

CHAPTER FIVE: CHALLENGES FACING UCI

MANAGING ENROLLMENT GROWTH

California is in the midst of dramatic changes—educational, economic, demographic, and social. To carry out its mission as a public research university, to meet the changing needs of the California and national economies, and to continue to provide access for a growing population of high school graduates, the University of California must increase enrollments. Growth in both graduate and undergraduate enrollments is essential to the University's mission as a public research university. Each student population is essential to this mission. Considering them together allows us to craft the essential balance that produces the instruction and research commitments to the State's citizens.

In 1988, The Regents of the University reviewed a long-range enrollment plan that was intended to prepare for the enrollment of undergraduates and graduates through the year 2005-06. While the underlying population dynamics changed significantly enough to justify a revision that was presented to the Regents in 1995, the 1988 Plan (and 1995 modification) created a structure that still guides the UC system's planning today.

Enrollment is determined by campus capacity and student demand, moderated by eligibility conditions for admission set forth in the California *Master Plan for Higher Education*. UC Irvine's enrollment is forecast to increase by 11,900 students over the next 10 years as indicated in the chart below.

**University of California, Irvine
Budgeted FTE Enrollment Growth through 2010-11**

2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	Increase 2000-2010
15,700	16,800	17,800	18,700	19,600	20,500	21,400	22,300	27,600	
	1,100	1,000	900	900	900	900	900	900	11,900

GRADUATE ENROLLMENT ISSUES

At the broadest level, there is the question of the distribution of growth between graduate and undergraduate students. The Office of the President's growth plan for UCI reflects an increase of about 200 graduate students per year (of the 900 or more new students). The underlying decision for the campus is whether this is an appropriate proportion of graduate students. There are related issues raised elsewhere in this self-study regarding the distribution of graduate students across academic programs, across Ph.D. versus professional degree programs, versus master's degree programs, and so on.

As undergraduate enrollments continue to increase, more graduate students will be needed to enable UCI to recruit and retain the highest quality faculty, maintain the high level of University research productivity, and preserve the overall research environment that characterizes UCI at both graduate and undergraduate levels. While graduate enrollments are determined by workforce needs, program and student quality, and resources for program and student support, it is important that the benefits to the University's missions which are provided by graduate students, once they are admitted, also be emphasized.

The quality of the University's teaching and research programs is dependent in large measure on the quality of its faculty. High-quality faculty are attracted to UCI by the opportunity to teach and work with excellent graduate and undergraduate students, and they rely on graduate students as apprentices and colleagues in conducting research. Graduate students are a critical part of the research teams that have enabled UCI to attain the highest levels of research excellence and productivity; without them, the faculty's ability to secure extramural funding and produce research would be weakened. Graduate students are often faculty members' only true colleagues in specialized subfields. Therefore, recruitment of high-quality graduate students is critical to the University's teaching and research programs.

Graduate Students Support Undergraduate Programs

Graduate students contribute to the climate of discovery, excellence, and excitement that defines both undergraduate and graduate education at the University. As teaching assistants, graduate students enhance UCI's undergraduate instructional mission by leading small discussion groups and laboratory sections, under faculty supervision. In large-enrollment courses, these discussion groups give the whole class a cohesion and energy that might otherwise be difficult to achieve. The presence of graduate students makes it possible for UCI to offer undergraduates a wider range of perspectives and delivery modes. Graduate students also often mentor/train individual undergraduates who are enrolled in individual research projects (199 courses). Graduate students, especially women and minority students, often serve as mentors for undergraduates from those groups, encouraging such students to pursue advanced education.

Graduate Students Support Research Programs

Graduate education contributes significantly to the research that fuels new businesses, enriches society and contributes to our quality of life. Most Californians recognize that research conducted in the UC system plays a critical role in the economic growth, medical breakthroughs, and scientific advances that improve individuals' lives, as well as in helping us to understand and enhance our society, culture, and the life of the mind. However, what is not always appreciated is how central graduate education is to university research. According to the Association of American Universities (AAU), "To a far greater extent than in other countries, graduate students contribute to the creativity and productivity of U.S. academic research . . . In this country, graduate education and research are conducted in the same place by the same people, and both activities are enriched by their fundamental interconnections" (Richard Attiyeh in testimony submitted to the U.S. House of Representatives Committee on Education and the Workforce, Subcommittee on Postsecondary Education, Training, and Life-Long Learning, June 17, 1997, on behalf of the AAU and other associations).

Quality of Graduate Student Applicants

Applicants for admission to graduate study at UCI must apply for acceptance into a specific graduate program to work toward an advanced degree. Applicants may apply to only one program at a time. A general requirement for admission is that the applicant hold the degree of Bachelor of Arts, Letters, Philosophy, or Science (or an acceptable equivalent) from a recognized academic

institution. A scholastic average of B (3.0 on a 4.0 scale) or better is required. Individual graduate programs may have special requirements for admission. The requirements for admission to post-baccalaureate-degree study leading to California education credentials are the same as the general requirements for admission to graduate degree programs.

Each applicant's file is evaluated by the admissions committee of the specific graduate program on the basis of such factors as academic subject preparation, scholarship, letters of recommendation, test scores, and examples of previous work. A critical question is whether or not the applicant's academic objectives can reasonably be satisfied by a graduate program offered at UCI. The University of California does not have the capacity to accommodate all applicants who meet the minimum admission requirements.

Financial Support for Graduate Students

Excellent graduate students are also in demand. While the excellence of the programs is a major draw for good students, adequate financial support is also a prerequisite. To attract high-quality students in a competitive environment, and to facilitate the timely achievement of their degrees, UCI must ensure that financial support is available in adequate amounts, appropriate forms, and for a period of years appropriate to each student's program of study.

Financial support for UCI's graduate students is available through the following major sources: teaching and research assistantships, full or partial fee remission, merit-based and diversity-based awards, and need-based financial aid. Prospective graduate students are encouraged to apply for support from all

potential sources, since award packages frequently are the result of a combination of multiple fellowship types. In certain fields, individual extramurally funded fellowships are available on a competitive basis. The type of aid and its duration can matter as much as the amount. Doctoral students, because of the length of time involved in attaining their degrees, need multiyear support that is closely tied to their learning experiences.

Fellowships are an especially important element of support. In 1998-99, UC Irvine provided \$9,655,000 in Fellowship awards to assist graduate students. Master's students in shorter-term professional programs, many of whom are entering well-paying fields, can and are willing to take on greater amounts of debt while they are in school. However, it is important to be sensitive to the increasing debt burden borne by students in professional programs, which has doubled in the past decade.

Financial support for students who are not California residents presents a special problem. If UCI is to attract the nation's and the world's very best students, it must find ways to make competitive offers. In the past decade, nonresident tuition has doubled. These large tuition increases have had a disproportionate impact on graduate education because a higher fraction of graduate students than undergraduates are nonresidents, especially in their first post-baccalaureate year, and a higher fraction are dependent on student support fund sources. These sources, however, are not growing as rapidly as the fee increases. In addition, support of foreign students requires payment of nonresident tuition for several years. This hampers UCI's ability to enroll foreign students. This problem is acute in programs such as foreign languages, in which native foreign language speakers are integral to the program.

Ad Hoc Study Group for Graduate Education

The UCI Academic Senate has taken a proactive role in addressing the various issues that are crucial to increasing the enrollment of the highest quality graduate students. In June 2000, the Senate Chair convened an ad hoc study group to provide recommendations related to enhancing graduate student recruitment, retention and support. This group is chaired by the Senate Chair and consists of representatives of the Graduate Council; the Council on Research, Computing and Library Resources; the Council on Educational Policy; the Council on Rights, Responsibilities and Welfare; and the Council on Planning and Budget. The Vice Chancellor for Research/Dean of Graduate Education serves as an ex officio member. The study group is charged with assessing the current status of existing graduate programs, graduate recruitment and graduate support; with identifying areas of concern for further study; and with evaluating the role of new graduate programs as UCI continues its intensive growth. The group anticipates providing its report during the 2000-01 academic year.

UNDERGRADUATE ENROLLMENT GOALS

Capacity/Demand

The UCI Enrollment Council, comprised of faculty and administrators, annually reviews campus enrollment figures and offers a recommendation to the Executive Vice Chancellor on the sizes for the upcoming freshmen and transfer classes. In planning for the 1999-2000 entering class, the Council recommended that, at the freshmen level, UCI seeks to enroll the highest academic quality applicants

without regard to academic unit distribution, except in units where there are limits on capacity. This represented a change from earlier practices where more attention was given to the balance among certain units. The Council also recommended that new transfer students be permitted to enroll in the winter quarter (traditionally the campus had admitted new undergraduates for the fall quarter only), in order to distribute enrollment growth over two quarters (fall and winter). This directive responded to interests external to the campus, which are promoting a strengthened community college transfer function.

In the early 1990s, UCI was able to offer admission to nearly every UC-eligible applicant who applied to the campus at both the freshmen and advanced standing levels. Since 1995, however, admission has become increasingly selective, particularly at the freshmen level and in certain academic disciplines: for example, Biological Sciences in the mid-1990s and, more recently, Engineering and Information and Computer Science.

Eligibility

The *Master Plan for Higher Education* stipulates that the University of California draw from a pool of applicants who comprise the top eighth of California's graduating public high school seniors. At the advanced standing, or transfer, level priority for admission consideration is given to applicants who are California Community College students. Responsibility for defining UC eligibility has been delegated by The Regents to the faculty of the University.

The Board of Admissions and Relations with Schools, a committee of the University's Academic Council with a faculty representative from each UC campus, determines admission criteria Universitywide. Within this broad framework, the Committee on Admissions and Relations with Schools on each campus determines local selection policies.

Campus guidelines for the implementation of University policy on undergraduate admissions were reviewed in 1996. These guidelines incorporate important principles for a selective public institution: broad access, academic excellence, and flexibility in order to achieve enrollment goals. Together with the annual campus enrollment plan, these guidelines are used to select each year's incoming class.

Enrollment Growth

The recent projections of high school graduates from the California Department of Finance (DOF) have caused the University to reconsider the number of students UC may need to accommodate by 2010. At the present time, each UC campus has been asked to consider how enrollment on the campus might be expanded. Irvine designated by the Office of the President as a growth campus, will be expected to accommodate even more undergraduate students than appears in the campus's Long-Range Development Plan. This will have implications for campus programs, distribution among majors, and facilities, including classroom space and student housing.

The growth in undergraduate education anticipated for the UCI campus between 2000 and 2010 provides exceptional opportunities for strategic planning in the

distribution of students across programs and majors. Assuming the current Office of the President growth projections to be as high as 7 per cent per year, UCI should expect at least 900 new undergraduate students per year throughout this decade. It is also possible that UCI's growth will exceed this. A number of critical decisions should be made regarding the management of this growth.

At the undergraduate level, a first-order strategic decision has been made to focus more aggressively on transfer students than in the past. The primary criterion for selection in recent years has been student quality, as measured by an analysis of student's SAT I quantitative and verbal scores, and grade point average in UC-relevant courses. Variations on this criterion might place greater weight on a valued element, such as Verbal scores, GPA, or SAT IIs. It is clear that student quality will continue to be a powerful driver of any selection plan. At present, there is some inter-school variation in quality at UCI. Transfer students enroll most heavily in the School of Social Sciences, the School of Humanities and the School of Social Ecology.

A second factor that the campus continues to consider in admissions is student diversity, whether measured in socioeconomic, geographic, experiential or other background characteristics. The choices here are whether to emphasize specific factors, and if so, which ones and with what weight.

A third dimension relates to the demand for certain majors. One aspect of this demand is the majors that students desire to enroll in. Another aspect of demand for certain kind of majors comes from the State government and from employers. At present, that demand is particularly evident in computer science and some aspects of engineering, areas where the job market is extremely strong for

bachelor of science graduates. We know that this market will evolve over time, but the campus does have to take into account the expectations from the State and employers that these market needs should be considered to some extent. The demand for the most heavily enrolled majors reflects a combination of student interest, market conditions, attractive curricula, and other factors. The table below indicates enrollment by academic unit for 1999-2000 at UCI.

University of California, Irvine Headcounts by Academic Unit and Level Three-Term Average 1999-2000							
Academic Unit	Freshmen	Sophomores	Juniors	Seniors	Under-graduates	Graduate Students	TOTAL
Arts	171	190	219	318	898	109	1,007
Bio Sci	751	487	460	819	2,517	164	2,681
Education	0	0	0	164	164	35	199
Engineering	467	295	279	453	1,494	304	1,798
Humanities	206	240	338	532	1,316	327	1,643
ICS	355	237	219	337	1,048	168	1,216
Interdis Stud*	12	16	23	25	76	4	80
Management	0	0	0	0	0	864	864
Physical Sci	128	145	164	258	695	254	949
Soc Ecology	185	161	480	629	1,455	147	1,602
Soc Science	661	659	1,180	1,545	4,045	215	4,260
Unaffiliated	784	528	75	7	1,394	0	1,394
Total	3,620	2,958	3,437	5,087	15,102	2,591	17,693

Sources: Student Information System file and COM records third week, fall 1999, winter 2000, and spring 2000.

NOTE: New graduate Molecular Biology and Biochemistry majors are counted in Biological Sciences. Interdisciplinary Studies (African American, Asian American and Women's Studies) are part of the School of Humanities 2000-01 and thereafter.

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A second table provides information on instruction delivered in terms of student credit hours for 1999-2000.

University of California, Irvine Student Credit Hours by Academic Unit and Level Three-Term Average 1999-2000							
Academic Unit	Lower Division	Upper Division	Under-graduate	Graduate Level 1	Graduate Level 2	Total Graduate	TOTAL
Arts	8,333.70	5,695.80	14,029.50	1,352.00	0	1,352.00	15,381.50
Bio Sci	10,355.70	10,673.90	21,029.60	1,887.60	484.30	2,371.90	23,401.50
Education	353.33	2,411.30	2,764.60	1,645.00	18.30	1,663.30	4,427.90
Engineering	3,254.70	5,754.20	9,008.90	2,612.70	510.00	3,122.70	12,131.60
Humanities	34,155.30	9,798.00	43,953.30	2,799.00	1,020.30	3,819.30	47,772.60
ICS	6,650.00	4,286.00	10,936.00	1,806.00	340.70	2,146.70	13,082.70
Interdis Stud	1,744.70	1,157.70	2,902.40	69.30	17.30	86.60	2,989.00
Management	996.00	1,486.70	2,482.70	5,020.70	98.00	5,118.70	7,601.40
Phy Sci	31,216.00	4,574.00	35,790.00	2,306.30	1,195.30	3,501.60	39,291.60
Social Ecology	7,156.70	11,782.00	18,938.70	1,673.40	172.00	1,845.40	20,784.10
Social Science	34,315.30	24,720.30	59,035.60	2,098.70	585.10	2,683.80	61,719.40
Other	1,237.30	280.70	1,518.00	0	0	0	1,518.00
Total Campus	139,768.70	82,620.60	222,389.30	23,270.70	4,441.30	27,712.00	250,101.30

Sources: Student Credit Hours Report, fall 1999, winter 2000 and spring 2000
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In 1999-00, the 10 most popular majors were: Biological Sciences, 2,517; Information and Computer Sciences, 1,048; Economics, 1,027; Electrical and Computer Engineering, 855; Social Sciences (general), 821; Cognitive Sciences, 739; English and Comparative Literature, 650; Political Science, 574; Psychology and Social Behavior, 539; Sociology, 538.

There are interesting structural features regarding some of our most heavily enrolled majors that should be considered as the future enrollment plan is developed. For example, the very large number of Biological Science majors, one

of the largest in the country, has been mainly driven by students who hope to pursue a career in the medical/health professions. To respond to this specific circumstance, it would be possible to offer UCI students a minor or concentration in “pre-medical education” that would include all courses necessary for admission to medical school. If such a program were offered as an alternative to the current situation wherein only Biological Science majors can enroll in many of these pre-medical courses, students could be redistributed away from the Biological Science major itself. This might be appropriate if we determine that the proportion of students in the Biological Science major is too large to be manageable or desirable from the campus perspective. The student credit hour workload of Biological Science would only diminish somewhat under these conditions, but the pressure to service a very large number of majors with the available faculty would be reduced, and class size and even educational quality might improve. It also might align majors in Biological Sciences more closely with the research foci of many faculty.

The second largest major within a single unit is Information and Computer Science and that academic unit, together with the School of Engineering, is slated for even greater growth. The latter's growth is being driven by Electrical and Computer Engineering, the fourth largest campus major.

Economics, the third largest major, arguably includes many students who would prefer a business degree but do not have this option at UCI. The Graduate School of Management's (GSM's) minor in Management is being revised and expanded so that it can be combined more effectively with a diversity of majors, from the humanities to the physical sciences. One benefit for GSM is that such an expanded minor will generate substantial undergraduate student credit hours to

justify new faculty FTE (since the Office of the President's plan limits growth in faculty FTE for GSM). One potential advantage for UCI is that the enhanced minor in Management may bring UCI very good students who currently choose not to come here because of the absence of a business major.

The fifth largest major at UCI, Social Science, is not a common major at the national level. In the quite popular School of Social Sciences, this is the single largest major in terms of B.A. degrees awarded. The major has been improved in recent years through the addition of four specific specializations (Multicultural Studies, Public and Community Service, Research and Analytical Methods, and Social Studies). It remains, however, a rather broad and somewhat unfocused program, which is the responsibility of no particular department. It would be interesting to assess student satisfaction with this and many other majors, both during the students' period at UCI and, more importantly, at some point after they have completed their undergraduate degree.

The sixth largest major is the Psychology major offered by the Department of Cognitive Sciences in the School of Social Sciences. If the Psychology major offered in that School were combined with the Psychology and Social Behavior major (the ninth largest major at UCI) offered by the School of Social Ecology, the result would be a large number of students majoring in some aspect of psychology—indeed, the second largest group of undergraduates on campus. The differentiation between these two majors is generally clear to each participating faculty group, but it is less obvious how clear the differences are for students, and particularly for those students who select one of these two majors before they actually enter UCI. It is worth exploring whether the two tracts should be articulated and distinguished more clearly from each other, or whether those

teaching in the two tracts should be encouraged to collaborate more fully in order to provide a single, more comprehensive major with alternative emphases.

Nearly half the undergraduates in the School of Humanities are majors in English, the seventh largest major on campus (with 10 times the enrollment of the Comparative Literature major, housed in the same department).

In comparing UCI's array of majors to those on other campuses in the UC system, there are only a few striking differences regarding the most popular majors. Two of the campuses have very strong biochemistry programs, although it may be that UCI students interested in biochemistry select either Biological Sciences or Chemistry as their major here, or decide to double-major in both. (In fall 1999, 53 students enrolled as double majors in Chemistry and Biological Sciences. In spring 2000, there were 71 such double majors.) Two of the campuses also have very strong Sociology majors, an area where UCI is now developing strength and where majors have been growing significantly in recent years.

Another strategic question for the campus is whether to invest resources in majors that are perceived to be very important directions for academic undergraduate education in the future. That is, are there "21st century majors" that UCI should establish and develop? Many interesting new majors could emerge through the combination of existing or emerging disciplines. Recent UCI initiatives in certain areas, such as Biomedical Engineering, Digital Arts, and Earth Systems Science are examples, as are Bioinformatics, Materials Science, and so on. Several existing majors seem to have a 21st century major quality. One is Information and Computer Science, a major whose growth seems to be limited only by the capacity of the faculty and by facilities, since the students applying for this

program reflect the highest quality (measured by their SATs and GPAs) on the campus. Another new-century major is International Studies, newly offered by the School of Social Sciences, which has already attracted some 400 students.

An orthogonal issue is the question of timing in the declaration of major. There has been a historical tendency at UCI to encourage freshman students to arrive with a declared major. Yet we know that many high school students are unprepared to make an appropriate choice of major, in part because they are not familiar with all the majors offered at the University and in part because they might benefit from testing their own abilities and interests against the array of actual programs on the campus prior to selecting a major. Among recent UCI students, there has been a relatively high rate of change of majors. The rate seems to vary substantially from school to school, but it is possible to conclude that, in many areas, between 30 percent and 70 percent of the students actually change not only majors but the school in which their newly chosen major is offered.

Many other universities, including some of the most prestigious campuses in the UC system, not only discourage students from choosing their major prior to arrival but preclude that choice for most students. At UCI, the “Undecided/Undeclared” (U/U) category for freshmen and “Unaffiliated” for sophomores constitute our normal options for a student who does not yet opt to select a major. In recent years, the number of freshmen students applying to UCI in the U/U category has consistently been larger than that for any school and these U/U students have usually constituted the largest or second largest freshmen cohort (almost 25 percent of our new freshmen). Programming has been implemented to provide the U/U students in fall and winter quarters with two-unit courses which offer extended orientation to the campus. They also receive three

quarters of mandatory advising by faculty and academic counselors and other services intended to assist the students in adapting successfully to UCI and selecting a major by the end of their freshman year.

Establishing New Majors/Minors

Planning for new majors is typically a bottom-up process, propelled by faculty interest. Changes in a discipline, or a perceived new demand by students, leads a faculty group to propose a new major first to their colleagues in the department and school, and eventually to the Academic Senate for approval. The process of winning approval and funding for a new major within a single department or school is always arduous, but at UCI, which is organized around a series of more-or-less autonomous schools, the process of promoting an inter-school major is particularly difficult. Women's Studies, now a successful major, took years of planning among several schools and programs before it moved from status as a minor to a major. Only the determination of a few faculty kept the new major on track as it made its way through the system. The rigorous review of proposed new majors and minors is necessary to ensure intellectual integrity and careful financial planning, but it can also discourage inventive thinking about the future, especially the planning of inter-school majors in a climate that currently encourages each school to protect its "turf."

Occasionally, what might be called a top-down model of winning support for a new major has been successful. The popular East Asian program in the School of Humanities (now encompassing Asian American Studies, Chinese/Japanese Language and Literature, and East Asian Cultures) was encouraged from the outset by a forward-looking administration that saw the advantages of such a

program in a university whose students were increasingly interested in and connected to the Pacific Rim. The program was approved more quickly than most, and has thrived.

Improving the Quality of Undergraduates

Beginning with the fall 1996 admission cycle, the unprecedented increase in freshmen applications provided the campus with an opportunity to be more selective. The GPAs and average SAT scores of admitted students improved modestly with each successive entering class. At the same time, the number of students admitted in exception to published admission requirements decreased. Revised campus selection criteria, first implemented for the fall 1997 entering class, called for a comprehensive review of all applicants using academic, co-curricular, or experiential skills, knowledge, and abilities which, when taken in concert with the academic profile, provide the most comprehensive view of an applicant's potential for success at UCI. The Committee on Admissions and Relations with Schools stipulated that the first 60 percent of the fall 1997 and subsequent entering classes be selected on academic criteria alone and the remaining 40 percent be selected on a combination of academic and personal factors.

Although the classes admitted using the new guidelines have not yet achieved graduation, there is evidence that the recent freshmen classes are achieving academic success. The first-year continuation rates of each class since 1995 have been the about same as the UC average, or slightly above it. A validity study conducted on the class which entered fall 1997 indicates that, on average, students are finishing their freshmen year with a 2.85 GPA. And, anecdotal evidence

provided by faculty members suggests that the most recent cohort of entering freshmen appears to be more engaged in their learning and is more involved in the campus in general.

Recently celebrating its tenth anniversary, the Campuswide Honors Program (CHP) has been an important asset for enrolling a high-achieving student body. In addition to this program, many academic departments offer discipline-specific honors programs. Since 1995 the campus has implemented an aggressive strategy to expand the number of Regents' Scholars, the highest award given to an entering student.

Achieving Diversity

As a public institution, UCI embraces its responsibility to enroll a student body that encompasses the broad diversity of backgrounds of California including ethnicity, socio-economic, cultural, and geographic and age characteristics. Although the means and methods by which the University has approached this imperative have been altered in recent years by Regental mandates and State law, our view that California's diversity is an asset and that the University has an important role in training the leadership of a pluralistic society has not wavered. The design of the fall 1997 selection guidelines purposely incorporated principles that attempt to ensure consideration of a diversity of perspectives, experiences and talents. Specifically, in spite of the increased pressures for enrollment in recent years, selection criteria specify that the campus will select students from among *the entire range* of the top 12-1/2 percent (top one-eighth) of the students who constitute our applicant pool. In addition, the application of admissions principles allow for the selection of students on multiple criteria. Evidence of the success of

the new procedures can be seen in the number of underrepresented minority students who have been offered admission in the post-SP-1 and Proposition 209 era. Further evidence of the success of UCI's efforts includes the reduction in numbers of students admitted by exception, and the successful efforts to enroll underrepresented students in academic areas, e.g., science and technology, where their numbers have traditionally been low nationwide.

UCI's Center for Educational Partnerships was established in 1996 to pursue a sustained campus commitment to improving the quality of public education. UCI outreach takes three paths to achieve this goal: a focus on strengthening academic preparation, curricular enrichment, and professional development of teachers. In spite of our modest success in the post-Proposition 209 era, however, it remains a challenge to enroll underrepresented minority students, particularly African American and Native American students.

Approximately 30 percent of each entering freshmen class reports being the first generation in the family to attend a higher education institution. In addition, UCI has a large percentage of students on financial aid—in fact, the third highest percentage in the UC system, behind only UC Riverside and UC Davis. UCI also has the second highest percentage of UC students on federal grants and the largest percentage of Cal Grant recipients of any of the UC campuses. These grants are awarded on the basis of need and academic merit, reflecting the high number of low-income, high-achieving students who enroll at UCI. One challenge the campus faces in light of our constituency is to monitor the income and aid data on a regular basis to ensure that low-student-income UC campuses, like Irvine, are treated fairly in the annual UC aid allocations.

UCI is quite possibly the most culturally diverse university in the nation. The linguistic background of our students provides a different measure of cultural diversity. For most of the decade about 35 percent of new freshmen reported that their first language was a language other than English; an additional 30 percent indicated that they were raised bilingually. The remaining 35 percent were raised speaking only English. Most recently, however, there has been a marked decrease in the percentage of students for whom English was not a first language. In fall 1999 the number fell to 22 percent of the new freshmen; an additional 38 percent were raised bilingually and 40 percent spoke only English at home.

Traditionally, California residents have comprised 97 percent of the students enrolled on the campus, with the remaining 3 percent comprised of out-of-State residents or international students. UCI enrolls the majority of its students from Los Angeles County and Orange County. In recent years—as the reputation of the campus has become better known and widespread, and recruitment activities have been broadened to focus on different regions in the State—UCI has experienced increased enrollments from Riverside, San Bernardino, San Diego, and the Bay Area counties. In addition, UCI has made a concerted effort to reach out to high schools and colleges in California's San Joaquin Valley.

UCI primarily serves a traditional-age student body. According to recent data, the average age of UCI undergraduates is 21. A variety of services are available for older students, however, including housing for students over the age of 25 and childcare services.

Upper-Division to Lower-Division Ratio

California's *Master Plan for Higher Education* suggests that each UC campus maintain a 60:40 percent ratio of upper-division students to lower-division students. In 1998-99, UCI's student body was 58.8 percent upper-division students, very close to what the Master Plan specifies. UCI is a growth campus and we are admitting as many qualified transfer students as are in the applicant pool. Outreach efforts to prospective transfer students have been expanded in recent years and appear to be bearing some fruit. For example, the number of transfer students applying for fall 1999 was 4,952 compared to 4,244 for fall 1998. In addition, the campus seeks to enroll additional transfer students during the winter quarter. The reality of enrollment growth, however, is that the pressure for access is most severe at the freshman level.

Transfer Student Issues

At the transfer level, admission to UCI was competitive throughout the 1990s. During the mid-1990s the campus began to reduce the number of lower-division students (students entering with less than 56 transferable semester units) in favor of students who had completed 56 or more transferable units. For the class entering in fall 1998, new UC guidelines were implemented which stipulate that all transfer students must complete at least 60 transferable semester units and a strengthened pattern of academic course work in order to be eligible for admission to the University. In addition to the basic UC-eligibility requirements, many of UCI's academic units now require completion of specific course work as preparation for certain majors. The average GPA of entering transfer students has consistently been a 3.0 or higher, and very few students are admitted by exception

to the UC transfer requirements. Performance data on enrolled transfer students suggest that these students perform on par with native students. Data collection and analysis continues on this significant cohort of undergraduates.

Value of Residential Experience

The small-scale buildings that comprise UCI's residence halls provide excellent opportunities for social interaction, student government, and leadership experience. Each hall has distinctive characteristics and often focuses on a specific interest or life-style such as the arts, the humanities, the outdoors, or student diversity. UCI's residence halls house approximately 2,500 single undergraduate students under the age of 25. Each hall houses one student Resident Assistant and from 40 to 60 students.

Expanding On-Campus Housing Opportunities

It is important to note that the achievement of the housing targets in the UCI Long-Range Development Plan is shaped primarily by two facts: first, the target itself, which is to house on campus 40 percent of the UCI student population, and, second, the fact that Housing is a self-sufficient auxiliary service of the University of California. The first statement speaks for itself. The latter statement means that the housing operation on campus operates totally on student rents. There are no "subsidies" from any other fund source, including Registration Fees and Legislative allocations. All the expenditures (including interest and principal payments on the construction bonds sold to pay for building the facilities) must come from student rents. In this sense, the housing operation is a business. The only major difference is that its budgets do not include a profit.

Under these circumstances, four factors must be addressed in any discussions regarding expansion:

- Demand—Because Housing is a self-sufficient auxiliary enterprise, there needs to be demonstrated sufficient demand for its product in order for new projects to be financially possible.
- Costs—The costs associated with new construction, both those of the construction itself and the cost of the money (interest rates) needed to finance the construction, must be explicitly factored in.
- Off-Campus Housing Stock—It is important to assess off-campus housing availability and rental rates in the immediate area of the University.
- Financial Viability—Weighing the three factors above, will UCI be able to build residential facilities that can be marketed effectively and rented successfully?

Because of these foregoing issues, constructing housing to reach the LRDP targets is a delicate process. If UCI overbuilds, money will be siphoned from the academic mission of the campus. If UCI underbuilds, it will not be successfully solving the demands and needs of its students.

Two concepts which have had a major impact on the recent dialog about future housing are density and third-party construction. Each of these can have a major impact upon the four issues enumerated above. The decisions around density boil

down to the maximum use of land versus construction of facilities that students will desire to live in. The product density that attracts students is no more than 3-4 stories. With land in Irvine being limited and worth \$700,000 per acre (1999), the arguments are clear. With respect to the third-party development concept, there are tradeoffs as well. Private development projects (constructed outside of the University procedures) can be built significantly less expensively than purely University projects.

Financial Aid for Undergraduates

UCI provides both need-based financial aid and merit-based scholarships as an integral part its enrollment management efforts. Over \$120 million in need-based aid is provided annually to UCI students from Federal, State, institutional, and private sources. As part of a comprehensive scholarship program to enhance student recruitment, retention, and success, over \$5 million is awarded each year to UCI undergraduates by the Office of Financial Aid and by UCI academic units.

The University of California recently adopted a new financial aid policy, the Education Financing Model (EFM), the focus of which is on providing enough financial aid to maintain the accessibility of the University to all students. As implemented at UCI, the EFM focuses on supporting undergraduates as a partnership among the student, parents, Federal and State governments, and the University. Student aid packages consist of a family (parent and student) contribution, a loan and work expectation, any Federal and State grant funding for which the student may be eligible, and University grant funding in the form of Grant-in-Aid awards. In 1998-99, UCI awarded over \$12 million in Grant-in-Aid awards to UCI undergraduates in addition to loans, Work-Study, and Federal and

State grants. As part of the EFM partnership, students are offered support to fund their entire cost of education. Loan counseling is provided to all financial aid recipients, and extensive new programs are under development to counsel students on managing their finances both as undergraduates and as they enter their careers and undertake repayment of educational loans.

As part of a comprehensive undergraduate student recruitment strategy, each year UCI offers merit-based scholarships to over 1,700 freshmen applicants. Scholarships are offered as part of a multi-level approach that seeks to improve student quality while maintaining the diversity of our undergraduate student population. For 1999-00, UCI has implemented several new undergraduate scholarship programs which will contribute significantly to managing the growth of UCI's student body in coming years. Undergraduate scholarship programs will continue to help ensure the development of an appropriate student body in accordance with campus goals, and are an important focus of campus external fund raising efforts. In cooperation with the Academic Senate, the Office of Financial Aid administers UCI's undergraduate scholarship program.

Off-Campus Learning Opportunities

The UC's Education Abroad Program (EAP) offers students the opportunity to experience a different culture while making progress toward degree objectives. EAP is an overseas study program which operates in cooperation with about 100 host universities and colleges in some 35 countries throughout the world. Each year between 100 and 200 UCI student participants interested in the

language, literature, art, culture, history, government, or social institutions of the countries where EAP study centers are located have the opportunity to gain substantially from first-hand academic experience. Classes in the natural and physical sciences, engineering, and computer science are available at many prestigious host institutions. Full credit is granted for courses satisfactorily completed, and courses are recorded on official UC transcripts. Financial aid eligibility is maintained.

The UC's new UC/DC Washington Center Academic Program enables participants to gain a behind-the-scenes look at the activities that shape and implement the nation's future course, through participating in internships, taking elective course work, doing research, and participating in cultural, social and creative activities. Situated in Washington, D.C., the program is open to students in all majors through a competitive application process. In fall 1999, eight students participated and in spring 2000, 15 enrolled. Students earn 12 to 16 units of course credit, and continue to be registered as full-time UC students. Financial-aid eligibility is maintained. Students live in UC-arranged housing together with students from all the participating UC campuses, providing a social and intellectual community throughout the quarter.

Year-Round Operations

In view of the prospect that the UC system may shortly be obliged to enroll substantially larger numbers of students, each campus has been asked to consider how more intensive usage of campus facilities during the summer months might contribute to meeting this challenge. At UCI, the Executive Vice Chancellor charged the Academic Senate to form a study group to consider this

issue, to help formulate a basis for Senate input into the process of planning for accelerated enrollment growth.

The study group made several recommendations for improving summer session productivity under the current model, including the following:

- Academic units should be encouraged to start their three-quarter (A-B-C) sequence courses at least twice during the year so that B and/or C segments could be completed in the summer session.
- Year-to-year consistency of Summer Session offerings is essential. The Summer Session workload should be included with workload generated during the fall, winter, and spring quarters as one of the bases for decisions about faculty FTE, TA FTE and budgetary support awarded to the units.
- UCI should allow ladder faculty to fulfill some of their academic year teaching responsibilities during the Summer Session.
- The Executive Vice Chancellor should consider using some or all of the Summer Session earnings to encourage more productive use of the campus facilities in the summer.
- The campus should initiate a systematic and scientifically based effort to gather information on to understand what UCI students think about the Summer Session and the ways that it could be made most useful to them.

Further recommendations for improving Summer Session productivity, if additional support for the Summer Session is provided by the State, include:

- Subsidies for classes taught by regular ranks faculty so that it would not be necessary to collect the full costs of instruction through student-paid Summer Session fees.
- State support of Summer Sessions could be used in part to guarantee that courses were staffed to the standards of the regular academic year.
- State funds designated to encourage more summertime use of the campus could be made available to provide appropriate financial aid packages for Summer Session students.
- State funds directed toward expansion of summer usage of campus facilities might be used in part to create financial incentives for academic units to participate.
- Supplemental State support of Summer Session might be used to facilitate a merger and/or better integration of such Summer.
- Session administrative functions as admissions, registration, and catalogue publication with the corresponding operations for the regular academic terms.