Number of Volumes: 1,079,769</td>
<td>B. Number of Periodical Subscriptions: 9,106</td>
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Summary Information

Descriptive Background and History

UCSC is located on 2,000 acres of redwood forest and open meadowland which once formed part of the historic Cowell cattle ranch, limekilns, and quarry. The site, purchased by UC in 1961, is set in the hills above the city of Santa Cruz, overlooking Monterey Bay and the Pacific Ocean.

There are approximately 102 acres within the central campus area, which is circumscribed by a loop road system. This core is the focus of centralized instructional resources and research space, including classrooms, laboratories and studios, two libraries, and academic support and general administration facilities. In an arc around this core are located the undergraduate colleges, student residential facilities, and physical education and recreation facilities. Colleges, which include classrooms and faculty offices in addition to residential spaces, divide the larger university campus into smaller communities, each serving as the social and intellectual gathering place for between 900 and 1,300 students. Administrative offices for the humanities and the arts are also located in the colleges.

The campus has two major off-site research facilities. Long Marine Lab, an onshore site three miles from campus, is one of the facilities supporting the Institute for Marine Sciences. Lick Observatory, located on Mt. Hamilton east of San Jose, serves the University of California Observatories, a multi-campus research facility. In addition, the campus manages three off-campus natural reserves for research and teaching: Landels-Hill Big Creek Reserve (4,000 acres) on the Big Sur coast, Año Nuevo Island (25 acres) twenty miles north of Santa Cruz, and Younger Lagoon and beach (20 acres) next to the Long Marine Lab.

The campus's facilities have a book value of $448,596,810 and total 2,275,590 assignable square feet (asf). Of this, 48,904 asf is classroom space, 367,675 asf is laboratory or studio space, 159,270 asf is library space, 85,848 asf is faculty office space, 59,211 asf is recreational space (excluding outdoor playing fields), and 1,133,197 asf is residential space.

Demographic Information

Eighty percent of the fall 1992 students came from public high schools and twenty percent came from private high schools; 94 percent of these freshmen were in the top 10 percent of their high school class. Home regions of undergraduates were as follows: 25.6 percent from the Los Angeles area/south coast, 24.5 percent from the San Francisco Bay area, 2.3 percent from the Monterey Bay/Santa Clara Valley, 8.9 percent from the Central Valley, 7.2 percent from the San Diego area, and 2.4 percent from other northern California areas. In addition, 8.5 percent were from out of state and 0.6 percent were from foreign countries.

The ethnic composition of the undergraduate student body is 68.1 percent Caucasian, 8.8 percent Asian, 9.0 percent Chicano, 4.0 percent other Hispanic, 3.4 percent Filipino, 2.9 percent African American, 1.4 percent American Indian, and 2.4 percent from other minorities; the ethnic composition of the graduate student body is 69.2 percent Caucasian, 11.8 percent Asian, 7.2 percent Chicano, 4.3 percent other Hispanic, 3.4 percent African American, 0.9 percent Filipino, 0.8 percent American Indian, and 2.4 percent from other minorities.

During the past three years (1990-91 through 1992-93), an average of 2,172 undergraduate (1,871, 2,283, and 2,363, respectively) and 257 graduate degrees (230, 252, 290, respectively) were awarded. As of 1992, the campus had awarded 30,299 bachelor’s degrees, 1,651 master’s degrees and graduate certificates, and 491 doctoral degrees.
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INTRODUCTION

The University of California at Santa Cruz (UCSC) last hosted an external review team from the Western Association of Schools and Colleges (WASC) in 1986. This visit resulted in the extension of its accreditation for an eight-year period. During the summer of 1992, UCSC began anew the cycle of self-assessment in an environment of fiscal uncertainty which continues to cloud the campus's ambitious plans for expansion and development.

Associate Academic Vice Chancellor Mark Traugott was appointed Accreditation Liaison Officer and asked to form a campus Steering Committee, the initial composition of which was as follows:

Jennifer Anderson, Field Work Coordinator/Lecturer, Environmental Studies
David Cope, Professor of Music
Margaret Delaney, Associate Professor of Marine Sciences
Amanda Konradi, Graduate Student in Sociology
Ed Landesman, Professor of Mathematics (added winter 1993)
Randy Nelson, Director of Institutional Research
James Quann, Registrar
Bryan Schweickert, Undergraduate Student Representative¹
Tyler Stovall, Associate Professor of History
Mark Traugott, Professor of Sociology, Chair
Carl Walsh, Professor of Economics
Susan Jessen, Staff to the Committee

The campus was notified of the self-study process through electronic bulletins, an official mailing to all faculty and staff, and notices published in the student newspaper. Soon thereafter the Steering Committee began to meet, collect data, and plan its strategy of assessment.

At an October 5, 1992, workshop on the UCSC campus, Steve Weiner, Director of WASC, met with representatives of the campus community including Chancellor Karl Pister and Executive Vice Chancellor R. Michael Tanner. All parties affirmed their commitment to a review process aimed at improving the effectiveness of the institution’s efforts to achieve its educational objectives rather than mere compliance with the formal review standards. It was agreed that the Steering Committee would better serve the interests of both UCSC and WASC by interpreting the task defined in the "Handbook of Accreditation" in light of the local context. While the self-study would include an appendix devoted to the standards, its primary focus would be on a limited number of immediately pressing concerns. Restricting the effort expended on responding to the standards would allow a greater depth of inquiry into those issues most directly connected to the current and future direction of UCSC's development. A prospectus for the self-study was prepared, reflecting this approach and identifying issues to be covered. The resulting report is now presented to WASC and to the campus.

¹ Replaced by Scott Johnson
INSTITUTIONAL OBJECTIVES

As a center of higher learning funded by the taxpayers of California, UCSC is committed to creating and maintaining, in all aspects of the campus community, a humane educational climate which reflects the state's diversity. It attempts to serve the population of the state, with its wealth of talent, in three primary areas:

True to its founding principles and a quarter-century of experience, Santa Cruz aims to provide instruction of quality for its undergraduate students by combining the breadth of perspective of a liberal arts institution and the opportunity for specialized study with a research-active faculty of recognized distinction.

As a campus of the University of California, UCSC seeks to fulfill its designated role under the provisions of the Master Plan for Higher Education by offering graduate training to prepare the next generation of teachers, researchers, and professionals.

The Santa Cruz campus also strives to advance the state of human knowledge through research and creative activity, confident that its achievements will contribute to the welfare of the citizens whom it serves and will support and enhance the instruction provided in its classrooms. Through programs that disseminate the results of this research to segments of the state's population not directly part of the campus community, UCSC seeks to fulfill its designated role in public service.

The faculty, staff, and students of the University of California at Santa Cruz remain committed to the simultaneous realization of these distinct objectives. In affirming them as worthy goals, this community also recognizes that the three coexist in a state of dynamic tension and that no one goal can be pursued single-mindedly without placing at risk the vitality of the institution of which we are a part.

SETTING A CONTEXT FOR THE WASC REVIEW

UCSC is a young institution still in the process of defining its core values. It is strongly attached to those traits that are seen as distinguishing it most clearly from other institutions of higher learning. From the outset, it aimed at providing a unique educational setting for undergraduates that emphasized small, student-oriented residential colleges capable of creating a sense of intimacy within a large and sophisticated university. The majority of teaching was to be conducted in small seminars; evaluation of students was to take place through individualized, faculty-authored narrative descriptions of student performance rather than through letter grades.

These features were expressive of the ethos that guided the campus in its early years and that remains an important point of reference for its educational aspirations. But, with the increase in the scale and complexity of UCSC and the evolution of its faculty and student body over the past twenty-eight years, the meaning and role of these institutional features have changed. The college system has
undergone major redefinition on at least three occasions, most recently in the form of a 1991 administrative reorganization. Despite these changes, the role of the colleges in the academic curriculum has never been fully resolved.

Under pressure of declining enrollments in the 1970s, the narrative evaluation system was modified to permit students to request a letter grade (in addition to an evaluation) in all upper-division courses. But, while discursive evaluations remain a nearly universal aspect of student assessment at UCSC, questions have continued to arise periodically concerning their appropriateness and feasibility in large classes and in situations where teaching assistants, and not faculty, are the only ones who know a student's work well enough to provide a grounded assessment.

The innovative aspects of UCSC's founding conception were intended to produce a more balanced allocation of faculty time between undergraduate and graduate students' needs and the faculty's own research and creative activities than has been true in many research universities. In fact, because the growth of the campus was arrested by changing demographic and economic conditions before much of the intended graduate component could be set in place, this campus served an overwhelmingly undergraduate population for its first fifteen years. The founding cohort of faculty became (and remains) strongly attached to the ideal of excellence in undergraduate education; concerns specific to graduate study were not as strongly supported or clearly understood in the initial period of campus growth.

Another artifact from this time period is an uneven distribution of graduate programs across divisions, with a heavy concentration in the natural sciences. Some believe there has been a corresponding unevenness in faculty workload, the allocation of fiscal and physical resources, and support for faculty research and creative activities. Graduate students in certain programs experience a much higher degree of career success than in others, for too often boards lack the critical mass necessary to provide sufficient educational and social support mechanisms, especially for underrepresented groups.

Only in the past decade has rapid growth resumed and brought in new cohorts of faculty and students. With this change, the campus has been forced to redefine its objectives. Today it seeks to maintain the quality of its undergraduate instruction as an increasing share of its attention and resources is devoted to creating the graduate and professional degree programs necessary to move it toward the goal of becoming a full-fledged member of the UC system. These trends have raised concerns about faculty workload, class size, the evaluation of teaching, and the quantity of extramural support.
Undergraduate programs, graduate programs, and research and creative activities interact in complex ways. Undergraduate enrollments generate teaching assistantships, but boards that do not have graduate programs must recruit their teaching assistants (TAs) elsewhere. The modest number and size of our graduate programs have made it both possible and necessary for this campus to rely on teaching assistantships as a primary means of supporting graduate students. Few opportunities for graduate research assistants and traineeships have existed (particularly outside the natural sciences), even though these are less demanding of graduate students than teaching and may accelerate time to graduation.

If UCSC is to achieve its research mission, it is crucial that it provide an environment that encourages scholarship. It must create a setting that not only enables junior faculty members to successfully launch their careers and achieve tenure, but is also conducive to the lifelong maintenance of research and creativity by senior faculty. Appropriate space and infrastructure, mentorship and guidance in the tenure process, the availability of teaching and research assistantships, reasonable teaching loads, and service expectations that are in proportion to other responsibilities—all enhance productivity.

During the 1990s, students, faculty, and staff will all experience the tensions and conflicts generated by the institution's attempt to achieve simultaneous excellence in these differentiated aspects of its mission. The tradeoffs with which all groups will inevitably have to contend are of special importance at the time of this self-study, as the next eight-year accreditation review will take place just as the campus is slated to reach "buildout" (expected around the year 2005) at the agreed-upon upper limit of approximately 15,000 students. Soon, the most crucial of the campus's structural choices will have been settled.

**DIVERSITY**

Diversity is an issue of special concern at UCSC. The state's changing demographics make it imperative for the University of California in general and our campus in particular to serve and be enriched by an increasingly diverse population. We aspire to create a campus community where all individuals will feel welcomed, supported, and respected, and where they will be able to contribute to and gain from membership in that community.

The Steering Committee has attempted to characterize the state of campus initiatives in this area and to assess the relative successes and failures that recruitment efforts aimed at diversifying faculty, staff, and both undergraduate and graduate student bodies have produced. A related but distinct set of issues is posed by the differential retention and promotion of faculty and staff and the differential rates of progress to degree among students.
While the concerns just outlined are common to every public institution of higher education in the State of California, there are questions specific to the local context that are important to raise. Not only have UCSC's non-urban setting and non-traditional orientation been seen as raising potential obstacles to its diversification efforts, but certain structural elements of the campus organization also appear to be significant. The Steering Committee's intention was to go beyond the typical quantitative measures of success, examining the experiential dimension of different groups' participation in the campus community and thus providing a benchmark in the ongoing effort to diversify the university.

THE SELF-STUDY PROCESS

The Steering Committee used the set of issues sketched above to guide its work. It met on a nearly weekly schedule throughout much of the 1992-93 academic year. Lead writers and conveners, drawn from among members of the Steering Committee, were appointed to work with subcommittees on specific sections of the self-study. Students, faculty, and staff with appropriate expertise were asked to participate in the subcommittees or to serve as consultants. The subcommittees unearthed statistics, requested interviews, conducted surveys, held discussion groups, and prepared draft reports, which were then submitted to the Steering Committee as well as to appropriate individuals and bodies on campus.²

A draft version of this self-study was widely circulated in late fall 1993 and early winter 1994, and campus comment was actively solicited. A partial list of recipients includes Chancellor Pister, Executive Vice Chancellor Tanner, the relevant Senate committees, divisional deans, board chairs, the Student Union Assembly, the Graduate Student Association, the heads of relevant student service and administrative units, the Staff Advisory Council, consultants to the Steering Committee, WASC, and the chair and vice-chair of the external review team. In addition, copies were made available at both McHenry Library and the Science Library, as well as being posted electronically on the campus InfoSlug network. A large amount of useful feedback was received during the review period and subsequently incorporated, to the extent possible, into a substantial revision of the self-study.

In its work, the Steering Committee also paid special attention to the nine recommendations made by the 1986 WASC review. Those concerning undergraduate and general education, colleges, and efforts to increase diversity on campus have been addressed in specific sections of the self-study; core courses are discussed in both the "Colleges" and "General Education" sections; concern about the accuracy of information contained in the General Catalog is covered in "Reflections" and in WASC

² The sub-committees, lead writers, consultants, reviewers, and those who provided information for each section are listed in Appendix A.
Standard 1.C.1; faculty distribution is discussed in "Teaching"; and retention issues are included in "Advising."
A. UNDERGRADUATE EDUCATION

1. Teaching

Since its inception, UCSC has distinguished itself from other research universities by the importance it has placed on undergraduate education. The founders of the campus envisioned a learning community in which students would have frequent and informal contact with a wide variety of faculty members, providing the opportunity to explore academic ideas. Indeed, the campus's collegiate structure was designed to encourage such interactions.

Scholars who shared this vision were drawn to this campus, thus creating conditions in which students could pursue their academic programs in a context that fostered and nurtured educational innovations. Although many recent initiatives to enhance the campus's offerings have focused on adding or strengthening graduate and professional programs, an effort has been made to ensure that those programs complement, rather than diminish, the quality of undergraduate education. Providing undergraduate students with high-quality educational experiences continues to be fundamental to the campus's mission.

Undergraduate teaching has many dimensions that are important at UCSC. This section of the self-study focuses on the qualitative aspects of teaching evaluation, the support of instructional improvements, and the recognition and reward of excellence for Senate faculty and lecturers.\(^3\) Change in instructional practice which accommodates the learning needs of an increasingly diverse student population is also an important issue for teaching and is discussed in the sub-section "Diversity in the Academic Environment" in "Undergraduate Diversity."

Among the many reports and trends that have emerged during the review period and shaped this summary statement are the following:

- Smelser, et al.\(^4\) examined the roles of the several types of instructional faculty at UC (Academic Senate, non-Senate or temporary faculty, and teaching assistants), and included in their report the recommendation that "faculty evaluation should be improved, making internal peer review more systematic, and including teaching effectiveness on the agendas of external reviewing bodies."

- Boyer\(^5\) proposed that evaluations of faculty performance should encompass the scholarship

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\(^3\) The section on "Graduate Education" addresses the latter issues for teaching assistants.


of discovery, the scholarship of integration, the scholarship of application, and the scholarship of teaching.

- Pister, et al.\(^6\) advised that "we must restore a more appropriate balance among the traditional categories of scholarly activity of the faculty, and we must exercise more judiciously the flexibility in evaluation of faculty performance that is currently available in our Academic Personnel Manual, yet infrequently utilized."

- Diversity in the ethnicity of the student population is increasing.\(^7\)

- The technologies (broadly defined) of teaching and the evaluation of teaching are changing rapidly.\(^8\)

- Budgetary constraints have become severe and are likely to continue.

Taken together, these reports and trends suggest that the teaching environment has become even more complicated and challenging than it has been historically.

In preparing this self-study, the Steering Committee reviewed policy documents, interviewed the deans of the academic divisions and the chairpersons of key committees of the Senate, and surveyed the chairpersons of the boards of studies. The result is a "snapshot" (rather than a history) of teaching at UCSC today, and a simple projection of the ways in which it might evolve in the near future.

EVALUATION OF TEACHING

Evaluation by Academic Units
The evaluation of teaching is, first, highly decentralized. For example, each board of studies has its own approach and makes up its own forms for evaluating teaching, and the academic divisions expend little effort to establish common practices or criteria.

Second, practically all of the board chairs, deans, and Senate chairs expressed the view, directly or indirectly, that the only purpose of evaluating teaching is to support personnel actions. None acknowledged the role evaluation plays in the improvement of instruction. The campus's Center for Teaching has pursued this second objective\(^9\) and a few boards have recently started using techniques, such as classroom observation by peers, that address the improvement of instruction.

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\(^7\) See the "Diversity" section of the self-study.
\(^9\) See "The Support of Instructional Improvement," in this section.
Third, in nearly all boards, the evaluation of teaching relies heavily on student evaluations of courses and instructors. Some boards report using one or more additional approaches, including faculty self-evaluations, classroom observations by peers, and exit interviews of graduating students. At least one board also examines syllabi, workload, and class size profiles, and considers advising, supervision of independent studies, and other factors. Several boards address teaching within the board (but not individual instructors) through discussions during board meetings, discussions with undergraduate and graduate students in the major, and, in one board, an annual survey, conducted by the board's undergraduate student association, that includes questions on the teaching effectiveness of the board's faculty and lecturers.

The writing and language programs employ more detailed and formalized approaches for the evaluation of non-tenure-track instructors. These approaches include: review of the course's purpose, goals, and curricular materials; review of the instructor's narrative evaluations; letters from informed observers; classroom visits and observations; and review of students' course evaluations.

Board chairs reported a fairly high level of satisfaction with existing approaches to teaching evaluation; however, several expressed desires to improve the evaluation of teaching. Other responses indicated a lack of information about alternatives for evaluating teaching by tenure-track faculty, although this issue appears to be less troublesome with non-tenure-track faculty.

The deans of the academic divisions currently evaluate teaching effectiveness only in connection with personnel actions, and rely on reports of the board chairpersons. It should be noted, however, that one divisional dean recently established a task force on undergraduate education issues, including the evaluation and improvement of teaching effectiveness. In some cases, deans also receive and consider reports from external review committees and current and former students. The deans agree that teaching is now being weighed more heavily in the personnel process and that the campus needs new and more effective methods for evaluating teaching. They suggested using multiple measures, e.g., review of curricular materials; peer evaluations; follow-up studies of students' academic success; and systematic surveys of students before and after graduation. Some deans feel that to improve evaluations of teaching, they need explicit guidelines and criteria.

**Evaluation at the Campus-wide Level**

The Academic Senate Committee on Educational Policy (CEP) reviews proposals for all new courses. It looks at issues of overlap and quality at the time a course is proposed as well as during external

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10 See “Teaching and Research in the Academic Personnel Process,” in this section.
reviews. Its current chair asserts that the CEP would like to assume a more proactive role in evaluating teaching effectiveness and in monitoring the actual offering of approved courses.

The Academic Senate Committee on Academic Personnel (CAP) examines how problems in teaching are being addressed and, when needed, makes specific recommendations to improve teaching. The CAP has indicated its desire to ensure that teaching evaluations are objective and that they include measures other than students' course evaluations.

In the spring of 1992, the Associate Academic Vice Chancellor for Undergraduate Education drafted a plan for the evaluation of teaching, for discussion. This draft plan, which remains under review but has not as yet been implemented, includes the following proposals:

- the creation of a machine-readable form for student evaluation, with both standard items for campuswide use and the option of specifying additional items on the part of the respective division, board, or instructor;
- increased reliance on peer observations of teaching;
- the collection of supplementary input from current and past students; and
- the establishment of a timeline for evaluating each instructor's teaching.

**Evaluation of Student Learning and the Quality of Teaching**

Like other UC campuses, UCSC does not have a systematic assessment program for teaching and learning. UCSC's boards, programs, committees, and administrative units collect a wide variety of student outcomes data, but there is no central oversight of these activities. The program review process is the main impetus for boards to collect information about their effectiveness.

The general consensus is that UCSC provides a high-quality education. A recent survey conducted by the UCSC Alumni Association\(^1\) found that graduates rated the overall quality of their education to be high. Alumni ratings of overall quality and faculty quality decreased from those graduating in 1965-75 to those graduating more recently (1984-92).\(^2\) Anecdotal reports from transfer students and former students who have gone on to pursue their educations elsewhere suggest that UCSC faculty are more student-oriented than at other campuses and the quality of classroom instruction is very high. On the negative side, alumni (especially recent graduates) reported overcrowding in classes as a significant and increasing problem.\(^3\)

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\(^{2}\) In its early years, UCSC was much more selective in its admission policies than it is now. The difference in the type of students attending the campus and the class size may explain some of the differences in perceptions.

Although it would be convenient to cite a single measure of student learning as evidence of the quality of teaching at UCSC, no such measure could capture the many facets of the learning and teaching environment or the needs of the variety of audiences involved. Students want to know how well they are doing and how to improve; instructors want to know what students are learning and how to increase their understanding; boards need to know the effectiveness of their curriculum and faculty; and campus administrators need information on the overall quality of undergraduate instruction. Table A.1 summarizes how the quality of instruction is evaluated at UCSC. Some evaluation practices cited in the table may be used only in specific instances (e.g., only a few boards use peer evaluations).

**Table A.1**

Sources of Information on Student Learning and the Quality of Teaching

<table>
<thead>
<tr>
<th>User of the Information</th>
<th>Purpose of Evaluation</th>
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<tr>
<td></td>
<td>Improvement</td>
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<tr>
<td>Student</td>
<td>Instructor and TA Feedback</td>
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<td></td>
<td>Tutoring</td>
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<td></td>
<td>Narrative Evaluation System</td>
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<tr>
<td>Instructor</td>
<td>Course Evaluations</td>
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<td></td>
<td>Peer Evaluations</td>
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<tr>
<td>Board</td>
<td>Board-developed Student Surveys</td>
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<tr>
<td>Campus</td>
<td>CEP Studies</td>
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<tr>
<td></td>
<td>Ad Hoc Studies (e.g., CUE)</td>
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<td></td>
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</table>

In addition to standard evaluation methods and to its own system of narrative evaluation with the senior comprehensive requirement, UCSC has devised a process of external program review that includes the assessment of teaching. The primary purpose of academic program review is to guide long-range planning and to improve program quality. Each academic program undergoes a review every six years. The review requires an internal self-study. This is followed by a visit by a team of at least three external faculty members within the discipline. The Associate Academic Vice Chancellor for Planning and Programs is responsible for working with the dean to strike the review team’s charge, schedule the visit, and coordinate the follow-up activities. The criteria of evaluation cover the board’s curriculum, research, students, budget, facilities, and faculty. Student learning concerns include: student morale; consensus in the program regarding core material that students should learn; methods
for assessing effectiveness in conveying the desired core; student interest in the program; efforts to attract, support, and serve the needs of students from non-traditional groups; and proportion of courses that have waiting lists or are over-enrolled. To help ensure that the review recommendations are carefully considered, the dean submits a progress report three years after the review is completed.14

Summary

The campus does not possess direct measures of the quality of teaching and could better coordinate its use of those measures already available. Evaluation of student outcomes is largely limited to indirect measures of success (retention and graduation rates, acceptance rates into advanced degree programs). While retention and graduation rates have improved dramatically since the time of the previous WASC review (more than 40 percent now graduate in four years15), it is difficult to assert that the improvement is due to increases in educational process or quality (versus, for example, higher fees). Recent alumni surveys have found that a high percentage (more than 90 percent) of the UCSC graduates who applied for postbaccalaureate study were admitted into at least one program. Though this proportion is based on a smaller percentage than typically submit applications at other UC campuses, over half of our graduates eventually go on to graduate or professional schools.

Acceptance rates into medical schools16 and MCAT scores are at the statewide average even though UCSC offers no health science programs.

Board chairs, deans, and Senate committee chairs seem generally aware of the range of available techniques for evaluating teaching. Several expressed interest in adopting more sophisticated approaches. All regard the evaluation of teaching almost exclusively as a component of personnel reviews, rather than as a component of a (separate) instructional improvement program.

SUPPORT OF INSTRUCTIONAL IMPROVEMENT

The Center for Teaching

During the review period, UCSC has made varying uses of its annual allocation of funds from the University's Instructional Improvement Program (IIP). Initially, academic deans awarded competitive IIP grants to faculty members who proposed initiatives to improve teaching. Subsequently, the campus administration allocated these funds to the college provosts for the support of core courses.

14 Program reviews are located in the team work room.
More recently, the Academic Senate’s Committee on Teaching worked with the campus administration to establish a Center for Teaching on a three-year trial basis. The Center has since become a casualty of budget cutbacks.

During its two years of operation, the Center conducted activities in three areas: (a) enhancing campuswide visibility for teaching; (b) providing feedback and suggestions for the improvement of teaching (including observations and publications); and (c) distributing and administering the Instructional Improvement Program grants. Many of the Center’s activities have been redistributed among other campus units. For example, responsibility for the orientation and instruction of teaching assistants has been reassigned by the Graduate Division. The library of resources on teaching has been placed in the hands of the library Media Services Department. The distribution of instructional improvement grants, to the extent that the budget makes this possible, will be handled by the Associate Vice Chancellor for Undergraduate Affairs based on recommendations by the Senate Committee on Teaching. In other areas, the resumption of activities in which the Center was engaged will have to await more favorable budgetary circumstances.

Support Services within Academic Units

<table>
<thead>
<tr>
<th>People often feel extremely vulnerable as teachers. There is virtually no coherent, organized preparation for [teaching]. We learn by experience.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A board chairperson</td>
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</table>

The deans support teaching effectiveness primarily through personnel actions—merit increases (for which deans now have final approval in most cases) and tenure and promotion recommendations. In response to the Committee’s survey, some deans identified the need for explicit criteria of excellent teaching as a point of reference in working with board chairs to improve teaching. They also expressed need for additional resources for the support of teaching. For example, one dean was interested in doing more to provide instructional technology resources and related training for faculty members.

Board chairs described a variety of activities through which they and their board colleagues support teaching effectiveness. These activities include:

- discussing teaching when faculty are formally evaluated for merits and promotions;
- discussing teaching within the discipline during luncheon meetings;

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• convening regular seminars on teaching;
• providing ongoing training and supervision of teaching assistants;
• nominating faculty for recognition awards;
• endorsing faculty proposals for innovative teaching grants;
• sharing teaching experiences and notes; and
• providing informal peer support, especially for new faculty.

The board chairs also provide administrative support such as the purchase of instructional equipment and the maintenance of manageable and evenly distributed teaching loads. Most board chairs intend to continue their current practices. Some regret the loss of the Center for Teaching. Some plan to introduce peer mentorships, encourage new approaches to teaching, and "listen more closely" to related comments by graduate students, especially teaching assistants.

Some board chairs would welcome initiatives by the divisions and central administration to reward senior faculty for teaching excellence and restore the Center for Teaching to provide faculty workshops and other activities to improve teaching. Additional suggestions by board chairs include providing incentives, such as graduate student researchers (to compensate for time taken away from research), teaching assistants, and instructional improvement program grants.

Summary
The Committee on Teaching and, in varying degrees, the boards of study support the improvement of teaching. For many faculty members, "support" is indistinguishable from "reward" (or "punishment"), and often takes the form of remediation rather than an ongoing, developmental activity for all faculty members. The closure of the Center for Teaching signals the discontinuation of seminars, workshops, and related efforts to enhance teaching. The campus needs to consider ways to encourage the academic divisions, boards of studies, and/or the Committee on Teaching to assume new roles in this area.

THE RECOGNITION AND REWARD OF EXCELLENCE IN TEACHING

Teaching and Research in the Personnel Process
The Committee on Academic Personnel reports that it places a high priority on teaching in personnel actions and gives teaching a weight that is equal to that given to research. It considers teaching performance both positively and negatively. The Committee also is considering the initiation of a practice of recommending one-time merit increases for faculty members who are providing excellent teaching and would not otherwise receive a merit increase.
The deans also express their expectation that the campus will recognize and reward excellent teaching primarily through personnel actions that assign equal weight to research and teaching. In the same vein, several board chairs strongly expressed the need for the university to modify its personnel policies to provide more incentives for teaching improvement. In July 1992, the "Instructions for Review Committees"\(^{18}\) were changed concerning the evaluation of teaching. The revision called for more than one kind of evidence to accompany the review file and specifically asked for "commentary from other faculty on teaching effectiveness." Nevertheless, only about 8 percent of the UCSC faculty members feel that good teaching is rewarded in personnel actions; this percentage is only slightly higher than that reported for institutions of higher education generally.\(^{19}\) Other faculty members feel that teaching is only considered negatively.

**Recognition Awards**

There is only one campuswide award for teaching.

- The Committee on Teaching and the Center for Teaching developed an Innovations in Teaching Award, which included recognition and a (very small) cash award for books and professional development needs. Eight faculty members nominated by their boards or programs received the award in 1991-92, and fourteen faculty members, including several lecturers, received the award in 1992-93. The Chancellor honored the recipients at a meeting of the Academic Senate, and the campus newsletters, *Carpe Diem* and *Currents*, reported the awards.

Some divisions make separate awards for teaching or for the combination of teaching and research.

- In 1990, the Social Sciences Division instituted a program of "Golden Apple" awards for outstanding teaching. A faculty committee receives student nominations and selects three award winners annually.

- In 1993, the Natural Sciences Division initiated a program of recognizing two faculty members each year for excellence in both teaching and research.

Several non-academic units and extramural agencies recognize outstanding teaching by UCSC faculty.

- Since 1979, the Alumni Association has made one Distinguished Teaching Award each year. Current and past students nominate faculty members and a committee of the Association selects the award winners.

- The Alumni Council recently (1991) initiated its "Favorite Professor Award." Students vote for faculty members, and the Council selects thirty award winners each year.

- During the past seven or eight years the northern California chapter of Phi Beta Kappa has recognized three UCSC faculty members for excellence in teaching. UCSC's record is


noteworthy, because the chapter considers faculty nominees from all major colleges and universities in northern California, and gives only a handful of awards each year.

- UCSC faculty members have received distinguished teaching awards from the Council for Advancement and Support of Education (CASE) and the American Philological Society. In addition, faculty members nominate several of their colleagues each year for teaching awards by these and other organizations.

Summary
UCSC recognizes effective (and ineffective) teaching primarily through personnel actions. Some divisions recently have instituted programs to honor outstanding teachers. The apparent discrepancy between the faculty's perceptions of the importance of teaching in personnel actions and the Committee on Academic Personnel's reported policy clearly merits attention. It is important that the reality and the perception of the personnel process be brought into closer alignment.

COURSELOAD

Courseload Policy and Historical Trends
The campus's policy for the number of courses taught by ladder faculty members was established in 1978. Each faculty member is expected to teach five courses or their equivalent (independent studies and senior theses) each academic year. This standard was modified in an Academic Senate resolution in 1991 which required that all Senate faculty teach an additional one- to three-credit college course every three years (or offer comparable service to undergraduate education in a college or board).

Since the start of the present WASC review period the campus has adjusted course load policy downward in some divisions to reflect the increased effort in the areas of graduate instruction. This adjustment recognizes the many forms of faculty contact with graduate students which do not appear in formal counts of courses offered. The yearly course loads shown in Table A.2 reflect consequent reductions in the divisions of the Arts (1988-89), the Humanities (1989-90), and the Social Sciences (1989-90). The number of students taught per faculty member also decreased except in the Arts Division. During this same period, average class sizes have increased.

Course loads are managed within each board of study and reflect disciplinary differences. In a summary of 1991-92 board policies, five boards expected their members to teach five courses, eighteen boards expected between 3.5 and 4.5 courses, and four boards (all in the natural sciences) expected three courses. Comparing the courses taught in 1991-92 with board policies showed that

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20 UCSC course load policies in the natural sciences are consistent with natural science departments at other UC campuses. The policies of other disciplines require more teaching, but are generally consistent with other campuses.
only four of the twenty-seven boards met or exceeded their expected course loads.

Until recently, discussions about course load policies focused on reducing course loads within specific boards and divisions, and there was no centralized enforcement. In response to change associated with the new budgetary constraints (including the early retirement of faculty), the Executive Vice Chancellor (EVC), working with the divisional deans, has been attempting to effect meaningful increases in the number of courses available to an undiminished stream of undergraduates. The 1992-93 statistics in Table A.2 indicate that this initiative has had some effect, particularly in the social sciences where an appreciable increase in courses taught resulted.

### Table A.2

**Permanent Faculty Course and Teaching Loads**

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<tbody>
<tr>
<td>Average courses taught per FTE</td>
<td>3.9</td>
<td>3.9</td>
<td>3.7</td>
<td>3.5</td>
<td>3.4</td>
<td>3.5</td>
<td>3.7</td>
</tr>
<tr>
<td>Arts</td>
<td>4.9</td>
<td>5.0</td>
<td>4.3</td>
<td>4.0</td>
<td>4.1</td>
<td>4.1</td>
<td>4.0</td>
</tr>
<tr>
<td>Humanities</td>
<td>4.5</td>
<td>4.4</td>
<td>4.2</td>
<td>3.7</td>
<td>3.8</td>
<td>3.7</td>
<td>3.8</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>4.0</td>
<td>3.8</td>
<td>3.9</td>
<td>3.5</td>
<td>3.3</td>
<td>3.3</td>
<td>3.7</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>3.2</td>
<td>3.3</td>
<td>3.2</td>
<td>3.2</td>
<td>3.0</td>
<td>3.3</td>
<td>3.4</td>
</tr>
</tbody>
</table>

| Average number of students taught per FTE | 156.0 | 162.3 | 157.9 | 150.8 | 142.7 | 146.6 | 147.7 |
| Arts | 121.0 | 169.7 | 147.5 | 128.1 | 128.1 | 163.9 | 140.0 |
| Humanities | 170.0 | 177.4 | 164.4 | 161.9 | 152.4 | 144.2 | 148.1 |
| Social Sciences | 166.0 | 167.7 | 189.6 | 182.6 | 162.1 | 161.3 | 160.6 |
| Natural Sciences | 147.0 | 144.9 | 136.0 | 127.2 | 127.2 | 131.6 | 139.7 |

| Individual studies enrollments per FTE | 15.5 | 14.9 | 13.8 | 13.7 | 15.4 | 16.2 | 15.8 |
| Arts | 11.4 | 10.9 | 9.2  | 9.4  | 11.1 | 9.5  | 10.7 |
| Humanities | 10.9 | 11.8 | 11.8 | 11.3 | 13.0 | 12.3 | 12.2 |
| Social Sciences | 18.1 | 15.1 | 16.2 | 15.7 | 18.7 | 18.8 | 16.5 |
| Natural Sciences | 17.3 | 17.6 | 14.6 | 14.8 | 15.6 | 19.0 | 19.0 |

**Current Factors Affecting Course Load**

A combination of factors combines to influence the number of courses ladder faculty will be required to teach. (These do not take into account other faculty responsibilities of research and service which may affect individual loads.) These include:

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21 Data taken from 1992-3 Course Audit Report (UCSC: 1993) available in Planning and Budget Office. Relevant pages for Table A.2 are Undergraduate Education reference 9.

22 Based on course enrollments only.
State appropriations. Recent reductions have significantly reduced the funds available for hiring lecturers and other non-permanent faculty. With campus enrollments remaining stable, the permanent faculty will be required to teach many courses previously taught by temporary faculty. This situation alone could cause faculty course load to rise to the level prescribed by campus policy, although re-evaluations of the curricula could be undertaken to keep the course load at its current level.

Early retirement incentives. Nineteen ladder faculty retired with the first early retirement incentive and fourteen with the second. Of these 33, five have been recalled for teaching. An appreciably larger number of senior faculty is expected to retire by the end of this year with the third round of early retirement incentives. This offers an opportunity for many boards to re-examine their curriculum and who teaches their courses. However, where disproportionate numbers of early retirements fall within a single unit, this may also exacerbate problems stemming from the uneven distribution of faculty among programs. (See faculty resource allocation below.) Depending on what resources become available and how they are used, the number of courses offered could either be increased or decreased. In the short term, many retired faculty may be recalled on a temporary basis to meet the demand for courses.

Faculty resource allocation. The 1986 team recommended that "the serious problem of disproportionate allocation of faculty among the boards be given immediate and continuing attention so that vacant and new positions are used for impacted or expanding programs, to assure a critical size of the faculty on these boards." At the time of the Fourth Year Accreditation Report, a process intended to address this problem was proposed by Executive Vice Chancellor Tanner in a draft document entitled Managing Faculty Resources (MFR).23 MFR is a system for reallocation of faculty resources in boards and divisions based on both quantitative and qualitative information, including such factors as disciplinary targets, the tracking of actual workload, program quality, and achievement of affirmative action goals. The level of instructional productivity expected from each division will be set after campuswide consultation and will be periodically adjusted. Once the system is implemented, both permanent and temporary faculty resources will be tied to that unit's instructional workload, among other factors.

Independent studies. Faculty who sponsor a significant number (usually twenty) of independent studies, senior theses, and internships during the year are sometimes given a course relief for this contribution to teaching. (See Table A.2.)

Legislative oversight. It is likely that the state's budget difficulties will continue, along with the associated need for greater accountability. Campuses will continue to be required to demonstrate that the taxpayers are getting "their money's worth" and there is a possibility that financial incentives from the state will be linked to institutional performance.

One- to three-credit courses. To assist in the revitalization of the curriculum of the colleges, ladder faculty members are now required to teach an additional one- to three-credit course for a college or board once every three years. This initiative will probably be reviewed as course loads increase.24

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24 See "Colleges" section.
Implications
The likely effect of these factors will be that faculty members will be asked to increase the number or size of courses they now teach. Budget conditions suggest that this will not be a temporary condition. If this is true, increased course loads will have implications for (a) the quality of instruction; (b) evaluation for merit and promotion reviews; (c) board and divisional management of curricula; and (d) research and service.

The Curriculum and the Quality of Instruction. Many boards are currently reviewing their curricula and eliminating courses taught at the discretion of the faculty. As a result, students will have fewer elective options, but the courses required for progress to the degree will be more readily available.

In an environment where teaching additional courses is viewed as a threat to professional advancement, there may be few incentives for faculty to provide high-quality courses. In addition, class sizes may continue to increase, making faculty less willing to work with students undertaking independent studies. Increasing the number of course offerings by permanent faculty may actually erode the quality of teaching unless proper attention is paid to faculty perceptions of the work climate and to promotion and tenure issues.

Evaluations of Performance. Current standards for research productivity used in performance evaluations may not be appropriate in the coming years. As recommended in the Pister Report on Faculty Rewards, the faculty reward system should reflect the entire spectrum of faculty work. Promotion and tenure standards will need to be openly discussed to address the faculty's concerns. Junior faculty, in particular, will need to be assured they are not facing unreasonable expectations, nor compromising their academic careers.

Board and Divisional Management of Curricula. Boards and academic divisions will be required to assume a greater role in the management of instructional resources. Faculty attitudes, perceptions, and morale will be an important factor in the university's ability to achieve its objectives.

Research and Service. As faculty members are asked to teach additional courses, they must, of necessity, reduce the time spent on research and service, which are equally important elements in the university's mission. An emphasis on research distinguishes the University of California from the California State University. Just as UCSC must respond to the educational needs of the state, the health of the institution is dependent upon state leaders recognizing the importance of research to the educational enterprise.

Faculty members who are actively involved in their research may be tempted to seek more favorable situations. But the toll may be highest among junior faculty. Junior faculty members, who must produce significant research to be awarded tenure, may find it more difficult to receive leaves or course relief to support their research because of the increased demand to teach. To provide junior faculty with course relief, senior faculty will have to bear a greater load. Academic administrators will need to carefully monitor the working environment of junior faculty.

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25 Undergraduate Education reference 2.
Summary
Due to ever-increasing demands for public accountability, there has been greater reliance on easily quantified measures of faculty productivity (e.g., number of courses taught, percentage of students who graduate). While these measures reflect important elements of effectiveness, they are at best partial measures of faculty performance and do not take into account research and public service obligations. Counting the number of courses taught is a very crude (and sometimes deceptive) measure, even of instructional activity. The factors included in the campus's new instructional resource allocation system (Managing Faculty Resources)26 should present a far more nuanced view of instructional quality. While the campus must increase the number of courses taught by ladder faculty to meet its stated guidelines, more thought and consideration need to be given to what constitutes a responsible level of instructional activity and how it should be evaluated.

CHALLENGES FOR THE FUTURE

Evaluating Teaching
The first challenge must be to convince the faculty that the campus truly assigns equal weight to teaching and research in personnel decisions, as asserted by the chairperson of the Committee on Academic Personnel. Meeting this challenge could open the door to a flood of faculty initiatives to strengthen teaching and to explore a range of innovative practices.

There are several further challenges springing from the emerging consensus among deans and board chairpersons to employ alternative indicators of teaching performance to complement the widespread use of students' end-of-course evaluations. The Committee on Teaching (COT) worked during fall 1993 to develop a proposal for evaluating teaching called the Course Portfolio. The purpose of the Course Portfolio, which has not yet been adopted or implemented, is to supplement the students' perspective (student evaluation forms) with the professor's perspective (a self-evaluation including both the history and the content of the course and plans for the future), thus facilitating a more balanced assessment of the course's development, content, goals, and current level of achievement.

Other initiatives to improve the evaluation of teaching could include: (a) recognizing the distinction between "evaluation as a component of instructional improvement" and "evaluation as a component of personnel actions"; (b) involving faculty in peer mentoring; and (c) upgrading student end-of-course evaluation forms to improve measures of teaching performance and reduce the time and effort required to analyze and summarize student evaluations.

26 Undergraduate Education reference 10.
Recognizing and Rewarding Excellence
Each board and division should consider instituting awards or other forms of recognition for outstanding teaching and for the greatest improvement in teaching. The Committee on Teaching should continue its Innovation in Teaching Awards.

Supporting Instructional Improvement
In the absence of the Center for Teaching, the campus will need to decide how to maintain the viability and visibility of the Instructional Improvement Program, including mini-grants, seminars, and workshops on teaching, either as a single campuswide program or as four divisional programs.

Courseload
The recent budget climate has forced UCSC to re-examine its performance standards for faculty. Resources are declining at a time when the number of high school graduates is beginning to climb dramatically and state legislators are increasingly concerned about having the University of California place a greater priority on undergraduate instruction. Newly mandated reports on the number of courses and students taught by permanent faculty are likely to be just the beginning of the state's involvement with faculty course load. The challenge for the campus will be to meet the expectations of the public and State Legislature while continuing to fulfill the research and service elements of its mission.

Responding to Diversity
Responding to the instructional needs of a more diverse student body is of critical concern. See "Current Initiatives for Undergraduate Instruction" in the "Undergraduate Diversity" section.

UCSC opened in 1965 during a time of unprecedented university growth, student protest, and introspection. The founding faculty, dissatisfied with traditional forms of grading, opted for a system that was intended to provide a better understanding of what a student had achieved in a course, while downplaying the competitive aspects of learning. Faculty-authored narrative evaluations were adopted in lieu of letter grades. UCSC instructors would write a personalized narrative evaluation of each student's academic performance in all courses in which the student earned credit.

The proposal to implement narrative evaluations was approved by the systemwide Academic Senate in 1966 as a variance from the standard University of California grading system. A condition of the variance was the requirement that to receive the bachelor's degree a student must either write a senior thesis or pass a comprehensive examination.\textsuperscript{27}

Originally, narrative evaluations supplemented course notations of Pass or Fail. Later, boards of studies were given the option of electing that their upper-division courses be graded A-B-C-D-F for all majors in the discipline. In 1972 the D and F grades were replaced by the course notation, "No Record." A-B-C grades were available at the undergraduate student's option for most upper-division and a limited number of lower-division courses.\textsuperscript{28} Graduate student grading was limited to Pass (P), In Progress (IP), Incomplete (I), or Fail (F). All grades and course notations for both undergraduates and graduates were supplemented with narrative evaluations.

Instructors are currently provided with a twenty-page booklet of information designed to guide them in drafting narratives, but no further training is systematically made available. A well-written narrative typically

- describes the nature and requirements of the course in no more than sixty words;
- evaluates the strengths and weaknesses of the student's performance in the various areas of class activity including discussion, laboratory work, presentations, term papers, examinations, and general understanding of the course content; and
- allows recognition of supplementary work or particularly noteworthy performance.

Evaluations are submitted to the Registrar's Office and added to the student database in standardized format with minimal, non-substantive proofreading. Completed evaluations are sent to students and

\textsuperscript{27} For a more complete history of NES see Larry Maxy, The Narrative Evaluation System (UCSC: 1984). Undergraduate Education reference 11.

their advisers. Submissions which are incomplete, ambiguous, or illegible may be returned to the author for correction or clarification, or to the faculty Committee on Narrative Evaluations which oversees the system and advises the Academic Senate.

Once made part of the permanent electronic record, the narratives are maintained indefinitely and sent, on request of the student, to potential employers, graduate and professional schools, and other agencies as part of the student's official transcript. Copies of the narratives are also made available to advisers, academic preceptors, and department offices, as well as to the faculty authors.

The narrative evaluation system is not unique to UCSC. A recent study indicates that at least seventeen colleges and universities in the United States and Canada use some form of narrative evaluation.²⁹ Of those, Goddard College and Sarah Lawrence have used narratives for over fifty years, and UCSC, Hampshire College, and New College of the University of South Florida have used them for well over twenty years each. However, the narrative system at UCSC is much broader in scope, resulting in up to 30,000 narrative evaluations per term compared to fewer than 5,000 per term elsewhere.

**Virtues and Liabilities of the Narrative System**

Opinions differ about the true value of the narrative evaluation system. Research published by the Office of Institutional Research, as well as a recent survey conducted by the UCSC Alumni Association,³⁰ indicates substantial and continuing support from UCSC graduates. A recent senior thesis project involving over 500 undergraduates and 150 alumni also indicated high levels of commitment to the narrative system.³¹ Of course, the respondents in such surveys might be viewed as self-selected by virtue of their decision to attend UCSC.

Faculty opinion seems to vary, although no scientific study of faculty opinion has been attempted. The following perceived virtues and liabilities are among the most frequently cited in discussions:

**Perceived Virtues**

- Narratives encourage students to pursue learning for its own sake. Competition among students is thereby minimized while cooperation and collaboration are increased.

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• A narrative evaluation provides the student and transcript evaluators with significantly more information about the student’s academic performance than does a traditional letter grade.

• A narrative allows the evaluator to recognize exceptional or noteworthy performance.

• The narrative encourages instructors and teaching assistants to observe individual students more closely and to personalize their descriptions of student performance.

• Narratives encourage evaluators to study a student’s entire performance record rather than focusing on a single summary measure.

• Because of NES, UCSC is thought to be especially attractive to self-motivated students.

**Perceived Liabilities**

• Narratives are a work-intensive system requiring major contributions of instructor and teaching assistant time and energy each quarter. There is no compensation for this effort and the resulting workload is generally in excess of that required of instructors on other campuses.

• The narrative system is quite expensive. A recent UCSC study indicated a total cost of approximately $304,000 in 1989-90 and $437,000 in 1991-92 over and above the cost of a traditional grading system.

• Increased use of menus and grids has lessened the distinctiveness of the NES. The result is that computer-based narrative evaluations are often reduced to key words and formulaic catch-phrases that may differ little from traditional letter grades.

• In large courses, narratives are sometimes prepared by teaching assistants with varying degrees of supervision by instructors. This contributes to increased TA workloads and is at odds with formal Senate policy and the special campus variance under which the NES was established.

• Some institutions and agencies still insist on a grade point average (GPA) calculation before they will consider UCSC students. Several branches of the state and federal governments stand out in this way.

• Extreme care is necessary to ensure that narrative authors do not inadvertently include inappropriate, derogatory, or incriminating personal information in narratives (e.g., reference to disability, sexual preference, illegal activity, etc.).

**CURRENT PRACTICE**

Although narratives remain the primary form of academic evaluation at UCSC, changes have occurred over the years. Initially, instructors teaching classes with more than forty students were exempted, upon petition, from writing narratives. Later, the exemption disappeared as a matter of general practice and instructors submitted narratives in all courses taught for credit. A procedure was also introduced to allow students to appeal narrative content if the student felt "that an instructor gave
the course notation or evaluation based on the student's race, politics, religion, age, sex, sexual orientation, national origin, personal attributes, or anything other than academic performance.\textsuperscript{32}

With the growth of the campus, the size of many classes has increased. Several introductory courses now have over 400 students enrolled. To compensate for the difficulty of writing narratives for large numbers of students, a computerized reporting system has been developed. It allows instructors to use menus and grids to prepare narratives electronically. Although the course instructor has final responsibility for the narratives, writing evaluations in larger classes has been possible only because of the involvement of teaching assistants who have often prepared the initial drafts of narratives for undergraduates. The role of the TAs in NES is not recognized in official descriptions of the system and has, at times, become a focus of controversy.

Administration

The preparation, collection, and storage of narrative data require extraordinary commitments of instructor and teaching assistant time and energy and of the institution's scarce financial resources. There is no limit on the length of narratives, although most are no more than two or three paragraphs. Instructors are asked to submit their narratives within fifteen working days after the end of each quarter. About sixty days into the next quarter, a "Report of Outstanding Evaluations" by course is circulated to deans, unit heads, and the Executive Vice Chancellor. At the same time, a cumulative summary listing faculty with 100 or more outstanding evaluations is forwarded to relevant unit heads. Faculty who habitually fail to submit narratives in a timely way are at risk of having their merit or promotion files delayed or turned back; non-Senate faculty who are habitual offenders are at risk of not being rehired. Table A.3 shows the number and percent of narratives received for the six most recent quarters available in September 1993.

\textsuperscript{32} The Navigator, p. 33.
Table A.3

UCSC Narrative Evaluations Filed by Quarter

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Enrollments w/ Passing grades</th>
<th>Evaluations Submitted</th>
<th>Percent Received</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall '91</td>
<td>29,577</td>
<td>29,346</td>
<td>99.2%</td>
</tr>
<tr>
<td>Winter '92</td>
<td>29,306</td>
<td>29,020</td>
<td>99.0%</td>
</tr>
<tr>
<td>Spring '92</td>
<td>27,014</td>
<td>26,434</td>
<td>97.9%</td>
</tr>
<tr>
<td>Fall '92</td>
<td>29,988</td>
<td>29,050</td>
<td>96.9%</td>
</tr>
<tr>
<td>Winter '93</td>
<td>29,564</td>
<td>27,603</td>
<td>93.4%</td>
</tr>
<tr>
<td>Spring '93</td>
<td>26,928</td>
<td>21,063</td>
<td>78.2%</td>
</tr>
</tbody>
</table>

Letter Grades

During the first three weeks of the quarter, undergraduates may opt for letter grades (A, B, C, or NP) in all upper-division and a limited number of lower-division courses. Instructor permission is required for letter grades in upper-division individual studies courses.

Graduate students receive only narratives and course notations of P or F. The proportion of undergraduates choosing the letter grade option is approximately ten percent of all course enrollments. When tallied in terms of enrollments in courses approved for letter grades, quarterly averages range from about 18 to 22 percent (see Table A.4).

Table A.4

Undergraduate Enrollments Opting for Letter Grades in Eligible Courses: Number, Percent, and by Term

<table>
<thead>
<tr>
<th>Year</th>
<th>Fall Number</th>
<th>Fall %</th>
<th>Winter Number</th>
<th>Winter %</th>
<th>Spring Number</th>
<th>Spring %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1989-90</td>
<td>2,761</td>
<td>22.3</td>
<td>3,050</td>
<td>21.4</td>
<td>2,426</td>
<td>19.4</td>
</tr>
<tr>
<td>1990-91</td>
<td>2,556</td>
<td>20.4</td>
<td>2,748</td>
<td>19.2</td>
<td>2,372</td>
<td>17.8</td>
</tr>
<tr>
<td>1991-92</td>
<td>2,805</td>
<td>21.8</td>
<td>3,404</td>
<td>20.9</td>
<td>2,822</td>
<td>20.1</td>
</tr>
<tr>
<td>1992-93</td>
<td>3,101</td>
<td>22.5</td>
<td>3,597</td>
<td>22.6</td>
<td>3,065</td>
<td>21.1</td>
</tr>
</tbody>
</table>

Comprehensive Requirement

Unlike most other institutions (including other University of California campuses), UCSC undergraduates are required to demonstrate their competence by completing a senior thesis or comprehensive examination in their major field of study. Although the proportions vary widely by discipline, slightly over 34 percent of those graduating in June 1992 wrote theses; 57.5 percent took comprehensive examinations (including the GRE); and 8.4 percent met the requirement through
some other means. The current budget crisis has stimulated review and discussion of the comprehensive requirement as boards of studies seek to handle increasing student loads and as faculty are asked to teach more classes.

ASSESSMENT OF THE NARRATIVE EVALUATION SYSTEM

Comparative Grade Distribution
The narrative system presumes that without traditional grades and the related phenomenon of "grade grubbing," students should be free to concentrate on learning. Undergraduates also know that if they do not pass a course, the failure will not be entered on their permanent record (although the record will indicate lack of progress). In granting UCSC a variance, the systemwide Academic Senate approved these efforts to reduce grade pressure, but also sought to ensure high academic standards by requiring that a student's performance be "clearly passing." The UCSC Academic Senate has directed that students should perform at a level equivalent to at least a C to pass a course and receive credit, a higher standard than that in effect elsewhere in the University of California.

Comparisons of the UCSC grading system with other UC campuses which use traditional grading are difficult to effect and can only be general in nature. A comparison of the distribution of grades at several UC campuses has been used to assess the academic performance of UCSC undergraduates. As shown in Table A.5, in all but one instance (UC Santa Barbara in spring 1992) the percentage of UCSC students who earn marks equivalent to C and above is equal to or slightly higher than similar figures for three comparative UC campuses. Conversely, in all but one instance, the percentage of UCSC students with marks below C is lower than at the other three campuses. Such figures are open to several interpretations. One is that UCSC undergraduates perform equally well or slightly better academically than do their counterparts on the three other UC campuses. Another is that the minimum standard of C that is prescribed for a grade of Pass at UCSC is not always strictly adhered to.

Table A.5
Grades Earned with Marks Equivalent to C or Above versus Grades Below C at Selected UC Campuses

<table>
<thead>
<tr>
<th></th>
<th>Fall '91 A, B, C</th>
<th>Winter '92 A, B, C</th>
<th>Spring '92 A, B, C</th>
</tr>
</thead>
<tbody>
<tr>
<td>UCLA</td>
<td>90.8% (9.2%)</td>
<td>91.5% (8.5%)</td>
<td>92.4% (7.6%)</td>
</tr>
<tr>
<td>UCR</td>
<td>87.8% (12.2%)</td>
<td>89.1% (10.9%)</td>
<td>89.3% (10.7%)</td>
</tr>
<tr>
<td>UCSB</td>
<td>91.9% (8.1%)</td>
<td>92.4% (7.6%)</td>
<td>93.1% (6.9%)</td>
</tr>
<tr>
<td>UCSC</td>
<td>92.6% (7.4%)</td>
<td>93.0% (7.0%)</td>
<td>92.4% (7.6%)</td>
</tr>
</tbody>
</table>

Longitudinal data suggest that the proportion of passing grades has been on the increase. Interestingly, many American universities which use traditional grading systems have reported a disturbing pattern of grade inflation over the past two decades. Although a number of interpretations are possible, the trend data presented in Figure A.1 suggest that the phenomenon of grade inflation may occur even in a system where traditional letter grades are the exception.

Figure A.1
Passing Rates for Lower- and Upper-Division Courses

![Percent Passing Graph](image)

The proportion of passing evaluations has climbed over the past six years from 89.6 percent overall to nearly 94 percent in 1991-92. All interpretations of such statistics founder, however, on the fact
that evaluations, whether numerical or narrative, are a function both of variation in student performance and of shifting criteria of assessment; we have no direct evidence that permits us to estimate the relative contributions of these two factors.

Graduate and Professional School Acceptance
Admissions personnel at other universities were initially discomforted by our narratives, and several UCSC officers devoted much of their time to explaining the narrative philosophy and helping others understand and utilize evaluations when making admissions decisions. This educational process has apparently met with considerable success, since recent studies indicate that UCSC graduates are accepted by graduate and professional schools at rates equivalent to those of graduates from institutions with more traditional grades. For example, a 1991 report issued by the UCSC Office of Planning and Budget indicated that 56 percent of applicants from UCSC were admitted to medical schools for the fall of 1990. This acceptance rate was 4 percent higher than the national average, though not as high as the rates at several other University of California campuses which have pre-professional programs and professional schools. Another study prepared by Planning and Budget reported that of a sample of 147 students who applied for advanced degree programs, 92 percent (135) were accepted at one or more schools.

CONCLUDING REMARKS
The narrative concept is a continuing focus of heated, if sporadic, controversy among faculty, perhaps exacerbated by current budget difficulties and a shift in the faculty reward structure over the years. During the spring quarter of 1993, the UCSC Academic Senate conducted a debate over the merits of NES. On June 9, 1993, a discussion on the floor of the Academic Senate affirmed by a vote of 49 to 12 the Narrative Evaluation System in its existing form. While neither the division of faculty opinion nor the sometimes impassioned debates over proposed changes can be expected to disappear completely, no major changes in campus practice are anticipated for the immediate future.

34 See Medical School Admissions Report: 1988-1990 Applicants (UCSC: 1991). Such statistics remain difficult to interpret, since they do not take into account institutional differences in the selectivity of admissions or the availability of programs of study specifically aimed at preparing students for post-graduate work. Undergraduate Education reference 6.
3. The Colleges

The residential colleges are another feature of UCSC which continues to distinguish this campus from the vast majority of comparison institutions, particularly in the eyes of its undergraduate population. This is due, in large part, to their central role in the social and sometimes in the intellectual life of students outside the classroom and to the contribution they make to a distinctive campus culture. Although colleges were initially involved, alongside academic boards of studies, in the hiring and review of faculty, successive reorganizations restricted or eliminated their role in the personnel process. By 1985, their curricular functions had been largely limited to the first-year core courses, independent study courses, and individual majors. Colleges had become important centers of co-curricular and administrative activities primarily serving lower-division students.

COLLEGE ISSUES SINCE THE 1986 WASC REVIEW

The 1986 WASC review recommended that the campus re-examine the role of the colleges and attempt to strengthen the core courses which they offer. A variety of other pressures, internal and external, has also helped spur a series of studies, proposals, and changes over the past eight years. These include:

- two CEP reports on core courses
- core course refinancing
- a new declaration-of-major process
- a two-year review of the colleges
- an administrative reorganization of the colleges

An annotated chronology of these events provides the context for understanding the current state of the college system at UCSC.

1. In April 1986, soon after the last WASC visit, the Senate Committee on Educational Policy, which has jurisdiction over undergraduate curricula, produced a report on UCSC's core courses. Generally critical in tone, it noted a history of low participation on the part of ladder faculty which it attributed to the lack of an effective reward structure and to the tension between general educational objectives and the agendas of disciplinary boards of studies. Other problems to which the report pointed included the instability of core course funding (which relied upon soft monies that had to be renewed each year) and the incomplete

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37 The WASC review team recommended "that particular attention be paid to the quality, the supervision, and the faculty commitment to the current core courses; that they be either abolished or considerably strengthened as part of the general education requirement," Accreditation Report (WASC: 1986), p. 60. Undergraduate Education reference 18.
integration of writing instruction and core course content. To some extent, the issues highlighted by the 1986 CEP report have proved to be ongoing. For example, in 1987-88, 15 of 110 core course sections were taught by ladder faculty, 35 by writing lecturers, and 60 by temporary lecturers and graduate students.

2. In 1989, the campus adopted a new declaration-of-major process. This process originates in the colleges, where students are counseled about general education and university requirements. Course loads and time-to-degree are more carefully monitored, and college approval is now required for double majors, minors, and extensions of enrollment. Together with the academic standing procedures instituted in 1985-86 (which affected academic probation, disqualification, and honors), the new regulations gave the colleges a larger role in tracking the academic progress of students.

3. Also in 1989, the Chancellor initiated what turned out to be a two-year review of the colleges. The campus administration and Academic Senate both undertook exhaustive re-examinations of the college system in all its aspects. These parallel efforts culminated in a series of reports submitted and actions taken during the spring of 1991. The first of several key events was the April release of the report of the "CEP-CPB Joint Subcommittee on Intellectual and Cultural Life in the Colleges." Under the leadership of the chairs of the Committee on Educational Policy and the Committee on Planning and Budget, this report reaffirmed the colleges' role as foci of student life, advising, and intellectual community on campus. It recommended that all faculty and lecturers, as well as graduate and undergraduate students, affiliate with one of the eight colleges. It also proposed an expanded curricular role for the colleges through the institution of new courses carrying between one and three credits rather than five, which faculty members would teach in addition to their normal load. Senate discussion and a subsequent mail ballot, conducted in May 1991, won approval for a slightly modified form of the subcommittee's recommendations, allowing this additional service to be contributed in either the faculty member's college or board.

It is as yet difficult to assess the success of this initiative. The academic year 1992-93 was to be the first in a three-year cycle during which each faculty member would offer a one- to three-credit course or equivalent service. Because that service might take place at any point during those nine quarters and might be offered under the auspices of either a college or a board, it has been difficult to monitor compliance systematically. Anecdotal evidence suggests great variability in the approach adopted and in the results achieved by different colleges. At one extreme, two colleges have embarked upon ambitious programs of "complementary course" development, instituting supplemental seminars for first-year core course and general education requirements. These have, in some cases, been undertaken in conjunction with the organized research activities of faculty affiliates of the college. At the other end of the continuum, some colleges have encouraged faculty members to make their additional service available through their boards of studies, and have concentrated college-specific efforts on mounting complementary events in connection with the core course or on bringing in guest lecturers whose presence supports the disciplinary concerns of the boards housed in the college.

39 See Gruhn to Faculty, May 4, 1989. Undergraduate Education reference 21. See also "Advising" section.
40 See Gruhn to Faculty, May 4, 1989. Undergraduate Education reference 21. See also "Advising" section.
41 See Gruhn to Faculty, May 4, 1989. Undergraduate Education reference 21. See also "Advising" section.
42 See Gruhn to Faculty, May 4, 1989. Undergraduate Education reference 21. See also "Advising" section.
43 "Guidelines for One, Two, or Three Credit Courses" (UCSC: 1992). Undergraduate Education reference 24.
With only one year of the cycle completed at the time of this writing, there are grounds for concern. As might be expected, the response of ladder faculty has not been uniform. In fact, some feel that faculty involvement in all college activities is decreasing even though faculty affiliation is now required. It has even been reported that some new faculty have been counseled not to participate in college-sponsored teaching or other activities. In addition, if workload and political pressures associated with the state’s budget crisis lead to increases in faculty course loads, this is likely to restrict the advantage that the colleges hoped to gain through the Senate resolutions. In effect, a faculty member who is prevailed upon to teach an additional five-credit course by his or her board of studies may simply count that course as fulfillment of the one - three credit service requirement. To the extent that such decisions are generalized, this opportunity for the enlargement and enhancement of college curricula will be lost.

4. In 1990, the college core courses were placed on a more solid fiscal basis when the Academic Vice Chancellor specifically set aside a pool of funds drawn from faculty FTE to fund this instructional effort on a more permanent basis. These funds have not been sufficient to protect core courses from the budgetary pressures, leading to some increase in section size (from an average of twenty to twenty-four). Still, these resources have reduced or eliminated the delays and uncertainties that previously impeded the organization of core courses due to the temporary nature of their funding.

5. In 1991, there was a major administrative reorganization of the colleges. Under the pre-existing structure, college bursars reported to provosts, who in turn reported to the Chancellor. After a transition period, a new, dual structure emerged. Now the newly titled College Administrative Officers, who have primary responsibility over non-academic activities, report to the Vice Chancellor for Student Services. Provosts (i.e., faculty members who remain the chief academic officers in the colleges) report to the newly created Associate Academic Vice Chancellor for Undergraduate Education. During 1992-93, this position, renamed the Associate Academic Vice Chancellor for Undergraduate Affairs, was made full-time and given a much expanded roster of responsibilities which precludes direct involvement in or detailed oversight of the intellectual activities taking place in the colleges.

This administrative reorganization of the colleges was also intended to make possible a clarification and reorganization of college budgets. Roughly $425,000 per year of instructional funds, which had flowed over time into functions or positions that were only partially academic, were withdrawn from the colleges. The algorithm (the “Musgrave formula”) that had formerly determined the level of funding for individual colleges was abandoned in favor of a base-level allocation with a minimal incremental supplement of $5 per student.

The budget reorganization in 1991 has had major financial and staffing impacts on the colleges. While it successfully realigned staff function with fund source in a consistent way among all eight colleges, the overall reduction in FTE and support funds resulted in some reduction of services to students, and produced an even greater reliance on housing and gift funds to sustain college-sponsored programs. For example, some libraries and photo labs

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44 This position was the fulfillment of recommendations made in the 1986 Accreditation Report, as well as by other campus bodies, including the 1987-88 ad hoc Committee on Undergraduate Education.

45 With the creation of this position, and given current budget realities, it is extremely unlikely that the Senate recommendation to form a separate College Division with its own dean will be implemented.


47 The new system for distributing funds may have had the unintended consequence of disadvantaging certain colleges. For example, large colleges whose housing consists exclusively of residence halls (versus apartments), are obliged to admit very high proportions of freshmen (because residence halls are relatively unattractive to upper-division students). Yet, these new students have special needs (notably for orientation and college advising) for which no adjustment is made in the existing allocation of funds, which reflects increments in enrollment to only a limited extent.
have been curtailed in order to retain more vital aspects of college service. On the other hand, a campus policy adopted since the last WASC review calling for the decentralized delivery of computer services has led to the establishment of new facilities at Oakes, Merrill, and College Eight (with another planned for Cowell/Stevenson), sometimes with the help of outside funding sources.

In general, the fiscal crisis of the university, which has coincided with the budgetary reorganization of the colleges, has greatly complicated efforts to assess current funding patterns in the colleges and to discern their long-term implications. To assist with financial support, the colleges have been paired with a development officer and asked to prepare proposals suitable for outside funding.

6. One further event crowded into the highly charged spring quarter of 1991 was a new CEP report on the core courses. This one adopted a far more positive tone than its 1986 precursor. Citing the 1985 WASC Accreditation Report as one spur to its reconsideration of these issues, the Committee distributed questionnaires, reviewed student evaluations, and examined course materials in its effort to evaluate the quality of college core offerings. Like the 1986 report, it acknowledged a low level of faculty participation in these courses, but it placed a very different interpretation on this situation. The report, in fact, argued against reliance on large faculty lectures and in favor of the smaller sections, typically taught by lecturers or graduate students, in which it found that "the most important and most successful results of the college core courses are accomplished." In short, the report urged that these courses continue along the path already established.

The past two years have been a period of adjustment to and consolidation of the flurry of administrative, budgetary, and substantive changes undertaken during 1990 and 1991. Despite a number of outstanding issues, the campus remains committed to realizing future growth in its complement of undergraduate students through the construction of new colleges. Here too, however, the budget crisis has had its impacts. During the past year, ground was broken for Colleges Nine and Ten. Because growth in the student body has for the moment been halted, the campus administration decided to construct only the academic core buildings and to postpone the student housing originally planned as part of this project.

This decision was complicated by such contradictory factors as the prospect of rapid increases in the college-age population of the state, the fact that the operating and capital budgets of the university proceed independently of one another, the requirement that all campus housing facilities be financially self-supporting, and the potential for the "downsizing" of UC if the budget crisis continues. Nonetheless, the possibility currently exists that UCSC will, by the end of this decade, build academic facilities for Colleges Nine, Ten, and Eleven (to house the boards of Anthropology, Economics, Education, Environmental Studies, and Psychology) without the student residential component that the college model so clearly calls for. While this situation is not without precedent (College Eight operated for many years without its own student facilities, and the Natural Sciences

49 These two colleges may temporarily be called Social Sciences One and Social Sciences Two.
faculty has typically interacted with students outside the college context from the time of the campus's creation, it would present a challenge to accepted notions of how a college functions and will guarantee that the next review period will see a continued evolution and redefinition of the role of colleges on this campus.

Another novel element is that in the new colleges, faculty from just one to three boards of studies will be physically represented. This raises questions concerning how to create a college identity (separate from disciplinary orientations) for faculty and whether strong skews in student preferences for affiliation (along the lines of undergraduate majors) will develop.

One other recommendation in the previous WASC review that indirectly concerned the colleges was "that the University continue to make special and deliberate efforts, not in just one or two colleges, but centrally visible to recruit effectively, support fully, and retain students from ethnic minorities." Although this is covered in the section on diversity, it should be noted here that a new configuration has developed in the colleges vis-a-vis minority students. This is primarily due to the fact that, as a recruiting strategy, students in affirmative action categories are given their first choice for college affiliation and a guarantee of four years of housing. Thus, the concentration of affirmative action students varies depending on such factors as the type and newness of the housing facilities. Most colleges are responding by developing new activities and programs to support their changing student clientele and by augmenting the curriculum in their core courses. Also, a few of the one- to three-credit courses have focused on questions revolving around race and ethnicity. These courses have been successful both in meeting students' needs and complementing the general education "E" (ethnic) requirement.

As this section has perhaps made clear, in the past eight years a considerable number of studies have been conducted and a mass of information assembled concerning the colleges at UCSC. As part of this process of self-assessment, many thoughtful recommendations have been advanced and a few major reforms have been implemented. In short, the college system continues to stir controversy and to undergo change.

This ongoing ferment is driven by divisions of opinion among the faculty and between the faculty and students concerning the proper role of the college system. While some faculty members still see colleges offering the opportunity to interact with colleagues across departmental and divisional lines or to reinvigorate the ideal of a liberal education, others view them as distractions from or impediments to the university's primary responsibility for disciplinary and interdisciplinary

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education and for scholarly research. At the same time, there is ample evidence that the colleges
remain one of the campus's great attractions to prospective students and a positive force in shaping
undergraduates' perceptions of what makes UCSC distinctive and desirable.\textsuperscript{51} It seems unlikely that
the great divergence in views of this institution's college system will soon disappear.

\textsuperscript{51} For a sample of college academic and co-curricular activities see \textit{Porter College Annual Report}, June 1993.
Undergraduate Education reference 27.
4. General Education

Integral to the education of undergraduate students is exposure to a broad range of perspectives on the liberal arts and the development of skills necessary for success in their chosen field of study. The Academic Senate Committee on Educational Policy (CEP) has the responsibility for recommending general education (GE) policies to the faculty and for reviewing and approving all undergraduate courses. In 1984, CEP recommended reform of the campus's breadth requirements because: (a) a more coherent rationale for the GE curriculum was needed; (b) the college structure had not succeeded in providing "general education" other than the core courses; (c) a number of boards wished to re-evaluate the way their courses were organized in terms of prerequisite sequences; (d) student retention was low and outside reviewers cited the lack of curricular structure as a possible cause; and (e) the campus needed to remedy student deficiencies in writing and quantitative reasoning. In 1985, after campuswide consultation and debate, the Academic Senate adopted the reforms with the understanding that all general education requirements would be reviewed periodically.

DESCRIPTION OF AND RATIONALE FOR THE GENERAL EDUCATION REQUIREMENTS

UCSC's present general education requirements reformed the "cafeteria-style" breadth requirements that had previously been in place. The requirements carefully describe and justify the nature of the educational experience represented by each of these requirements, emphasizing in particular the distinction between introductions to the disciplines (which lay the foundation necessary for further study in a given field) and topical courses (which show how a given disciplinary or interdisciplinary perspective addresses a topic of significant concern). Ideally, students who satisfy these requirements should have the opportunity to develop crucial skills, experience both depth and breadth of study, and develop a sense of the relationship between academic discourse and human concerns.

To satisfy the general education requirements, a student must pass courses in nine categories: two introductory courses each in humanities, natural sciences, and social sciences; composition, writing, arts, ethnic/third world, and quantitative courses; and three lower-division topical courses (one from each of three broad subject areas). The criteria that courses must meet to satisfy general education

52 The 1983-84 breadth requirements required a student to pass three courses from each of three divisions (Humanities and Arts, Natural Sciences, and Social Sciences). A detailed set of rules governed which courses were acceptable within each division.

53 The 1986 visiting accreditation team recommended that the Committee on Educational Policy "continue its work on general education to develop a coherent and unique program."
requirements are described below. Table A.6 shows the maximum number of courses needed to satisfy each general education requirement.

Table A.6
Summary of UCSC's General Education Requirements

<table>
<thead>
<tr>
<th>General Education Requirements</th>
<th>Code</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to the Disciplines</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Humanities and Arts Division</td>
<td>IH</td>
<td>2</td>
</tr>
<tr>
<td>(from two different disciplines)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Natural Sciences Division</td>
<td>IN</td>
<td>2</td>
</tr>
<tr>
<td>(from two different disciplines)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Social Sciences Division</td>
<td>IS</td>
<td>2</td>
</tr>
<tr>
<td>(from two different disciplines)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Composition course</td>
<td>C</td>
<td>1</td>
</tr>
<tr>
<td>Writing-intensive course</td>
<td>W</td>
<td>1</td>
</tr>
<tr>
<td>Arts course</td>
<td>A</td>
<td>1</td>
</tr>
<tr>
<td>Ethnic/Third World course</td>
<td>E</td>
<td>1</td>
</tr>
<tr>
<td>Quantitative course</td>
<td>Q</td>
<td>1</td>
</tr>
<tr>
<td>Topical courses</td>
<td>T</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>54</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

*Introductions to the Humanities and Arts ("IH"), Natural Sciences ("IN"), and Social Sciences ("IS"). Courses that satisfy these requirements are designed to inform students about the scope and method of courses within each academic area and to prepare them for advanced coursework. These courses have no prerequisites and in many cases are required of majors in the respective disciplines. Two five-credit courses, each in different boards, are required within humanities and arts, natural sciences, and social sciences for a total of six courses.*

*Composition ("C"). One five-credit writing course stressing essay development and rhetorical sophistication is required. The Subject A, English Composition, requirement must be satisfied before enrolling in a "C" course.*

*Writing ("W"). The content of writing-intensive courses explicitly addresses the assumptions and conventions of writing in a given discipline, including effective techniques, use of sources, the analysis of evidence, and the methods of research, argument, and proof. The courses can be lower- or upper-division and may be offered by any sponsoring agency. They can be special sections of large lecture courses that require more writing and offer more instruction in writing. Writing assignments are distributed so that students have the opportunity to receive criticism of drafts and produce rewrites for final review. The Subject*
A, English Composition, requirement must be satisfied before enrolling in a "W" course. Transfer students must satisfy the "W" requirement with a course at UCSC (unless they transfer from a California community college and satisfy the Intersegmental General Education Transfer Curriculum guidelines). One five-credit course is required.

Arts ("A"). The art requirement is designed to expose students to the appreciation of or to an activity involved in one of many art forms. To receive the "A" designation, these courses must introduce the student to the record of human creativity as manifested in the various arts. Students must take one five-credit course or a three-course series of related two-credit courses from Art, Art History, Creative Writing (Literature), Music, Science Communication, or Theater Arts.

Ethnic/Third World ("E"). Ethnic/third world courses are designed to increase student awareness of non-Western cultures; improve cross-cultural awareness, skills, and sensitivity; and explore relationships between ethnicity and other topics in the liberal arts curriculum. At least half of the content of an "E" course must deal with ethnic minorities in the U.S. or with a non-Western society. Most of the course content must be relevant to the present time. Language acquisition courses do not qualify. Courses that teach performance skills may meet the requirement if sufficient material to increase cross-cultural understanding is taught alongside the practical skills. This requirement became effective for students entering in or after fall quarter 1986. One five-credit course is required.

Quantitative ("Q"). Courses satisfying this requirement involve either the acquisition of technical skills in mathematics or practice in the ability to apply mathematics in a specific context. Quantitative courses involve the use of pre-calculus mathematics, statistics, or calculus. Non-mathematics "Q" courses provide instruction in quantitative reasoning rather than specific mathematical skills. Courses in logic or computer programming cannot satisfy the "Q" requirement. One five-credit course is required.

Topical ("T"). These requirements are intended to expose students to introductory, thematic, and often interdisciplinary courses with broad social or intellectual relevance. These courses must be in the lower division, suitable for non-majors, and not required in any major. Each college core course satisfies a topical requirement. Three five-credit courses are required—one from each academic category (Humanities and Arts, Natural Sciences, and Social Sciences). Transfer courses are not applied to the topical requirement, but the requirements are waived at entrance according to the following formula: 45 to 83.9 transferable quarter credits, one course waived; 84 to 104.9 transferable quarter credits, two courses waived; 105 or more transferable quarter credits, all three courses waived. If one topical course is required, it may be within any of the three academic areas; if two courses are required, they must be in different areas.

Courses Meeting More Than One Requirement

Some courses can meet more than one general education requirement. A document authored by CEP entitled "Description and Rationale of New General Education Requirements, Attachment II" (1984) states:

Individual courses may have multiple breadth codes... In general, faculty are urged to (re)design courses, especially in the lower division, to meet multiple requirements whenever possible.

Two rules govern which courses can satisfy two or more requirements: (a) no course can satisfy both the composition and writing requirements (ensuring that students have at least two quarters of writing instruction); and (b) other requirements may be combined when there is no reason why they are
incompatible (e.g., an introduction to the discipline course cannot also be classified as a topical course). Breadth is assured by the "introduction to the discipline" courses (involving six different boards) and the three topical courses (each from a different division). The arts, ethnic/third world, quantitative, and writing-intensive requirements can be combined with other general education objectives when appropriate. Although there are fourteen requirements, it was not intended that students necessarily take fourteen separate courses.

**College Core Courses**

UCSC's current requirements for general education require a maximum of fourteen courses (70 quarter credits). Each student admitted to UCSC with fewer than 30 quarter credits must enroll in his or her college's core course. This requirement is regarded as being in addition to the campuswide general education requirement. In most instances, this is a one-quarter, five-credit course which also satisfies a topical requirement and may satisfy a writing requirement.

**Petitions to Waive General Education Requirements**

Students may petition to substitute a non-GE course to satisfy a GE requirement. Petitions are reviewed by college advisers and divisional deans and then acted on by the chair of CEP. Students may also petition the chair of CEP to waive one GE course but these are approved only in extremely rare circumstances. All requests for waivers are subject to stringent review; the composition and writing requirements cannot be waived.

**EVALUATION AND IMPROVEMENT OF THE GENERAL EDUCATION CURRICULUM**

Since the time of the last WASC review, the Chancellor's Committee on Undergraduate Education (CUE) and the Committee on Educational Policy have evaluated and reformed the general education curriculum. Assessment information on enrollments and student evaluations are also routinely collected, and a special assessment on how students satisfy their GE requirements was conducted.

**The Committee on Undergraduate Education**

In 1987, Chancellor Stevens announced the appointment of the Committee on Undergraduate Education. Composed of nine faculty members and two students, the committee was charged to: 1) study undergraduate education at UCSC and report on what it represents and its condition; 2) consider general questions of what an excellent undergraduate education should encompass and, in particular, what undergraduate education at UCSC should be; and 3) propose measures to translate

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55 The composition requirement is substantially different and is rarely combined with other GE requirements.
that vision into reality. The Report of the Committee on Undergraduate Education\textsuperscript{56} in December 1988 stimulated serious discussion about undergraduate education.

The CUE report encouraged the adoption of a more structured and integrated curriculum. The latter was an outgrowth of the committee's definition of the qualities of an educated person. The proposed curriculum included twelve requirements: writing, world culture (two courses), natural sciences (two courses), arts and humanities, creative activity, quantitative inquiry/formal reasoning (with a Subject M or math entry exam), disciplinary foundations (two courses), and the "Capstone Course" (an upper-division integrative course). Partly in response to the fiscal advice of the Committee on Planning and Budget (CPB) and partly on pedagogical grounds, CEP decided not to recommend the implementation of the CUE report as a whole.

Although not adopted intact, the issues raised by the report have been addressed in several ways. Responding to a recommendation of CUE, the Academic Vice Chancellor appointed associates for programs and planning, and undergraduate education. In 1990, the CEP-CPB Subcommittee on the Intellectual and Cultural Life of the Colleges recommended that each college should offer a curriculum that provides undergraduates at every level with the opportunity to enrich their education in ways not available through the boards. The purpose of the proposed courses was to broaden and deepen students' education outside their major field and expose them to a greater variety of topics than is possible with the current five-credit curriculum. After the resolution was passed by the Academic Senate in 1991-92, colleges began sponsoring these one- to three-credit courses during the 1992-93 academic year.\textsuperscript{57} In addition, capstone courses and senior seminars that satisfy the senior comprehensive requirement are now offered by several boards.

\textbf{The Committee on Educational Policy}

As a result of the CUE report and the discussions it instigated, CEP began to work toward refining UCSC's current general education program to bring it more in tune with both the spirit of the CUE report and the original intentions of the general education requirements as adopted in 1985.\textsuperscript{58} Over the past five years, the committee has conducted in-depth reviews of the quality of the college core courses and has re-examined the standards for ethnic/third world and topical courses.

\textit{Examination of College Core Courses.} In 1990-91, CEP conducted an extensive review of the college core courses. The review included examination of each course's organization, goals, content and materials, future plans, and evaluations by instructors and students. The

\textsuperscript{56} Undergraduate Education reference 28.

\textsuperscript{57} Due to the impact of recent budget constraints on faculty course loads, development of these courses may be slower than expected.

\textsuperscript{58} See Freeman to Tanner, April 1991. Undergraduate Education reference 29.
committee concluded that the core courses were generally of high quality, carefully planned, extensively evaluated, and accomplished their goals effectively. Goals common to all core courses were: (a) teaching in small sections; (b) attention to careful and critical reading of texts; (c) attention to writing clear, well-organized prose suitable for college-level academic discourse; and (d) providing the opportunity for learning how to participate in collegial discussions. The committee recommended that the core courses could be improved by strengthening the lectures; improving the communication between course planners, lecturers, and section leaders; and sharing information between colleges.

Definition of Ethnic/Third World and Topical Courses. Three years ago, CEP clarified the guidelines for courses designated as satisfying the ethnic/third world ("E") requirement, reviewed all courses with that designation and, as a result, directed that some courses be revised and others removed from the list of courses satisfying the requirement. As a consequence of this ongoing process, the "E" requirement represents a more focused, coherent pedagogical goal than has been true in the past.

In March 1991, CEP clarified its guidelines and criteria for courses that satisfy the topical requirement and asked boards of study to review their lower-division offerings to: (a) ensure that courses designated as introductions to disciplines ("IH," "IN," and "IS" courses) and topicals ("T" courses) are in fact consistent with the descriptions and intentions of these requirements; and (b) increase their lower-division offerings to meet this curricular responsibility (for boards that offer very few or no topical courses). CEP has redefined the way college core courses can be used to satisfy the topical course requirement and has encouraged the divisions to develop, as topical courses, prototypes of the integrative core courses described in the CUE report.

Writing. CEP investigated the feasibility of following the CUE report’s recommendation to add an upper-division writing requirement; even if it should prove impossible, CEP plans to clarify the "W" requirement and encourage boards to develop more courses that satisfy the writing requirement in more effective ways across the curriculum (primarily through the board review process).

Course Review. In addition to conducting a careful evaluation of major course requirements, CEP examines each board’s GE and lower-division curriculum as part of the campus’s program review process. CEP evaluates the number of courses required by the major and asks a board to justify high course requirements when they exist. In addition, all changes in course descriptions in the catalog, including all new undergraduate courses and programs, are reviewed by CEP.

Ongoing Assessment Efforts
There are several ongoing assessment efforts connected with general education. Each fall, a survey of new freshmen examines their educational goals. In addition, general education courses are systematically evaluated through ratings from recent graduates, analyses of enrollments, and course evaluations. Evaluation of the effectiveness of specific courses is left to the board and faculty offering each course.

Survey of Freshpersons. UCSC students report being more interested in receiving a liberal arts education than their peers nationally (who are more motivated by the practical benefits of an education). Nationwide, more students attend college with the aim of getting a better job
(61 percent vs 73 percent) or making more money (46 percent vs 66 percent). A greater percentage of UCSC students consider gaining a general education (80 percent vs 70 percent), becoming a more cultured person (56 percent vs 47 percent), and improving their academic skills (48 percent vs 40 percent) as important reasons for attending college. Clearly, the general education curriculum is an important element in meeting the expectations of the students enrolled at UCSC.

Survey of Recent Graduates. The biennial survey of recent graduates asks alumni to evaluate the learning outcomes of the general education curriculum. UCSC’s 1990 graduates rated writing clear prose, using one’s creative faculties, and analyzing information as their most important intellectual skills. Graduates were highly satisfied with their growth in these areas. They reported the least development in the areas they rated least important (applying scientific methods, understanding the natural sciences, understanding technology, and understanding mathematics). Compared to earlier surveys, the area that has become more important to students is analyzing information; understanding western culture, the workings of government, and mathematics have become less important. The survey found that 1991 graduates were less satisfied with the availability of general education courses than 1989 graduates. (Note that there was greater dissatisfaction with the availability of courses in the major as well.) Alumni reported that they would have liked more education on physical fitness and clear and effective speaking.

Analysis of Enrollment. Enrollment in GE courses is reported to the academic divisions at the end of each academic year for use in their curricular planning.

Assessment of Current Practice
At the request of CEP, a study of how students meet GE requirements was begun in 1992. The study followed students who entered the campus in 1987 and documented which courses they took to satisfy each requirement, when the courses were taken, and the pass rates. The findings of the study and some of the concerns about each requirement are summarized in this section.

Introduction to the Humanities. The single course most often used to satisfy one of the "IH" requirements is Women’s Studies 1 (Introduction to Feminism). The boards with the highest enrollments in "IH" courses in 1991-92 were Language Studies, Music, Literature, and History.

Introduction to the Natural Sciences. Astronomy 2 was the most popular "IN" course among non-science majors. The boards with the highest enrollments in "IN" courses in 1991-92 were Biology, Mathematics, and Chemistry.

Introduction to the Social Sciences. The two courses most often used to satisfy the "IS" requirements are Economics 1 (Introductory Microeconomics) and Education 92 (Education for a Livable World). In 1991-92, the boards with the highest enrollments in "IS" courses were Psychology, Economics, and Sociology. Because of the high demand by majors or pre-

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59 Percentages reflect the number of 1992 freshmen who said each item was an important or very important reason for attending college. UCSC freshmen are reported first, followed by their national peers. Statistics cited from Office of Planning and Budget, Summary of the 1992 ACE Freshman Fall Survey (UCSC: 1993). Undergraduate Education reference 30.


61 See also General Education in the "Diversity in the Academic Environment" sub-section of "Undergraduate Diversity" for issues concerning ethnic students.

62 As "IN" courses are usually required for majors, popular disciplines will have higher enrollments.
majors, access to some of the introductory courses can be difficult for non-majors.

Composition and Writing. Nearly all students satisfy the composition requirement by taking Writing 1, and 93 percent of new students take the course during their first or second year. All core courses offer sections that satisfy the writing-intensive requirement and over three-fourths of all freshmen meet the requirement in this way.

Arts. The course criteria for meeting the "A" requirement are the least clear. The distinction between an "A" course and a "T" course in the arts is problematic. Until recently, students used a great variety of courses to meet the "A" requirement. In the spring of 1992, a new course (Music 80H, American Popular Music) was introduced. Nearly 1,300 students enrolled in the course's two sections. Because it satisfies both the "A" and "T" requirements and because of its large enrollments, it appears that this course is in a position to exert great influence on how students satisfy both of these general education requirements.

Ethnic/Third World. The curricular requirements for "E" courses were revised by CEP in 1990 to ensure that ethnic/third world courses were relevant to current events and had at least half of their course content devoted to ethnic themes. As a result of this review, the "E" designation was removed from twelve courses (most were in History or Art History). Nevertheless, the requirement still lacks some coherence because the issues covered in domestic ethnic courses and those discussed in third world courses can be quite distinct. Student enrollments are evenly split between "E" courses that focus on domestic and international topics. About half of the students satisfy the requirement during their first year, many through their college core course (the core courses in Crown, Merrill, and Oakes Colleges satisfy the "E" requirement). In addition, a total of 104 board-sponsored "E" courses were offered in 1991-92 (7 in the Arts Division, 59 in Humanities, 38 in Social Sciences; 17 percent were upper-division courses).

Quantitative. There is considerable variation in the amount of quantitative training provided by "Q" courses. Interest in revising the quantitative requirement focuses on increasing students' exposure to quantitative methods as well as ensuring relevancy to students' majors. (For example, one-third of all non-science majors enroll in Astronomy 2, a survey of current thought about the physical universe.)

Topical. The courses most commonly used to satisfy the three topical requirements were core courses (Porter, Cowell, and Kresge in the arts and humanities; Oakes and Stevenson in either arts and humanities or social sciences; and Crown, Merrill, and College Eight in the social sciences). In 1991-92, the most popular board-sponsored courses included Music 80H (American Popular Music) in the arts, History of Consciousness 80A (Culture and Ideology in the Twentieth Century) in the humanities, Biology 80A (Female Physiology and Gynecology) in the natural sciences, and Psychology 80B (Human Sexuality) in the social sciences.

Upper-Division Courses
WASC Standard 4.B.3 states that general education courses should include offerings in the upper division. Although five GE requirements can be met only with lower-division courses (composition, introduction to humanities, introduction to natural science, introduction to social science, topical), over twenty percent of all GE courses offered in 1991-92 were in the upper division (writing: 30 percent; quantitative: 12 percent; arts: 27 percent; ethnic/third world: 48 percent). Beginning in 1993-94, several new capstone and senior seminar courses will also satisfy the writing requirement.

63 Because many courses satisfy more than one GE requirement, the same courses may be counted more than once.
(e.g., History, Anthropology). As upper-division courses usually require prerequisites, access to these courses may be restricted, and enrollment demands are often low.

**Total General Education Courses Taken**

WASC Standard 4.B.3 also recommends that no fewer than 45 semester credits, the equivalent of thirteen-and-one-half courses at UCSC, be required of each student to satisfy a campus's general education requirements. Because many courses satisfy two requirements and ten courses satisfy three, the number of courses a student must take to satisfy UCSC's GE requirements may vary from an absolute minimum of nine to a maximum of fourteen.

To examine the range in number of courses that students take to satisfy the general education requirements, the Registrar's Office evaluated a sample of the transcripts of seniors graduating in the spring of 1993. The study found that two-thirds of the graduates needed eleven or fewer courses to satisfy the GE requirements. A follow-up study of courses taken by spring 1993 graduates found that students typically took more than twenty courses that satisfied general education requirements. Although the averages are somewhat inflated by courses required within students' respective majors, the typical graduate passed one course or more for each GE requirement. Ninety-seven percent of recent UCSC graduates passed fourteen or more general education courses. As transfer credits were not evaluated, it is likely that part of the other three percent also met or exceeded the WASC standard. Thus, while the minimum number of courses needed by UCSC students to satisfy general education requirements is below the WASC recommendation, the number of courses actually taken significantly exceeds the guideline.

**General Education and Major Credit Requirements**

Graduation requirements within each major are monitored yearly. For 1993-94, the number of courses required by majors ranged from eight to twenty-five. Course credits for these courses may vary, especially for majors requiring laboratory work.

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64 The average number of courses was eleven. Note that this is the minimum number of courses needed for the Registrar's Office to account for all requirements, not the number actually taken.


66 History of Courses Required by the Major available in the Office of Planning and Budget.
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<th>Credits</th>
<th>Upper-division Courses</th>
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{^67} One- and two-credit lab sections are not counted as separate courses.
Table A.7 summarizes the number of courses and credits required to graduate from each major in 1993-94. Assuming the typical student takes eleven courses (55 quarter credits) to satisfy the general education requirements, a major should require no more than 125 quarter credits. The table shows that one undergraduate degree program, Computer Engineering, requires more than 125 credits (134 credits). Marine Biology (123 credits) and Biochemistry and Molecular Biology (120 credits) are near the limit. Because some of the courses required by these majors also satisfy GE requirements (three or four 5-credit courses in each major) or because the GE requirements may be satisfied with fewer than eleven courses, students in majors with a high number of course requirements have the opportunity, although limited, to enroll in elective courses.

FUTURE ISSUES

The general education curriculum, like the university, is continually changing as values evolve and fiscal resources change. Three factors will have a strong influence on the future of the general education curriculum: the budget, the role of administrative oversight, and continued assessment.

Budget Cuts

The University of California and the campus are dealing with the most severe budget reductions in their history. Cuts to divisional and board budgets have caused significant reductions in the use of temporary teaching staff, and the early retirement programs have diminished the number of permanent faculty. As a result, tenure-track faculty are being asked to teach a greater number of courses and/or a greater number of students. When, due to a scarcity of resources, divisions and boards must reduce the total number of offerings, courses serving the needs of majors may receive a higher priority than general education courses.

Although there has been little central oversight of general education offerings, the academic divisions have been cognizant of the potential for a problem and, to date, no shortages have occurred. Nevertheless, the potential still exists. Over the next year, CEP will develop a system to monitor the GE courses planned within each academic division. In addition, the new initiative to manage instructional resources is examining ways to reward boards for their contribution to general education.69

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68 The minimum number of credits required for graduation is 180. This can be accomplished if a student earns fifteen credits each quarter over four academic years.

Administrative Oversight

With our system of shared governance, the responsibility for general education is divided between CEP (for oversight of content), the central administration (for allocation of resources to support the curriculum) and the divisions and boards (for implementation). In the past, annual changes in leadership for CEP and two-year membership appointments posed some continuity issues and made it difficult for the committee to effectively address administrative oversight issues that require a long-term perspective. A new appointment procedure and the assistance of long-time staff members now assures more continuity.

CEP's many other responsibilities also limit the attention it can devote to the oversight of the general education program. Even in periods when the committee is proactive, it shapes the general education curriculum primarily by advising boards and academic divisions on the maintenance or the development of courses, and by vetoing course proposals. It does not have the ability to create resource or financial incentives.

The duties of the new Associate Vice Chancellor for Undergraduate Education position (recommended by the previous WASC review) relative to general education are unclear. As they evolve, its occupant may assume an active role in the development of future general education policies and provide leadership in the integration and evaluation of general education at UCSC.

Assessment

CEP plans to continue its evaluation process by examining courses with large enrollments and the few that satisfy three requirements will be reviewed. In addition, the committee will assess GE offerings at the close of each academic year to ensure that there are sufficient courses in each area. CEP's assumption in this evaluation process is that UCSC's current general education program is intellectually and pedagogically defensible but, as the CUE report pointed out, its goals can be carried out only through the responsible designation and creation of courses that meet these goals.

In addition to CEP's work, the Offices of Institutional Research and SAA/EOP will study the low pass rates of students from several underrepresented groups in "Q" and "IN" courses. 70

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70 See also General Education in the "Diversity in the Academic Environment" sub-section of "Undergraduate Diversity" for issues concerning ethnic students.
5. Academic Advising

Decentralized advising has been a hallmark of UCSC. The campus has repeatedly considered—and rejected—the "advising center" approach in favor of retaining a decentralized model because of its potential for fostering personalized advising relationships. But decentralization also poses issues of consistency and coordination (which were mentioned in the campus's fourth-year report to WASC).

Faced with an expanding student body and diminishing resources, campus programs have retreated from attempting to offer general-purpose advising to a more task-oriented model focusing on key decision points such as the declaration of a major, extensions of enrollment, or study abroad. In order to ascertain how well this approach serves students, a questionnaire was administered to campus advisers. Because the campus has shifted to a significantly greater proportion of transfer students over the past several years, the survey also examined how various advising programs are accommodating their distinct needs.

Our inquiry considered the contributions that both faculty and staff make to advising, as well as how their services intersect. Our findings suggest that a hybrid faculty-staff advising program offers a rich diversity of services to students. Although some of the most important advising may take place in coffee shops, residence halls, student-led study groups, or during faculty office hours (in which two-thirds of our students participate), the primary focus of this section is the formal advising system.

Advising in the Previous Review Period

A short history of advising issues at UCSC prior to 1985 affords a useful context. In 1979, an external review team submitted a retention report which prodded the campus into rethinking advising. The review suggested that students who actively sought advising became productive and contented members of the campus community, while those who did not do so received little academic guidance and were particularly prone to leave the campus. Concerned about this latter group, the campus implemented a faculty-based advising program in the eight colleges which required quarterly meetings between first-year students and their advisers. Two years later, the campus retreated from this brief experiment, returning to mandatory advising for the first quarter and, beyond that, to providing advising primarily for those who seek it.

In this same era, the academic preceptor position in many colleges was redefined from an annual faculty appointment to a career position for a professional adviser/administrator. Staff advisers in this

position worked towards intercollegiate communication and consistency through the Council of Academic Preceptors, which first met in 1979. In the early 1980s, professional advisers played an important role in catalyzing changes in the culture (and staff) of the colleges that helped to achieve richer ethnic and cultural diversity.

Key Developments in Advising, 1985-1992

The following changes in the advising system have taken place within the current review period:

1. New academic standing regulations took effect in 1985-86 as part of efforts to reduce the time to complete degrees. With Academic Senate approval, staff developed and instituted a cumulative standard of satisfactory progress toward the degree which defined a prescribed time frame for graduation. Whereas students in academic difficulty had formerly been held only to their previous year's performance, now students are judged both by their recent and cumulative academic records.

2. In 1989, each college was asked to reapportion existing staff to incrementally increase academic preceptor positions from .42 FTE towards the Chancellor's stated goal of two FTE. Although the colleges realized significant progress towards this goal, a 1991 reorganization of the colleges separated student services and academic programming funds for the first time, resulting in the present allotment of .92 FTE of academic preceptor staff per college.

3. Beginning in 1989-90, a revised process of declaring the major ensured thorough and timely review of each student's plans. The Academic Vice Chancellor charged college advisers to meet with students concerning the fulfillment of general education requirements and faculty advisers to meet with students concerning major requirements in order to develop a quarter-by-quarter plan through graduation. Students must complete this planning process no later than the beginning of the junior year (or by the second quarter of enrollment, in the case of junior transfers).

4. In an effort to separate legitimate from frivolous reasons for staying beyond the normal time frame to complete an undergraduate degree, academic preceptors now apply a set of criteria for extension that were formally endorsed by the Senate Committee on Educational Policy in spring 1990. (CEP released a revised version in winter 1993.)

5. In 1988, a senior administrator was appointed to the position of Assistant Vice Chancellor for Academic Support Services with a charge of working closely with the colleges to improve advising, retention, and academic success leading to graduation for all students. Although this position was not refilled after it was vacated in 1990, the Academic Vice Chancellor established the new position of Associate Academic Vice Chancellor for Undergraduate Education, whose duties included oversight of academic advising.

6. A December 1991 report, Transfer Students Considered, made broad-based recommendations on behalf of the increasing numbers of transfer students at UCSC. Although the advising section of the report rejected a separate advising center, it made several key recommendations for improving existing advising resources.

7. A campus Advising Symposium (spring 1992) brought together staff from all areas of the campus to discuss and solve problematic issues relating to advising. The Steering Committee

72 Undergraduate Education reference 21.
73 Undergraduate Education reference 34.
synthesized the recommendations into a report on advising which was addressed to the Associate Academic Vice Chancellor for Undergraduate Education.\textsuperscript{74}

**Advising in the Colleges**

The colleges are charged with orienting, welcoming, and advising new and undeclared students; they counsel all students concerning general education and university requirements, extensions of enrollment, and minimum progress. Colleges employ both faculty and staff in advising in varying combinations, according to their particular strengths and traditions.

Most, though not all, colleges utilize affiliated faculty to welcome and advise new students, usually in a fall advising fair.\textsuperscript{75} While some colleges expect all ladder faculty to participate in college advising, others solicit faculty volunteers. During the period under review, faculty advising in the colleges has become increasingly focused on new students (both freshmen and transfers).

Each of the eight colleges employs a .92 FTE academic preceptor and one FTE assistant/records coordinator. The colleges' advising staff enforces a wide variety of campus policies, grants exceptions when warranted, and advises students in academic difficulty. The preceptors are generally available to all who seek them out. Except at the busiest points in each quarter, appointments are available within one week and, even at peak times, drop-in hours afford students who urgently need to see an adviser the opportunity to do so.

**Advising in Boards of Studies and Programs**

The boards' charge includes advising declared majors concerning course selection, requirements, and pathways; the comprehensive exam or thesis; and graduate school and career possibilities. Boards also orient and advise prospective majors about their program. With approximately 40 autonomous boards of studies at UCSC, there is very properly a diversity of advising approaches in place. The approach used depends in part on the numbers of both faculty and students (perhaps the most critical factor), the nature of the subject matter, and the propensity of the faculty to engage in advising.

There are three distinct models:

1. **Faculty as the primary advisers, with staff serving as secondary advisers.** This is more likely in smaller boards where students are often assigned a faculty member as a personal adviser. Most such boards set a high standard for advising of undergraduates thanks to faculty who are knowledgeable, welcoming, and student-centered.

\textsuperscript{74} Undergraduate Education reference 35.

\textsuperscript{75} Some augment faculty advising with a cadre of trained peer advisers. Practically speaking, faculty and student peer advisers represent the only possibility the colleges have for providing individualized advising, since there exists only one professional staff adviser for 300-400 new students (and approximately 1,200 students in toto) at each college.
2. **Staff as the primary advisers, with faculty advising focused primarily on graduate school and career options.** Large boards often have a staff position dedicated to advising. These staff advisers are readily accessible, well informed, and accustomed to dealing with exceptional circumstances. They are not usually prepared to answer questions regarding post-baccalaureate studies, but know to whom they can refer the interested student.

3. **Staff and faculty both having significant advising responsibilities.** This "hybrid" system is the most prevalent model used and can be the most confusing, since responsibilities are not clearly demarcated. In addition, it creates inequities among staff. Board assistants, who function as staff advisers (a role not originally envisioned for them), have salaries lower than those of professional advisers in large boards and the colleges, even though they have similar duties.

As noted previously, the campus instituted a new process for declaring a major during the current review period. This change has had a far-reaching, positive effect on advising in the boards. Students now uniformly receive advising from faculty at the point of choosing a major and prepare a cogent plan to carry them through graduation. The process has worked smoothly in boards in which faculty are primary advisers. Boards with professional advisers also have weathered the change well. The greatest challenge has been in boards with "hybrid" advising programs, particularly if faculty members had not previously been active in advising.

**Advising in Student Services Units**

As in the boards and colleges, academic advising within student services and allied programs takes place in units which discharge multiple responsibilities. The great strength in allowing each unit to advise students in a focused arena is that students have direct contact with specialists who can fully assist them with such issues as learning disabilities, study abroad, career preparation, and applicability of transfer credit.

The campus as a whole has grown dramatically since the 1985 self-study, and the increase in specific student populations has far outpaced the campus average. In 1984, only one or two students were considered learning disabled; now, over 100 are so diagnosed. In 1984, the sole staff adviser at Disabled Student Services (the director) primarily served students with temporary disabilities. Now, 50 percent of that unit's clientele have permanent disabilities, and three full-time staff advisers are on hand. The Student Affirmative Action/Educational Opportunity Program has seen its target population increase from 689 in 1985 to 1776 in 1992 with little increase in advising staff: one .5 FTE adviser was added in 1989 for a total of 3.5 FTE. As a result of this increased load, this office has been obliged to redefine its goals and procedures, relying more heavily on colleges and boards for comprehensive advising services. Career and Internship Services has seen its staff diminished even though it has experienced an increased workload.
Student Evaluation of Advising

To what degree are undergraduates involved with the advising system? Available data suggest that students from the lowest socioeconomic strata are most involved in advising.76 The same study indicates that males are 50 percent more involved in advising than females, though the absolute number of respondents to the questionnaire involved is quite small.77 Among freshmen, more than 40 percent say that they never see an adviser despite the fact that required advising still exists for first-quarter students (both entry level and transfer) at most of the colleges, as it does for students below minimum progress, for all students at the time they declare majors, and for selected SAA/EOP students who are deemed to be at risk.78 While this inconsistency makes it impossible to take student responses literally, it does suggest their mind-set. From a survey of UCSC graduates conducted in 1990, it is clear that as many students are dissatisfied with advising as are satisfied.79 Students praise the faculty as advisers even when they are critical of the quality of academic advising itself.80

Over 40 percent of UCSC students were dissatisfied with the availability of their faculty advisers.81 No information is available concerning the nature of the barriers that lead students to give up seeking advisers (e.g., missed office hours or the absence of posted office hours). It should be pointed out, however, that faculty members who diligently honor the requirement to advise on particular days frequently report that very few students seek them out, especially in the winter and spring quarters. This apparent contradiction is certainly worthy of examination.

When students actually meet with faculty advisers, their satisfaction ratings are somewhat higher. Porter College students were asked simply, "was the advising session helpful?" following two quarters of mandatory meetings with college faculty. Sixty percent considered the meetings helpful, 25 percent did not, 15 percent gave no answer.82 These unweighted results are quite positive, although they represent a decline from 80 percent responding affirmatively in the early 1980s.

77 Ibid., Table 41, p. 60.
78 Ibid., p. 21.
80 Students' dissatisfaction typically emerged in response to questions on the quality of advising. The observed level of negative comment is consistent with the literature on university advising. In their review on this subject, McLaughlin and Starr underscored students' "overwhelming dissatisfaction with advising nationwide." Undergraduate Education reference 36.
81 Ibid., p. 21.
Retention and Graduation

In contrast to the self-reported data, objective measurements of student success paint quite a different picture of advising since the previous WASC review.\textsuperscript{83} Four-year graduation rates of those entering as freshpersons have dramatically increased. Although a variety of factors are associated with this change, it coincides with two broad-based changes in advising: the mandatory declaration-of-major session and the new extension-of-enrollment process, both of which require multiple meetings with campus advisers.

A comprehensive effort to improve retention was undertaken in the spring of 1988. The Council of Provosts, at the request of the Chancellor, established seven task forces to consider different aspects of the problems associated with retention and the length of time to graduation. The task forces examined issues associated with financial aid, the structure of majors, the grading system, the effects of senior thesis and comprehensive requirements on completion of a degree, the barriers for junior transfers, campus ethos, and advising. The task forces completed their reports in the fall of 1988, and several recommendations for changes in policy and procedures were implemented, including the redistribution of college personnel to strengthen academic advising at each of the colleges. Of particular importance was enforcement of a policy not to allow students to enroll for their seventh term until they have declared a major and filed an enrollment plan. Students must now meet with a faculty member in their proposed major before their enrollment plan will be accepted. In addition, all boards now sponsor meetings for undeclared students to help them learn about their major programs.

Table A.8 compares UCSC's retention and graduation rates for 1985-86 to 1992-93. Retention rates (especially for students' junior and senior years) have increased substantially and the four-year graduation rate has more than doubled.

\textsuperscript{83} The last review recommended that UCSC appoint "someone centrally responsible for all [retention] efforts ... with full responsibility and authority to address the problem." The responsibility for retention efforts now lies with the Associate Academic Vice Chancellor for Undergraduate Education. Reporting to the Executive Vice Chancellor, the position is responsible for the monitoring, enhancement, and evaluation of the undergraduate curriculum; the coordination of academic curricula in the colleges; and the administration of resources designated for the improvement and maintenance of undergraduate education.
Table A.8

Retention and Graduation Rates: A Comparison between 1985-86 and 1992-93

<table>
<thead>
<tr>
<th></th>
<th>Retention Rates</th>
<th></th>
<th>Graduation Rates</th>
<th></th>
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<tbody>
<tr>
<td></td>
<td>1 Year</td>
<td>2 Year</td>
<td>3 Year</td>
<td>4 Year</td>
</tr>
<tr>
<td>UCSC</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1985-86</td>
<td>81%</td>
<td>61%</td>
<td>51%</td>
<td>19%</td>
</tr>
<tr>
<td>1991-92</td>
<td>83%</td>
<td>72%</td>
<td>69%</td>
<td>41%</td>
</tr>
<tr>
<td>1992-93</td>
<td>82%</td>
<td>72%</td>
<td>70%</td>
<td>40%</td>
</tr>
<tr>
<td>UC systemwide</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1991-2</td>
<td>91%</td>
<td>NA</td>
<td>NA</td>
<td>35%</td>
</tr>
</tbody>
</table>

The net improvement in UCSC's four-year graduation rate for regularly admitted students has moved it from the lowest of UC campuses to the highest. Given this change, the five- and six-year graduation rates are expected to increase over the next few years. Retention and graduation rates for junior transfer students are also the highest in campus history: 87 percent are retained for their second year and 42 percent graduate by the end of their second year.

CURRENT ISSUES AND FUTURE CHALLENGES

Coordination and Oversight

A near consensus exists in favor of greater coordination and organization of campuswide advising endeavors. Despite the notable strengths of decentralized delivery of advising services, the specialist approach to advising sometimes offers students a bewildering number of choices. If coordination with other advising units is insufficient, advising can seem disjointed and confusing. Student Services

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84 Figures reported are from Retention and Graduation Update 1993-94 (UCSC: 1993). Undergraduate Education reference 5. Yearly retention rates are the percentage of freshmen from a fall class who enroll for subsequent fall quarters. The rates shown for 1993-94 are based on the most recent student cohort (e.g., the one-year retention rate is based on students who entered in the fall of 1992, the two-year rate is based on students entering in 1991, and so on). Graduation rates are the percentage of students from a fall entering class that graduate by the end of each academic year.

85 Included for comparison. 1992-93 data for UC system were not available.

86 As emphasized in a recent article by Alexander Astin in the Chronicle of Higher Education ("College Retention Rates Are Often Misleading," p. A48, September 22, 1993), care should be taken when comparing such data across institutions. Analyses are currently under way to compare UCSC's retention and graduation rates to the rates predicted by the characteristics of our entering students.

87 Although these data suggest that retention and graduation rates are less problematic overall, the rates for some groups of students (i.e., African American, Chicano, and special action admits) remain significantly below the campus average. More information on retention and graduation rates for students of color may be found in the section on "Undergraduate Diversity."
and allied units at UCSC have clearly demarcated areas of focus and minimal overlaps with board and college programs, but some students new to the campus remain mystified as to whom to see about particular problems.

The danger also exists that autonomous units will treat students inconsistently. Student Services advisers have much to say about the need for greater campus coordination of advising and more systematic information sharing across units. Because they work with all of the colleges and/or boards, they are acutely aware of variations in the application of policy from college to college or from board to board. To be sure, it may be pedagogically defensible for the Art Board to accept Education Abroad Program credits freely, for example, whereas the Physics Board insists that its core curriculum be completed at UCSC. Nevertheless, some Student Services advisers would be reluctant to see these issues left wholly in the hands of boards or colleges.

Cooperative ventures initiated since the last self-study include the 1992 Advising Symposium and an advising colloquium sponsored by Oakes College in fall 1992. Except for these one-time events and ad hoc initiatives by groups of advisers, such as the Board Advisory Group and the Council of Academic Preceptors, little systematic oversight of advising exists. The 1992 Advising Symposium recommended the development of a participatory forum such as a Council of Advisers in which all categories of advisers would be appropriately represented. Its purpose would be to build better bridges between structures like the Council of Academic Preceptors, the Board Advisory Group, and other autonomous advising units on campus which have been operating effectively, but within the confines of their own particular jurisdictions. It might also undertake to provide a campus advising handbook which, in describing the many resources available at UCSC, would assist both student advisees and faculty advisers.88

Transfer Students
The need for coordination is particularly acute in relation to transfer students, who require coherent and accurate advising prior to admission and immediately upon their arrival. As a result of a far-reaching transfer student study and report,89 the colleges now refer transfer students to the boards for advice as soon as possible. The boards also offer quarterly orientations on their majors and are attempting to define and meet transfer students' distinctive needs in other ways as well. In the Psychology Board, for instance, junior transfers have priority access to advising from professional staff at the beginning of each quarter. In fall 1993, several boards pioneered orientations exclusively

88 The Navigator includes comprehensive descriptions of both academic and administrative policies and procedures and lists resources available throughout the campus. As a result of the self-study review process, the Registrar's Office has decided to explore the inclusion in The Navigator of additional resource listings in support of advising.
89 Ad Hoc Transfer Student Committee, Transfer Students Considered (UCSC: 1991). Undergraduate Education reference 34.
addressed to transfer students. The Environmental Studies Board has developed a process whereby junior transfers are informed about acceptance into the major before their first quarter of attendance. The Community Studies Board sends a special mailing to all junior transfers each summer apprising them of the major and its requirements. The colleges also offer orientations geared to the specific needs of these students and have developed a component of the core course for junior transfers. Despite these and other significant advances, transfer students do not uniformly experience the transition to the campus and their major program as a smooth one.

To ensure that well-prepared junior transfers can complete their degree in two years, the campus is exploring new models for advising transfer students during their first quarter at UCSC. The Summer Advising and Enrollment Task Force is in the process of developing early advising and orientation programs so that students meet with college and board advisers prior to selecting classes for their first quarter. In addition, the Admissions Office has focused outreach efforts for transfer students on helping them come better prepared through increased course-to-course articulation with California community colleges and through Project ASSIST (a computerized articulation and transfer planning system). Once students arrive, evaluators hold office hours for one-on-one advising specifically to address transfer credit questions.

Advance Enrollment
With the progressive implementation of the campus's new advance enrollment system, changes in the timing and coordination of advising will be necessary. Course selection will normally take place during the middle of the preceding quarter, and advising will have to be adjusted accordingly. An Advance Course Information program (ACI), recommended and recently approved by CEP, will augment the new advance enrollment system. Beginning fall 1994, ACI will provide expanded advance information about courses (including syllabi, hours required, course structure, requirements, how students are evaluated, educational approach, and proposed readings) so that students will have time to review course syllabi and plan their programs of study before meeting with their adviser and selecting classes. This information will be available on-line through INFOSLUG on the campus network. Transfer students with access to library computer systems outside of Santa Cruz can connect to ACI through Telnet.90

NES

NES complicates the delivery of campus advising. Under the current technological setup, board and college offices have access to the Student Information System (SIS), which includes student transcripts. College and steno pool offices have access to narrative evaluations through SCRIPT. Thus, while college advisers have access to both types of records, faculty advisers have access to neither (unless they go to the board, college, and/or steno pools). This sometimes hampers their ability to provide well-informed counsel.

The Faculty Role in Advising

For the most part, faculty rewards for advising are those intrinsic to the process. In a 1989 survey of faculty, there was absolute unanimity among the faculty and administrators queried that the statement "faculty are rewarded for advising skills" is not "very descriptive" of the UCSC campus.91 On occasion, board chairs and colleges document advising in a personnel letter in response to outstanding work. The Academic Senate Committee on Academic Personnel reports taking such information into account in rendering its recommendation.

In the absence of an explicit recognition structure, accountability is a serious problem in faculty advising. Without discernible rewards, there is little incentive to become knowledgeable about fields other than one's own, about general education requirements, or about campus resources. The typical faculty member would never miss teaching a class, yet a number do miss the required advising each quarter; and a few flatly refuse to participate in college advising. Most faculty do not take advantage of training opportunities and are consequently uninformed about ancillary issues, even though they must often function as generalist advisors to pre-major students.

The expectation that faculty will participate in college advising for undeclared majors has been reasserted in two ways.92 First, all faculty have been required to affiliate with a college to encourage involvement with the collegiate life of undergraduates, including advising. Second, the deans continue to send quarterly letters to faculty members which make clear that they are to be available for college advising on a specific day each quarter. Both actions underscore the statement in the systemwide UC Faculty Handbook, "faculty members are expected to advise students in planning their academic programs." Still, if the campus is to give students what they appear to expect—a single, multi-talented faculty adviser—the challenge which it faces is to develop greater consistency.

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92 Note that UCSC's practice of having faculty advise undeclared students is unusual in the UC system. UCR is the only other UC campus that requires that undeclared students receive advising (Assistant Registrar to Provosts and Academic Preceptors, December 20, 1991. Undergraduate Education reference 39). The rest have either no required advising meetings or tend to target upper-division students.
through training, provide adequate recognition for excellent faculty advisers, and make efficient use of staff advisers in support roles within the colleges and boards.
B. GRADUATE EDUCATION

UCSC has developed nationally recognized graduate programs, with highly competitive admissions processes. Growth in enrollments and in development of programs was projected, but both have slowed in the current fiscal environment. These and the related issues of recruitment, retention, and graduate student support are discussed in this section.93

1. Recruitment, Enrollment, and Retention

Recruitment

The ability of graduate programs to meet their recruitment and enrollment objectives is closely linked to the amount of support available for students (discussed in the next section). Several boards report that they cut back on fall 1993 admissions in response to current budget cuts and in anticipation of further cuts that might preclude full support in the future.94 Concerns about the ability of the campus to achieve its stated goals with respect to graduate enrollments, however, actually predate the recent budget crisis. Figure B.1 shows actual and budgeted graduate headcounts. While the Office of the President, in response to the budget crisis, reduced the campus's allocation in 1991-92, actual enrollments had fallen short of the budgeted allocations in each of the previous four years. Thus, the campus was having difficulty keeping pace with the rate of allocated increases prior to the deterioration of the fiscal climate.

Figure B.1

Budgeted versus Actual Headcount

93 As part of its efforts to gather information, the Committee surveyed graduate program representatives from boards with graduate programs.

94 The consequences of such board-level adjustments for campus graduate enrollments are at present unknown. Source: Education Board.
In Ph.D. programs, admission yields (the fraction of admitted students who actually register) have averaged around 50 percent in recent years. For example, between 1986 and 1992, the yield rate ranged from a low of 40.3 percent in 1987 to a high of 53.2 percent in 1988. The figure for 1992 was 49.3 percent. Admission yields also vary across the academic divisions. The 1986 to 1992 average in Natural Sciences was 41 percent (709 registered students of 1729 admits); in Humanities it was 60.4 percent (261 registered of 432 admits); and in Social Sciences it was 50.3 percent (216 registered of 429 admits). Recruitment of international students is becoming increasingly difficult due to recent increases in the costs for out-of-state students.

Enrollment
Graduate students in 1992-93 represented 9.7 percent of the total student body, up from 8.4 percent in 1986-87. The pattern of graduate enrollments over the last seven years is shown in Table B.1. It includes all students in master's, Ph.D., and certificate programs and also gives the breakdown of students across divisions. While the absolute number of graduate enrollments increased 37 percent between 1986-87 and 1992-93, the growth occurred mainly in 1989-90 and 1990-91, with more modest growth in 1992-93. Of the 968 graduate students enrolled in 1992-93 (three-quarter average) there were 136 certificate students, 117 master's students, and 715 Ph.D. students.

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<td>127</td>
<td>149</td>
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<td>Nat. Sci.</td>
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<td>352</td>
<td>364</td>
<td>441</td>
<td>462</td>
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<td>485</td>
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<td>210</td>
<td>259</td>
<td>286</td>
<td>289</td>
<td>275</td>
</tr>
<tr>
<td>Total Grad.</td>
<td>707</td>
<td>753</td>
<td>729</td>
<td>878</td>
<td>935</td>
<td>937</td>
<td>968</td>
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<tr>
<td>Total Enroll</td>
<td>8409</td>
<td>8785</td>
<td>9234</td>
<td>9456</td>
<td>9720</td>
<td>9861</td>
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<tr>
<td>Grad %</td>
<td>8.4%</td>
<td>8.6%</td>
<td>7.9%</td>
<td>9.3%</td>
<td>9.6%</td>
<td>9.5%</td>
<td>9.7%</td>
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Table B.1
Graduate Enrollment

As shown in Table B.2, 50 percent of graduate enrollments are currently in the Natural Sciences Division. The next largest share is in Social Sciences (28 percent), followed by Humanities (18 percent), and Arts (4 percent). Despite the concern expressed in the Fourth Year Accreditation Report about the unbalanced distribution of graduate students among the academic divisions, this distribution has changed little as the total number of graduate students has grown. For example, in 1988-89, just prior to the main spurt of growth in graduate enrollments, the percent of graduate students in the four divisions was virtually the same as in 1992-93. Humanities and Arts, however, did increase their share of graduate enrollments from 1986 to 1989, a period during which enrollments
were flat in Natural Sciences and fell slightly in Social Sciences. Figure B.2 illustrates the change in the divisional shares between 1986-87 and 1992-93.

Table B.2
Distribution of Graduate Enrollments across Divisions
(percent of total graduate enrollments)

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<thead>
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<tbody>
<tr>
<td>Arts</td>
<td>2.7%</td>
<td>3.5%</td>
<td>3.8%</td>
<td>3.3%</td>
<td>3.0%</td>
<td>3.1%</td>
<td>3.9%</td>
</tr>
<tr>
<td>Humanities</td>
<td>14.3%</td>
<td>14.9%</td>
<td>17.4%</td>
<td>17.0%</td>
<td>17.0%</td>
<td>16.8%</td>
<td>17.6%</td>
</tr>
<tr>
<td>Nat. Sci.</td>
<td>51.9%</td>
<td>46.7%</td>
<td>49.9%</td>
<td>50.2%</td>
<td>49.4%</td>
<td>49.3%</td>
<td>50.1%</td>
</tr>
<tr>
<td>Soc. Sci.</td>
<td>31.1%</td>
<td>34.9%</td>
<td>28.8%</td>
<td>29.5%</td>
<td>30.6%</td>
<td>30.8%</td>
<td>28.4%</td>
</tr>
</tbody>
</table>

Figure B.2
Distribution of Graduate Enrollment

Graduate growth since 1988-89 has been accommodated in roughly equal proportions by expanding enrollments in existing programs and by the addition of new programs. New programs launched since the last WASC review include the Music M.A.; Ph.D. programs in Anthropology, International Economics, and Linguistics; and both doctoral and master's programs in Computer Engineering. This last program accounts for almost half the total growth in the Natural Sciences Division. Among the older programs, History (with a revived Ph.D. program), Literature, Physics, Psychology, and Science Communications have shown significant increases.

The 2005 Report (a campus planning document) assumed an eventual graduate enrollment of 3,000 students or 20 percent of the total campus enrollment. This 20 percent figure remains the campus
goal; however, graduate growth has recently been curtailed by budgetary constraints. It now appears unrealistic for the campus to expect to meet its objectives within the time frame originally envisioned; campus growth plans should be revised to reflect current realities.

Existing plans also call for 50 percent of graduate enrollments to be in Natural Sciences in 2005, 25 percent in Social Sciences, 18 percent in Humanities, and 7 percent in Arts. Thus, while growth is planned in each division (for example Natural Sciences would grow from just under 500 graduate students to roughly 1,500), growth would be particularly pronounced in Arts (mainly at the expense of Social Sciences).

Retention and Placement

Until recently, little data on retention and graduation rates has been available. In a study of graduate cohorts between 1984 and 1990, about 30 percent dropped out after two years of study. Based on cohorts entering between 1984 and 1986, between 21 percent and 33 percent received their doctorates after five years of study and about 36 percent after seven years of study.

Despite the fact that all UCSC master's programs are designed as two-year programs, completion rates after two years ranged from 31 percent to 49 percent. Another 23 percent to 40 percent of students are, after two years, still working on their degrees, while the remaining 24 percent to 43 percent have dropped out. Among recent cohorts of certificate students, around 25 percent drop out after the first year, while 42 percent to 52 percent have completed the certificate after two years.95

There appears to be no systematic research at UCSC on the reasons students fail to complete programs. Particularly in Ph.D. programs, students often choose to take leaves of absence while working on their dissertations in order to avoid student fees, compounding the difficulty of data collection. Leave-taking is likely to increase if graduate student fee offset grants fail to keep up with fee increases.

Information on graduate student placement is collected and used in program reviews, but is not routinely analyzed or reported for the campus as a whole. Based on discussions with program directors, there appears to have been no major change in the nature of placements during the past five years. In the natural sciences, degree recipients commonly accept postdoctoral positions or research jobs in private industry (a few accept academic teaching positions). In the social sciences, teaching placements have been increasing with other graduates moving into industry and the government.

95 The bulk of the certificate students are in the Education Board. Many of these students move into jobs that do not actually require that the certificate program be completed.
Humanities graduates, although few, have been quite successful in obtaining college and university teaching positions.
2. Graduate Student Support

The dominant concern voiced about the ability of the campus to achieve its graduate enrollment goals has centered on the projected levels of funding needed to support the planned number of graduate students. The campus's current emphasis on academic (versus professional) Ph.D. programs of various kinds, its heavy reliance on teaching assistantships to fund graduate students and support undergraduate education, the expectation in many programs that all students will receive three quarters of support for four years or more, and the plans for new graduate programs (predominantly Ph.D.) all suggest that previous per capita funding levels will be difficult or impossible to maintain.

Table B.3 shows the level of per capita financial support received by UCSC graduate students in 1991-92. Within each category, UCSC graduate students receive more financial support than is typical within the UC system.

Table B.3

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Arts</th>
<th>Humanities</th>
<th>Natural Sciences</th>
<th>Social Sciences</th>
<th>Engineer &amp; CIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>UCSC</td>
<td>$12,480</td>
<td>$8,003</td>
<td>$11,833</td>
<td>$12,601</td>
<td>$12,820</td>
<td>$10,285</td>
</tr>
<tr>
<td>UCSB</td>
<td>$8,835</td>
<td>$6,054</td>
<td>$8,472</td>
<td>$11,876</td>
<td>$8,578</td>
<td>$9,928</td>
</tr>
<tr>
<td>UC Total</td>
<td>$9,123</td>
<td>$6,166</td>
<td>$8,588</td>
<td>$11,332</td>
<td>$8,583</td>
<td>$8,022</td>
</tr>
</tbody>
</table>

Per capita support varies widely across boards within each division. For example, in Social Sciences, Anthropology graduate students received an average of $16,378, while Education and Economics averaged less than $12,000, reflecting in part the differing mix of Ph.D., master's, and certificate students. In Natural Sciences, average support ranged from over $18,000 in Astronomy to $12,000 in Computer Science.

The high average level of support reflects two factors. First, UCSC has few professional degree or certificate programs in which students are largely self-financing. (The current program that comes

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97 UCSC students also receive the most per capita need-based grants and second most loans systemwide. Graduate Education reference 1.
98 Merit support includes fellowships, GSRs, teaching titles, fee remission programs, and other on-campus employment. It excludes need-based support such as grants-in-aid. These data, although four years old, are the only data for which there is comparable UC information.
closest to a professional-type program is the Science Communications certificate.) Second, with a high ratio of undergraduate students per graduate student, the campus has been relatively richly endowed in TAships. For UC as a whole, for example, 49 percent of merit support for social science graduate students comes from TAships; at UCSC, the comparable figure is 60 percent. For Natural Sciences (excluding CIS), the respective figures are 29 percent systemwide and 42 percent at UCSC.

As the graduate student population grows relative to the number of undergraduates, and budget cuts increase, per capita TA funds will shrink, making the current level of financial support provided to graduate students unsustainable, since it relies heavily on TAships. The impact of this development will be felt differentially, since the reliance on TA funds to support graduate students varies across the divisions.

The sources and amounts of financial support (teaching appointments, graduate research assistantships, fellowships, and others) are shown in Figure B.3. The majority of graduate students earn their support from teaching appointments. Only the Natural Sciences Division generates more student support from graduate student researcher (GSR) positions than from teaching sources (TAs, Teaching Fellows, and Associates). In Humanities, graduate students earned $12 from teaching for every $1 as GSRs, while in Social Sciences the figures were $4 from teaching for every $1 of GSR support.

Figure B.3
Sources of Per Capita Graduate Student Support by Division:
July 1991 - June 1992
Figure B.4, based on data from 1991-92, shows how total campus support dollars are distributed across categories of graduate students. The bulk of the support budget goes to students in Ph.D. programs who have not yet advanced to candidacy (Graduate 1). Fellowship dollars go predominantly to students in their first year of Ph.D. studies (Graduate 1). Students advanced to candidacy receive almost as much support from serving as research assistants as from teaching (Advanced Graduate). Once students have advanced to candidacy and remained at that status for more than nine quarters (GDD), they no longer generate state resources for the campus. Their primary source of support is from research.

Figure B.4
Graduate Support by Level and Division: 1991-92

If it is to achieve its long-range goals once growth resumes, the campus will need to ensure adequate support for graduate students. Only in this way will it be able to attract and retain the type of students consistent with first-rate graduate programs. Adjustments are likely to include decreasing reliance on TAships, increasing the number of self-financing students in professional programs, and securing
additional external GSRs and fellowship dollars. Some of these adjustments will make the longer-range enrollment goals more difficult to achieve.

**Teaching Positions**

Graduate students at UCSC generally support themselves in one of two ways: they assist a faculty member with research or they teach undergraduates. Teaching positions take on many forms depending on the qualifications of the graduate student and the instructional needs of the individual boards of studies.99

- By far the most common teaching title held by graduate students is that of teaching assistant (TA).100 By university definition, a teaching assistant is responsible only for the conduct of recitation, laboratory, or quiz sections under the active direction and supervision of a regular member of the faculty to whom final responsibility for the course's entire instruction, including the performance of teaching assistants, has been assigned. However, in many courses, TAs assume greater responsibility for the content and administration of the laboratory, discussion, and review sections they conduct. In addition, TAs are usually responsible for grading papers and exams and evaluating student effort. This includes preparing comments for use in narrative evaluations, particularly in large classes where they have more direct knowledge of a student's work than does the instructor.

- Under the supervision of a faculty member, a teaching fellow can have full responsibility for a lower-division course. This means that she or he prepares the syllabus, orders the texts, meets with students, evaluates the work, and writes the narrative evaluations. Teaching associates may be allowed to teach lower-division courses without faculty supervision. In most cases, teaching fellow and associate positions are awarded to students who have the equivalent of a master's degree or are advanced to candidacy and have more than one year of successful teaching experience. The responsibilities and requirements of these positions are currently being revised by the UC Office of the President. These titles are paid about ten percent more than teaching assistants.101

- Graduate students are frequently hired as instructors for summer session. Applications for these positions, which involve independent teaching responsibility, are made in the fall of the preceding year. The requirements state that an applicant must be advanced to candidacy, but this rule has not always been strictly applied.

- Graduate students can also serve as Writing 1 instructors, core course instructors, or readers. Writing 1 instructors are responsible for the syllabus, course content, discussion sections, and all written assignments. Writing 1 is required of all undergraduates who have not passed the Subject A exam (an exam in basic writing skills). These courses are usually taught by graduate students who have passed their qualifying exams or who already possess a master's degree.

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99 Reader positions read and correct student work; they are not responsible for the instructional content of the course. Non-students are sometimes hired under the title course assistant, but only after a process intended to ensure that no qualified graduate students are available to fill the positions.


101 Assignment to conduct instruction in an upper-division or graduate course or course section may not be made except with the approval of the Committee on Educational Policy. The Graduate Council approves instruction in graduate courses (Regulation of the Academic Senate, 750).
• As core course instructors, graduate students may act as TAs or may assume a more autonomous role. This varies from college to college. It is very unlikely that a first-year graduate student would be assigned to a core course.

The total length of service rendered in any combination of the previous titles may not normally exceed four years. Under special circumstances, the Chancellor or his delegate, upon recommendation of the board chair and the dean of the division, may authorize a longer period, but in no case may this exceed six years.

In offering TA positions, boards must balance their need to use TAships as acceptance incentives to continually recruit the best-qualified new students with the need to provide jobs to retain already admitted students. Criteria for appointment vary across boards. In the Natural Sciences Division, decisions regarding TA appointments are handled at the board level. When assigning TAships to continuing students, financial need, teaching excellence, favorable academic progress, and subject suitability are the main criteria used. Preference is often given to Ph.D. students over M.S. or M.A. students. In the Arts, Humanities, and Social Sciences divisions, the TA appointment process is more formal. Lists of all available TAships for the subsequent year are provided by the boards (with the exception of Economics and Linguistics) to the Division of Graduate Studies and Research which, in turn, distributes this list to students. Students complete an application for each course in which they are interested. These applications are reviewed by the board and the instructor offering the particular course. Assignments are then made by matching faculty wishes with student preferences. The ultimate authority to appoint TAships in all divisions lies with the Graduate Dean.

The performance of teaching assistants is evaluated formally by both their students and the faculty member for whom they teach. Generally, this assessment occurs at the end of the period of instruction through end-of-the-quarter student evaluations and a course evaluation which is completed by the instructor.\footnote{TAs are registered in a non-credit course (301) while they are serving as a teaching assistant. This course, like any other, results in an evaluation from the faculty member.} Student evaluation forms become part of the TA’s academic file. These evaluations are used in making TA award nominations and decisions concerning future employment as a TA or teaching fellow. In some classes, faculty and students are asked to evaluate TAs mid-quarter.

Increased efforts have been made to provide training for graduate students who are actively employed as TAs. This has occurred at several levels. For the past several years, a campuswide TA training conference has been mandatory for new students. Until this year, the training conference was administered by the Graduate Division with assistance from the academic divisions (discussions
on a new sponsor for the conference are ongoing.) The Humanities Division will launch its own divisional TA training program in 1993-94. Additional TA training programs, often in the form of quarter-long courses, are offered by many boards of studies for their own students.

**Current Issues for Teaching Assistants**

Increases in undergraduate enrollments since the last WASC review have heightened some of the problems associated with the use of TAs. One such issue is the role of graduate student TAs in the narrative evaluation system. As class sizes grow, the input of TAs becomes more and more indispensable if narratives are to reflect more than just exam scores and problem set performances. Student-to-TA ratios in most boards range between 40 and 60 to 1 for sections accompanying a lecture course and between 15 and 30 to 1 for laboratory sections or writing-intensive courses. In many classes, TAs have been asked to draft narrative evaluations; this practice is likely to become more common, as course size and faculty course load increase.

A second problem is the mismatch in allotted resources that can occur between boards which need TAs and those which need positions to support their graduate students. Some boards, such as Politics or Women's Studies, have large numbers of undergraduates who enroll in large lecture courses requiring TAs, but no graduate program of their own from which to draw qualified TAs. An extreme example of the opposite case is History of Consciousness (HisCon), which has a large graduate program but no undergraduate program that would generate TAships. As a result, HisCon graduate students often find themselves serving as TAs outside their principal fields of training. In some instances, using TAs from other boards has led to dissatisfaction on the part of the faculty forced to employ graduate students from other disciplines, as well as on the part of graduate students who find themselves teaching in areas not directly relevant to their own studies.

A third problem often cited is the effect that the campus's heavy reliance on TAships has on the rate at which graduate students are able to progress towards their degrees. TAships are time-intensive and not always directly relevant to the student's substantive research. Fellowship support allows the recipient more time for course work or for research that might be expected to contribute directly towards the completion of a degree. A study on the effect of graduate student support on time-to-degree has been conducted for the University of California campuses as a whole, but it contains no specific information about UCSC.

**Graduate Student Researchers (GSR) and Fellowships**

Approximately 25 percent of all graduate student financial support takes the form of GSR positions. As Figure B.4 indicated, GSR support is most prevalent among Ph.D. students. In 1991-92, students enrolled in Ph.D. programs received $2.4 million of the $2.9 million of GSR funds.
At UCSC, almost 90 percent of the campus GSR funds were concentrated in the Natural Sciences Division. There exists an inherent tension between the campus's need to increase GSR support and its plans to hold Natural Sciences (including the planned Engineering School) to 50 percent of the planned graduate student population.

Fellowships will also need to play an increasingly important role in graduate student support as TA dollars per graduate student shrink. According to one estimate, the campus will need to increase funds for graduate fellowships from a level of $1.84 million in 1990-91 to $25.93 million in 2005 if the planned 3,000 graduate students are to be supported at the 1990-91 level.103 This figure assumes that GSR funds will rise with faculty growth in Natural Sciences and reflects the drop in per capita TA support that will occur as the ratio of graduate students to undergraduates rises. The need for fellowship support drops dramatically if one assumes that a sizable share of graduate growth will take the form of professional degree programs in which most students are self-supporting.

During the past two years, fellowship funds have been allocated to boards on the basis of the projected level of per capita support available in each board from non-fellowship sources, a change designed to give a more stable basis to board recruitment strategies. Boards are ranked according to expected support dollars per graduate student (including TA, associate and teaching fellow, GSR, tuition remission, reader, and tutor dollars). Fellowship funding is then allocated by the Division of Graduate Studies and Research according to a formula that gives the boards with the lowest per capita support proportionately more than boards with the highest level of per capita support. This has the effect of somewhat narrowing the gap between the boards with the most per capita support and those with the least.

Boards now control the allocation of the fellowship dollars they receive from the Graduate Division. According to a survey of graduate program representatives, most programs concentrate fellowship support on entering students, as reflected in Figure B.4. Fellowships are thus used as a recruitment tool and as a means of supporting students in their first year when they may not yet be prepared to serve as a TA or GSR, or when they may have particularly heavy course loads. In some boards, a portion of fellowship funds are also directed to students preparing for qualifying exams or doing dissertation work.

103 Acting Dean Gill to Committee on 2005, December 26, 1990, Graduate Education reference 3.
3. Graduate Program Development

Despite a number of strong and highly successful graduate programs, UCSC is underdeveloped in the overall number and size of its programs at the graduate level in comparison to other UC campuses; expansion is vital to fulfilling the campus mission of research, teaching, and public service. As discussed at the beginning of this section, in the 1992-93 academic year UCSC enrolled 968 graduate students (three-quarter average enrollment, including those in certificate programs), constituting 9.7 percent of the total student enrollment. To reach the profile of a mature teaching and research university, the campus’s stated goal is to increase the proportion of graduate students to 15-20 percent.

UCSC's Fourth Year Accreditation Report identified two challenges facing the UCSC campus directly related to issues of graduate program development: the need to strike a balance between professional and academic graduate programs; and the need to balance the uneven distribution of graduate programs across the divisions. The addition of professional degree programs will be particularly critical in reaching the projected proportion of graduate students. However, graduate growth on this campus has effectively been halted by the State of California's budget crisis, the slower-than-projected growth in total enrollment, and the resulting resource restrictions.

Recently Established Graduate Programs

<table>
<thead>
<tr>
<th>Program</th>
<th>Degree(s)</th>
<th>First Year of Entering Cohort</th>
<th>1992-93 Total Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linguistics</td>
<td>Ph.D.</td>
<td>1986-87</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>M.A.</td>
<td>W1990</td>
<td>7</td>
</tr>
<tr>
<td>Music</td>
<td>M.A.</td>
<td>1988-89</td>
<td>10</td>
</tr>
<tr>
<td>Computer Engineering</td>
<td>M.S./Ph.D.</td>
<td>1988-89</td>
<td>50</td>
</tr>
<tr>
<td>Anthropology</td>
<td>M.A./Ph.D.</td>
<td>1991-92</td>
<td>23</td>
</tr>
<tr>
<td>International Economics</td>
<td>Ph.D.</td>
<td>1990-91</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>M.A.</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Environmental Studies</td>
<td>Ph.D.</td>
<td>1994-95</td>
<td>-</td>
</tr>
</tbody>
</table>

Table B.4 lists the current total enrollment for each graduate program established since the previous WASC review. Of the programs listed, Linguistics has attained its intended cohort size (given the

104 See Graduate Education reference 3.
105 Neither Anthropology nor International Economics generally admits students to the M.A. program. Both reserve it as an option for students whose aspirations change or who need the intermediate degree to help secure teaching or other job opportunities while they are completing the dissertation requirements for the doctoral degree.
current availability of fellowship, TA, and research support), and does not anticipate near-term
growth. Music has grown slowly to its current size and is not anticipated to undergo further sharp
increases. Computer Engineering has grown dramatically over the last four years (from 26 total
graduate students in 1989-90 to 50 in 1992-93) and will probably continue to grow incrementally to
the extent that graduate slots and support continue to increase. Both Anthropology and International
Economics programs are roughly at the mid-point of their anticipated growth. The availability of
fellowship and grant support will be one of the factors restraining near-term growth in these
programs.

The Environmental Studies Ph.D. program was approved during fall 1993. The first cohort will be
admitted in fall 1994, though two students currently working with Environmental Studies faculty will
transfer from other campus programs in 1993-94. With the addition of two new FTE this year, the
Environmental Studies Board will have sufficient faculty strength to mount the new curriculum and
grow to a sustainable size. The board anticipates near-term growth of 30-40 students. Additional
faculty resources (at least two FTE) will be required to reach the long-term goal of 50-60 graduate
students without compromising the undergraduate program. The Master's of Environmental Studies
(MES), submitted at the same time, is still pending approval from the Regents because it is a new
degree title within the system.

Programs Submitted for Systemwide Review
Two additional programs were submitted to systemwide for review, and one is likely to be established
within two years. The Environmental Toxicology proposal was returned to the campus for revision in
1991 because the systemwide Coordinating Council on Graduate Affairs (CCGA) believed that
inadequate faculty resources had as yet been committed to the program. Since that time, the campus
has increased its commitment from three to five FTE. A revised proposal will be resubmitted pending
clarification of the budget. It could potentially go off-campus for review in fall 1994. The first
cohort would not be admitted until 1995 at the earliest.

A Theater Arts M.F.A. was submitted for systemwide review and returned by CCGA to the campus
for several reasons, including concerns about the academic focus of the program, the estimated
time-to-degree, faculty expertise relative to program aims, student employability, and support issues.
It has not been resubmitted, and it is unlikely to be established within the next several years unless the
Arts Division reaffirms its commitment to the program.
Programs under Development or Campus Review

The Executive Vice Chancellor recently provided an updated five-year projection of twelve new program proposals in addition to those mentioned above.106 The only proposals from this group likely to come forward in 1993-94 are for an Education Ph.D. and a Politics Ph.D. (recently submitted by the Social Sciences Dean), and for a Marine Sciences Ph.D. (which the Natural Sciences Division has indicated is in preparation). A proposal for an M.A. in Social Documentation was returned to Community Studies by the Executive Vice Chancellor as prohibitively expensive to establish. Community Studies has indicated that it may submit a revised proposal addressing these concerns.

The campus has developed a proposal for a School of Engineering. Approval of such a school would not be equivalent to approval of any of the actual programs that might be housed within it. Rather, the school is conceived as an umbrella under which entities such as the existing programs in Computer Engineering and Computer and Information Sciences could be accommodated. Given the current budgetary crises of the university and the state, approval of the original proposal is not considered likely at this time. The campus continues to consider the most promising options for the development of individual engineering programs which would strengthen the case for an eventual school, once growth resumes.

Program proposals are evaluated based on projected costs to the campus, anticipated benefits in terms of excellence, service to students, and the needs of the state. The decline in university resources has meant that re-allocation of resources, including both faculty FTEs and budgeted graduate student FTEs, will be necessary to launch valuable new programs, with the consequence that less successful programs may be scaled back or discontinued. Formal mechanisms for discontinuing an existing program follow roughly the same path that is prescribed for establishing a new program, requiring approximately five levels of approval both on campus and at the systemwide level. Such a process is initiated by action of the faculty directly involved at the recommendation of the appropriate Academic Senate committees (i.e., the Committee on Planning and Budget and Graduate Council) and/or at the urging of the administration. No graduate programs have been discontinued, although the certificate program in Arts has been suspended in response to the budget situation. Some programs are undergoing significant reorganization, such as consolidating pathways to reduce core requirements or reducing the number of students admitted.

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106 See Tanner to Associate Vice President Moore, Office of the President, December 1, 1992. Graduate Education reference 4.
Distribution and Development of Programs

The last self-study asserted that all boards would ultimately have graduate programs of roughly forty students each. Such a blanket statement does not reflect differences in the availability of student support, the distribution of research activities on campus, the reputation of faculty and their ability to attract funding, or the presence of requisite facilities. Although the campus remains committed to the goal of developing graduate programs in a way that maintains a divisional balance, the scarcity of resources for at least the near term makes it unlikely that faculty reluctant to establish graduate programs will be pressured to do so. Perhaps the greatest challenge is to initiate and implement developments in areas, particularly professional degree programs, where no campus constituency presently exists. Should the resource picture improve and graduate growth resume, the most effective means may be to use turnover and replacement opportunities to bring faculty to campus who can actively and enthusiastically contribute to graduate program development.

Summary

In order to achieve a 15-20 percent graduate enrollment target and permit UCSC programs to compete for and attract highly qualified students, an enormous influx of resources will be required. The campus will need to continue to attract more GSRs, provide assistance to students in identifying and competing for external fellowships and grants, establish campus-based donor-funded fellowships, and develop programs that can attract and retain self-financed students.

As graduate numbers increase, average levels of support per capita will decrease. How this decrease is absorbed will depend, in part, on the types of programs in which enrollment growth occurs. If M.A. and professional programs likely to attract self-financing students are developed and expanded, average support levels for Ph.D. students may remain relatively unaffected. However, if growth is concentrated in doctoral programs, we will have to seek new sources of support (e.g., external grants) to sustain present levels. For this reason, in part, the campus planning documents107 do not envision our campus concentrating growth solely or primarily in Ph.D. programs.

The process of planning a new graduate program and obtaining systemwide approval requires five to six years at a minimum. Since the last WASC review, the rapid changes in the availability of resources for graduate education at UCSC have posed special challenges. The campus has at certain times felt arbitrarily constrained, while at others it has been unable to sustain the projected pace of graduate

growth. Its efforts should now be focused on evening out the peaks and troughs of its fiscal fortunes by continuing to plan for growth even in this lean budget era.

Because the campus has been slow to develop professional schools, and growth in existing programs has been substantially slowed by the budget situation, it may have to revise its timetable or adjust its ultimate target for graduate enrollment. It remains committed, however, to increasing the graduate presence, and it is gratifying to report that even in this time of contracting resources, UCSC has succeeded in launching a new Ph.D. program in Environmental Studies (approved fall 1993).
C. RESEARCH AND CREATIVE ACTIVITY

UCSC can take pride in the recognized accomplishments of the past eight years; it has achieved considerable distinction in research. Given the recency of its creation and the size of its faculty, the campus has compiled a highly enviable record in this regard. A report on "citation impact" in the physical sciences found that between 1981 and 1991 UCSC ranked third among all universities in the study and sixth among all U.S. research institutions.\(^{108}\) A recent study of research productivity at major universities has established that social scientists at UCSC have the highest per capita number of scholarly publications of any UC campus by a wide margin—indeed, a higher output than any single flagship public institution in the national sample of 300 universities for which data were gathered.\(^{109}\) The same study ranked UCSC seventh nationally for research productivity in humanities and arts. In addition to these indicators of research quality, external funding has dramatically increased since the last review.

Still, a searching assessment of research at UCSC cannot rely on two or three isolated measures which place the outstanding achievements of this campus in sharpest relief. This section will instead outline the programs and funding mechanisms which provide support to faculty research and will identify issues in need of resolution.

**Historical Background**

The State of California's *Master Plan for Higher Education* prescribes a unique role for the University of California in the area of research. While UC shares with the state university and community college systems the goal of educating pre-baccalaureate students and has a special but non-exclusive role in the training of graduate students, it alone has the advancement of knowledge through scholarly research as one of three primary aspects of its institutional mission.

UCSC, the youngest campus in the UC system and the one most identified from its inception with undergraduate instruction, has yet to resolve fully the tensions inherent in its mixed charge. At times it has suffered from the perception, both externally and among some members of the campus community, that excellence in research is accorded a lesser priority than excellence in educating its undergraduate students. In fact, the vision of those who founded the campus was quite explicit: research and teaching were to be assigned equal weight.

\(^{108}\) Citation impact represents the average number of citations for all papers published by a given institution's researchers. See Institute for Scientific Information, "Science Indicators Database, 1981-91," *Science Watch* (February 1993). Research reference 1. A similar study covering the years 1987-90 ranked UCSC first in the physical sciences for all universities. Research reference 2.

The first *General Catalog* stated, "The purpose of Santa Cruz is not to emphasize undergraduate teaching at the cost of research or graduate instruction but to see that all three exist in a proper balance, that each of the university's major constituencies is free to develop in its particular and distinctive way, thereby making the university a lively and productive community." Although there was a desire to avoid the more impersonal aspects of the large American "multiversity," the presumption was then and remains today that undergraduate education is enhanced by contact with a research-active faculty, by the presence of graduate students, by the opportunity to participate in the research experience, and by the additional facilities which extramural grants make possible.

**Institutional Support for Individual Faculty Research**

The Office of Contracts and Grants assists faculty in securing external research grants. Organized under the supervision of the Dean of Graduate Studies and Research, its staff helps identify potential funding sources, reviews preliminary proposals, assists in the preparation of budgets, and administers funds awarded to successful proposals. Over the past several years, roughly 60 percent of all grants submitted through Contracts and Grants have been funded.

**Table C.1**

**UCSC Grant Proposals and Awards:**

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>No.</td>
<td>Amount</td>
<td>No.</td>
<td>Amount</td>
</tr>
<tr>
<td>Proposals</td>
<td>357</td>
<td>$38,369,907</td>
<td>449</td>
</tr>
<tr>
<td>Awards</td>
<td>240</td>
<td>14,017,633</td>
<td>287</td>
</tr>
<tr>
<td>Arts</td>
<td>1</td>
<td>5,261</td>
<td>2</td>
</tr>
<tr>
<td>Humanities</td>
<td>10</td>
<td>496,282</td>
<td>9</td>
</tr>
<tr>
<td>Nat. Sci.</td>
<td>202</td>
<td>12,960,120</td>
<td>248</td>
</tr>
<tr>
<td>Soc. Sci.</td>
<td>24</td>
<td>465,282</td>
<td>20</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>90,562</td>
<td>8</td>
</tr>
</tbody>
</table>

While the data in Table C.1 are limited because they represent only those proposals submitted through Contracts and Grants, they do show the substantial increases that have occurred overall, both in the number of proposals and in the value of awards.\(^{110}\) In fiscal year 1992-93 actual awards totaled over $30,000,000, more than double the corresponding figure at the beginning of the review period. Funding in Natural Sciences also doubled and extramural research support for the Division of Social Sciences nearly tripled from 1990 to 1992 (increasing from 1.9 million to 5.4 million dollars).

\(^{110}\) Many faculty in Arts, for instance, submit proposals directly to agencies. There is no source to assess these grants and awards.
The pre-eminence of the Natural Sciences Division in external grant activity is the consequence of a number of factors, not least of which is the greater availability of funding in this area. The other academic divisions have intensified their efforts by assigning additional staff to search out funding opportunities. Research coordinators assume a proactive role in matching sources of funding to faculty interests and expertise; they also provide information and application forms upon request. They occasionally sponsor grant-writing workshops for faculty and graduate students, although faculty attendance at these sessions is reported to be very uneven. In addition, Social Sciences has instituted an incentive program under which the division shares the costs of administration of new external grants.

Internal funding of faculty research takes many different forms at UCSC. The most important sources of grants for individual faculty members are the academic divisions, the Graduate Division, and the Committee on Research (COR) of the Academic Senate. The academic divisions provide: start-up funds for newly hired faculty to be used in purchasing lab and computer equipment or other research materials; Junior Faculty Development Awards, which make possible course relief and research support for assistant professors; and divisional research grants awarded for proposals submitted by individual faculty members.

The Committee on Research disposes of a budget of about $300,000 per year. It solicits proposals on an annual basis for small grants in support of research activity. Roughly two-thirds of this money is used to sponsor individual faculty research projects, with the remainder devoted to travel to scholarly meetings. This budget has remained relatively constant or declined since the last review, despite increasing numbers of faculty.

Institutional Support for Collaborative Research

Faculty members who share common interests are encouraged to join together to pursue joint programs of research. Such associations vary in size, scope, and duration as well as in their degree of formal organization and the level and source of funding.\textsuperscript{111}

The simplest and most modest research grouping that enjoys formal recognition is the Focused Research Activity (FRA). It typically consists of a small number of faculty from a single division who receive funding (in the range of $500 to $10,000) from the respective dean to defray the costs of staff assistance and minor research expenses. Such grants are normally made for a period of three years, during which time the group is expected to seek external funding. The campus encourages the

\textsuperscript{111} See Tanner to Deans, May 30, 1991 for more complete information on the following research designations. Research reference 4.
creation of FRAs but expects that, although many will flourish for a limited period, only a few will establish themselves on a more permanent basis.

The Organized Research Activity (ORA) formerly represented the highest level of collaborative research organization at the campus level. With the decentralization of research funds to the academic divisions, the category has fallen into disuse. There are no ORAs in existence at this time and none are presently contemplated.

The Organized Research Unit (ORU) represents a still higher level of coordination. Its establishment requires both campus and systemwide review, culminating in approval by the Regents. Until the last ten years, approval of an ORU carried with it a grant of funds from the Office of the President (on the order of $50,000). More recently, no systemwide resources have been provided for new ORUs, which depend entirely on external funding and modest grants from the campus.

A Multi-campus Research Unit (MRU) is the most elaborate framework for collaborative research in that it involves members from two or more institutions within the UC system. The scope of their operations and budgets varies widely, from Lick Observatory to the Dickens Project, both of which are centered on the Santa Cruz campus.

In addition to the recognized categories of collaborative research, there exists a bewildering array of less clearly defined entities which are engaged to varying degrees in research.\[112\] Many have assumed the titles of "programs," "facilities," "centers," and even "focused research groups" (FRGs), but these designations have no well-defined meaning when applied to research organization and are, in some cases, reserved for other purposes. It would be useful for the campus to clarify both the nomenclature and the relationship of these entities to the academic programs with which they are most closely associated.

Table C.2 lists the FRAs, ORAs, ORUs, and MRUs currently in existence at UCSC along with the amount and source of their university funding. MRUs listed are those with administrative centers located at UCSC. UCSC faculty also are members of many other MRUs on other campuses.

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112 See, for example, pages 51-56 of the UCSC General Catalog.
Table C.2

Formal Research Units at UCSC

<table>
<thead>
<tr>
<th>Focused Research Activities (FRAs)</th>
<th>Division</th>
<th>Funding/Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bilingual Research Group</td>
<td>Social Sciences</td>
<td>$500 - $10,000 from the Divisions</td>
</tr>
<tr>
<td>Center for Cultural Studies</td>
<td>Humanities</td>
<td></td>
</tr>
<tr>
<td>Chemical Ecotoxicology</td>
<td>Natural Sciences</td>
<td></td>
</tr>
<tr>
<td>Chicano Latino Research Center</td>
<td>Humanities/</td>
<td></td>
</tr>
<tr>
<td>Developmental Psychology</td>
<td>Social Sciences</td>
<td></td>
</tr>
<tr>
<td>Feminist Studies</td>
<td>Humanities</td>
<td></td>
</tr>
<tr>
<td>Linguistics Research Center</td>
<td>Humanities</td>
<td></td>
</tr>
<tr>
<td>Performance Practice and Context in the Arts</td>
<td>Art</td>
<td></td>
</tr>
<tr>
<td>Shakespeare: Text, Interpretation, Performance</td>
<td>Art</td>
<td></td>
</tr>
<tr>
<td>Women's Health</td>
<td>Social Sciences</td>
<td></td>
</tr>
<tr>
<td>Ray Film Archives and Study Collection</td>
<td>Humanities</td>
<td></td>
</tr>
</tbody>
</table>

| Organized Research Activity (ORAs) | |
|-----------------------------------| none | $1,000 - $15,000 central administration |

| Organized Research Units (ORUs) | |
|---------------------------------| Natural Sciences | Previously $50,000 from systemwide - currently external funding |
| Center for Nonlinear Science    | Natural Sciences |
| Institute of Marine Sciences    | Natural Sciences |
| Institute for Particle Physics  | Natural Sciences |
| Institute of Tectonics          | Natural Sciences |
| Bilingual Research Group (proposed) | Social Sciences |

| Multi-Campus Research Units (MRUs) | |
|-----------------------------------| Natural Sciences | Systemwide and external funding |
| Lick Observatory                  | Humanities |
| The Dickens Project (pending approval) | |

| Federally-Funded Research Centers | |
|-----------------------------------| Natural Sciences | External funding |
| National Center for Research on Cultural Diversity and Second Language Learning | Humanities |

Conclusion

Outside studies of scholarly impact like those cited at the beginning of this section are not the only indicators of the distinction of the research programs and faculty at UCSC. In addition to the steep rise in the level of external funding on campus, principally in the natural and social sciences, faculty members have garnered an impressive variety of scholarly honors. The campus boasts of one MacArthur fellow, one University Professor, four Kellogg fellows, thirty-eight Guggenheim fellows, fifty-one National Endowment for the Humanities fellows, seventy-two Fulbright fellows, and ten members of the National Academy of Sciences. This record of productivity and distinction flatly contradicts any perceptions of UCSC as a university that places a diminished emphasis on research.
Still, current trends and future prospects are troubling. The state budget crisis threatens institutional support for research in a number of ways:

- Targeted cuts have disproportionately fallen in this area and have affected levels of staff support and library resources.

- Reduced budgets, it is feared, will reduce the availability of internal grants at the very moment when sources of external funding are also declining in many fields.

- Faculty members are preoccupied with a number of prospective changes which could directly influence the conduct of research. Pressure to increase teaching loads as a result of the financial crisis could adversely affect the faculty’s ability to pursue its research objectives. The availability of campus Junior Faculty Research Fellowships could diminish, with a corresponding impact on the early career development of younger scholars.

- Budget constraints have already reduced the campus’s flexibility in providing start-up funds to new faculty and in retaining the most gifted and visible researchers.

These concerns remain for the moment unrealized, and the experience since the last review is unambiguously positive. The state has made substantial new investments in the area of research, and the campus is proceeding even now with major projects such as the expansion of the Long Marine Lab, a new building for environmental studies, a United States Geological Survey facility, and a new music facility. UCSC is also involved with a cooperative plan for the conversion of the Fort Ord military base, closed as a result of recent defense cutbacks. Although still at a preliminary stage, the campus anticipates the installation of a major research facility on the base site, focusing on science, technology, and public policy. Despite the uncertainties of the future, UCSC can consider itself well-equipped to surmount the obstacles in the path of its development as a research university of the first order.
D. DIVERSITY

1. Introduction and Definition of Terms

The execution of the university's mission to create and disseminate knowledge through teaching, research, and public service relies upon the faculty, staff, and students who constitute the institution's most precious resources. Diversity has been recognized as a key component in realizing these objectives.\(^{113}\) Documents such as the *California Master Plan for Higher Education* and the affirmative action policies of the University of California define the near- and middle-term goals for UCSC in terms of eligibility pools. A longer-term vision for this campus, as a public institution of the State of California, is to strive to reflect the diversity of the state population in its various constituencies to the extent that is possible and appropriate.\(^ {114}\)

Discussions of diversity are complicated by variations in the definition of key terms and by differences in the categories used to gather data on representation. Gender is perhaps the most straightforward, leading to the categorization of individuals as "male" or "female." Data on ethnicity is primarily based on the self-reports of individuals who are asked to select from a checklist of categories, typically including African American, Native American (or American Indian), Chicano, Latino, Filipino, Asian American, and white (or Caucasian).\(^ {115}\) The designation of Student Affirmative Action and Equal Opportunity Program (SAA or SAA/EOP) is used to refer to groups (including African American, Native American/Alaskan Native, Chicano, Latino, Filipino, and low-income students) who are the targets of specific programs and activities designed to assist the university in promoting racial, ethnic, and economic diversity among its undergraduates. These programs also attempt to improve rates of enrollment at, and graduation from, UCSC for these groups. We use the terms "total (ethnic) minority" and "people of color" to refer to the sum of SAA groups plus the Asian-American group. The term "underrepresented group" is more restrictive in that some peoples of color are not underrepresented in some university populations.

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\(^ {113}\) See, for example, the statement by Chancellor Pister in *City on a Hill* editorial of Feb. 11, 1993. Diversity reference 1.

\(^ {114}\) For example, the university can seek to expand the pool of eligible students within underrepresented groups through its outreach efforts and through programs that increase the rate of success in secondary schools. Note, however, that while the appropriate standard of comparison for the undergraduate population is statewide, the equivalent in some staff categories might be local and, in the case of graduate students and faculty, might be national or even international.

\(^ {115}\) Note that the categories are sometimes differently aggregated in different summaries. For example, where the designation Hispanic is employed, it subsumes Chicano and Latino.
The categories in terms of which data are reported have additional limitations. There is frequently
debate within a group about the appropriate label to choose (e.g., white vs Euro-American vs
Caucasian) and about who belongs in a given category. Group labels frequently obscure the diversity
that exists within a group (e.g., Asian American or white). Individuals may feel primary affiliation to
a group for which no category is provided or be limited to a single choice when he or she is a
member of multiple groups. This self-study has generally adopted the labels for each constituency
that were used to report the original data, but these terminological limitations should be kept
constantly in mind. There are other categories for which we have little systematic information, but
which represent important dimensions of campus diversity. These include sexual orientation, re-entry
status (undergraduates who are 25 and older and graduate students who are 29 and older), income or
class, disability, and veteran status.

In 1986, the WASC visiting team recommended that "the university continue to make special and
deliberate efforts, not in just one or two colleges, but centrally visible, to recruit effectively, support
fully, and retain students from ethnic minorities." As stated in the Twenty-Year Plan,116 a goal of
UCSC is to "improve our recruitment and retention of underrepresented ethnic minority students, and
to increase their proportion in the student body." To achieve these goals, the plan requires that the
university: (a) "step up its efforts to seek out minority candidates in all recruitments"; (b) "create a
climate in which ethnic diversity is promoted, studied, discussed, and integrated within the curriculum
and social life of the campus"; and (c) "strengthen and expand . . . academic support programs . . . of
special interest and importance to the academic success of minority students." The WASC
recommendation and the objectives stated in the Twenty-Year Plan argue for the importance of
examining linkages between various campus constituencies and campus diversity.

In discussing diversity in each campus constituency (undergraduate students, graduate students, staff,
and faculty), we evaluate the relative proportions of legally underrepresented groups and the relative
proportions of women and men. Recall that affirmative action goals apply only to groups defined as
legally underrepresented (typically including some ethnic minorities and, in some categories,
women).117 This view of diversity looks only at eligibility pools at a specific moment in time. In this
self-study, we attempt to address a broader vision of diversity on campus as well by effecting

116 Graduate Education reference 5.
117 Goals are based on legal definitions that consider the pool of individuals eligible for each campus constituency. For
example, affirmative action goals for faculty in a given academic discipline are based on data about the number of Ph.D.
recipients nationwide in a given set of years in that discipline. Similarly, the composition of the undergraduate student
body is assessed relative to UC-eligible graduating high school seniors.
comparisons, wherever possible and appropriate, to the ethnic and gender diversity of the state population.

This self-study section also discusses groups and issues for which little or no systematic evidence has been collected. In some cases, sheer numbers do not tell the whole story, either because of the relatively small absolute size of the category or because of variations within the group that are not revealed by relatively crude measures of total representation. We have also felt it essential to consider topics (like the assessment of campus diversity and the perceptions of campus climate for diversification efforts by and for different groups) that do not lend themselves to quantification. In general, however, the self-study’s discussion of diversity is organized within the following four categories:

**Undergraduate students.** Diversifying the student body at UCSC is important for a number of reasons. First, a diverse student body enriches the academic environment and the educational experiences of all students. Second, as a public institution, UCSC is responsible for ensuring that California residents with appropriate aspirations, talents, preparation, and motivation are provided an opportunity to enroll. Third, in order to serve all segments of California’s population, UCSC has a responsibility to see that patterns of low university participation based on race, class, and gender do not continue. Finally, the economic and social well-being of California requires optimum development of all of the state’s human resources.

**Graduate students.** Graduate students are the pool of future faculty members. In their roles as teaching assistants, they are often in direct contact with undergraduate students and play an important role in their education. The composition of this population helps establish the undergraduate student’s view of diversity in the institution and to define expectations and aspirations for post-baccalaureate studies.

**Staff.** Both front-line staff, in frequent and direct contact with students, and campus administrators play a defining role in the experience of students and faculty alike. Their role in the formulation and implementation of policy can be a constant reminder of the positive contribution diversity can make to the attainment of the university’s objectives.

**Faculty.** With their multiple roles in the pursuit of the university mission, faculty members exercise a powerful influence over most of the essential activities that the university sustains. As teachers, mentors, and role models, they set the tone and create the climate within which diversity efforts take place.
2. Undergraduate Diversity

Five aspects of diversity in undergraduate education were examined: access and representation; the academic environment; the social environment; retention and graduation; and assessment.

ACCESS AND REPRESENTATION

The University of California seeks to ensure that all segments of the state's population, including historically underrepresented groups, are extended equal access to its facilities through regular admissions, active outreach initiatives, and efforts to raise the level of eligibility among targeted populations. Using statewide projections of UC-eligible high school graduates, the UC Five-Year Plan has set enrollment goals for the University and each individual campus. Using a methodology similar to the one outlined in the UC Five-Year Plan, UCSC is currently developing its own enrollment goals.

Eligibility of Ethnic Minority Students to the University of California

The Master Plan for Higher Education in California recommends that the University of California set its eligibility criteria so that the top one-eighth of high school graduates are eligible for admission. These students are not, however, representative of the ethnicity of the state's residents. Eligible students tend to be from higher income families. Asian and Caucasian students are over-represented in the pool of UC-eligible students and a lower proportion of African-American, Chicano, and Latino students are eligible. Subject deficiencies and low grades were the main causes for African-American, Chicano, and Latino high school graduates being ineligible. According to the 1990 California Postsecondary Education Commission's (CPEC) eligibility study, a greater proportion of the state's African-American and Asian students and a smaller proportion of Chicano and Latino students were eligible for UC admission than in 1986.

To increase the eligibility of underrepresented students, the SAA/EOP Office at UCSC has an Early Academic Outreach Program. The program serves over 5,000 students (grades 7 through 12) in 19 middle schools and 37 high schools on the central coast and in the San Joaquin Valley. Services include advising and counseling, tutoring, academic and college motivation workshops, SAT workshops, parent workshops, campus visits, and summer residential programs.

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118 The University of California Undergraduate Student Affirmative Action Five-Year Plan, 1990-1995 (UC: 1990), p. 14, states that "the university's long-term goal is to increase the eligibility rates of these groups to a level such that no group has a rate substantially less than 12.5%, the overall level set in the California Master Plan for Higher Education."

In addition, UCSC has two academic programs that are designed to prepare underrepresented students for college. The Minority High School Student Research Apprentice Program provides stipends for six students from Watsonville High School to enable them to participate in research conducted by UCSC biology faculty. The California Academic Partnership Program (CAPP) works with local school districts to design programs to encourage students to prepare for postsecondary studies in science and mathematics. Several projects funded by CAPP are designed specifically for underrepresented students. These projects have included the Santa Cruz Mathematics Academy, a specialized secondary program in mathematics for underrepresented students in grades 9 through 12; and the Gateways Demonstration Project, a program to increase the academic achievement of underrepresented students in ninth-grade science, language arts, and mathematics courses.

Applications and Admission of Ethnic Minority Students to the University of California

After a decade of increases, applications to UC have decreased slightly over the past three years. The largest decline in UC applications among students in underrepresented groups has been among African Americans (a 15 percent drop from 1988 to 1991). The percentage of underrepresented, admitted applicants who enrolled has also dropped. (For example, the enrollment rate for African-American students dropped from 70 percent in 1987 to 60 percent in 1990).

A historical analysis of enrollment trends shows that all University of California campuses are not equally attractive to minority students. In 1991, about two-thirds of all applicants from underrepresented ethnic groups applied to either UCLA or UCB. About one-fourth applied to UCSC. Anecdotal information from SAA/EOP staff suggests that reasons for different application rates include the academic reputation, total cost of attending (i.e., costs at other campuses can be cut by living at home), availability of specific academic programs, proximity to urban area, size of the local ethnic communities, and presence of intercollegiate sports programs.

UCSC's Immediate Outreach Program, which works closely with the colleges and the offices of Admissions, Housing, and Financial Aid, is designed to increase the number of low-income and underrepresented students who apply and enroll at UCSC. Recruitment activities are held throughout the state at over 150 high schools and community colleges with large minority populations. Services include application workshops, preliminary review and evaluation of transcripts/academic progress, campus visits, assistance with the admission and financial aid process, and follow-up activities with admitted students. This program, along with the outreach component of the Admissions Office, has been greatly involved in diversifying the campus. In addition, the GATE Program (a guaranteed

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120 The UC admissions application form allows applicants to apply to one or several campuses.
admission program for transfer students) was established to increase the number of underrepresented students transferring from local community colleges.

Not all applicants to UCSC are eligible for admission, and, of those admitted, only a portion enroll. In 1992, UCSC admitted about 83 percent of SAA applicants—the highest admission rate in the UC system. Seventy-two percent of all other applicants were admitted. The percentage admitted from each underrepresented group has remained about the same for the past six years. About 22 percent of the admitted underrepresented students enrolled at UCSC (compared to 26 percent for non-SAA students). This "take-rate" for underrepresented students has remained fairly stable for the past four years despite falling rates for non-minority students. UCSC’s take-rate for SAA students is lower than most UC campuses (in 1992, the high was 38.5 percent at UCLA, and the low was 17.7 percent at UCR). Twenty percent of the parents of accepted minority applicants who chose not to attend UCSC said the cost of attending UCSC was an important factor in their son's or daughter's decision to attend other schools. Another 20 percent cited the campus’s remote location or small-town atmosphere, while an additional 15 percent chose to attend a campus with a wider range of programs or better academic reputation. In all, about one-third of the students of color accepted at UCSC chose to attend another UC campus.

Students who cannot meet all of the admissions requirements may be admitted through the special action admissions program. Typically, students admitted through this program fall short of the formal requirements in only one category (e.g., science courses). At UCSC, special admissions are granted primarily to underrepresented students. The SAA/EOP and Admissions Offices share the responsibility for selecting the students admitted under the program. High-risk students admitted through special action are required to participate in a variety of SAA/EOP support programs.

Ethnic Representation among Entering Freshpersons at UCSC

Twelve percent of fall 1986 entering freshpersons were members of underrepresented ethnic minorities. By the fall of 1991, this percentage had doubled and an additional 14 percent of the class were Asian-American or other students of color. The absolute number of students from an ethnic group can have an important influence on students' sense of belonging; although a group may be represented at UCSC in the same proportion as in the general population, there may still be too few students to develop a feeling of community. Table D.1 shows the number and percentage of first-year minority students at UCSC from the fall of 1986 to the fall of 1992.

Table D.1

Fall Freshperson Enrollments by Ethnicity

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>African American</td>
<td>61</td>
<td>64</td>
<td>70</td>
<td>78</td>
<td>52</td>
<td>68</td>
<td>36</td>
</tr>
<tr>
<td>Chicano</td>
<td>104</td>
<td>101</td>
<td>117</td>
<td>147</td>
<td>167</td>
<td>162</td>
<td>168</td>
</tr>
<tr>
<td>Latino</td>
<td>27</td>
<td>51</td>
<td>60</td>
<td>58</td>
<td>65</td>
<td>82</td>
<td>68</td>
</tr>
<tr>
<td>American Indian</td>
<td>15</td>
<td>13</td>
<td>16</td>
<td>26</td>
<td>9</td>
<td>28</td>
<td>17</td>
</tr>
<tr>
<td>Filipino</td>
<td>22</td>
<td>38</td>
<td>35</td>
<td>75</td>
<td>72</td>
<td>97</td>
<td>70</td>
</tr>
<tr>
<td>Total SAA</td>
<td>229</td>
<td>267</td>
<td>298</td>
<td>384</td>
<td>365</td>
<td>437</td>
<td>359</td>
</tr>
<tr>
<td>Asian</td>
<td>195</td>
<td>153</td>
<td>137</td>
<td>152</td>
<td>212</td>
<td>203</td>
<td>186</td>
</tr>
<tr>
<td>Other Minorities</td>
<td>32</td>
<td>22</td>
<td>29</td>
<td>28</td>
<td>43</td>
<td>30</td>
<td>37</td>
</tr>
<tr>
<td>Total Minority</td>
<td>456</td>
<td>442</td>
<td>479</td>
<td>564</td>
<td>620</td>
<td>670</td>
<td>582</td>
</tr>
<tr>
<td>Total Freshpersons</td>
<td>1882</td>
<td>1936</td>
<td>1806</td>
<td>1781</td>
<td>1824</td>
<td>1721</td>
<td>1718</td>
</tr>
<tr>
<td>Percent SAA</td>
<td>12%</td>
<td>14%</td>
<td>17%</td>
<td>22%</td>
<td>20%</td>
<td>25%</td>
<td>21%</td>
</tr>
<tr>
<td>Percent Asian or Other</td>
<td>12%</td>
<td>9%</td>
<td>10%</td>
<td>10%</td>
<td>14%</td>
<td>14%</td>
<td>13%</td>
</tr>
<tr>
<td>Percent Minority</td>
<td>24%</td>
<td>23%</td>
<td>27%</td>
<td>32%</td>
<td>34%</td>
<td>39%</td>
<td>34%</td>
</tr>
</tbody>
</table>

In 1992, Santa Cruz had the third highest percentage (21 percent) of new undergraduates from SAA groups among all UC campuses. (UCB with 31 percent and UCLA with 27 percent were higher.) The percentage of all new students of color at UCSC was the next to lowest in the UC due to the relatively low percentage of Asian students (9 percent at UCSC, 23 percent systemwide).

University of California policy allows for up to 6 percent of a campus's first-year enrollments to be made by special action admission. The actual percentage at individual campuses varies due to the number and qualifications of applicants in different categories. Over the past five years, between 9 and 12 percent of all UCSC's freshpersons were admitted through special action, and this has been an important element in creating an ethnically diverse student body. Students accepted through special admission programs account for about a third of the students from underrepresented groups at UCSC. Table D.2 illustrates the impact of these programs on the ethnic diversity of undergraduates enrolled during fall 1992.
Table D.2
Total Undergraduate Enrollment Admission Type by Ethnic Group: Fall 1992

<table>
<thead>
<tr>
<th>Ethnic Group</th>
<th>Regular Admits</th>
<th>Special Admits</th>
<th>Total</th>
<th>Percent Special Admit</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American</td>
<td>116</td>
<td>129</td>
<td>245</td>
<td>52.7%</td>
</tr>
<tr>
<td>American Indian</td>
<td>100</td>
<td>25</td>
<td>125</td>
<td>20.0%</td>
</tr>
<tr>
<td>Chicano</td>
<td>496</td>
<td>274</td>
<td>770</td>
<td>35.6%</td>
</tr>
<tr>
<td>Filipino</td>
<td>239</td>
<td>57</td>
<td>296</td>
<td>19.3%</td>
</tr>
<tr>
<td>Latino</td>
<td>265</td>
<td>75</td>
<td>340</td>
<td>22.2%</td>
</tr>
<tr>
<td>SAA Subtotal</td>
<td>1216</td>
<td>560</td>
<td>1776</td>
<td>31.5%</td>
</tr>
<tr>
<td>Other(^{122})</td>
<td>229</td>
<td>20</td>
<td>249</td>
<td>8.0%</td>
</tr>
<tr>
<td>Asian(^{123})</td>
<td>679</td>
<td>34</td>
<td>713</td>
<td>4.8%</td>
</tr>
<tr>
<td>Euro-American</td>
<td>5692</td>
<td>153</td>
<td>5845</td>
<td>2.6%</td>
</tr>
<tr>
<td>Total</td>
<td>7816</td>
<td>767</td>
<td>8583</td>
<td>8.9%</td>
</tr>
</tbody>
</table>

**Ethnic Representation of Students Transferring to UCSC**

UCSC admitted more transfer students over the past two years than at any time in history. Table D.3 shows the number and percentage of transfer students by ethnicity from 1986 to 1992. Since 1986, minority students have been a lower percentage of transfer students than of entering freshmen.

Since 1989, over one-third of freshmen have been minority students (see Table D.1) compared to less than one-fourth of transfer students. (Both percentages were substantially lower prior to 1989.)

Transfer enrollments have been especially important for American Indian students. For the past three years, half of all American Indian matriculants transferred to UCSC. (The percentage for all SAA groups is 25 percent). The proportion of all minority students who transferred to UCSC remained relatively stable from 1986 to 1990 at about 18 percent. In the fall of 1991, the percentage increased to 22 percent and rose to 25 percent in the fall of 1992. (For non-minority students, the rate is over 33 percent.) Very few transfer students are admitted through special action admissions.

\(^{122}\) Includes students who describe themselves as Other or East Indian.

\(^{123}\) Includes students who describe themselves as Chinese, Japanese, Polynesian, Korean, or Other Asian.
### Table D.3

**Fall Transfer Enrollments by Ethnicity**

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>African American</td>
<td>14</td>
<td>8</td>
<td>14</td>
<td>10</td>
<td>8</td>
<td>13</td>
<td>16</td>
</tr>
<tr>
<td>Chicano</td>
<td>23</td>
<td>16</td>
<td>24</td>
<td>47</td>
<td>40</td>
<td>64</td>
<td>71</td>
</tr>
<tr>
<td>Latino</td>
<td>16</td>
<td>19</td>
<td>18</td>
<td>15</td>
<td>23</td>
<td>30</td>
<td>23</td>
</tr>
<tr>
<td>American Indian</td>
<td>4</td>
<td>7</td>
<td>11</td>
<td>6</td>
<td>17</td>
<td>17</td>
<td>19</td>
</tr>
<tr>
<td>Filipino</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>8</td>
<td>12</td>
<td>17</td>
</tr>
<tr>
<td><strong>Total SAA</strong></td>
<td>61</td>
<td>54</td>
<td>71</td>
<td>83</td>
<td>96</td>
<td>136</td>
<td>146</td>
</tr>
<tr>
<td>Asian</td>
<td>30</td>
<td>32</td>
<td>25</td>
<td>19</td>
<td>27</td>
<td>37</td>
<td>28</td>
</tr>
<tr>
<td>Other Minorities</td>
<td>18</td>
<td>8</td>
<td>9</td>
<td>6</td>
<td>14</td>
<td>15</td>
<td>23</td>
</tr>
<tr>
<td><strong>Total Minority</strong></td>
<td>109</td>
<td>94</td>
<td>105</td>
<td>108</td>
<td>137</td>
<td>188</td>
<td>197</td>
</tr>
<tr>
<td><strong>Total Junior Transfer</strong></td>
<td>589</td>
<td>537</td>
<td>602</td>
<td>440</td>
<td>634</td>
<td>794</td>
<td>778</td>
</tr>
<tr>
<td><strong>Percent SAA</strong></td>
<td>10%</td>
<td>10%</td>
<td>11%</td>
<td>19%</td>
<td>15%</td>
<td>17%</td>
<td>19%</td>
</tr>
<tr>
<td><strong>Percent Asian or Other</strong></td>
<td>8%</td>
<td>7%</td>
<td>6%</td>
<td>6%</td>
<td>6%</td>
<td>7%</td>
<td>7%</td>
</tr>
<tr>
<td><strong>Percent Minority</strong></td>
<td>18%</td>
<td>17%</td>
<td>17%</td>
<td>25%</td>
<td>22%</td>
<td>24%</td>
<td>25%</td>
</tr>
</tbody>
</table>

**Ethnic Representation at UCSC Among All Undergraduates**

The increases of African-American, American Indian, Chicano, Filipino, or Latino undergraduate students from 1982 to 1993 are shown in Figure D.1. In fall 1991, UCSC had the third highest percentage (19 percent) of undergraduates from underrepresented groups for all the UC campuses. (UCB with 29 percent and UCLA with 28 percent were higher.) However, the percentage of all students of color at UCSC was the lowest in the UC due to the relatively low percentage of Asian students (8 percent at UCSC, 22 percent across all UC campuses).

Figure D.1 shows a substantial increase in the percentage of underrepresented undergraduate students over time. Figure D.2 represents the ethnic composition of the entire undergraduate student body for the fall quarter of 1992.

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124 Totals may not add correctly due to rounding.
Figure D.1
Percentage of All UCSC Undergraduates from Underrepresented Groups

Figure D.2
Total Undergraduate Ethnic Representation: Fall 1992
Access and Representation for Diverse Groups Defined by Criteria Other than Ethnicity

Nationwide, issues of access and representation are focused almost entirely on ethnicity. Like most institutions, UCSC has not established specific numeric goals for the enrollment of other student groups, such as women, the disabled, and re-entry students. Instead, emphasis is placed on supporting these students once they have enrolled. Programs designed to support these students are examined in "Diversity in the Social Environment."

Programs for Precollege Students

Some faculty members believe that the best long-term response to California's increasing ethnic diversity requires the university's collaboration with K-12 schools to strengthen curricula and instruction for all students through programs that emphasize the needs of students in underrepresented groups. Effective programs at the precollege level could increase students' academic preparation, enhance their self-confidence and sense of self-efficacy, and extend their academic aspirations.

With such goals in mind, UCSC faculty members are directing numerous local and regional projects and programs in partnership with school districts and county offices of education. The larger-scale, longer-term programs include the following:

- the National Center for Cultural Diversity and Second Language Learning;
- local sites for the California Mathematics Project, the statewide Mathematics Diagnostic Testing Project, the California Writing Project, and the California Science Project;
- Santa Cruz Mathematics Academy (local site of the California Department of Education's Specialized Secondary Program);
- Science Connections (funded by the State Grants Program of the Eisenhower Science and Mathematics Education Act); and
- Thematic Mathematics in the Middle School (funded by the California Academic Partnership Program).

Evaluation of Access and Representation

When compared to the demographic composition of California, ethnic minority undergraduate students are underrepresented in the University of California and at UCSC. Many of the reasons for this lie beyond the control of the campus (e.g., high school graduation rates, UC eligibility requirements, and socio-economic factors). While full representation of the state's diverse population remains an important objective of the University of California and UCSC, the campus's progress in the near-term is more properly evaluated against legally defined criteria.

The enrollment goals in the UC Five-Year Plan propose that the proportion of SAA students in each
campus's entering class reflect their proportion among all high school graduates. Based on 1988 enrollments, this would require UCSC to more than double the percentage of entering Chicano and African-American students by the year 1995. Similarly, the campus's own five-year goal is to increase new enrollments of African-American students to 7.9 percent, Chicano students to 15.9 percent, and Latino students to 3.4 percent of total enrollments. For fall 1992 freshmen, 2.1 percent were African American, 9.8 percent were Chicano, and 4.0 percent were Latino. Latino enrollments are currently at the targeted level and there has been steady movement toward the goal for Chicano students. At the same time, enrollment of African-American students declined in 1992 and remains an area of great concern. Although appreciable progress has been made in increasing the campus's ethnic diversity over the last seven years, our collective achievements have been uneven. For UCSC to achieve its stated goals will require continued efforts to increase the ethnic diversity of its undergraduates. Our inquiry has pointed to several areas in which the institution's diversity initiatives could be strengthened.

More work is needed to understand the ethnic identities of students. Students' self-reported ethnic identities are rarely verified or re-examined. Because enrollment trends for small groups (e.g., American Indians) can be skewed by only a few misidentified students, it is important that an effort be made to evaluate the quality of our data. Identification of ethnic minorities is currently based on self-reported choices among the categories listed in the UC application form. That form asks students to report their ethnic identities as one of thirteen categories (African American, Chicano, Latino, American Indian, Filipino, Chinese, East Indian/Pakistani, Japanese, Korean, Pacific Islander, Other Asian, Caucasian, or Other). Specific information about the ethnic/cultural identity of students who identify themselves as "Other Asian" is unavailable.

Some information that would prove helpful in evaluating access and representation was simply unavailable. Data on parental income of students have only recently been solicited on a voluntary basis and remain incomplete. In addition, there is little information available that could be used to evaluate UCSC's outreach programs. As these programs are critical in meeting the campus's long-range ethnic diversity goals, it is especially important to evaluate their efficiency and impact.

DIVERSITY IN THE ACADEMIC ENVIRONMENT

Eight aspects of diversity in the academic environment were examined: general education requirements; ethnic studies courses; gender studies courses; undergraduate instruction; academic programs supporting underrepresented students; the majors chosen by ethnic minorities; women majoring in the sciences; and research support groups.
General Education

In 1986, an ethnic/third world course was added to the general education requirements. These
courses are designed to increase student and faculty awareness of non-Western cultures; improve
cross-cultural awareness, skills, and sensitivity; and explore relationships between ethnicity and other
topics in the liberal arts curriculum. Ethnic/third world courses must have at least half of their content
dealing with ethnic minorities in the U.S. or a non-Western society and most of the course content
must be relevant to current historic time. Although all students must pass only one ethnic/third world
course to graduate, a recent study found that graduates took an average of 2.7 courses that satisfied
this requirement.

Offering a sufficient number of ethnic/third world general education courses may become
problematic. An analysis of the "E" courses offered in 1991-92 found that 57 percent of the course
sections were taught by temporary faculty (about half of these were college core courses). The
current budget crisis now places curricula dependent upon temporary faculty in jeopardy. In
developing curricular plans for 1993-94, care has been taken to ensure that a sufficient number of
"E" courses will be offered. However, due to these fiscal and curricular problems, it is likely that the
implementation of the ethnic/third world general education requirement will be reviewed in the near
future.125

Another issue concerning general education is the performance of ethnic students in specific
requirements.126 African-American, Latino, and Filipino students had significantly higher failure
rates in Introduction to the Natural Sciences ("IN") courses than other students and over one-third did
not pass their first Quantitative ("Q") Course.127 More than one-fourth of the students admitted
through special action did not pass their first "Q" course.128 These findings indicate that additional
support for these students is required.

Ethnic Studies Courses

In addition to "E" courses, many majors offer other upper-division courses with ethnic content. A
broad overview of all courses on U.S. ethnic topics is jointly published by the Divisions of the Arts,
Humanities, and Social Sciences.129 The publication lists the courses scheduled to be offered each
quarter as well as faculty with research interests in U.S. ethnic studies who are willing to support

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125 These courses are described in more detail in the section on "General Education."
127 Because many courses satisfy both the "IN" and "Q" requirements, there is a strong correlation between the pass rate
patterns of the two requirements.
128 These figures may be higher than the failure rates at comparison institutions because passing at UCSC is defined as
performance at a "C" level or better.
independent studies and thesis work. It also provides a listing of ethnic student organizations, and briefly describes the "pathways" or "tracks" within academic programs related to ethnic studies, such as those in American Studies and Latin American Studies.

Table D.4 summarizes the number and level of undergraduate courses offered in 1992-93 that focused on issues related to ethnic identity and culture. Nearly half of all ethnic studies courses were comparative and two-thirds were in the upper-division. Of the lower-division courses, seven studied specific American ethnic groups. In addition several colleges have recently modified their core courses to reflect diversity issues. For example, in 1991-92, Kresge College reorganized around the theme of race, class, gender, and sexuality. Crown College designed a new core course on world cultures.

### Table D.4

**Ethnic Studies Courses by Course Focus**

<table>
<thead>
<tr>
<th>Course Focus</th>
<th>Lower Division</th>
<th>Upper Division</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American</td>
<td>2</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Asian American</td>
<td>1</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Chicano/Latino</td>
<td>2</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>Native American</td>
<td>2</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Comparative</td>
<td>12</td>
<td>14</td>
<td>26</td>
</tr>
<tr>
<td>Total</td>
<td>19</td>
<td>38</td>
<td>57</td>
</tr>
</tbody>
</table>

**Gender Studies**

Courses in gender studies are offered by a wide array of programs. In addition, the interdisciplinary program in Women's Studies, in which over 90 students were majoring in 1992, offers courses which present cross-cultural and historical perspectives on gender, race, and class; the family; language and gender; women's work; feminist theory; biology and evolution; sexuality; and gender and interpretation.

**Undergraduate Instruction**

In our inquiries on this subject, the Steering Committee sought information concerning how academic units were adjusting their instruction in response to the diverse educational needs of students. One board chair observed that "the content of UCSC courses shows serious response to diversity issues. Our ways of teaching have been less innovative." Other responses suggested that many faculty members equate "diversity" solely with underprepared students. Some respondents referred not to teaching, but to changes in the *curriculum*, improvements in *learning assistance*
programs, the recruitment of students in underrepresented groups, and the recruitment of ethnic minorities (and women, in some cases) into teaching positions. Obviously, the survey's definition of teaching practices responsive to the diverse needs of students needed to be clarified.

Practices most commonly cited by respondents include: conveying high expectations (or at least not conveying low expectations) of student performance, demonstrating genuine and continuing interest in a student's academic progress, providing effective academic advice, encouraging students to collaborate in their studies, emphasizing real-world applications of theoretical knowledge (including experiential learning and community service), and creating opportunities for undergraduate participation in research. The truth is that such responsive teaching practices are generally as effective for "traditional" students as for "new" students, and many are being practiced at UCSC. This suggests that continuing efforts to support these practices and to improve instruction may be the best way to ensure that teaching responds to the needs of an increasingly diverse student population.

Respondents to the Committee's survey also suggested that future initiatives should emphasize the selection of new curricular topics and materials and the development of workshops on pedagogical strategies (particularly for regular faculty members who have not previously been involved in developing and offering the newer courses that address diversity issues).

**Academic Programs Supporting Underrepresented Students**

Programs designed to assist underrepresented students often address their social and academic needs in combination. The programs summarized below place their primary focus on students' academic success. Other programs described in the section on social support also provide academic assistance.

The Natural Sciences Division has made highly visible efforts to meet the learning needs of undergraduate students who are underrepresented in postsecondary studies of science, engineering, and mathematics.

*Academic Excellence Program* (ACE) is an Honors Program in mathematics and science. Started in 1986, it aims to increase the success rates of underrepresented math and science majors in their first year by offering intensive honors sections to complement their courses. Modeled after the successful Professional Development Program at UC Berkeley, the ACE Program is coordinated with the boards of study in chemistry, biology, and mathematics. A recent grant from ARCO extends this program to the earth sciences. At present, this program has been exclusively for courses in the Natural Sciences Division. It will probably be expanding for the first time in its nine-year history into the Social Sciences Division beginning fall 1994.

*California Alliance for Minority Participation* (CAMP) is a consortium of public and private universities which share the goal of doubling the number of California minority students with degrees in science and engineering. UCSC is one of four regional coordinating institutions that develop activities for students and faculty. More than twenty faculty from the Natural Sciences Division are involved with developing CAMP activities.
Minority Biomedical Research Support (MBRS) offers academic-year stipends to twenty-two undergraduate and eight graduate minority students in biology and chemistry and an eight-week summer program for sixteen to eighteen undergraduate students.

Minority Access to Research Careers (MARC) offers research training for six honors undergraduate students each year to prepare them for entry into doctoral study in the biomedical sciences.

The (recently initiated) Minority Engineering Office is an extension of the Mathematics, Engineering and Science Achievement Program (MESA) at Cabrillo College. It offers outreach and enrichment activities to prospective transfer students through its monthly Saturday Academy and through summer activities. For admitted students it provides transition support and monitors their progress through graduation.

Howard Hughes Medical Institute Undergraduate Biological Sciences Education Programs' Summer Institute provides twenty upper-division students with training in research techniques in molecular and cell biology. In 1991-92, half the participants were women and one-third were from ethnic minorities.

The Division of Social Sciences also conducts special programs that emphasize high academic expectations along with explicit opportunities for personal growth.130

Developing Leaders of the Emerging Majority is a three-year program funded by the Kellogg Foundation to develop twenty-five undergraduate students from the emerging majority for leadership positions and to integrate leadership development into field study and public service programs.

Project Pipeline is the local affiliate of a statewide program, funded by the Eisenhower State Grants Program, that encourages undergraduate minority students to prepare for careers as teachers of science and mathematics.

In Humanities, increased foreign-language-based general instruction in content courses occurs both in the Spanish for Spanish Speakers Program and through an NEH initiative. Some instructors also offer Spanish-language discussion sections to accompany courses taught in English. The Writing Program offers a diversity of topical Writing I classes, works on effective support systems for students for whom English is a second language, and engages its instructors in frequent discussions of challenges, problems, curricula, and teaching methods.

In addition to these programs and activities sponsored by academic units, several non-academic units offer programs to meet the diverse academic needs of students from ethnic minorities and other groups. The Student Affirmative Action/Educational Opportunity Program (SAA/EOP) Office sponsors the following programs:

130 In addition, one board of studies successfully attracts underrepresented students to the major by offering special sections of its introductory courses.
SAA/EOP Summer Bridge Program is a five-week residential academic program for incoming special action students. Students chosen for the program are the most "at risk" in terms of their academic preparation, and the program's goal is to prepare them for the rigors and challenges of university education. Students receive intensive coursework in math, writing, study skills, and computer literacy; they also participate in special social, cultural, leadership-building, and career-development activities.

Summer Opportunities for Academic Research is an eight-week program that provides students with hands-on research experiences under the direction and mentoring of a UCSC faculty. The program focuses on juniors and seniors in social sciences and humanities who show an interest in pursuing masters and doctoral studies and who are interested in academic careers. Students selected for the program receive academic credit for summer research activities, and participate in writing, communication, and Graduate Record Examination preparation workshops.

The Faculty Mentor Program was initiated during the 1989-1990 academic year with Pregraduate Mentorship funds from the Office of the President. Run in conjunction with the Graduate Division, it prepares students for graduate study in humanities, social, and natural sciences. With the active participation of faculty, this program identifies, selects, and places 25-30 underrepresented students in faculty-sponsored research projects. The goals of the program are to encourage students' interest in research, develop their research skills and scholarship, increase placements in graduate programs at the doctoral level, and ultimately increase and diversify the faculty pool for UC and other universities nationally.

The Undergraduate Minority Scholars Program was developed to promote and demystify graduate school. The program sponsors workshops designed to help socialize students into the academic process and develop the skills necessary for graduate school.

The Academic Monitoring System was developed for selected "high risk" students admitted through the SAA/EOP special action program. With the active participation of faculty, this system tracks identified special-action students and monitors their progress in each course in which they are enrolled. Faculty members provide mid-quarter evaluations of students enrolled in their classes, and appropriate interventions are initiated while there is still time to prevent a student from doing poorly or failing a course (e.g., referral of students to services offered through the Learning Center or academic advisement).

Academic Advising has been strengthened over the past four years by increasing the emphasis on advising and counseling for SAA/EOP students throughout their academic careers. Advisement and counseling begin during the orientation program for all entering SAA/EOP students and extend to assisting advanced students with academic, personal, career, and graduate school planning.

The Learning Center, now in its sixth year of operation, provides a range of services aimed at improving the academic advancement and graduation rates of SAA/EOP students.

The Academic Assessment Program engages in testing and interviewing aimed at helping students assess their learning and cognitive styles and diagnose their needs.

The Writing Assistance Program seeks to increase the reading, writing, critical thinking, and analytical skills of students by providing feedback on writing. The program offers one-hour tutorials to all SAA/EOP students, as well as workshops on writing and on passing the Subject A examination. It assists upper-division students by providing term paper and senior-thesis-writing workshops.
The *Subject Matter Tutorial Program* offers scheduled individual and group tutorials in most lower-division and some upper-division courses. Through this program, students are able to schedule formal appointments with tutors in such areas as math, physics, biology, chemistry, computer science, economics, psychology, etc., and meet with them on a regular basis throughout the quarter.

The *Study Skills Program* provides workshops on: test anxiety, training for class participation, values clarification, improving concentration and motivation, and building greater confidence in academic abilities. Through the program, students also learn how better to manage their time, prepare for tests, and develop strategies for test taking.

The *Drop-In Tutorial Services* offer informal assistance to students who need tutorial help on a one-time and/or limited basis. Similar to the Subject Matter Tutoring Program, drop-in tutoring provides personal assistance in math, physics, biology, chemistry, computer science, etc. But unlike the Subject Matter Tutorial Program, no formal appointments are scheduled and students generally meet with tutors on a first-come, first-served basis.

The *Computer Literacy Workshops* are provided through the computer lab in the Learning Center which helps students gain computer literacy on Macintosh computers and UNIX terminals. Computer consultants are available to provide on-site tutorial assistance to students.

**Majors of Ethnic Minorities**

In the fall of 1992, half of all SAA students were majoring in the social sciences. Twenty percent majored in the natural sciences, 20 percent majored in the humanities, 7 percent were in the arts, and the remainder had interdisciplinary or individual majors. Figure D.3 displays the percentage of SAA students by major area since 1986.

The most significant trend in the majors of SAA students is the movement from natural to social sciences. The percentage of ethnically underrepresented students enrolled in the natural sciences fell from 43 percent in 1986 to 21 percent in 1992. The percentage of social science majors grew from 36 in 1986 to 49 percent in 1992. These figures reflect campuswide changes; by 1992, just 25 percent of all undergraduates majored in the natural sciences and 42 percent were in the social sciences.
Women Majoring in the Natural Sciences

Nationwide, women are underrepresented in the natural sciences. There was a decline in the number of science majors for both genders between 1987 and 1991. Table D.5 summarizes the trends for women majoring in the natural sciences at UCSC. Based on fall enrollments, women constitute nearly half of all science majors at UCSC (at a time when 62 percent of all undergraduate students are women). In fall 1992, about one-fifth of the women who had declared a major were studying the natural sciences—down from one-third in 1986. Thus, women represent an increasing proportion of a decreasing category, namely natural science majors.
Table D.5

Women Majoring in the Natural Sciences

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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Number of Women</td>
<td>781</td>
<td>785</td>
<td>769</td>
<td>607</td>
<td>460</td>
<td>429</td>
<td>502</td>
</tr>
<tr>
<td>Pct of All Science Majors</td>
<td>39%</td>
<td>41%</td>
<td>44%</td>
<td>44%</td>
<td>43%</td>
<td>42%</td>
<td>46%</td>
</tr>
</tbody>
</table>

Percentage of Students Who Are Science Majors

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<thead>
<tr>
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<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Pct of All Declared Men</td>
<td>51%</td>
<td>44%</td>
<td>38%</td>
<td>36%</td>
<td>33%</td>
<td>32%</td>
<td>33%</td>
</tr>
<tr>
<td>Pct of All Declared Women</td>
<td>33%</td>
<td>28%</td>
<td>26%</td>
<td>23%</td>
<td>20%</td>
<td>19%</td>
<td>21%</td>
</tr>
</tbody>
</table>

Since 1987, about 70 percent of all women studying a natural science have been in biology (compared to about a third of the men). In biochemistry, chemistry, and math, the percentage of women majors is equal to that of men. Men are far more likely than women to major in computer science, computer engineering, earth sciences, and physics.

Research Support Groups

Diversity is the focus of a variety of groups that coordinate the research activities of graduate students and faculty. These research support groups bring prominent scholars to campus and organize conferences, thus giving undergraduate students the opportunity to participate in courses and seminars. Such groups include the Bilingual Research Group, the Center for Cultural Studies, Comparative Histories of Ethnicity and Nationalism, the Culture and Power Research Group, the Focused Research Activity in Feminist Studies, the Focused Research Activity in World Literature and Cultural Studies, the Group for International and Comparative Economic Studies, the Lesbian and Gay Studies Research Group, the Race and Ethnicity Research Council, and the Seminar in Comparative American Studies.

Evaluation of Diversity in the Academic Environment

The number of courses of interest to SAA students, or with ethnic studies content, needs monitoring. With cuts in temporary faculty there may be a decrease in the number of "E" courses offered. Senate faculty should be encouraged to teach these courses and/or to add ethnic components to new and existing courses. Workshops on instructional strategies for a more diverse student body would be useful.
The Committee on Educational Policy employs a set of explicit criteria for evaluating all new course proposals. The current course review standards do not now include consideration of a proposed course's inclusion in ethnic study tracks, the potential interest in the course on the part of diverse student groups, or the coverage of diverse points of view. The Committee has placed the discussion of such standards on its future agenda.

UCSC offers a large number of academic support programs to prospective and enrolled SAA students. A review of the organization of units providing SAA students with services was conducted during spring quarter 1993 as this self-study was being prepared. A report has been submitted, but has not been made public at the time of this writing. After the review and reorganization (if any) is complete, regular assessment would be desirable.

The largest of the new UCSC curricular initiatives is the proposal for a School of Engineering. This school will provide balance to the campus's liberal arts-dominated curriculum and attract students seeking professional degrees. Plans for the school are currently being reviewed by university and state oversight committees, but it is likely that the acquisition of faculty and construction of facilities for the school will be postponed until the state's budget crisis is resolved. The proposal places great emphasis on the need for programs to support women and other underrepresented groups in engineering. Based on the enrollment of students in other UC engineering programs, the new school should also help to attract Asian students to the campus and contribute to reversing the nine-year trend away from the natural sciences by increasing student interest in this area.

Systems for tracking the academic progress of students need to be developed. Other than retention and graduation-rate data, little, if any, relevant information is currently available on which to base an evaluation of their success. Understanding the failure rates of African-American, Latino, and Filipino groups in the “IN” and “Q” general education requirements (and providing support mechanisms for these students) is particularly important.

**DIVERSITY IN THE SOCIAL ENVIRONMENT**

The social environment at UCSC is a complex web of formal services and personal interactions that are different for every student. The tools available to the institution for shaping the social environment include its programs to support students from diverse backgrounds and its policies regarding student conduct.
Social, Cultural, and Financial Programs to Support and Promote Diversity

Non-academic programs supporting students with diverse backgrounds are primarily situated in student service units. These student service units include the Student Organization and Resources Office, Disabled Student Services, Re-Entry Student Services, the Women's Center, and the Rape Prevention Education Program. Other offices that serve diverse student groups include the Financial Aid Office and the Arts and Lectures Program. In his overview of campus priorities, the Chancellor urged that the function of such programs not be impaired by budget reductions. As all student service units have endured a series of substantial reductions, it was, perhaps, inevitable that some of these programs have nevertheless received significant budget reductions. Each unit or program is described briefly as follows:

_Student Organization Advising and Resources Office (SOAR)_ seeks to develop student organizations, student governance, and student media. It provides services to over 150 student organizations including many that are directly involved in the activities of women; ethnic minorities; and gay, lesbian, or bisexual students.

_Disabled Student Services (DSS)_ provides support services and referrals for administrative, academic, personal, social, and financial problems that may result from a student's handicap. The office also provides certification for veterans and their dependents who are eligible for Veterans Administration and California veterans educational benefits.

_The Re-Entry Student Services_ unit provides support for undergraduate students 25 years of age or older (about 12 percent of all students). Their aim is to increase the academic success and retention of re-entry students by identifying their special needs and serving as an advocate for programs and services which address these concerns.

_The Women's Center_ provides services to students, faculty, and staff. The Center supplies schedules of lectures, workshops, support groups, and social events and provides a place to meet, organize, study, initiate projects, and socialize.

_The Rape Prevention Education Program_ sponsors workshops during orientation on the causes and prevention of date rape. Follow-up workshops are offered in residence halls and student apartments. The Program also sponsors films and videos on the politics of gender and coordinates women's self-defense classes.

_The Arts and Lectures Program_ coordinates the presentation of live performances by professional artists. Serving both the campus and the community, its aim is to supplement the intellectual life of the classroom and provide diverse cultural programming.

_The Financial Aid Office_ conducts about twenty information and application workshops in local high schools each year. Most of them take place in schools with large numbers of economically disadvantaged students. All workshops are conducted in Spanish and English. This year, an 800 phone number for SAA applicants and their parents was created. Twenty-nine percent of all financial aid recipients in 1991-92 were SAA students. Financial aid programs specifically for SAA students include:

* The SAA Grant Program ($62,000 from UC Office of the President) and the EOS Grant Program ($30,000 from student fees); both are used for SAA students who experience emergencies during the year.
• Chancellor's Scholarships—begun in 1992-93, fifty $1,000 scholarships are awarded to new SAA freshpersons.

• Chancellor's Emergency Fund—from 1986 through 1989, up to $300,000 from the Chancellor's discretionary fund was used to support needy students. Regrettably, budget shortfalls have eliminated this source of aid.

• Cal Grants—open to California residents, the awards are designed to offset the costs of mandatory registration fees. The Cal Grant B Program, for students from low-income families, provided a stipend of $1,410 toward living expenses. Cal Grant awards were reduced by 15.2 percent in 1992-93, and Cal Grant B awards were reduced by $600. UCSC has been unable to make up the cuts in these grants (predominately to SAA students) from other sources.

• Twenty-four UCSC scholarships were awarded to SAA students for the 1991-92 year. These included six $13,000 Multicultural Scholarships to minority students with financial need and twelve $4,500 Ingle Scholarships for minority students who graduated from Berkeley High School.

Based on financial awards in 1990-91, SAA students average more than $3,000 per person in grants, $1,650 in scholarships, $3,000 in loans, and $1,500 in work study. In general, SAA students at UCSC receive more in scholarship and grants and less in loans than the average SAA student in the University of California.

Another set of activities that are intended to foster a sense of community are the graduation ceremonies for African-American, American Indian, Asian/Pacific Islander, and Chicano/Latino students. Each group sponsors a ceremony for students, faculty, and staff that celebrates the accomplishments of new graduates. Special music, food, language, and traditions make these ceremonies especially meaningful to the graduates, their parents, and the campus. A similar ceremony is held for graduates in the Women's Studies Program.

Policies on Conduct, Harassment, and Due Process

Campus policies regarding student harassment due to race, gender, and sexual orientation are distributed yearly in the Navigator. In most cases, responsibility for enforcing the policies are shared among staff in the colleges, boards, and the central administration. In 1992 the U.S. Department of Education's Office of Civil Rights (OCR) conducted a review of the campus's policies and responses to racial harassment. The report noted that "UCSC has a strong public commitment to promoting and supporting racial and ethnic diversity and . . . has made an extensive effort to create an atmosphere which encourages a diverse and multicultural community." However, the review also noted that: "interviews with students and faculty of color did reveal perceptions of institutional racism on the campus, most commonly with respect to
experiencing racial stereotyping and lack of acceptance of minority students. However, these experiences were generally not perceived as harassment."

The OCR review concluded that the UCSC staff has received appropriate training and has sufficient resources to process racial harassment complaints. The campus has taken appropriate steps to deal with complaints of harassment when they occur and the complaint resolution process has worked successfully. Recent budget cuts may have had a significant impact on the ability of the campus to deal effectively with some complaints (especially sexual harassment and assault). However, UCSC has recently appointed a full-time Title IX Officer.

Despite the high visibility of the Sexual Harassment Prevention Program and the Rape Prevention Education Program, there remains on campus a significant concern about sexual assault. There have been recent criticisms that sexual assaults and sexual harassment complaints have not been handled sensitively and appropriately. UCSC is currently undergoing investigation by the Office of Civil Rights of complaints that the campus tolerates an environment that is sexually hostile to women. The campus administration has expressed its intention to cooperate fully with the inquiry and is committed to taking any necessary steps to remedy any deficiencies in its complaint and resolution procedures. A draft of a new sexual harassment policy is under review by the campus at the present time, and a task force will be examining how the campus's response to sexual assault can be faster and more sensitive to the victims. The success of these initiatives is important for providing a supportive environment for women.

Campus Climate
A concern of the accreditation team in 1986 was that most minority students were housed in only two of the eight colleges. Although two colleges continue to house a larger proportion of students of color (51 percent of Merrill College students; 44 percent of those in Oakes College), there is currently a better distribution of minority students in the remaining six colleges. During fall 1992, 27 percent of the students in the other colleges were students of color. Of these six, Porter College had the lowest percentage (22 percent) and College Eight had the highest (37 percent).133

To provide an overview of how students view UCSC's social and academic climate, a comprehensive questionnaire was mailed to students in the winter of 1990. It was sent to all students of color, all graduate students, and a random sample of all other students. A significant portion of the questions

133 This may be due to the fact that students in affirmative action categories have first choice in housing and College Eight, which has the newest facilities, is a popular choice. See also "Colleges" section.
addressed issues of diversity. A section of the final report focused on the views of students from diverse backgrounds (by ethnicity, gender, or socio-economic status).

About half of all respondents felt that students were treated equally regardless of sexual orientation or gender; about one-fourth disagreed. However, student opinion was split on whether students from different cultures or ethnic backgrounds were treated equally. The majority reported being satisfied with the opportunities to interact with students with similar and different backgrounds (although there was less satisfaction regarding interaction with diverse faculty and staff). Two-thirds reported frequent conversations with students from different cultural/ethnic backgrounds and with others whose values or beliefs were different from their own. Very few students reported that problems having to do with gender, sexual orientation, or disability would be likely to slow their progress toward their degree. However, about fifteen percent of all students felt it was extremely to moderately likely that problems related to ethnicity might slow their progress.

Students from different ethnic/cultural backgrounds reported markedly different problems and views of UCSC. The results of the survey, focusing on how groups differed from one another, are profiled below:

African-American students were the least likely to feel they received equal treatment and felt higher anxiety. They were also more likely to be dissatisfied with college advising, contacts with their board of study, and course access. At the same time, African-American students were more active in on-campus social events, were more politically active, and felt more socially integrated than students in other ethnic groups.

Asian-American students were more dissatisfied with UCSC’s academic programs than other students. They had the least involvement in off-campus activities and were dissatisfied with the opportunities for informal socializing. They were more likely to feel that all students were treated fairly, but were dissatisfied with their opportunities to interact with other students with the same ethnic/cultural background.

Euro-American students reported the fewest academic or personal problems. They were the most likely to agree that all students were treated equally and they reported the least contact with students of different ethnicities. They reported the highest level of satisfaction with informal opportunities to socialize and had the least involvement with on-campus activities. (They reported the highest level of off-campus activities.) Euro-American students had the highest satisfaction with the quality of instruction, interaction with their board, and had the highest level of self-esteem.

Chicano students reported more academic, motivational, and personal problems than students in other groups. They were less satisfied with the availability of their faculty advisers, the quality of board interactions, and the overall quality of instruction. They reported that they were more likely to repeat courses. Chicano students were dissatisfied with the opportunities for informal socializing and were less likely than other groups to

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134 The sample used in this study was weighted to reflect the ethnicity of the UCSC student body. Students from ethnic minority groups were initially oversampled, and population percentages were subsequently adjusted. See The Academic and Social Environment at UC Santa Cruz (UCSC: 1992). Undergraduate Education reference 33.
agree that all students were treated equally. Unlike other ethnic/cultural groups, their dissatisfactions were not counterbalanced by other areas of satisfaction.

*Latino students* were more likely to report that personal problems were affecting their academic progress (27 percent), and one-third said that a change of major would cause them to take longer to graduate. They reported higher satisfaction with their social opportunities than students in other groups (e.g., contact with people in the same and different ethnic groups, informal socializing, and on-campus events). Latino students were more satisfied with the availability of their college and faculty advisers, and rated the academic programs at UCSC higher than students in any other group. They also reported higher levels of anxiety and lower self-esteem.

*Native American students* reported fewer academic, diversity, motivational, or personal problems than other groups. They were generally more satisfied with the social atmosphere (e.g., contact with people from the same and different ethnic groups, social integration, and students treated fairly). Native American students were also more satisfied with the academic atmosphere. They were less likely to repeat a course and more planned to take extra courses before graduating. Native American students also reported higher self-esteem than students in other groups.

*Other minority students* (e.g., those who identified their ethnic/cultural group as 'Other') reported more motivational and diversity problems. Compared with other groups, they were dissatisfied with opportunities for interaction with people with similar and different ethnic backgrounds, reported the lowest level of social integration, and were less likely to agree that all students received equal treatment. They were less satisfied with the availability of their college and faculty advisers, and were more likely to take a reduced course load. Other minority students attended more off-campus events than students in other groups.

Socio-economic and gender differences were also studied. Students from higher-income families tended to be more socially integrated and had fewer problems. (Lower-income students were more involved with their advisers and were more politically active.) Women students tended to be less engaged in their coursework and were more likely to report higher levels of anxiety.

Many of the comments on the questionnaire addressed issues of diversity. Nearly all students agreed that campus programs must emphasize diversity. However, there was marked disagreement about how successful the programs have been. Follow-up studies are now being discussed which will clarify the broad problem areas identified by the survey.

**Campus Climate for Gay, Lesbian, and Bisexual (GLB) Students**

In 1986, the Student Union Assembly passed a resolution calling for the Chancellor to form a committee to address the needs and concerns of the campus's gay community. After interviewing students in the gay community, the task force released its report in 1987. As a result of the committee's recommendations, a permanent committee (the Gay, Lesbian, and Bisexual Community Concerns Committee) was formed.
During the fall of 1988, a comprehensive study was undertaken to examine the knowledge, attitudes, and campus behaviors of gay and non-gay students.\textsuperscript{135} About 10 percent of UCSC's students reported being attracted to members of the same sex. They reported being less comfortable than heterosexual students, although they did not appear to be socially isolated. Students felt that UCSC staff did not treat GLB students differently from other students. One-fourth of the GLB students reported that GLB issues were not discussed in classes where it would have been appropriate, and 13 percent said professors had made anti-gay remarks in the classroom. Thirty percent of the GLB students said they were uncomfortable in on-campus housing and 20 percent concealed their sexual orientation to avoid harassment. Freshpersons had considerably higher homoanxiety than advanced standing students and males had higher homoanxiety than females. Students who attended workshops or courses which had discussed GLB issues were found to have less homoanxiety than those who had not. Only 40 percent of the students were aware of UCSC's policy regarding sexual orientation. Compared to studies on other campuses, the environment at UCSC was considerably less hostile.

Following the study, a resource center for GLB students was established. In 1992, Chancellor Pister announced a new policy that would extend the use of UCSC library and recreation facilities to domestic partners of students, faculty, and staff.

Evaluation of Diversity in the Social Environment
Although considerable effort is directed toward making UCSC a supportive environment for a wide variety of students, no university can entirely compensate for societal conditions or personal biases. The campus ethos among students, faculty, and staff strongly discourages discriminatory attitudes and aggressive behavior. Still, incidents do occur. It is encouraging to note that while many of these incidents involve first-year matriculants, as students become increasingly enculturated and mature, they temper their behavior and become more accepting of others.

In spite of the campus's efforts to provide adequate financial support, the recent shift in the cost of higher education from the public to the student makes it more difficult for individuals from less affluent families to attend college. This is a particular problem at UCSC, as its non-urban location and a limited job market make it more difficult to afford. If UCSC is unable to attract a diverse group of students, not only will it be unable to meet its goal of becoming representative, but the quality of life for all students will be diminished.

The single largest issue for units with the responsibility for creating a supportive environment for students from diverse backgrounds is budget cuts. Reductions in staff and resources over the past two years have caused significant reductions in the services supporting diversity. Problem areas include the colleges and the Affirmative Action Office. Without a substantial change in the state's strategies for funding higher education, further reductions appear inevitable. Although the campus has attempted to protect selected functions from the recent cuts because of their importance in supporting diversity, non-academic units will continue to face the greatest scrutiny and bear the greatest burden of reductions.

There is a lack of information about the effectiveness of some of the programs supporting the social environment for diverse student groups. In times of fiscal crisis, it is especially important for program managers not only to justify the need for these programs, but to be able to demonstrate that the programs are effective. Not having information on effectiveness hampers efforts to improve program quality and increases the vulnerability of these programs to budget reductions.

The social climate for underrepresented students appears to vary considerably among various boards and colleges. Because of this and a lack of systematically collected information, it is difficult to characterize the overall climate for diversity. Studies currently under way should provide additional information about the climate for women in the sciences and students in Oakes College. There is a general need for more information about the variety of student groups and their environments.

RETENTION AND GRADUATION

In general, efforts to increase the retention and graduation rates of all students have resulted in significant improvements in the retention rates for ethnic minority students. Annual data show the dramatic increase that has occurred in campuswide retention and graduation rates for all students over the past five years.136 Forty-one percent of the students entering in 1988-89 graduated in four years—twice the percentage of students entering just five years earlier. The graduation rates for underrepresented students have also increased. The five-year graduation rate for SAA students was 46 percent for students entering in 1986 or 1987. In comparison, only about 29 percent of the SAA students entering in 1984 or 1985 had graduated within five years. The five-year graduation rate for Euro-American and Asian students for 1986 and 1987 was about 55 percent. SAA students tend to take longer to graduate (e.g., African-American freshmen are enrolled, on the average, for 13.3 quarters while earning their bachelor's degrees compared to a campus average of 12.5 quarters).

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136 See the discussion of retention and graduation rates in "Advising."
Table D.6 shows retention rates averaged over the five years (1984-1988) for students from underrepresented groups. There are additional indications that the interventions of the past few years are continuing to narrow the gap between minority and non-minority students. For students entering in fall 1991, the one-year retention rate for underrepresented students (85 percent) was higher than for Euro-American students (82 percent).

Table D.6

Average Undergraduate Retention and Graduation Rates: 1984-88

<table>
<thead>
<tr>
<th>Student Group</th>
<th>Retention</th>
<th>Graduation137</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>One Year</td>
<td>Two Year</td>
</tr>
<tr>
<td>American Indian</td>
<td>80%</td>
<td>86%</td>
</tr>
<tr>
<td>African American</td>
<td>81%</td>
<td>63%</td>
</tr>
<tr>
<td>Chicano</td>
<td>84%</td>
<td>70%</td>
</tr>
<tr>
<td>Latino</td>
<td>83%</td>
<td>77%</td>
</tr>
<tr>
<td>Filipino</td>
<td>83%</td>
<td>68%</td>
</tr>
<tr>
<td>All Underrepresented</td>
<td>83%</td>
<td>70%</td>
</tr>
<tr>
<td>Asian</td>
<td>88%</td>
<td>71%</td>
</tr>
<tr>
<td>Euro-American</td>
<td>83%</td>
<td>69%</td>
</tr>
<tr>
<td>All Students</td>
<td>84%</td>
<td>70%</td>
</tr>
</tbody>
</table>

Analysis of retention and graduation rates by gender began only in 1990. One-, two-, and three-year retention rates have been similar for men and women over the past several years. However, a greater percentage of women are graduating within four (women: 44 percent; men: 36 percent) or five years (women: 57 percent; men: 53 percent). Men tend to take longer to graduate than women in all disciplines.

Compared to other UC campuses, UCSC has historically had the lowest retention and graduation rates. The dramatic improvements of the past several years now place the campus's four-year graduation rates among the best in UC. (Five- and six-year rates are lower than the UC average, but are continuing to improve). The graduation rates for students from underrepresented groups are at or near the UC average. Compared to other public research universities, a higher percentage of students (minority and overall) are retained and graduate from UCSC.138

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137 Six-year rates may be lower than five-year graduation rates because the percentages are based on different entering cohorts.
Evaluation of Retention and Graduation

The retention and graduation rates of minority students have improved dramatically over the past five years. Except for African-American students, underrepresented students are retained at or near the campuswide rate. However, the percentage of underrepresented students who graduate in four, five, or six years is significantly below the rate for Asian and Euro-American students (after six years, 37 percent vs 53 percent, respectively). The reason for this difference is unknown. The campus needs to examine the problem more closely to determine if there are ways in which underrepresented students might be assisted in completing their degrees.

Compared to students in other SAA groups, a lower proportion of African-American students remains enrolled at Santa Cruz. This may be due to perceptions of an inhospitable environment (as mentioned by graduate students that the Committee talked with). Another possible explanation lies in the number of African Americans who are admitted as "high risk" students.139

METHODS OF ASSESSMENT

Methods used at UCSC for monitoring and evaluating various aspects of undergraduate diversity are summarized below.

Access and Representation
Weekly reports on admissions are circulated to key offices during the crucial months. These reports include summaries of applications, admissions, and receipt of notices of intent to register for regular and special action students. Quarterly summaries of admissions include analyses by ethnicity, income, home location, and gender. To assess the impact of the increases in tuition in 1991-92 and 1992-93 on students' decisions to attend UCSC, surveys were sent to a sample of parents both years. The demographic composition of each year's students is reported in a widely distributed fact book and is available electronically through INFOSLUG (UCSC's Gopher server on Internet). Included in the Enrollment Fact Sheets are descriptions of enrollments and degrees awarded by ethnicity, gender, age, and area of study for new freshpersons and transfer students. Comparative information for other UC campuses is collected by the Office of Affirmative Action in the Office of the President and is distributed to the campuses.

Retention and Graduation
A report on retention and graduation rates including time-to-degree is published annually.

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139 There has been no recent analysis of the success rate of high-risk matriculants. This issue was raised in the self-study process and an effort has been launched to improve the institution's tracking of special admit students. Information on their success is important not only to admissions and program staff, but to the high-risk students themselves.
Summaries are provided by ethnicity, gender, admission status (regular, special), college, and home residence (California, out-of-state, international). Campuswide rates are also available on INFOSLUG. Surveys of graduating seniors are taken biannually and the results are reported by ethnicity, gender, and academic level at entrance.

Curriculum
The Academic Senate Committee on Educational Policy routinely evaluates all proposals for new courses and decides whether the course can be applied toward satisfying the general education requirements (including the ethnic/third-world requirement). To supplement annual reports on courses satisfying general education requirements, a 1992 study of general education courses included detailed information about which courses were actually taken to satisfy the requirements.

Campus Climate
All student services units are required to conduct periodic evaluations, and surveys to evaluate the services funded by student registration fees are conducted periodically. Two in-depth studies of the social and academic environment have been conducted. The first, on the climate for gay, lesbian, and bisexual students, contributed to the creation of new services and resources. The second, a comprehensive study of campus climate, identified several areas needing improvement, including social support for most students of color.

Evaluation of Assessment Activities
The campus has available a considerable amount of information on applicants and students, but much of this information has been under the control of only a few administrative units. Although efforts have been made to distribute the available information, units with specific needs have had to request information from units with access to the data. Once fully implemented, the data warehouse project will allow academic and administrative analysts immediate access to student, curricular, and financial databases. This will enable them to examine the impact of policy decisions in ways not previously possible. For example, it will soon be practical for a board or division to examine the retention and graduation rates of a specific group of students (e.g., women in chemistry). This should be an important tool for monitoring student progress and evaluating new programs.

This self-study identified a need for better information on the academic progress and enrollment patterns of undergraduate students. As a result, a longitudinal database is now being developed. This database will be accessible by student services, academic, and administrative offices and should enable

\[^{140}\text{Diversity reference 7.}\]
\[^{141}\text{Undergraduate Education reference 33.}\]
a wide variety of analyses on the curriculum and students (e.g., identifying enrollment trends in
general education courses or examining the progress of special action students).

Information about student diversity usually is focused on ethnicity or gender. Often information on
other characteristics of diversity is not available. Information on family income, number of family
generations in the U.S., or parental education is not currently available in the Student Information
System. Other data is often incomplete (e.g., disability status). For the campus to better serve these
students, it is necessary that our data collection systems be expanded.

Current information on the campus's social environment is based on two major survey research
projects. Follow-up studies (e.g., focus groups) are needed to build upon and interpret the findings
of these studies. No systematic effort has been made to understand how the information is being
used, what changes have been made as a result of the studies, or what impact any interventions may
have had. Smaller, more focused, studies should be more useful in effecting change on a unit level.
3. Graduate Student Diversity

The campus has been able to attract a relatively high percentage of minority graduate students. In evaluating graduate student diversity, this section compares: (1) UCSC's graduate student composition to that of UC graduate students as a whole, and to graduate students at individual UC campuses (although informative in a relative sense, this neglects the fact that the different campuses sponsor different mixes of graduate programs); (2) UCSC's graduate student composition to that of UC bachelor's degree recipients as a stand-in for potentially eligible students (which neglects the fact that not all graduating students are eligible for graduate school).

Diversity among the graduate student population is much more difficult to evaluate than for undergraduates, faculty, or staff. First, there are only a few individuals or offices on the Santa Cruz campus who have graduate students from minority or underrepresented groups as a primary concern. The most comprehensive source of information on this subject is the Division of Graduate Studies and Research. Second, it is problematic to establish the appropriate comparison pools for defining goals or evaluating underrepresentation. Graduate students at UCSC, as is typical of most public research universities, are recruited on a nationwide basis, and there are no defined systemwide or campuswide recruitment goals. Third, issues of diversity among graduate students, and graduate student education in general, have received much less attention than comparable concerns for undergraduates on this campus.

REPRESENTATION

Ethnicity
In the University of California as a whole in the fall of 1991, 14 percent of graduate students came from the SAA (Student Affirmative Action) categories of African-American, American Indian, Chicano, Latino, and Filipino students. UCSC's fall 1991 graduate student enrollment included 15.1 percent from these categories. This was the highest percent for total graduate enrollments in the UC system. In 1992 UCSC continued to lead the system with 16.5 percent SAA graduate enrollments (Table D.7).

142 Other sources of information include the Feminist Studies Focused Research Activity, the Association for Women in Science and Engineering, the Women of Color Group in History of Consciousness, and the faculty graduate representatives in the various graduate programs. (The faculty graduate representative is also called the chair of the graduate committee in some boards and graduate program director in others.)
143 It is unclear at this point whether the UC system considers Filipinos an SAA group for the purposes of graduate recruitment; some data on graduate students from the Office of the President do not include them in this category. For purposes of consistency with the analysis of undergraduate diversity, we have decided to include them with SAA students here. Data used for all categories have been adjusted to correct this.
UCSC has a lower proportion of Asian-American graduate students than other UC campuses or UC as a whole. As a consequence, white students accounted for a larger proportion (78.4 percent) of graduate student enrollment at UCSC than for UC as a whole (73.4 percent). A similar picture emerges when one compares UCSC graduate student diversity with that of recipients of UC bachelor's degrees. In 1991, the percentages of individuals at both levels falling into SAA categories were almost exactly equal. However, only 5.9 percent of UCSC graduate students were Asian American, as opposed to 16.4 percent of UC bachelor's degree holders.

Table D.7

Representation of Graduate Students by Ethnicity at UCSC: Fall 1992

<table>
<thead>
<tr>
<th></th>
<th>UC Santa Cruz</th>
<th>UC Domestic Students</th>
<th>UC Bachelor Degrees</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>number</td>
<td>percent</td>
<td>number</td>
</tr>
<tr>
<td>African American</td>
<td>31</td>
<td>3.4%</td>
<td>1,243</td>
</tr>
<tr>
<td>American Indian</td>
<td>7</td>
<td>0.8%</td>
<td>204</td>
</tr>
<tr>
<td>Chicano</td>
<td>65</td>
<td>7.2%</td>
<td>1,334</td>
</tr>
<tr>
<td>Latino</td>
<td>39</td>
<td>4.3%</td>
<td>935</td>
</tr>
<tr>
<td>Filipino</td>
<td>8</td>
<td>0.9%</td>
<td>351</td>
</tr>
<tr>
<td>SAA subtotal</td>
<td>150</td>
<td>16.5%</td>
<td>4,067</td>
</tr>
<tr>
<td>Asian American</td>
<td>107</td>
<td>11.8%</td>
<td>3,631</td>
</tr>
<tr>
<td>White/Other</td>
<td>651</td>
<td>71.7%</td>
<td>21,252</td>
</tr>
<tr>
<td>Total(^{145})</td>
<td>908</td>
<td>100%</td>
<td>28,950</td>
</tr>
</tbody>
</table>

Gender

In 1992, 46.1 percent of UCSC graduate students were women, as opposed to 53.9 percent of UC bachelor's recipients. Most striking is the clear underrepresentation of women in the Natural Sciences Division relative to UC bachelor's recipients; as of the fall of 1992 only 30 percent of the graduate students in this division at UCSC were women. In all other divisions women are a majority of the graduate students: 57.9 percent in Arts, 60.5 percent in Social Sciences, and 65.3 percent in Humanities.

\(^{144}\) Totals may not add correctly due to rounding. Numbers for UCSC students are from Planning and Budget. Diversity Reference 9. Numbers for UC domestic students and UC Bachelor Degrees are taken from the fall 1992 Information Digest: A Reference Guide for Student Affirmative Action at the University of California. They actually represent fall 1991 for domestic student enrollments and degrees conferred in 1990-91. Diversity reference 5.

\(^{145}\) Information was not available for 83 students. This explains the discrepancy in total fall 1992 enrollment of 991 graduate students.
Table D.8

Gender Breakdown of UCSC Graduate Students: Fall 1992\textsuperscript{146} (high, low, and median programs for each division)

<table>
<thead>
<tr>
<th>Division</th>
<th>Male number</th>
<th>Male percent</th>
<th>Female number</th>
<th>Female percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Sciences (10 programs)</td>
<td>346</td>
<td>70.0%</td>
<td>150</td>
<td>30.0%</td>
</tr>
<tr>
<td>Science Communication</td>
<td>5</td>
<td>26.3%</td>
<td>14</td>
<td>73.7%</td>
</tr>
<tr>
<td>Chemistry/Biochemistry</td>
<td>56</td>
<td>71.8%</td>
<td>22</td>
<td>28.2%</td>
</tr>
<tr>
<td>Computer Engineering</td>
<td>49</td>
<td>98.0%</td>
<td>1</td>
<td>0.2%</td>
</tr>
<tr>
<td>Social Sciences (7 programs)</td>
<td>111</td>
<td>39.5%</td>
<td>170</td>
<td>60.5%</td>
</tr>
<tr>
<td>Anthropology</td>
<td>4</td>
<td>17.4%</td>
<td>19</td>
<td>82.6%</td>
</tr>
<tr>
<td>Sociology</td>
<td>22</td>
<td>48.9%</td>
<td>23</td>
<td>51.1%</td>
</tr>
<tr>
<td>International Economics</td>
<td>15</td>
<td>71.4%</td>
<td>6</td>
<td>28.6%</td>
</tr>
<tr>
<td>Humanities (5 programs)</td>
<td>61</td>
<td>34.7%</td>
<td>115</td>
<td>65.3%</td>
</tr>
<tr>
<td>History of Consciousness</td>
<td>14</td>
<td>28.0%</td>
<td>36</td>
<td>72.0%</td>
</tr>
<tr>
<td>History</td>
<td>13</td>
<td>46.4%</td>
<td>15</td>
<td>53.6%</td>
</tr>
<tr>
<td>Linguistics</td>
<td>13</td>
<td>50.0%</td>
<td>13</td>
<td>50.0%</td>
</tr>
<tr>
<td>Arts (3 programs)</td>
<td>16</td>
<td>42.1%</td>
<td>22</td>
<td>57.9%</td>
</tr>
<tr>
<td>Art</td>
<td>7</td>
<td>43.8%</td>
<td>9</td>
<td>56.2%</td>
</tr>
<tr>
<td>Music</td>
<td>6</td>
<td>54.5%</td>
<td>5</td>
<td>45.5%</td>
</tr>
<tr>
<td>Theater Arts</td>
<td>3</td>
<td>27.3%</td>
<td>8</td>
<td>72.7%</td>
</tr>
</tbody>
</table>

An analysis of diversity among UCSC graduate students by both gender and ethnicity reveals that women are more heavily represented among ethnic minority groups than among whites. While women were 47.1 percent of white graduate students in 1992, they were 52.8 percent of Asian Americans and 56.5 percent of SAA graduate students. This was true of all divisions with the striking exception of Natural Sciences, where the white graduate student population was the most balanced in terms of gender (35.0 percent female vs 28.1 percent among Asian Americans and 22.0 percent among SAA graduate students). In contrast, the sole SAA and Asian-American graduate students in the Arts Division were both women, and 63.8 percent of SAA graduate students in Social Sciences (81.6 percent in Humanities) were women. The shortage of minority graduate students thus appears particularly acute among women in Natural Sciences, and among men in the other divisions.

\textsuperscript{146} For the sake of brevity we have chosen not to include the gender breakdown among graduate students from every board at UCSC. Those included in this table were selected to exemplify the high and low extremes and the median of gender representation within each division.
RECRUITMENT AND RETENTION

Ethnicity
Major efforts to recruit ethnic minority graduate students to UCSC have been made by the campus' Graduate Division. This office currently receives funds from the UC Office of the President for recruitment and uses them primarily to enable UCSC representatives to attend career fairs at other universities and meetings of minority professionals like the NAACP Scholarship Fund, the Society for the Advancement of Chicanos and Native Americans in Science, and the National Hispanic Scholarship Fund. The office also funds visits to UCSC by prospective minority graduate students each year.\textsuperscript{147} Additional recruitment of minority graduate students is done by individual boards or professors. Information on these efforts is not compiled centrally and thus cannot be readily presented.

Retention and graduation rates have not been evaluated on a regular basis for graduate students. However, a November 1992 study by the Division of Graduate Studies and Research of the success rates of students entering eleven UCSC doctoral programs in 1980-82 revealed that, by 1992, 49.8 percent of white students had completed their degrees versus 33.3 percent of minority students.\textsuperscript{148}

Gender
The above-mentioned study did not break down success rates of UCSC doctoral students by gender, and in general there seems to be little information on the recruitment and retention of female graduate students at UCSC.

FINANCIAL SUPPORT

Ethnicity
Fellowships and grants for graduate students are in relatively short supply in the UC system compared to other major universities in America, and this applies to such aid for minority students as well. We have no equivalent to the Big Ten's Committee on Institutional Cooperation Program, for example, which gives four years of full support to qualified minority students. Given the absence of statistics comparing the support of minority graduate students at UCSC with that at other UC campuses, a

\textsuperscript{147} There are also several on-campus programs that attempt to increase minority representation among graduate students in general by giving selected undergraduates intensive exposure to research in collaboration with a UCSC faculty member. For further information on these see the "Academic Programs Supporting Underrepresented Students" sub-section of "Undergraduate Diversity."

\textsuperscript{148} The doctoral programs included in this study were those of the boards of Astronomy, Biology, Chemistry, Computer Science, Earth Sciences, History of Consciousness, Literature, Mathematics, Physics, Psychology, and Sociology.
reliable systemwide comparison is not feasible at this point. On the other hand, UCSC does support a very large number of its graduate students with teaching assistantships. The average graduate student here manages to pay for most of his or her education through university funds, combining fellowship and grant support during the first one or two years of study with teaching assistantships thereafter.

Those fellowship programs that do exist for minority graduate students at UCSC are administered through the Graduate Division. The Graduate Division has noted that at present all of UCSC's minority graduate students receive university support, outside grants, or loans. The Office of the President of the University of California currently funds several programs specifically targeting minority graduate students. These include the graduate mentorship program, the research assistantship/mentorship program, and the dissertation-year fellowship program. In 1991-92 these three programs supported eighteen graduate students at UCSC, or roughly 18 percent of the minority graduate students on campus.

In addition, in 1991-92 twenty-three graduate students held fellowships funded by outside agencies seeking to increase diversity in American universities: eight students held Ford Foundation minority predoctoral and dissertation fellowships, five held National Science Foundation minority graduate fellowships, eight held Patricia Roberts Harris fellowships, and two held awards from the National Physical Science Consortium. All in all, UCSC minority graduate students have done quite well in attracting outside funding, which testifies to the high quality of this group. However, most minority graduate students at UCSC continue to rely on the same sources of financial support, primarily teaching assistantships, as other graduate students here. Given projected increases in graduate programs and some possibility of decreases in the number of TAships at UCSC due to budgetary constraints, efforts to maintain the present high availability of financial support for minority graduate students will be needed, especially if this population continues to grow.

Gender

Some of the fellowships listed above, such as the Dissertation-Year Program, the Patricia Roberts Harris Program, and the National Physical Science Consortium, are also available to non-minority women in the natural sciences. In 1991-92 two non-minority women held such fellowships. The amount of financial aid specifically targeted to women remains small, however. No university or university-wide programs exist at this point that emphasize rectifying the underrepresentation of women in the natural sciences by funding more women graduate students in those fields of study.

149See "Graduate Student Support" in "Graduate Education."
CAMPUS CLIMATE

The qualitative aspects of diversity among graduate students at UCSC remains extremely difficult to assess with precision. No surveys exist of graduate student feelings about relations between different groups on campus. The discussion presented below is based on several meetings held with members of different groups of UCSC graduate students during the winter and spring of 1993. It makes no claim to being representative or scientifically accurate, but it does suggest the range of graduate students' perceptions concerning diversity issues.

Ethnicity
Graduate students of color expressed a number of preoccupations. High on the list are concerns about relations with faculty members in their boards of study, and feelings of isolation on campus. One African-American student said he was told by a professor that blacks were lazy and didn't want to work. Others emphasized the need for more faculty of color, both for creating a more supportive atmosphere and for sponsoring a more diverse curriculum. Minority graduate students in one board asserted that the content of courses taught in their board did not reflect diversity issues, though the field would have made it appropriate. Students also noted the paucity of graduate student organizations on campus and in general indicated a desire for greater contacts among graduate students of color.

Other areas of concern included problems of retention of minority graduate students, a sense that undergraduate students tend to challenge minority TAs more, and the perceived "lily white" character of the UCSC community. However, several students also expressed satisfaction with their experience at UCSC, both in general and in comparison to other schools they have attended. It should be noted that many of the concerns expressed are shared by all graduate students, not just those of color. Moreover, the experiences of minority graduate students differ widely across campus. Finally, several students felt that the current fiscal crisis of the university posed a threat to graduate student diversity at UCSC.

Gender
Sexual harassment by professors seems to be a major area of concern for women graduate students at UCSC. The Director of the Feminist Studies Focused Research Activity has indicated that this issue seems to keep arising and that many students seem unsure as to how to deal with the problem. Some other problems indicated by women graduate students included a sense of isolation at UCSC and the perceived lack of women faculty. Some felt that many male faculty tend to favor male graduate students, excluding women from established "old boy" networks. Others also expressed the concern that UCSC, while trying to attract a more diverse graduate population, has failed to change...
institutionally in ways that would make that new population feel more at home. One student pointed to the lack of adequate child care resources on campus as a problem. She noted that the current child care center is undergoing budgetary pressure. It was also asserted that financial aid does not sufficiently take the family needs of graduate students into account. In general, some students felt that the model of a graduate student at UCSC was still a single male.

Women graduate students also expressed concern about financial aid resources in general as well as fears of ghettoization in "women's" fields. As teaching assistants, they felt they received less respect from male undergraduates than did male TAs. Some argued that misogynistic language appeared at times in student evaluations of female TAs.

**Sexual Orientation**

There is very little information available about lesbian and gay graduate students at UCSC. In part for legal reasons and due to the difficulty of defining the categories, we do not and cannot know how many attend this university. The lesbian and gay students we contacted felt comfortable at UCSC, indicating that there was little blatant discrimination and a large, supportive lesbian community in Santa Cruz. One student noted that while there were few gay students in Natural Sciences, there was also little overt homophobia. However, they expressed concern that issues of sexual orientation and difference were not sufficiently addressed in institutional discussions of diversity in teaching and learning environments. More specifically, gay graduate students condemned their exclusion from family student housing and the lack of health insurance coverage for partners.\(^{150}\) They also pointed to undergraduate homophobia as a problem for teaching assistants, noting many undergraduates assume that any TA who confronts homophobic behavior is gay.\(^{151}\)

In summary, although individuals cite specific instances, overt discrimination against graduate students or intergroup conflict does not appear to be a major problem at UCSC. None of the various students contacted cited bigotry on the part of other graduate students as a problem. It is worth noting that many of the concerns cited by the targeted students, such as relations with faculty and financial aid, are shared by graduate students as a whole, though they may be particularly acute for women and ethnic minority graduate students. Both groups emphasized their view that a more diverse faculty is key to changing the climate at UCSC for the better and that UCSC needs to be more attentive to the specific challenges involved in both attracting and retaining a diverse graduate student population.

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\(^{150}\) This is precluded by systemwide policy, despite a December 1992 resolution of the UCSC Academic Senate calling for the inclusion of graduate students' partners.

\(^{151}\) Some colleges have sponsored sexual orientation workshops.
SUMMARY

Recruitment efforts for SAA students (African-American, American Indian, Chicano and Latino) have been very successful relative to the UC system as a whole. For the past two years, UCSC has led the system in the percentage of these underrepresented groups for both new graduate students and total graduate enrollments. The campus has been able to provide financial support for minority graduate students and is aggressively pursuing continued support through the submission of grants. These students have also received a high level of outside funding. Little information has been gathered on campus climate, nor has there been systematic examination of recruitment strategies or retention and graduation rates; these warrant more attention.
4. Staff Diversity

Administrative responsibility for most aspects of staff diversity falls to the line manager assisted by the Affirmative Action Office, which is responsible for non-discrimination and affirmative action programs and policies for staff and faculty. Administrative committees also concerned with diversity issues include the Chancellor's Task Force on Diversity, the Committee on the Status of Women, the Committee on Gay, Lesbian, and Bisexual Community Concerns, the Americans with Disabilities Advisory Committee, the Committee on Disability Services, the Sexual Harassment Education Committee, and the Human Resources Advisory Committee. Staff organizations concerned with diversity include the Chicano/Latino Staff Caucus, the African American Staff Caucus, the Asian/Pacific Islander Staff, the Coalition of Asian and Pacific Island Employees, and Women in Management.

DIVERSITY IN NUMBERS

Gender and Ethnicity

As of October 31, 1992, UCSC's career (permanent) staff was 60.8 percent female and 22.6 percent members of ethnic minority groups included in federal affirmative action guidelines.¹⁵²

Table D.9 shows that UCSC is much more diverse at lower staff ranks¹⁵³ than in management, both for women and ethnic minorities, and the absolute number of staff who are members of ethnic minority groups is still small.

In comparison with the UC system as a whole, Table D.10 shows UCSC's staff is considerably less ethnically diverse.¹⁵⁴ About 23 percent of UCSC's career staff are members of ethnic minority groups, compared to 39 percent for UC as a whole. Most of the difference is in the lowest level jobs: the Staff Personnel Program at UCSC is 24 percent minority, compared to 44 percent minority systemwide. In management positions, UCSC is at least as ethnically diverse as UC as a whole. Executive positions at UCSC have recently been as high as 23 percent minority (3 of 13 executives), compared to 13 percent systemwide, and Management positions at UCSC are 19 percent minority, compared to 18 percent systemwide.

¹⁵² Unlike affirmative action for students, staff affirmative action includes individuals of Asian and Pacific Island heritage.
¹⁵³ Grouped by Executive, Management and Professional (MAP), Administrative and Professional (A&PS), and Staff personnel programs.
¹⁵⁴ Note that the most recent systemwide comparative statistics are as of March 31, 1992.
Table D.9

UCSC Staff by Sex and Ethnicity within Personnel Program

<table>
<thead>
<tr>
<th></th>
<th>African American</th>
<th>Asian American</th>
<th>Native American</th>
<th>Hispanic American</th>
<th>Caucasian</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#</td>
<td>%</td>
<td>#</td>
<td>%</td>
<td>#</td>
<td>%</td>
</tr>
<tr>
<td>Executive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>0</td>
<td>0.0%</td>
<td>1</td>
<td>8.3%</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Female</td>
<td>1</td>
<td>8.3%</td>
<td>0</td>
<td>0.0%</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Total</td>
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<td>8.3%</td>
<td>1</td>
<td>8.3%</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>MAP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>2</td>
<td>2.9%</td>
<td>1</td>
<td>1.4%</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Female</td>
<td>2</td>
<td>2.9%</td>
<td>2</td>
<td>2.9%</td>
<td>1</td>
<td>1.4%</td>
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<tr>
<td>Total</td>
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<td>1</td>
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</tr>
<tr>
<td>A&amp;PS</td>
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<td></td>
<td></td>
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<tr>
<td>Male</td>
<td>8</td>
<td>1.8%</td>
<td>14</td>
<td>3.1%</td>
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</tr>
<tr>
<td>Female</td>
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<td>3.4%</td>
<td>13</td>
<td>2.9%</td>
<td>2</td>
<td>0.4%</td>
</tr>
<tr>
<td>Total</td>
<td>23</td>
<td>5.2%</td>
<td>27</td>
<td>6.1%</td>
<td>2</td>
<td>0.4%</td>
</tr>
<tr>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Male</td>
<td>15</td>
<td>1.4%</td>
<td>29</td>
<td>2.7%</td>
<td>3</td>
<td>0.3%</td>
</tr>
<tr>
<td>Female</td>
<td>17</td>
<td>1.6%</td>
<td>46</td>
<td>4.3%</td>
<td>12</td>
<td>1.1%</td>
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<tr>
<td>Total</td>
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<td>75</td>
<td>7.0%</td>
<td>15</td>
<td>1.4%</td>
</tr>
<tr>
<td>All Programs</td>
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<td></td>
<td></td>
<td></td>
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<td>1.6%</td>
<td>45</td>
<td>2.8%</td>
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</tr>
<tr>
<td>Female</td>
<td>35</td>
<td>2.2%</td>
<td>61</td>
<td>3.8%</td>
<td>15</td>
<td>0.9%</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>3.8%</td>
<td>106</td>
<td>6.6%</td>
<td>18</td>
<td>1.1%</td>
</tr>
</tbody>
</table>

Table D.10

Comparison of UCSC and UC-wide Staff Composition

<table>
<thead>
<tr>
<th></th>
<th>UCSC %</th>
<th>UC total %</th>
<th>UCSC %</th>
<th>UC total %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>F</td>
<td>M</td>
<td>F</td>
</tr>
<tr>
<td>EXEC</td>
<td>76.9%</td>
<td>23.1%</td>
<td>73.5%</td>
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</tr>
<tr>
<td>MAP</td>
<td>68.3%</td>
<td>31.7%</td>
<td>56.7%</td>
<td>43.3%</td>
</tr>
<tr>
<td>A&amp;PS</td>
<td>40.7%</td>
<td>59.3%</td>
<td>36.1%</td>
<td>63.9%</td>
</tr>
<tr>
<td>STAFF</td>
<td>36.2%</td>
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<td>31.3%</td>
<td>68.7%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>39.1%</td>
<td>60.9%</td>
<td>33.8%</td>
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</tr>
<tr>
<td></td>
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<td>76.9%</td>
<td>23.1%</td>
</tr>
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<td></td>
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<td>81.0%</td>
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<td></td>
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<td>78.4%</td>
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<td>23.7%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>77.1%</td>
<td>22.9%</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>86.6%</td>
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<td>28.4%</td>
</tr>
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<td></td>
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<td>56.5%</td>
<td>43.5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>61.5%</td>
<td>38.5%</td>
</tr>
</tbody>
</table>

Women are well represented in staff (64 percent) and administrative/professional (59 percent) positions at UCSC (although still less than the UC average), but in management positions, UCSC has only 32 percent women compared to 43 percent women systemwide. Our executives are currently 23 percent women (26.5 percent systemwide), but again the numbers are very small.
A more meaningful analysis is UCSC's affirmative action goal achievement, which compares the gender and ethnic composition of staff in specific groups of jobs to the applicant pool in the relevant recruiting area. UCSC has met goals in only four of twenty job groups: Student services (higher levels), staff management and analysis (higher levels), clerical/administrative (lower levels), and cleaning/food services. UCSC is far from meeting its goals in computer programming and operations for both women and minorities, and in research/scientific positions the campus has made little recent progress in increasing the disproportionately small numbers of minorities. Since UCSC's current goals are still based on 1980 census estimates of availability, it is reasonable to expect that the 1990 census data will result in higher goals. Analyses of the most recent year's personnel actions indicate that the campus is hiring women and minorities at rates that equal or exceed availability, but the resulting change in the UCSC workforce is still lagging behind demographic changes in the state.

Staff with Disabilities
UCSC has no reliable estimates of the number of staff who have disabilities; thirteen staff members have voluntarily self-identified as having a disability, but the Affirmative Action Office considers that number to be an underestimate. There are also no systematic statistics on the number of people with disabilities who are available for hire, but representatives of Santa Cruz community organizations concerned with disability issues believe that people with disabilities are underrepresented among UCSC staff.

Gay, Lesbian, and Bisexual Staff
UCSC has never done a survey of staff sexual orientation, so we have no estimates of the number of staff who are gay, lesbian, or bisexual. The campus has no goals for sexual orientation.

CLIMATE FOR DIVERSITY
UCSC's Director of Affirmative Action reports that, while there have long been widespread expressions of support for staff diversity as a general concept, support for proactive efforts to increase diversity, such as affirmative action goals, is less wholehearted. She feels that, as is true for the country as a whole, UCSC has passed through a period of several years in which resistance to affirmative action became more acceptable. Although UCSC has little that could be termed active

156 The new 1993 analysis of staff underutilization, released since the self-study was written, shows that we have fallen even farther behind changes in the workforce, especially with respect to women at higher levels and Chicanos/Latinos at all levels. Our applicant pools for 1991-92 were less diverse than availability for nearly all jobs, and the rate of minority hiring of staff has decreased 5 percent in the last three years. Complaints to the Affirmative Action Office have tripled in the past year. See Valerie Simons and Anthony Chen Lozano, 1992-93 Affirmative Action Update (UCSC: December 1993). Diversity reference 11.
hostility (and a review by the Office for Civil Rights found that the campus handled incidents of racial disharmony quite well), there remains at UCSC a significant uncertainty, expressed openly during some workshops on diversity, about whether affirmative action does more harm or good. Some comments from staff caucuses on an earlier version of this report indicated stronger opinions: that the support for affirmative action is "all talk but no action"; that many people misunderstand affirmative action to require quotas; that the anti-politically correct movement is a guise for opposition to diversity; that affirmative action progress at all but the lowest levels of the staff is "abysmal"; that the Affirmative Action Office does not have any power and will, when worse comes to worst, "side with the institution."

Advocates of affirmative action are heartened by the Chancellor's published statements in support of diversity at a time of campus budget reductions. However, both Staff and Student Affirmative Action offices are concerned that resentment of the special treatment afforded affirmative action may increase as other areas are cut more severely. Until the recent restoration of the staff development program, affirmative action programs aimed at women and minority staff produced some resentment on the part of those who were not beneficiaries. It has also been increasingly difficult for the campus to make affirmative action progress in hiring or promotions at a time when there are so few recruitments and so little programmatic attention to staff career development.

During the past few years, three ethnic minority staff organizations have been organized and have held retreats, supported by funding from the Chancellor. All have continuing concerns about low numbers on campus; all feel the need for more successful staff development efforts; all have experienced incidents of insensitivity on campus.

The African-American Charette in 1990 expressed concerns about racial insensitivity, the lack of systematic efforts to increase recruitment and retention, lack of managerial accountability for affirmative action progress, the low numbers of African-American staff on campus, especially in administrative positions, and the isolation resulting from such small numbers. At present, the African-American staff group is inactive as a formal organization, and there is increasing concern in the small community about the number of African-American men who have left the staff, especially at higher levels.

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The Chicano/Latino Staff Caucus issued a report of the retreat and its recommendations,\(^{160}\) to which the Chancellor responded with a number of specific actions\(^{161}\) and which he conveyed to senior administrators for further action. The caucus continues to be concerned about how many Chicano/Latinos at high levels have left the campus in recent years (for a variety of reasons) without equal numbers of replacements. Ten years ago, there was a powerful Chicano/Latino presence in both academic and administrative circles that seems to have diminished. The fact that the large increases in Chicano/Latino population in the state have not been reflected in UCSC's administration is cited as a source of increasing frustration and resentment.

The Asian/Pacific Islander (API) staff group held a retreat during 1992 which was evaluated as a very positive community-building experience by most participants.\(^{162}\) While the group acknowledged the sensitivity to and recognition of the API community on the part of Chancellor Pister, it also noted a lack of sensitivity to its concerns or commitment from management to its members' career progress in the university. The group recommended that management be further educated and held accountable for progress toward a more diverse campus; that management and work styles other than Anglo-Euro styles be recognized and valued; that the campus give a higher priority to developing and advancing staff; and that API concerns be more influential in policy and decision-making. While some API staff members are encouraged by recent progress, others are still angry about incidents such as the "Asian Food Affair" in 1988 and cynical about campus commitment to affirmative action.\(^{163}\)

Staff women disagree about the campus climate; perceptions vary greatly by location and depth of feminist consciousness, as well as by ethnicity. In male-dominated units on campus, there are still occasional incidents of verbal hostility reported to the Affirmative Action Office. Most organized staff women's groups are numerically dominated by white women who vary in their understanding of how life can be different for women of color, although a significant action was that Women in Management devoted a year's programming to diversity issues for its members. There is an acute awareness that women do not seem to get promoted into management ranks very often, and consternation that UCSC lags behind other UCs in management affirmative action for women.

Since 1985, when the campus sexual harassment policy was implemented, UCSC's Sexual Harassment Prevention Program has made considerable progress in educating the campus about policies and procedures against sexual harassment, and UCSC now has what is considered by some to be a model

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\(^{163}\) See Hiregardner to Members of the University Administration, August 1989. Diversity reference 17.
program. Funding and administrative support have been strong. In July 1993, despite the budget crisis, the Chancellor appointed a new full-time staff position solely devoted to sexual harassment complaint resolution and other Title IX issues, which had been handled by staff with other full-time duties.

UCSC has succeeded in informally resolving a number of sexual harassment complaints. Still, cases resulting in disciplinary action are sometimes controversial and hotly contested. Reports of sexual harassment on campus have increased substantially over the review period, perhaps in part due to increased national and campus publicity about sexual harassment. A 1992-93 task force has drafted a new policy on sexual harassment that is currently under review.

The climate for gay, lesbian, and bisexual staff on campus appears to be more positive than on most college campuses. UCSC has an active Gay, Lesbian, and Bisexual Community Concerns Committee (GLBCC) and a critical mass of staff members who are open about their sexuality. However, there are still some heterosexual staff members who are uncomfortable with openly gay/lesbian coworkers, and there are occasional incidents of homophobic remarks reported to the Affirmative Action Office, which are responded to with education. A recent GLBCC-initiated boycott of United Way donations to the Boy Scouts brought a few angry letters to the committee. The Chancellor has extended some minor campus benefits to domestic partners of staff, but those major benefits under systemwide control are still not available to unmarried partners. There is recent support at the systemwide level for extending benefits to domestic partners.

The climate for diversity with regard to disability is in the midst of great change with the implementation of the Americans with Disabilities Act (ADA), described below.

RECENT EFFORTS TOWARD DIVERSITY

The campus took the occasion of the Americans with Disabilities Act (ADA) to conduct a thorough self-study that included a review of employment procedures and a survey of staff with disabilities, as well as campuswide staff education. During 1992, Human Resources offered workshops for all campus supervisors on the Americans with Disabilities Act, as well as education on employee rights

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under the ADA. The staff survey revealed few problems related to their disabilities, most having to do with physical barriers. The campus ADA self-evaluation asked that each unit consider potential barriers to people with disabilities (including members of the community) and institutionalize accommodations. Response was generally quite positive, but some campus units are concerned about whether and how to accommodate controversial disabilities such as multiple chemical sensitivities, and some concern has been voiced about the cost of workplace accommodations during the budget crisis. Although efforts to implement the ADA fully have increased campus consciousness, we have far to go to create full access for people with disabilities, and UCSC's reputation in the Santa Cruz disabled community is in need of improvement.

Women in Management is an active sponsor of programs to support staff women in management positions. Two years ago, the group sponsored a year of programming focused on diversity issues. UCSC's Affirmative Action Office and Women in Management are currently collaborating on a proposal for a "glass ceiling" study focusing on women in management. An informal group of staff women in non-management positions has been organizing an annual Women at Work Retreat, with two days of workshops and meetings focused on career development for staff women.

In 1991, the Affirmative Action Office developed (and has since been delivering) a series of workshops on diversity, including Multicultural Awareness, Cross-cultural Communication, Gender and Power, Gender and Communication, Sexual Orientation for Heterosexuals, Ethnic and Gender Dynamics in Conflict, Accommodating Disability, the Staff Affirmative Action Plan, and Sexual Harassment. During the past two years, the Affirmative Action Office has added a workshop on "Controversies in Affirmative Action," in which staff members are invited to have frank discussions of the positive and negative aspects of affirmative action. After such discussions, which include clarification of UCSC's policy (a fairly conservative one, focused on areas in which there is evidence that women or minority staff members are underrepresented), staff seems better able to support a model of affirmative action that preserves principles of fairness. Such training has been offered in only a few units, however, and problem areas remain.

Areas of the campus that are actively committed to affirmative action, e.g., the Student Services Division, succeed in recruiting and selecting well-qualified women and minority staff, but they also recruit in fields in which women and minorities are better represented. In the past year, two academic divisions, Natural Sciences and Social Sciences, have created Affirmative Action Committees to concentrate on both numbers and climate in the division. The Natural Sciences Affirmative Action Committee has recently sponsored training in multicultural issues for key divisional staff and has prepared a detailed analysis of problem areas in the division. The Social Sciences Division has not made as much progress. McHenry Library has had an active committee for several years that
sponsors multicultural education for library staff. The Humanities and Arts Divisions, Business and Administrative Services, and the Chancellor's units have no affirmative action committees at present. Campus Facilities has recently implemented an English as a Second Language class, delivered by staff volunteers, for custodial staff.

Last year, Human Resources developed a workshop for units with problematic affirmative action records that focuses on how to evaluate applicants fairly; this workshop is now offered monthly and by request. Human Resources has proposed a program of Focused Recruitments, under which Principal Officers would designate key recruitments. Units would be given assistance in developing a recruitment plan, training search committees, and conducting an affirmative action search. The current budget crisis and severely curtailed hiring have made it difficult to make progress with any affirmative action recruiting. As long as hiring is so restricted, affirmative action efforts will have to focus on developing and retaining the diversity we have. Yet, until the staff development program was reinstated this year, a small Staff Affirmative Action Scholarship Program was the only avenue for formal staff development for women and minorities.

In 1992, the Chancellor sponsored Staff Diversity Achievement Awards to campus people who made successful efforts to further staff diversity. In many public statements and in meetings with principal officers, he has expressed his support for staff affirmative action. But as the campus faces the threat of continued staff layoffs, there is concern that the layoffs may disproportionately affect staff of color, who are more likely to be recently hired and often hold positions that are more at risk.

Overall, UCSC seems to have a core of staff support for diversity, pockets of resistance and resentment, strong administrative support at the highest levels, and inadequate resources to influence the rate of change with financial incentives.
5. Faculty Diversity

UCSC has made substantial efforts to diversify its faculty composition. We note that these efforts and the patterns in faculty composition discussed below are strongly influenced by the increasingly diverse pool of potential faculty members. The following discusses representation; recruitment, retention, and career development issues; and campus climate for faculty diversity.

Figure D.4

Percentage of Faculty by Rank, by Division, and Campuswide

![Graph showing percentage of faculty by rank and division]

REPRESENTATION

At UCSC, there are approximately 430 Academic Senate faculty members. Of these, 38 percent hold appointments in Natural Sciences, 27 percent in Social Sciences, 25 percent in Humanities, and 10 percent in Arts. Fifty-two percent are full professors, 21 percent are associate professors, 25

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168 Lecturers with security of employment (not shown) constitute 2 percent of campus total faculty.
169 The data used in assessing faculty diversity are a campuswide head count by ethnicity, gender, and rank from July 1992 (Table D.11) and a head count by division, ethnicity, gender, and rank from March 1993 (used in Figures D.4-D.6). More recent data are presented in the new 1992-93 Affirmative Action Update which was released since the self-study was written. See Diversity reference 11.
percent are assistant professors, and 2 percent are lecturers with security of employment (SOE). The percentages at each rank vary by division (Figure D.4).\textsuperscript{170}

For UCSC as a whole, 28 percent of the faculty are women and 20 percent of the faculty are from ethnic minority groups (defined as African American, Asian American, Native American, and Chicano/Latino; see Table D.11).\textsuperscript{171} This is more diverse than the overall composition of UC faculty as a whole, among whom 18 percent are women faculty and 15 percent are from ethnic minority groups (based on 1991 data; see Table D.12).

**Table D.11**

*UCSC Senate Faculty by Rank, Sex, and Ethnicity*

<table>
<thead>
<tr>
<th>Gender</th>
<th>African American</th>
<th>Asian American</th>
<th>Native American</th>
<th>Chicano/ Latino</th>
<th>White</th>
<th>Total by Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#</td>
<td>%</td>
<td>#</td>
<td>%</td>
<td>#</td>
<td>%</td>
</tr>
<tr>
<td><strong>Professor</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>3 1.3%</td>
<td>1 0.4%</td>
<td>0 0.0%</td>
<td>2 0.9%</td>
<td>29 12.8%</td>
<td>35 15.4%</td>
</tr>
<tr>
<td>Male</td>
<td>6 2.6%</td>
<td>5 2.2%</td>
<td>2 0.9%</td>
<td>5 2.2%</td>
<td>174 76.7%</td>
<td>192 84.6%</td>
</tr>
<tr>
<td>Total</td>
<td>9 4.0%</td>
<td>6 2.6%</td>
<td>2 0.9%</td>
<td>7 3.1%</td>
<td>203 89.4%</td>
<td>227 100.0%</td>
</tr>
<tr>
<td><strong>Assoc. Prof.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>1 1.1%</td>
<td>4 4.6%</td>
<td>0 0.0%</td>
<td>5 5.7%</td>
<td>26 29.9%</td>
<td>36 41.4%</td>
</tr>
<tr>
<td>Male</td>
<td>2 2.3%</td>
<td>4 4.6%</td>
<td>0 0.0%</td>
<td>5 5.7%</td>
<td>40 46.0%</td>
<td>51 58.6%</td>
</tr>
<tr>
<td>Total</td>
<td>3 3.4%</td>
<td>8 9.2%</td>
<td>0 0.0%</td>
<td>10 11.5%</td>
<td>66 75.9%</td>
<td>87 100.0%</td>
</tr>
<tr>
<td><strong>Asst. Prof.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>1 0.9%</td>
<td>7 6.1%</td>
<td>0 0.0%</td>
<td>8 7.0%</td>
<td>33 32.7%</td>
<td>49 42.6%</td>
</tr>
<tr>
<td>Male</td>
<td>4 3.5%</td>
<td>18 15.7%</td>
<td>1 0.9%</td>
<td>1 0.9%</td>
<td>42 36.5%</td>
<td>66 57.4%</td>
</tr>
<tr>
<td>Total</td>
<td>5 4.3%</td>
<td>25 21.7%</td>
<td>1 0.9%</td>
<td>9 7.8%</td>
<td>75 65.2%</td>
<td>115 100.0%</td>
</tr>
<tr>
<td><strong>Lecturer</strong> (SOE)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>0 0.0%</td>
<td>1 14.3%</td>
<td>0 0.0%</td>
<td>0 0.0%</td>
<td>1 14.3%</td>
<td>2 28.6%</td>
</tr>
<tr>
<td>Male</td>
<td>0 0.0%</td>
<td>0 0.0%</td>
<td>0 0.0%</td>
<td>0 0.0%</td>
<td>5 71.4%</td>
<td>5 71.4%</td>
</tr>
<tr>
<td>Total</td>
<td>0 0.0%</td>
<td>1 14.3%</td>
<td>0 0.0%</td>
<td>0 0.0%</td>
<td>6 85.7%</td>
<td>7 100.0%</td>
</tr>
<tr>
<td><strong>All Ranks</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>5 1.1%</td>
<td>13 3.0%</td>
<td>0 0.0%</td>
<td>15 3.4%</td>
<td>89 20.4%</td>
<td>122 28.0%</td>
</tr>
<tr>
<td>Male</td>
<td>12 2.8%</td>
<td>27 6.2%</td>
<td>3 0.7%</td>
<td>11 2.5%</td>
<td>261 59.9%</td>
<td>314 72.0%</td>
</tr>
<tr>
<td>Total</td>
<td>17 3.9%</td>
<td>40 9.2%</td>
<td>3 0.7%</td>
<td>26 6.0%</td>
<td>350 80.3%</td>
<td>436 100.0%</td>
</tr>
</tbody>
</table>

Representation by gender is not uniform across broad groupings of ethnicity, with 40 percent of ethnic minority faculty as a whole being women compared to 25 percent of white faculty. This gender distribution is also not uniform within ethnic minority groups, from the extremes of no Native American women faculty at UCSC to 58 percent of Chicano/Latino faculty being women (Table

\textsuperscript{170} Note that divisions may not be the best unit of analysis. It then becomes possible for a division to meet its overall goals, but for individual boards to remain without minority faculty.\textsuperscript{171} For comparison, a 1988 faculty head count found the UCSC faculty to be 24 percent women and 16 percent ethnic minority.
D.11). For UC as a whole, 16 percent of women faculty are from ethnic minority groups, similar to the proportion for the faculty as a whole and unlike the disparity seen at UCSC.

Overall, the percentage of faculty in each ethnic minority category is higher at UCSC than for UC as a whole, except we have slightly lower proportional representation of Asian-American men, no Native American women, and lower proportional representation of Chicano/Latino men on our faculty (compare Tables D.11 and D.12). The statement that UCSC has the most diverse faculty in the UC system is based on the UCSC vs UC comparison (28 percent vs 18 percent women faculty and 20 percent vs 15 percent faculty from ethnic minority groups). We caution that this comparison is made to UC as a whole and not to individual campuses. 172

Table D.12

UC Senate Faculty (1991) by Rank, Sex, and Ethnicity:
Percentage of Total Faculty at Each Rank for Each Category 173

<table>
<thead>
<tr>
<th></th>
<th>African American</th>
<th>Asian American</th>
<th>Native American</th>
<th>Chicano/Latino</th>
<th>White</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tenured Only</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>female</td>
<td>0.4%</td>
<td>0.8%</td>
<td>0.0%</td>
<td>0.6%</td>
<td>12.4%</td>
<td>14.3%</td>
</tr>
<tr>
<td>male</td>
<td>1.5%</td>
<td>5.9%</td>
<td>0.2%</td>
<td>2.9%</td>
<td>75.2%</td>
<td>85.7%</td>
</tr>
<tr>
<td>Total</td>
<td>1.9%</td>
<td>6.7%</td>
<td>0.2%</td>
<td>3.7%</td>
<td>87.6%</td>
<td>100.0%</td>
</tr>
<tr>
<td><strong>Non-tenured</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>female</td>
<td>1.5%</td>
<td>3.0%</td>
<td>0.1%</td>
<td>2.5%</td>
<td>27.6%</td>
<td>34.6%</td>
</tr>
<tr>
<td>male</td>
<td>2.0%</td>
<td>10.0%</td>
<td>0.3%</td>
<td>3.9%</td>
<td>49.1%</td>
<td>65.4%</td>
</tr>
<tr>
<td>Total</td>
<td>3.5%</td>
<td>13.0%</td>
<td>0.4%</td>
<td>6.4%</td>
<td>76.7%</td>
<td>100.0%</td>
</tr>
<tr>
<td><strong>All Ranks</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>female</td>
<td>0.6%</td>
<td>1.3%</td>
<td>0.1%</td>
<td>1.0%</td>
<td>15.4%</td>
<td>18.3%</td>
</tr>
<tr>
<td>male</td>
<td>1.6%</td>
<td>6.7%</td>
<td>0.2%</td>
<td>3.1%</td>
<td>70.1%</td>
<td>81.7%</td>
</tr>
<tr>
<td>Total</td>
<td>2.2%</td>
<td>8.0%</td>
<td>0.3%</td>
<td>4.1%</td>
<td>85.4%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

As significant as the total numbers is an understanding of the distribution of faculty diversity by division and rank, as this defines the future of the institution in terms of faculty diversity. Figure D.5 shows the percentage of women faculty for each rank within each division and for the campus as a whole, compared to the total proportion of women faculty. In each division and for the campus as a whole, the percentage of women full professors is substantially lower than the divisional or campus totals (from a low of 4 percent in Humanities, to 19 percent in Social Sciences).

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172 Since the self-study was drafted, new figures have reconfirmed that UCSC's ladder faculty are indeed the most diverse in the UC system with respect to both sex and ethnicity, although we hold the lead by only a fraction of a percent, and we continue to underutilize both women and ethnic minorities at higher ranks.

173 Source: Biennial Higher Education Staff Information (EEO-6) Reports.
Women faculty members are more heavily concentrated in the associate and assistant ranks in all divisions. Forty-three percent of assistant professors are women, ranging from 21 percent in Natural Sciences to 59 percent in Humanities. Overall, 62 percent of white women and 49 percent of ethnic minority women are tenured (compared to 82 percent of white men and 72 percent for campus faculty overall). While this may be partially due to the greater availability of women at lower seniority levels (based on nationwide availability data) and the relative recency of affirmative action efforts in this area, it highlights the importance of faculty retention and career development in maintaining faculty gender diversity. Although there are not comparable divisional data for UC as a whole, the UC total data indicate a similar disparity (Table D.12). While 18 percent of UC faculty at all ranks are women, 14 percent of tenured UC faculty (full and associate professors) and 35 percent of non-tenured UC faculty (assistant professors) are women. The 1992-93 American Association of University Professors (AAUP) nationwide survey figures show 71 percent of men faculty and 46 percent of women faculty with tenure, with no breakdown by ethnicity.  

Figure D.5

Percentage of Women Faculty by Rank, Division, and Campuswide

Figure D.6 shows the percentage of faculty from ethnic minority groups for each rank for each division and the campus as a whole, compared to the overall proportion of faculty from ethnic minority groups. In each division and for the campus as a whole, the percentage of full professors from ethnic minority groups is substantially lower than the divisional or campus totals (from a low of 7 percent of full professors in Natural Sciences to 17 percent of full professors in Humanities). Overall, 52 percent of ethnic minority faculty at UCSC are tenured (compared to 82 percent of white men faculty and 72 percent of faculty overall). Ethnic minority faculty members are more heavily concentrated in the associate and especially in the assistant ranks. Thirty-seven percent of assistant professors at UCSC are from ethnic minority groups, ranging from 31 percent in Arts to 43 percent in Social Sciences (highlighting again the need for retention and career development efforts in maintaining faculty diversity). For UC as a whole, a similar pattern exists, although the disparity is not as large (12 percent in UC and 14 percent at UCSC of tenured faculty are from ethnic minority groups compared to 23 percent in UC and 35 percent at UCSC of non-tenured faculty; compare Tables D.11 and D.12).

Figure D.6

Percentage of Faculty from Ethnic Minority Groups by Rank, Division, and Campuswide

It is also significant to note the links between gender and ethnic diversity in the faculty at UCSC, an area not represented by the figures presented above. As noted above 40 percent of the total ethnic
minority faculty are women, with patterns differing across divisions. Gender distributions across broad groupings of ethnicity (ethnic minority versus white) are similar in all groups in Natural Sciences. In Social Sciences and Humanities, close to one-half of the ethnic minority faculty is women (55 percent in Social Sciences and 48 percent in Humanities), resulting in a lower or similar proportion of ethnic minority members among male faculty (18 percent and 20 percent respectively) as for the campus as a whole (20 percent). In Arts, only 22 percent of ethnic minority faculty is women, lower than the proportional representation for women in the campus as whole.

We have no information concerning the representation of other groups among the faculty (e.g., sexual orientation, disability, veteran status). Therefore, they are not discussed in subsequent sections.

RECRUITMENT

The Academic Personnel Office maintains a nationwide list of campuses (including all UC and CSU campuses) and organizations to which all faculty position advertisements are sent. In addition, boards add discipline-specific recruiting sources for individual positions. The Academic Personnel Office evaluates each search for the divisional dean, who must approve the thoroughness of the search. According to the Academic Personnel office, while many boards do an excellent job with affirmative action recruiting, there are some that are still less than diligent. In addition, networking may be a major factor in diversifying the pool of faculty applicants for a given position.

A successful diversity recruitment strategy has been the Target of Opportunity Program (TOP), developed on this campus with the intention of increasing the number of faculty from ethnic minorities and the number of faculty women of all ethnicities in Natural Sciences and in other fields where they are underrepresented. While recruitment mechanisms differed in certain respects, the substantive criteria for these faculty appointments were the same as for other searches. Since 1986, TOP has resulted in the hiring of 29 minorities of both sexes and women of all ethnicities to the faculty, 25 of whom remain on the faculty.

TOP has proven to be a successful affirmative action process for attracting and hiring women and ethnic minority faculty. For example, in October 1981 there were 36 women on the ladder faculty. Ten years later there were 128 women, an increase of 256 percent. In October 1981, there were 22 minority faculty. Ten years later there were 89 minority faculty, showing an increase in absolute numbers of 305 percent. The 25 faculty members who were the result of TOP appointments and are still on the faculty represent a small but significant percentage of these gains and demonstrate the
potential effect of this program in diversifying the pools of applicants contacted in regular
searches. The possibility of TOP appointments appears to have been effective in connecting
board chairs and other faculty to networks of women and ethnic minority scholars; in the 1990-91
academic year, 68 percent of faculty recruitments resulted in the appointment of women or ethnic
minority faculty.

The current status of TOP, should the budget situation allow such appointments again, needs to be
rethought. Our successes in recruiting and retaining women of all ethnicities and ethnic minorities of
both sexes means that our only remaining affirmative action goals (based on the legal definitions of
availability in given areas) are for women of any ethnicity and for Asian Americans, all at the tenured
level. However, affirmative action targets alone are not sufficient to foster a climate favorable to
diversity. Overall faculty composition should not obscure disciplinary differences in gender and
ethnic diversity and the need for additional efforts to ensure the most diverse applicant pools possible
for all open recruitments.

It should be pointed out that the University of California establishes faculty goals for affirmative
action on the basis of national proportions of Ph.D. availability at given seniority on a divisional
basis. Recruitments for specific positions are evaluated based on Ph.D. availability data in a given
field, with assistant professor searches using the past several years and higher rank searches using
five-year rolling averages. While both affirmative action goals and evaluation of specific searches for
representation follow existing guidelines, these lead to relatively slow incremental changes in faculty
composition. Outreach efforts to create more diverse recruitment pools, as well as initiatives to
improve the campus climate for diversity, can complement formal affirmative action measures.

RETENTION AND CAREER DEVELOPMENT

The distribution of faculty diversity, both with respect to gender and ethnic minority groups, is
heavily weighted toward the assistant and associate professor ranks (see Figures D.5 and D.6). Other
than general statistics on the proportion of positive tenure reviews, data assessing faculty career
progress in general are not readily accessible. Existing faculty records make it difficult to track
career progress (how many years one spent at each step, and each rank, accelerations, etc.).

A universitywide pay scale defines salary at each rank and step. However, there are separate scales for
certain academic disciplines and a practice, more widespread at UCSC than elsewhere in the UC

\footnote{These data were not available to us but will be available from now on.}
system, of granting "off-scale" salaries (i.e., a salary for a given rank and step different from that defined in the pay scale). Differences exist at UCSC in average faculty salary by gender and by ethnicity at all ranks. While this may partially represent differences in step within each rank for gender and ethnic minority groups, the reasons for these differences are not well identified by current data. The nationwide 1992-93 AAUP survey showed a disparity between pay for men and women faculty, with women earning 87.5 percent of men's pay. The existence of such a gap at the assistant professor level, at UCSC and nationwide, raises questions concerning explanations for the pay differential which rely on seniority; seniority differences should be small at this rank.\textsuperscript{177}

CAMPUS CLIMATE FOR FACULTY DIVERSITY—THE ISSUE OF NUMBERS

We have little information on the climate for diversity experienced by faculty members at UCSC, although we have a more diverse faculty than the UC-wide average and are widely perceived as having the most diverse faculty in the UC system. The physical and architectural organization of UCSC (its non-urban setting, dispersed campus geography, and lack of central facilities for faculty interaction), may contribute to a perceived lack of community. Faculty size is also critical in considering the climate for faculty diversification. For example, a minority population achieving a representation of 2 percent in a university with 1,500 faculty has 30 individuals. A loss of one individual from this group, while regrettable, equals 3.3 percent of the total and leaves the population nearly as strong (1.9 percent of total faculty). In contrast, the same 2 percent representation in a faculty of 500 is only 10 individuals. When one of these individuals leaves for whatever reason, 10 percent of that ethnic minority group has been eliminated. Thus, it is more difficult to maintain the critical mass necessary to create a sense of community in this smaller setting. As a consequence, the achievement of a target percentage of representation may not be adequate to fulfill long-term campus goals. In part, because recruitment of women and ethnic minority faculty (through the Target of Opportunity Program (TOP) and general affirmative action goals) has proven successful on this campus, and targeted percentages have been reached with many groups, the campus faces a dilemma in forming legally and philosophically defensible positions which will extend this record of accomplishment. These challenges are heightened by the current state budget crisis and the generally bleak outlook for academic employment.

6. Assessment of Diversity

This self-study has aimed at producing a comprehensive overview and evaluation of diversity on campus. There were a number of challenges: finding the appropriate documentation from the enormous amount of data which has been collected, formulating the crucial issues, and identifying appropriate comparison groups both on and off campus. The following summarizes our findings:

- The best evidence about diversity concerns the undergraduate student population.
- For all constituencies, information about ethnicity was more accessible than information about other dimensions of diversity, partially due to the legal restrictions on questioning individuals about certain aspects of their identities (e.g., sexual orientation).
- Data were often not collected and reported in consistent formats for different campus constituencies or for UCSC relative to the UC system, making comparisons hard to effect.
- The lack of historical data about some campus populations and antiquated record-keeping systems made the reconstruction of temporal trends difficult (e.g., the tracking of faculty career progress across ethnic or gender lines).
- The decentralized structure of the campus often obscured the big picture, making it harder to extract trends and identify their causes.
- Programs designed to promote and maintain diversity have not regularly been evaluated.
- Assessing the campus climate for diversity was most difficult, as we were forced to rely mainly on anecdotal evidence.

The substantive sections of this report covering undergraduate students, graduate students, staff, and faculty provide an overview of representation on campus that is summarized in Fig. D.7. The undergraduate student population is generally the most diverse ethnically and the faculty the least diverse. The UC/UCSC defined goal for new enrollments of African-American students is 7.9 percent compared to actual enrollments equivalent to 2.1 percent of freshpersons and 2.9 percent of undergraduates. For Chicano students, the goal is 15.9 percent compared to enrollments of 9.8 percent of freshpersons and 9.0 percent of undergraduates. For Latino students, the goal is 3.4 percent compared to 4.0 percent of both freshpersons and undergraduates. With the exception of the target for Latino students, we are far from reaching these goals.

Figure D.7 includes fall 1992 entering freshpersons (1718 individuals), total fall 1992 undergraduate enrollment (9264), fall 1992 graduate students (908), staff as of 10/92 (1596), and faculty as of 7/92

178 Note that staff and faculty ethnicity varies substantially by program or rank, a variation that cannot be discerned from the group totals presented here.
(436). Where necessary, groups counted separately in some constituencies (e.g., Chicano and Latino) have been combined to facilitate comparison to constituencies where they are classified as a single group (Hispanic). The horizontal lines in the bars for student groups divide Chicano (below the line) from Latino (above the line) and Asian American (below the line) from Filipino (above the line).

Figure D.7.

Percentage of Individuals from Ethnic Minority Groups for Various Campus Constituencies

Representation by gender varies considerably among the various campus constituencies as well. Undergraduate students in fall 1992 were 57.3 percent women and 42.7 percent men, while graduate students were 46.1 percent women and 53.9 percent men. These proportions varied substantially by division and by major subject within divisions. Staff members at all ranks were 60.8 percent women and 39.2 percent men, with large and systematic variation by level from a low of 16.7 percent women in the executive program to a high of 63.5 percent in the staff program (which accounts for two-thirds of all staff). Faculty members at all ranks were 28 percent women and 72 percent men, with variation by rank (with women more heavily concentrated in the lower ranks) and by division. To some extent, the distribution by rank within both faculty and staff is a function of the recent focused affirmative
action efforts and may prove partially self-correcting with time. Nonetheless, the overall figures give some indication of the magnitude of the gap yet to be overcome.

CONCERNS

Our efforts to evaluate diversity raised a number of concerns. It is clear that the definition of an appropriate vision of diversity for an institution such as ours is problematic. Reaching a consensus on such a definition will require that we define the long-term institutional responsibilities that such a vision implies. The extent to which changes in immediate recruitment strategies can influence the composition of campus populations is limited by the eligible pools in the relevant category. This limit on what short-term efforts can achieve, however, points to the importance of establishing longer-term goals for increasing campus diversity. For example, if Chicano students are underrepresented in the institution due, at least in part, to lower rates of UC eligibility among Chicano high school graduates, what role should UCSC play in raising this group's eligibility rates? The fact that lower UC participation rates by underrepresented students will impact faculty composition as much as ten to twenty years in the future gives the institution a powerful motive to assume a more proactive stance.

We encountered expressions of concern that the institution pays more attention to recruitment of individuals representing diverse groups than to their retention and successful career development, whether that career is the progress of a student toward a degree, of a staff member toward professional accomplishment, or of a faculty member through the ranks. A related concern arose about the nature of "success" here or about "who fits in." Others asked whether the institution has correctly defined "success" in its diversification efforts, has managed to create a climate of tolerance and mutual respect, and has moved toward a positive celebration of a more diverse population. It seems that UCSC, like society more generally, has yet to devise ways of evaluating diversity that will prove meaningful to its many constituencies.

CONCLUDING REMARKS AND FUTURE EFFORTS

Despite the concerns mentioned above, UCSC has made substantial progress in diversifying the campus since the last review. It is also gratifying to report that a number of changes are under way. Some had already been undertaken at the time of the Steering Committee's formation; others have since been initiated in response to draft versions of this report. For example,

- The new payroll system will enable tracking of faculty career progress in the future.
- The "data warehouse project" will coordinate information from units all across campus and make it far more accessible to the community at large.
• The self-study's discussion of undergraduate diversity raised issues about the progress toward degree of special action admission students which current data were inadequate to address; this has led to a proposal to track such students that has recently received UOP funding.

• An external evaluation of many of the campus units which implement diversity programs at UCSC was undertaken during the late spring of 1993 (report submitted but not yet available publicly).

• The Immediate Outreach area of SAA/EOP was transferred to Admissions Outreach. The focus will remain the same, but now efforts can be combined to increase diversity.

• The campus has initiated several new programs for staff and faculty diversity. In 1993-94, all search committee chairs are being briefed by Academic Personnel and Affirmative Action on principles and procedures for fair hiring and affirmative action. The Senate Affirmative Action Committee is initiating a study of women and minorities who have left the campus in the last ten years to identify problems affecting retention. The campus is exploring procedures for identifying board-by-board underutilization.

• Human Resources has reinstated a Staff Development and Training program which is expected to have a positive effect on upward mobility and retention of underrepresented groups. A pilot talent identification and career development program targeting women and ethnic minority staff began in late 1993. Although staff reductions severely curtailed diversity education programs for staff, Chancellor Pister has given a one-time grant to support a year-long, part-time internship program for four staff to become trained as Diversity Educators for staff audiences.

All of these steps can be expected to improve the effectiveness of the institution's efforts in this vital area.
REFLECTIONS ON THE ACCREDITATION PROCESS

This document reflects an experiment, jointly undertaken by WASC and UCSC, to re-invent certain aspects of the accreditation process. The shared intention of the two institutions has been to increase the weight assigned to the goals of assessment and self-improvement relative to the objective of certification. In the spirit of self-study, thus conceived, this campus has already identified and taken steps to address a number of issues that were identified over the past year. A few words on each may help demonstrate how, even in advance of the external review team's visit, accreditation has begun to influence policy and practice at UCSC.

Special Admits
The Steering Committee's examination of statistics relating to undergraduate student diversity revealed that, despite this campus's relatively heavy reliance on special admissions of students (many from underrepresented groups), the form in which data are recorded makes it difficult to track this population in a systematic fashion. Specifically, this has meant that academic progress and outcomes cannot be compared with appropriate reference groups over time. In response to this oversight, a proposal was drafted in the spring of 1993 requesting funds from the Office of the President for the development of a long-range tracking system for all undergraduate students that would make it possible to monitor the progress of special admit students over the course of their entire UCSC careers. The funds, which have now been approved for this project, will also be used to add student-level information to the data set on curricula that is planned as part of the "data warehouse," an integrated system that will assemble statistics on most aspects of the campus's organization.

Faculty Careers
The Steering Committee's efforts to understand retention and career development, particularly among women and minority faculty, revealed that data are typically unavailable except by reading individual files. A new tracking system has been developed that will use payroll status to monitor the progress of all faculty in the aggregate, including the number of years spent at each step and rank.

Ambiguous Titles and Organizational Structures among Research Entities
In addition to the categories of research organizations recognized campuswide and systemwide (e.g., FRAs, ORAs, ORUs, and MRUs), the research section of the self-study unearthed several others whose activities and constitution were less clearly delineated. The General Catalog lists them under such titles as "programs," "centers," "facilities," and "FRGs" (Focused Research Groups). Although a number of these appear to represent productive and creative ad hoc arrangements among faculty, the informal appropriation of titles has produced a bewildering array of loosely defined entities. In some
cases, formal titles are being inappropriately used for informal arrangements. In many instances, reporting relationships and mechanisms of accountability are left unspecified. The connection of such groups to the campus’s academic and research objectives often remains ambiguous. The campus administration proposes to address these issues over time by using campus and external review procedures to clarify the role of such informal groupings and to guide them, where appropriate, in the direction of the recognized categories of research activity.

General Education
The Committee on Educational Policy (CEP), which has authority over the content of the undergraduate curriculum, reviewed an early draft of the general education section of this self-study. Its discussion of that document led to a call for further analysis of how students are satisfying their general educational requirements. As a by-product of this discussion and inquiry, during the fall quarter of 1993 the CEP established a subcommittee which will provide regular and ongoing oversight of issues of general education. It will review general education courses with the largest enrollments and those few that satisfy three GE requirements.

New Policy for Review of Catalog Copy
The self-study process indicated that, despite the questions raised at the time of the 1986 WASC review, the UCSC General Catalog still contained several misleading or ambiguous statements. This situation resulted in part from the mixed objectives which the catalog serves as an instrument of outreach to the general public, as a source of information for members of the UCSC community, and as a document of record. In a time of budgetary stringency, the problem of providing accurate and up-to-date information becomes both more critical and more difficult. As a result, a new procedure for the review of all catalog copy was developed. It provides for meetings among representatives from the Office of Public Information, the Office of the Registrar, and the Office of Planning and Budget. Their responsibility is to scrutinize all contents, verify their accuracy and candor, and resolve differences of interpretation among the many units across this campus which participate in the creation of this document. The result of the deliberations of this group is then submitted to the Associate Vice Chancellor for Undergraduate Affairs who has final authority in case of disagreements. The process worked well enough in its first year of implementation that there has been some thought of extending it to other campus publications.

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180 This information, provided by the campus Office of Planning and Budget, has since been incorporated into this self-study. See Undergraduate Education Reference 31.
181 See also Standard 1.C.1.
Suggestions for Further Experimentation with the Self-Study Process

This campus applauds WASC for its openness to change and renewal within the accreditation process. Although direct comparisons with previous reviews are problematic (and though it will always remain difficult, irrespective of the procedure, to motivate most members of a university community to take a direct and vital interest in this time-consuming activity of self-examination), this study's focus on issues that are widely seen as being of moment for this campus at this juncture in its development has clearly increased the legitimacy of the eight-year review. The UCSC experience, nonetheless, suggests two points which WASC may wish to consider as it contemplates the possibility of further modifications in its practices:

- The Steering Committee experienced a tension, perhaps unavoidable, in attempting to define the status of the self-study report itself. To what extent was it to be a descriptive characterization of the state of the campus which others might use to identify existing problems? To what extent was it instead intended to be a prescriptive document which might point in the direction of specific changes in campus policy? To what extent was it to be a visionary statement, looking forward to what the university could or should become? For the most part, the present UCSC self-study has limited itself to the first of these aims. The ambiguity among them might be lessened if WASC and the campus administration were to provide an explicit charge to the Steering Committee in advance of its deliberations. Based on our experience, however, we must underscore that the new process almost unavoidably exacerbates the usual ambiguity over who constitutes the proper audience for an accreditation self-study—WASC versus the UCSC community, let alone the review team and the general public—and therefore over the expectations which might be attached to it.

- In the case of UCSC, the considerable effort of substantively examining a variety of campus-specific issues (which constitute the focus of the new-style self-study) has been added on top of a somewhat streamlined but still onerous response to the standards set forth in the WASC Handbook. Though this "compliance section" (as we have come to refer to it) has concerned the Steering Committee far less than in the normal process, it still represents a significant distraction and, for the many members of the campus community who are asked to provide information and draft text, a diffusion of effort. Furthermore, the rationale for this compliance section is inevitably in conflict with the intention and motives which lie behind the new style of accreditation. For both practical and symbolic reasons, therefore, it seems important to reduce to an absolute minimum the time and effort devoted to the formal standards, in order to harness them instead to the goal of self-improvement. A campus might be asked, for example, to respond only to those standards (identified in advance) about which questions had been raised at the time of the previous review, and those to which its response would have been different at the time of the previous review because changes in local policy or practice have subsequently intervened.

Despite such qualifications, UCSC's investment in the process of self-study has already begun to pay returns in the form of the kinds of changes outlined above. We are confident in the expectation that these will be compounded through the on-campus debate over the draft self-study, the visit of the distinguished external review team that WASC has recruited, and the formal accreditation report that will culminate this process. This institution is proud of the cooperative and productive relationship it has forged with the Western Association of Schools and Colleges and looks forward to seeing this
collaborative experiment to advance the goals of higher education brought to a successful conclusion.