Linguistics at UCSC is a relatively small department (10 FTE) with a focus in theoretical linguistics, overseeing two undergraduate programs (Linguistics and Language Studies) and two graduate programs (the M.A. program and the Ph.D. program in theoretical linguistics). It has a very articulated curriculum with multi-quarter course sequences of phonology, semantics, and syntax at both the undergraduate and the graduate levels. The ten ladder faculty members in Linguistics are all tenured Full Professors, with research and teaching specializations in one of the core areas of theoretical linguistics (phonology, syntax, or semantics). The National Research Council ranking in 1995 recognized the UCSC linguistics department as one of the top ten linguistics graduate programs in the U.S. in scholarly quality and in effectiveness of teaching Ph.D. candidates. Our undergraduate program has been evaluated as one of the best linguistics undergraduate programs in the country by past external reviews, and our majors are routinely admitted to the most prestigious linguistics graduate programs.

The department continues to be stretched very thin in terms of curricular coverage both at the graduate and undergraduate level due in part to the heavy service commitments of the faculty members. Many of them continue to be called on for important campus committees and administration, with the result that we provide a disproportionate amount of campus-wide service, compared to most other departments on campus. The linguistics curriculum is chronically understaffed, even though we carry a heavy course load (the latest published figure of 4.6 courses per FTE is the highest in the Division). These overloads of service and teaching cannot but adversely affect the research productivity of the department as a whole.

We are committed to maintaining the high profile and quality of both the graduate and undergraduate programs, but also recognize that protecting and fostering faculty research
is absolutely essential in pursuing this goal. Below we sketch a realistic plan of how this can be achieved in the coming years of campus growth and development.

2 Faculty growth

We do not expect the department to grow to a substantially larger size. The relatively small number of devoted faculty has been largely responsible for the success and the coherence of both our graduate and undergraduate programs, and we do not wish to endanger this by radically changing the nature of the department composition. However, considering the rate of campus growth, in order to maintain the status quo it is crucial that we attain a 20% faculty increase to a stable size of twelve FTE by 2010-11.

We are currently conducting a tenure-track faculty search in semantics to be filled by July 1, 2006. This appointment replaces a faculty member, who has accepted a 100% time administrative appointment, and brings the size of the department back to 10 FTE. The department requests two additional FTE by 2010-11, and our preference would be to do the hirings as follows:

- 2006-07 FTE in experimental linguistics (connecting with psycholinguistics, experimental methods, language acquisition, speech perception, and neuroscience)
- 2008-9 FTE in computational linguistics (connecting with computer science, computer engineering, morphology, the study of the mental lexicon, music, and mathematics).

There is a clearly visible trend in the field towards a closer integration of theoretical and experimental work, broadly construed—including language processing, speech perception, psycholinguistics, and computational linguistics. In order to be able to maintain our position among the leading research institutions in theoretical linguistics, we need to hire in this area in the near future. What we are looking for is someone with a strong empirical and/or quantitative focus creating a bridge to related disciplines. It is also crucial that the new hires not be isolated within the Linguistics Department in terms of research and teaching interests.

A hire in experimental linguistics would immediately further the goal of interdisciplinary research, and provide an angle for collaboration with Psychology and Computer Science. A more experimental focus in the department also promises to bring in external funding to a significantly larger extent than can be envisioned with our current theoretical focus. This would also be beneficial for those of our graduates (from our undergraduate and graduate programs) who seek employment in industry: Of the jobs suitable for linguists, many, as in speech recognition and synthesis, require some kind of experimental or computational training. With these hires, we will be able to enhance the linguistics curriculum in such a way that future graduates will have an even better edge in the competition for industry jobs.
Finally, the field has seen a gradual shift towards the experimental and empirical (data-oriented) side during the last decade, and the most exciting and innovative research is found in these areas. Although some of us have started doing research in these interface areas, all our faculty have their primary training in theoretical linguistics. Given this reorientation of the field at large, there is a growing danger that we will not be producing work at the forefront of research. It is therefore imperative that we enrich our department as soon as possible with new colleagues with training and expertise in experimental work, who can help raise our collective level of expertise, both among the graduate students and the faculty.

3 Academic Programs

3.1 Graduate Programs

Both the MA and the Ph.D. programs will continue to have a primary focus in the core areas of theoretical linguistics (phonology, syntax, and semantics), but with extensions in areas involving quantitative/experimental methods, such as computational linguistics, phonetics, psycholinguistics, and acquisition. As noted above, this anticipates that more of our graduates will be hired by industry, and that scholarly trends will continue to move towards interdisciplinary research.

*Graduate student enrollment.* Linguistics currently has 27 graduate students, and our goal is to increase this number by 2010-11 to a total of approximately 35 students (10 MA students and 25 Ph.D. students).

The MA program is already maximized in terms of student number (five 1st year students, and five 2nd year students), and further increase in MA student number is neither expected nor planned. We do not feel that we can increase the MA population any further without sacrificing the quality of the program.

Given the funding and faculty workload considerations, the maximum manageable size of the Ph.D. program is around 25 students. The Ph.D. program usually admits about 4 students per year, but we hope to increase that number to about 6, anticipating a faculty of 12 (two additional FTE). With expected attrition rates (taking into consideration those students leaving the program with a terminal MA), this should lead to 3-4 Ph.D.s granted every year. The current job market makes it reasonable for us to expect that about half of our Ph.D.s will go on to academic positions and the other half to non-academic research positions in industry.

The major challenge we foresee in maintaining the quality of the Ph.D. program is in the area of graduate student recruitment. In recent years, we have found ourselves competing for a handful of truly qualified students with the most prestigious and best-funded programs in North America (MIT, the University of Massachusetts at Amherst, Rutgers,
Stanford, UCLA). The department has done well in this competition, but our ability to continue to do well depends (i) on the availability of recruitment resources, and (ii) on our ability to create the kind of interdisciplinary environment that the strongest students now seek. These concerns have informed our thinking about the areas of the new additional FTEs as outlined in the previous section.

We note that our request to increase the size of our department to 12 FTE in no way makes the UCSC linguistics program large in comparison with our competitor institutions. Within this group, we have been the smallest for the last decade. In fact, all others have grown in recent years, while our program has remained stagnant at a size of 10 reached in the early 90’s. UMass/Amherst, the next smallest, is currently 12, and has authorization to hire two additional faculty this year to become 14. Therefore, even when we increase our faculty size to 12, we will still be the smallest among our competitors. Although we are confident that we can successfully compete being the smallest program of its kind, we do need to cross a minimum threshold in size in order to even be a player in attracting the most highly qualified graduate student applicants.

3.2 Undergraduate Programs

Linguistics sponsors two undergraduate majors, Linguistics and Language Studies. The two majors share a common goal, namely, to gain a firm foundation in the study of language. The Linguistics major focuses on linguistic theory and the structure of language in general, and the Language Studies major focuses on the structure of particular languages and their cultural contexts. Students in both majors receive a rigorous and coherent linguistic education, and both have an excellent track record of admission to linguistics graduate programs and other related disciplines. Linguistics majors have always gone on to the most prestigious linguistics graduate programs. More recently we have seen a steady rise in the academic quality of the Language Studies majors, and we now see Language Studies majors being admitted to the same highly-rated graduate programs both in the theoretical and the applied fields.

Undergraduate Student Enrollment. According to the Instructional Load Summary, our undergraduate enrollment already showed an increase by 40% in 2003-04 (i.e., significantly above the 29% division-wide increase during the same period), and all indications on class size point to an even higher increase for 2004-05 and 2005-06.

Undergraduate majors. At the time of the External Review (2002-03), the number of majors in Linguistics and Language Studies was 158, and according to the latest figures, these two majors now number 434 (declared and proposed), the third largest in the Division (after Literature and History). This increase in both enrollment and majors has become a serious workload issue in the department. The increase in number of majors is particularly work-intensive for the faculty because the majors need to satisfy the senior exit requirement (theses or projects). Whereas regular courses can be taught by temporary
lecturers and graduate student teaching fellows, senior theses/projects can only be supervised by the regular linguistics faculty members.

Without faculty growth, any further increase in the number of our undergraduate majors will jeopardize the quality of the program and lessen the faculty commitment to the undergraduate program that is so vital to its current success.

3.3 Summer Session

Given faculty workload considerations (graduate student advising in qualifying and dissertation committees), spreading the current linguistics faculty evenly over four quarters is not an option for us at present. However, with adequate resources (in particular, with staff and faculty growth), it is conceivable that in any given year up to two faculty members could have an off-cycle teaching schedule (such as Summer-Fall-Winter). For us, the main attraction of more regular offerings in the Summer Session is the possibility of additional summer TA funding for graduate students, because we sometimes lose our top graduate applicants to other institutions offering financial packages that include summer funding.

4 Interdisciplinary Endeavors

The proposal to develop a Center for Mind and Language (CML) was endorsed by CPB in 2001 (CPB Report on Executive Summaries of 10 Year Plans, May 21st 2001: p. 17), an endorsement which, we believe, remains in force. Given the direction in which the Linguistics Department hopes to develop (in cognitive and experimental areas), it makes sense to continue this effort in one form or another (either by reviving the RU under IHR auspices, or by proceeding directly to set up the CML). Activity is unfortunately stalled at present, one reason being the departure of faculty members in Philosophy, but more decisively because Linguistics is stretched too thin to actively pursue the project with our current faculty members. Continued divisional endorsement in general will be helpful in launching the project in the near future, and the new hires will enable us to work towards a humanities-centered cognitive science initiative, connecting our department more closely with Philosophy in the Humanities, as well as with Psychology and Computer Science on the campus at large.

In the meantime, we have initiated interdisciplinary collaborations with colleagues in Engineering on a smaller scale —sponsoring colloquia and joining forces in obtaining electronic language resources from the Linguistics Data Consortium for the McHenry Library. On-going computational linguistic projects at UARC at NASA Ames have also provided our graduate students with research assistant opportunities in the development of spoken dialogue systems (designed to guide astronauts aboard the international space station through complex procedures) and in a multilingual spoken language translation system tailored for medical domains (designed for situations where no common language between the diagnosing doctor and the patient exists).
Within the Division, we believe that closer interaction among the graduate students in Linguistics and Philosophy would be of intellectual benefit to both. Besides affiliated faculty members and cross-listed courses, the most visible of our current ties with Philosophy is the SCLL (Santa Cruz Language and Linguistics Group), an interdisciplinary reading group comprised of faculty members and graduate students from philosophy and linguistics, and its Distinguished Visitor Series sponsored by the Institute of Humanities Research. The general focus of SCLL is in the areas of formal semantics, philosophy of language, and philosophical logic. Specific topics of discussion have included the semantics of vague predicates, the semantics-pragmatics distinction, scalar implicature, and the content-force distinction for questions. If Philosophy chooses to increase its strength in philosophy of mind and/or philosophy of language, even closer programmatic interaction of our faculty and graduate students with theirs is certainly conceivable and desirable.

Another important point of contact for us is with the Language Program. Beyond our current curricular ties with the Linguistics and Language Studies major, we are looking forward to increased collaboration with the faculty whose interests lie in the areas of language structure, instructional methods, and language technology. In addition, both the undergraduate and graduate programs would benefit from more offerings in a broader array of languages, and we would strongly support such expansion of language instruction, in particular so as to include languages spoken by large numbers of speakers in the area, such as Arabic, Cambodian, Hindi, Korean, Persian, Swahili, Tagalog, Thai, and Vietnamese.

5 Resources and Infrastructure

5.1 Extramural support

As is true for all theoretical research, funding is difficult to obtain for theoretical linguistics. Given the department's almost exclusively theoretical orientation, our level of external funding has been high in the past. The linguistics faculty have been successful in securing National Science Foundation grants in one form or other: as two- or three-year research projects, as support for conferences and workshops, and as funding for dissertation research. We anticipate the new hires in experimental and computational linguistics to be able to raise further funds for graduate student RA support, since in these applied areas funding is in general more generous, and more accessible, than in strictly theory-oriented research.

Linguistics is beginning to play a significant role in the emerging market for voice and language technology. Companies developing and marketing such technology are a significant source of employment for our graduates. We have now placed B.A., M.A., and Ph.D. graduates in H5 Linguistic Technologies, General Magic, BeVocal, TellMe,
Microsoft, and a number of other such companies. Together with the Division’s development office, we are currently exploring strategies for using these connections to open up a different source of external funding for research.

One of our future goals is to establish semi-permanent postdoctoral fellow positions funded with soft money, partially building on external grants. The presence of such postdoctoral fellows conducting cutting-edge research would invigorate the intellectual atmosphere in the department, provide fresh perspectives and breadth, and at the same time enhance relations with other disciplines.

5.2 Space configuration and needs

Apart from two faculty offices in Cowell College, all other parts of the department are consolidated in a part of Stevenson College: administrative offices, eight faculty offices, department library, speech lab, common room, and offices for advanced graduate students and research visitors. The remaining graduate students, including M.A. students and Ph.D. students who have not yet advanced to candidacy, have their workspace (carrels, computing facilities, and seminar room) in the basement of the Stevenson College Library. This graduate space is highly functional, but unfortunately already occupied beyond capacity, with most carrels shared by two students. Any growth in the graduate program will be unsustainable with the current space resources.

Office space for our international visiting scholars continues to be insufficient, with the result that faculty members often share their offices with visitors. Rather than assigning spatially segregated office or research space in the new Humanities building, it would make most sense if a minimum of three more offices could be dedicated in the earthquake-retrofitted Stevenson College for the use of Linguistics visiting scholars and postdoctoral fellows. With the planned faculty growth, we would also need offices for the new ladder faculty members located within the Stevenson Linguistics corridor complex.

5.3 Staffing needs

We currently manage a complex departmental operation with a research center and four academic programs (two undergraduate and two graduate) with only three part-time staff, equivalent to 2 staff FTE. The Department Manager is assistant to the Chair, manages the department's administrative functions, the curriculum planning, the graduate program and academic personnel, and supervises the other two staff members. The Undergraduate Advisor manages the administration of the two undergraduate programs (Linguistics and Language Studies) and serves as staff coordinator for the two undergraduate majors. The Research Assistant manages the department's research functions, including externally funded projects, publications, colloquium and conference organization, and assistance to research visitors and postdoctoral fellows.
At a time when almost all aspects of our program are growing, as outlined above, and more and more work (e.g. AIS and graduate applications) is decentralized and assigned to the departments, staffing is already stretched beyond the limit, and we foresee serious problems in the near future. The additional burden of a fourth quarter summer session, and the complexities involved in managing future liaisons with industry, will also result in the need for increased staff assistance. We foresee a need for an additional 25% in overall staff FTE for the department to absorb the workload increase (i.e., from the current 2.0 staff FTE to 2.5 staff FTE).

An adequately equipped speech lab is becoming increasingly important for faculty members and graduate students with research interests in experimental methods. Some of the top graduate applicants in previous years have chosen to go elsewhere because of the perceived lack of adequate resources of this kind. As we develop programs with an experimental focus, and recruit new ladder faculty in these areas, we also anticipate a growing need for the availability of technical support staff with training in speech technology. Such a staff member, standard in most linguistics (and language) departments, could be a valuable resource not only to our linguistics faculty in their research, but also be of assistance to Language faculty in developing course material with language and speech technology.

6 Concluding remarks

Until the anticipated new hire in semantics next Fall, fourteen years have gone by without Linguistics being allowed to recruit a new ladder faculty member. The current linguistics faculty members are an age group cohort who have worked together very well to build, in a relatively short time, a highly regarded linguistics program. While this is clearly one of the strengths of the department, it also means that the faculty as a group are fairly senior – ten Full Professors (the last hire was in 1992). This raises several problems as we look towards the future. First, without the infusion of younger researchers and faculty members in the department, we are in danger of losing momentum in research. Second, there is an ever-increasing age difference between graduate students and faculty members. This might not yet have affected student morale, but could potentially be a negative factor in graduate student recruitment in the future. A third point is even more worrisome: What emerges from projecting the retirements in Linguistics is that at some point we will need to replace most of the faculty members, some simultaneously and others in rapid succession, which will adversely affect the coherence and quality of both our graduate and undergraduate programs, and endanger the continuity of the whole enterprise. We hope that this will not be allowed to happen.

As we have tried to make clear in this document, the justification and rationale for the FTE increase, and the particular specializations of the future faculty members, do not flow from some single source, but are based on a multitude of interconnected factors:

- the recent shift in research orientation affecting the entire field of linguistics,
• current faculty overload in service and teaching,
• curricular needs at both the undergraduate and graduate levels,
• competitiveness in graduate recruitment,
• new interdisciplinary endeavors: division-internal (philosophy), campus-wide (psychology and engineering), and inter-campus (NASA Ames)
• the quest for extramural resources (NSF as well as industry)

Any one of these factors alone might already be a valid justification. In their totality, we feel, they make a compelling case for the new FTE positions.