Graduate and Professional Student Experience Survey 2005: General Report University of California, San Diego

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Foreword

The 2005 Graduate and Professional Student Experience Survey was designed and conducted by a handful of volunteers in an attempt to understand all aspects of graduate and professional student life at UCSD. This is the first survey of its kind on campus and one that we hope will be part of a long-term effort to improve the quality of graduate education.

This survey and summary report are intended to identify, in concrete terms, graduate and professional student perceptions of their social, emotional, and educational experience at UCSD. Thus, this report offers no specific recommendations; rather, it is descriptive and highlights novel findings as well as areas in need of improvement. It is our hope that substantive changes, where necessary, will be further investigated and proposed by the Graduate and Professional Student Experience and Satisfaction Committee (http://graduatestudentexperience.ucsd.edu)

With over 170 questions and 1,600 respondents, the survey contains a wealth of data of which only a portion is presented here. Researchers interested in further exploring and analyzing the data may contact Andrew Stringfellow (astringf@ucsd.edu).

I. Executive Summary

Introduction (Section II)

The Graduate and Professional Student Experience and Satisfaction Survey is the first comprehensive survey of the graduate and professional student experience at UCSD. It comprises 178 questions, and was administered in the spring of 2005. A very high response rate of 37.2% was obtained. Overall, the respondents to the Graduate and Professional Student Experience Survey provide a very representative sample of the student body. Thus, the response data are likely to be representative of the student body as a whole.

Respondents (Section III)

The graduate and professional student body at UCSD is quite diverse. Nearly two-fifths come from within California, and slightly more come from elsewhere in the US; nearly one-fifth received their previous degrees abroad. Over half of respondents enrolled in their programs within a year of completing their previous degree, while one-fifth waited two or more years before enrolling. The average age of students is about 28; although this varies by division of study, the overall average age for each division fits within a relatively narrow five-year band. Nearly three-fifths of respondents are single, while approximately two-fifths are married or otherwise partnered. As diverse as the background of graduate and professional students are their daily lives—the amount of time spent in class, in research, teaching, studying, writing, and working non academic jobs varies based on type and level of degree pursued. Further, for research doctorate students (the bulk of the student body and respondents to this survey), time spent on each of these varies by the year of study. Overall, then, the UCSD graduate and professional student body are quite varied in where they come from and in what they do while here.

General Results (Section IV)

General Experience

Overall, over two-thirds of graduate and professional students are satisfied with their academic experience at UCSD, and nearly two-thirds would again choose to attend UCSD. This is generally on par with other graduate institutions (Northwestern[1], Carnegie Mellon[2], Ohio State[3]), which range from 63-72% on similar measures; this is, however, markedly lower than overall satisfaction reported by undergraduates on UCUES (84%). However, only about half of graduate and professional students agree that UCSD has met their expectations. This fifteen-point discrepancy between overall satisfaction and programs meeting expectations may arise from much lower satisfaction with the social and cultural experience at UCSD: less than two-fifths find the social experience satisfactory, and less than one-third find the cultural experience so. Only about one-third feel a sense of belonging at UCSD, and fewer than one-third find sufficient opportunities for involvement on campus. Strikingly, only 10% of graduate and professional students feel a connection to the campus community, and nearly two-thirds (64%) do not feel a connection. This social satisfaction and connection/belonging are low in comparison to comparable survey: the undergraduate reports (UCUES) show a sense of belonging more than double the graduate rate; other graduate institutions (Northwestern, Carnegie Mellon, Ohio State, Stanford[4]) generally report social satisfaction in the 55-60% range—markedly higher than the 38% found at UCSD. Thus it is possibly the case that the somewhat negative "extracurricular" experience of graduate and professional students negatively impacts their overall UCSD experience.

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[1] Northwestern's Graduate Students: Perspectives on Academic and Student Life
(http://www.adminplan.northwestern.edu/ir/reports/grad99exec.PDF)
[2] Results of Graduate Student Survey—Spring 2000
(http://www.cmu.edu/adm/gpo/survey/results'00.html)
[3] The Graduate Quality of University Experience (G-QUE); (http://gradsch.osu.edu/Depo/PDF/GQUE/)
[4] Graduate Quality of Life at Stanford Survey
(http://gsc.stanford.edu/Advocacy/Surveys/GradQualityOfLife/)

Program Satisfaction

As above, students are generally satisfied with their academic experience at UCSD. However, sentiment is quite varied about specific aspects of the program environment. Most students find the working environment within their programs collegial, and most students understand what is required of them to graduate. Fewer than half feel their programs make a sufficient effort to foster a sense of community, and only 38% feel their programs provide an adequate social experience (on par with the overall satisfaction with social experience reported above)—and the majority feel a graduate student lounge area is important. Students generally find their programs less-than-flexible for personal responsibilities, and fewer than one-third find their programs encourage career diversity. Lastly, nearly half (46%) feel their programs do not allow sufficient student input into department decision-making (such as faculty hires and program requirements). As above, then, it appears that although graduate and professional students are academically satisfied, when it comes to "extracurricular" aspects of their training environment (funding, flexibility during study, career counseling, student input), there is room for improvement.

Mental Health

The state of mental health of graduate and professional students is somewhat poor. Nearly one-half of respondents are sometimes or frequently overwhelmed by stress, and over one-tenth may be experiencing symptoms of clinical depression. The biggest stressor is academic program, followed closely by the future/careers. Substantial numbers of students are also stressed by finances and "other" topics. Two-fifths of respondents have considered seeking counseling while enrolled in their programs, and nearly one-quarter have actually sought counseling (with nearly four-fifths of those who have sought counseling using Psychological and Counseling Services). The frequency with which graduate & professional students seek counseling is greater than the undergraduate rate—although the relatively poor state of graduate and professional student mental health is not surprising; indeed, it is quite commensurate with results reported by UC Berkeley in 2004[5].

Research Mentor Relationship

For students pursuing research degrees, the mentor relationship with their advisor is immeasurably important. 72.3% of survey respondents reported having a research advisor. Nearly three-fourths of respondents feel comfortable suggesting their own research directions to advisors, feel supported by labmates, feel their advisor values their work, and feel their advisor is available when needed. Somewhat fewer (63%) feel they receive sufficient feedback from their advisors. Overall, the results show that the majority of students are quite happy with the relationship with their advisors, and perhaps this explains in part why students report a relatively high degree of satisfaction with the academic experience at UCSD. It should be of concern, however, whether the nearly one-fifth of students who are dissatisfied with the mentor relationship are at special risk of attrition.

Differences in Experience (Section V)

Differences in UCSD experience were examined for eight different variables (division of study, degree sought, year of study, gender, ethnicity & citizenship, sexual orientation, disability status, and students with families; for more information, see *Appendix II*), and were calculated in five areas (general experience, program satisfaction, mental health, connection to UCSD, and, for those with research mentors, mentor relationship; for more information, see *Appendix III*).

Division of Study

There many reliable differences in student experience base on division of study (Arts, Biological Sciences, Engineering, Health Sciences, Humanities, IR/PS, Physical Sciences, School of Medicine/SOM, Social Sciences).

- Students in Arts & Health Sciences reported substantially higher satisfaction with their general experience at UCSD, and SOM students reported a lower satisfaction than others.
- Students in Arts, Humanities, and Social Sciences experienced more stress than their counterparts in other divisions; additionally, students in Biological Sciences also reported

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[5] Berkeley Graduate Student Mental Health Survey (http://www.ocf.berkeley.edu/~gmhealth/reports/)

somewhat elevated stress, although not so great as Arts, Humanities, nor Social Sciences students.

- Students in Health Sciences were by far the most satisfied with their academic programs, and students in Biological Sciences & IR/PS also showed high satisfaction; on the other end, students in Humanities, Social Sciences, and SOM showed relatively low program satisfaction.
- For connection, SOM and to a lesser extent IR/PS students felt less connected to UCSD than students in other divisions.
- For mentor relationship, Humanities and Arts students more satisfied (and Social Sciences students were marginally more satisfied overall as well), and Engineering students were least satisfied.

Degree Sought

There were several differences in experience based on degree level (doctorate[6] or masters[7]), and degree type (research[8] or professional[9]).

- For mental health, students seeking a professional doctorate reported significantly less stress about the future than any other degree type.
- There was a marginal difference in program satisfaction: overall, students seeking professional doctorates were least satisfied with their programs and masters students in professionally-oriented programs seemed most satisfied.
- For sense of connection to UCSD, research doctorate students reported a relatively higher sense of belonging (it should be remembered that overall, *all* graduate and professional students feel very disconnected from UCSD), and professional doctorate students reported an extremely low sense of connection to UCSD as a group.
- For mentor relationship, research masters students were less satisfied: for every question composing the mentor relationship factor, and they reported marginally lower satisfaction than doctorate students (time spent with advisor, advisor availability, sufficient feedback received, work is valued, comfortable suggesting research directions).

It is also possible to summarize the differences in experience by simpler variables.

- For mental health, students seeking research-oriented degrees experience more stress than students seeking professionally-oriented degrees.
- For connection, research students feel more connected to campus.
- For program satisfaction, research students are somewhat more satisfied than professional students.
- And for mentor relationship, doctorate students are more satisfied than masters students.

Year in Program

Quite clearly the experience of graduate & professional students changes over time (1st year, 2nd year, 3rd year, 4th year, or "nth" year).

- For general experience, 1st year students reported higher satisfaction than students in any other year of study.
- Regarding program satisfaction, 1st year students felt their programs fostered a greater sense of community and encouraged a greater diversity of career options than did later students.
- For connection, later students reported feeling more connected than junior students.
- There were also effects of year in program on mental health: later-year students experienced more stress about their future and finances.

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[6] PhD, DMA, & MFA, MD, EdD, & PharmD
[7] MA, MS, MAS, MBA, MEd, MEng, & MPIA
[8] PhD, MFA, MA, & MS
[9] DMA, MD, EdD, PharmD, MAS, MBA, MEd, MEng, & MPIA

Gender

Student gender showed two effects.

- First, male graduate and professional students reported a slightly better general experience at UCSD—a small, but reliable effect.
- Much more strikingly: for mental health, female students reported experiencing markedly more stress than male students. On further exploration, this effect held for every single mental health variable: stress due to academic program, finances, career/future plans, and other stressors, frequency of feeling overwhelmed, whether counseling was considered, and whether counseling was actually sought.

Ethnicity & Citizenship

Ethnic background[10] & citizenship[11] were reliably related to differences on all summary measures except mentor relationship.

- For general experience with UCSD, there was a marginally reliable difference: underrepresented minority respondents reported somewhat less satisfaction.
- For mental health, underrepresented minorities reported experiencing substantially more stress than white/Asian and international students; in fact, across-the-board, underrepresented minorities reported more stress about their programs, their future/careers, finances, and other topics, are more likely to feel overwhelmed, and are more likely than average to have considered seeking counseling).
- For program satisfaction, underrepresented minorities reported lower satisfaction than white/Asian respondents.
- For connection to UCSD, international students expressed a stronger connection than either white/Asian or underrepresented minority students (who did not differ from each other).

Sexual Orientation

To our knowledge, this information is not collected elsewhere at UCSD. Eighty-three (83) respondents (5.4%) identified themselves as gay/lesbian, bisexual, or otherwise claimed sexual minority status; if this trend holds across the student body, this extrapolates to 233 individuals.

For the summary factors, sexual orientation showed a single effect: for mental health, LGBTO students reported experiencing more stress than their heterosexual counterparts. LGBTO students experienced more stress related to academic program, finances, and "other" topics, reported feeling overwhelmed more often, and considered seeking counseling at a higher rate than their heterosexual counterparts.

Disability Status

Students with disabilities (physical or learning) represented 3.8% of survey respondents (59 people); this predicts that there are approximately 163 graduate & professional students with some form of disability. Although this information is ostensibly recorded by the Office of Students with Disabilities/OSD, it appears likely that the results of this survey provide a more accurate census of disabilities in the graduate & professional student population: only 42% of disabled students report that they have disclosed their disability to OSD, and only 43% report disclosing their disability to their program. All told, only 53% of students with disabilities appear to have disclosed their disability to either OSD or their program. It should also be noted that only 6% of students with disabilities were referred to OSD by their programs, and possibly as a result, only 50% of students with disabilities report that their disabilities have been accommodated.

There were three differences between students with disabilities and non disabled students on the summary measures:

- Students with disabilities reported experiencing more stress (which mainly seems to arise from stress due to their academic programs)
- Disabled students were marginally less satisfied with their general experience at UCSD

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[10] White or Asian US citizens & permanent residents vs. underrepresented minority US citizens & permanent residents
[11] Non US citizens or permanent residents

- Finally, students with disabilities were less satisfied with their programs (however, as students with disabilities are disproportionately distributed across division of study; when division of study is factored, the overall difference in program satisfaction is no longer reliable).

Students with Families

To our knowledge, this information is not recorded elsewhere at UCSD. One-hundred respondents (6.4%) reported having children; this predicts that there are approximately 276 graduate & professional students with children. Eighty-nine (5.7%) respondents reported having dependent children; this predicts 245 graduate & professional students have children at home. More than half of students with children reported their children were born during their course of study, over one-eighth of students have taken a leave of absence to accommodate family responsibilities, and over one-fourth have reduced their workload. Graduate & professional students do not utilize UCSD resources for students with families: fewer than 10% of students have utilized lactation or childcare facilities, and sizeable percentages of students are unaware of these resources, and very few students have used any Women's Center resources

There were two differences on summary measures between graduate & professional students with families, compared to those without; however, both of these effects are only marginal:

- Students with families report experiencing marginally more stress mainly due to marginally more frequent stress over finances, and significantly more stress over "other" topics. However, students with families are not evenly distributed across division, year of study, and degree sought; if all of these variables are controlled for, the difference in mental health between students with families and those without is eliminated.
- Students with children are marginally more likely to report a greater connection to campus; however, as with mental health, if all of the other demographic variables associated with students having families are controlled for, the effect disappears.

Focus on Mentor Relationships (Section VI)

Nearly three-fourths of respondents report a research mentor. If respondents are compared based on their overall mentor relationship, there are no demographic differences between those with an above-average relationship and those with a below-average relationship, indicating that the two groups are roughly comparable except for their mentor relationships.

When these two groups are compared for the quality of their UCSD experience, quality of the mentor relationship very strongly correlates with a neutral-to-negative UCSD experience, marked by general dissatisfaction, higher stress, and a greater likelihood of considering quitting.

Concretely, students with a below-average mentor relationship report less mentor "face time" (less than half has much), and less advisor availability, support, and feedback. This is despite the fact that nearly all of the students who report having asked their mentors for more feedback are in the "below average" group. There is also a marginal trend for students with a below-average mentor experience to be in larger-than-average labs. Finally, it is the case that students with above-average mentor relationships are more likely to be in programs where there is a means of evaluating research mentors.

Focus on Careers (Section VII)

Interest in non academic careers is widespread among graduate and professional students, with nearly three-quarters of all students considering various non academic career options. However, fewer than half of professional students feel their programs encourage career diversity. Fewer than one-third of research students feel their programs encourage career diversity, and more than one-third disagree.

The Career Services Center might be expected to alleviate this problematic situation, and it may for masters students, over half of whom have used CSC resources. Among doctoral students, however, fewer than one-third use any CSC resource—even those who are most dissatisfied with their within-program career resources. Overall, students are satisfied with CSC workshops, somewhat satisfied with CSC career advising and the CSC website, and neutral about CSC-organized job fairs.

It would appear then that for many students, career resources are a gap in their UCSD experience—in particular, the low use of the CSC by doctoral students, coupled with general

dissatisfaction of within-program career resources, may contribute to stress and dissatisfaction over time (and in part explain the high levels of stress reported related to academic program and the future/career).

Conflict (Section VIII)

An important but unpleasant reality is that people may experience unfair or unwelcome treatment. In this survey, 352 respondents (approximately 23%) reported experiencing some form of "unwelcome attention or unfair treatment." This predicts that 988 graduate & professional students in the whole student body would report experiencing some type of unfair treatment or unwelcome attention.

The most common type of conflict reported was gender/sexism (one-fourth of all "yes" responses, 6% of all survey respondents), with race or ethnicity and age-related prejudice each being selected by about one-eighth of those who responded "yes" (about 3% of all survey respondents).

Actually, the most frequently selected category was "other," chosen by 40% of those who responded "yes" (9% of the total survey respondents). This indicates that a large number of respondents were unable to classify their experience into an existing category. The descriptions entered by those who selected "other" showed two additional patterns: program or course-related conflict (typically relating to "unfair" grading or instructor expectations), and personal conflicts with advisors, other faculty members, or other students.

As above, conflict is a fact of life. While it would be desirable to eliminate such problems, realistically, that will not occur. It is important, however, that there are methods of conflict resolution if and when conflict arises. Of the 23% of students who experienced unfair treatment, over two-thirds did *not* seek assistance in dealing with the problem. Of the slightly less than one-third who sought assistance, fewer than half found sufficient help. Reasons given for not seeking assistance include thinking there was anything that could be done (31%), the problem not seeming important enough (30%); fear of retaliation (19%), and not knowing where to seek assistance (14%).

Retention (Section IX)

Another reality is that not all students who begin graduate and professional programs complete them. OGSR reports an attrition rate for graduate studies of 35%; in this survey, over one-third (36%) have seriously considered leaving or quitting their program of study. The most frequently given reasons for considering leaving were that program expectations were not met (40%), financial/funding concerns (34%), changes in career plans (33%), quality of advisor relations (32%). Large percentages of respondents also indicated that problems with their social life (26%) or an unwelcoming environment at UCSD (21%) provoked such considerations. At this point, these should all be unsurprising—each of these has been a recurrent theme in previous sections (and indeed, they played a major role in the general plan of this report).

Summary

Overall, this survey shows that graduate and professional students at UCSD are generally satisfied with their academic experience and training. However, only about half feel that UCSD has met their expectations. Possibly this differential occurs due to the general dissatisfaction with the social and cultural opportunities on campus, and an extremely low sense of connection to UCSD. While it could be considered that this poor "extracurricular" experience is part of the graduate student's lot, sentiment at UCSD is markedly lower than other graduate institutions.

Graduate and professional students experience a lot of stress, mainly due to academics and careers. Nearly one-fourth have sought counseling while at UCSD—a rate much higher than undergraduates. Thus, access to and use of counseling services should be of concern.

The UCSD experience differs along many variables. Of special note are that newer students generally have a more positive outlook on UCSD; and women, underrepresented minorities, disabled students, and LGBTO students experience markedly more stress than the norm. Further, there are many differences in student experience and satisfaction between divisions—studying these differences may highlight ways to address weaknesses.

Most students with research mentors are quite satisfied with these relationships. However, there are striking differences in student experience for those with below-average mentor relationships. Nearly every aspect of the student experience is severely and negatively impacted for these students.

I. Executive Summary

         A potentially surprising finding is that nearly three-fourths of students are considering non
academic careers. Yet, very few (as low as 28%) feel their programs encourage career diversity. While
some students take advantage of the Career Services Center, many do not, and among those that do,
satisfaction is not overwhelming. These could contribute to the generally high level of anxiety about the
future and careers which students experience.
         Almost one-fourth of students report having experienced some form of unwelcome attention or
unfair treatment, with sexism, ageism, and ethnic and cultural conflicts being the most frequent.
Additionally, a sizable number of students report course- or grading-related conflicts, as well as personal
conflicts with advisors, other faculty, and other students. Some of this is a fact of life; however, only one-
third of those experiencing conflict sought assistance, with most indicating they felt nothing could be
done, they feared retaliation, or did not know where to go for assistance. And among those seeking
assistance, only one half felt they received adequate help. There may thus be gaps both in awareness of
assistance and the quality of institutional assistance available in cases of conflict.
         Finally, over one-third of graduate and professional students have "seriously" considered quitting
their programs. The reasons they give are many and varied, but the most prevalent reasons are those
mentioned above: program expectations were not met, changes in career plans, quality of advisor
relations, problems with their social life, an unwelcoming environment at UCSD, and/or financial/funding
concerns. These have all been recurrent themes in this report. Hopefully, this report provides a
foundation by which these problems can be further investigated and addressed.

II. Introduction

  In the fall of 2004, the Graduate Student Association at the University of California, San Diego formed a Retention Committee. The mission of this Committee was twofold: identify reasons why nearly 35% of matriculated doctoral students do not complete their degrees [1], and find ways to improve retention of all graduate and professional students. The first issue that confronted this Committee was a lack of data on the graduate and professional student experience. Although there is an annual survey of the undergraduate experience[2], there had been no comprehensive survey of graduate and professional students. While there is a continuing effort by the Office of Graduate Studies and Research to survey students through its Exit Survey[3], this survey is relatively short, and is only completed by students who have successfully *completed* their programs. Indeed, the most recent survey that included *current* graduate and professional students at UCSD appears to be the 1997 Quality of Campus Life Survey[4], which included both graduate and undergraduate students. Thus, there was a need to acquire current and comprehensive data.

  Throughout the winter and first part of the spring quarters in 2004/2005, the Committee coordinated the writing of a new, comprehensive survey instrument. In total, 178 questions were composed. Some were adapted from existing surveys (e.g., the Survey of Earned Doctorates by the National Opinion Research Center at the University of Chicago, the NSF-NIH Survey of Graduate Students and Post doctorates in Science and Engineering, the Survey on Doctoral Education and Career Preparation prepared for the PEW Charitable Trusts[5], the University of California, Berkeley Grad Student Mental Health and the Graduate Student Mentoring surveys, the Association of American Medical Colleges Medical School Graduation Questionnaire, the previously mentioned UCUES and Quality of Campus Life surveys); some were inspired by education statistics provided by the Association for Women in Science; most were written de novo during the course of several meetings held by the Graduate Student Association and attended by staff from thirteen campus units and offices[6], with particular assistance from the Office of Graduate Studies & Research (OGSR).

DIVISION/SCHOOL	Total Population	Survey Respondents
Arts & Humanities	9.0%	7.6%
Biological Sciences	6.9%	7.2%
Engineering	23.5%	24.4%
Health Sciences	6.0%	8.4%
Joint Doctorate Programs/SDSU	3.0%	0.9%
Masters of Advanced Studies	1.2%	0.3%
School of Pharmacy	1.8%	1.3%
Physical Sciences	14.7%	15.4%
Rady School of Management	1.4%	0.3%
Social Sciences	20.9%	19.5%
School of Medicine	11.6%	8.2%
Unaffiliated	0.1%	
Declined/Other	0.0%	6.5%

Table II-1. Division/School

[1] Doctoral Completion and Attrition Rates for Entering Cohorts 1990-1991 through 1994-1995 (within 10 years) (http://ogsr.ucsd.edu/reports/graddata/04Fall/index.htm)
[2] The University of California Undergraduate Student Experience Survey/UCUES (http://studentresearch.ucsd.edu/sriweb/surveys/surveys.htm)
[3] The Survey of Earned Doctorates and UCSD Survey of Doctoral Degree Recipients; see http://ogsr.ucsd.edu/reports/graddata/04Fall for the most recent data.
[4] http://ugr8.ucsd.edu/sriweb/surveys/qualexec.htm
[5] At Cross Purposes: What the experiences of doctoral students reveal about doctoral education." By Chris M. Golde and Timothy M. Dore. January, 2001. A report prepared for The Pew Charitable Trusts, Philadelphia, PA.; www.phd-survey.org
[6] Including Career Services Center, Center for Teaching Development, Cross-Cultural Center, International Center, Center for Leadership-Engagement-Activism-Development!/LEAD!, LGBT Resource Center, Office for Students with Disabilities, Psychological & Counseling Services, Office of Sexual Harassment Prevention and Policy, Student Life, Student Research and Information, Women's Center

During the Spring quarter of 2005, all graduate and professional students at the University of California, San Diego were invited by e-mail to participate in the Graduate & Professional Student Experience Survey (GPSES). Of the total contacted enrollment of 4305 graduate and professional students (all were eligible to participate), 1601, or 37.2%, submitted completed surveys.

Compared to the total graduate and professional student body[7], the survey respondents presented a very representative sample. As can be seen in Table II-1 (previous page), the number of respondents from each division of study at UCSD very nearly approximates the actual population of graduate and professional students. Slightly fewer School of Medicine students responded than expected, as well as slightly more Health Sciences, Physical Sciences, and marginally more Engineering students.

As can be seen in Table II-2 (above right), there were somewhat more respondents who were seeking doctorate than expected (85.9% of respondents, compared to 76.1% of the student body). Most of these respondents were seeking research (as compared to professional) doctorates (75.6% vs. 10.4%). Of the respondents seeking masters level degrees, slightly more were seeking research degrees than professional degrees (7.1% vs. 6.6%). The tendency for doctoral students in general, and PhD students in particular, to respond at slightly higher-than-expected rates is mirrored in other, similar surveys[8]

Table II-3 shows that the year of study of GPSES respondents is very similar to that of the overall population, although slightly more 3rd year students and slightly fewer 1st year students responded than expected. As can be seen in Table II-4, there is a slight oversampling of females (47.2% of respondents, compared to 42.8% of the student body). This trend is also found in other similar surveys. Finally, as can be seen in Tables II-5 (right) and II-6 (next page), there were no apparent differences between citizenship of respondents versus the student body, nor between program of study versus the student body[9].

DEGREE sought	Total Population	Survey Respondents
Doctorate	**76.1%**	**85.9%**
Research *(PhD, MFA)*		75.6%
Professional *(MD, DMA, EdD, PharmD)*		10.4%
Masters	**23.9%**	**13.7%**
Research *(MA, MS)*		7.1%
Professional *(MAS, MBA, MEd, MEng, MPIA)*		6.6%
Declined	--	**0.4%**

Table II-2. Degree sought

YEAR in program	Total Population	Survey Respondents
1st	30.4%	26.5%
2nd	23.2%	23.4%
3rd	15.9%	18.2%
4th	13.3%	14.7%
5th+	17.3%	15.3%

Table II-3. Year in Program

GENDER	Total Population	Survey Respondents
Female	42.8%	47.2%
Male	57.2%	51.7%
Other/Declined	0.0%	0.3%

Table II-4. Gender

CITIZENSHIP	Total Population	Survey Respondents
US	81.3%	81.8%
International	18.7	17.7%
Other/Declined	0.0%	0.1%

Table II-5. Citizenship

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[7] In this section, all response rates were compared via chi-square analyses to their actual presence in the graduate & professional student population, according to UCSD data.
[8] For example, the Graduate Student Survey of Carnegie Mellon University (www.cmu.edu/adm/gpo/survey/results'00.html)
[9] Information on several other demographic variables (ethnicity, sexual orientation, disability status, family status of respondents) is presented in Section VII (Experience by Group) of this report.

II. Introduction

Summary

The Graduate and Professional Student Experience and Satisfaction Survey is the first comprehensive survey of the graduate and professional student experience at UCSD. It comprises 178 questions, and was administered in the spring of 2005. A very high response rate of 37.2% was obtained. Overall, the respondents to the Graduate and Professional Student Experience Survey provide a very representative sample of the student body. Although there are slight differences along certain lines, these differences are small in magnitude, and generally in line with surveys done by other graduate institutions. Thus, we believe the response data herein are representative of the student body as a whole.

Program/Department	Total Population	Survey Respondents
Anthropology	1.3%	1.9%
Audiology	0.1%	--
Bioengineering	3.0%	3.9%
Bioinformatics	0.8%	--
Biological Sciences	6.2%	7.2%
Biomedical Sciences	3.3%	4.0%
Chemical Engineering	0.4%	0.2%
Chemistry	4.9%	4.7%
Clinical Psychology	1.3%	0.8%
Cognitive Science	0.9%	1.8%
Communications	0.9%	1.2%
Computer Science	6.3%	7.2%
Economics	2.1%	1.6%
Electrical Engineering	8.2%	7.4%
Ethnic Studies	0.8%	0.4%
History	1.6%	1.8%
IR/PS	6.1%	3.4%
Lang. & Comm. Disorders	0.4%	0.6%
Latin American Studies	0.6%	0.7%
Linguistics	0.5%	1.1%
Literature	2.3%	1.5%
Masters of Advanced Studies	1.2%	0.1%
Material Sciences	1.1%	1.3%
Mathematics	2.1%	1.8%
Mech. And Aero. Engineering	3.2%	2.6%
Molecular Pathology	1.2%	1.2%
MSED	0.1%	0.2%
Music	1.3%	0.9%
Neurosciences	1.6%	2.2%
Pharmacy	1.8%	1.3%
Philosophy	0.8%	1.1%
Physics	2.6%	3.3%
Political Science	2.1%	1.9%
Psychology	1.3%	1.9%
PUBL	0.5%	0.1%
Rady	1.4%	0.3%
SIO	5.2%	5.5%
Sociology	1.0%	1.6%
SOM	11.6%	8.2%
Structural Engineering	1.9%	1.7%
TEP	3.2%	1.9%
Theatre and Dance	1.5%	1.2%
Unaffiliated	0.1%	--
Visual Arts	1.5%	1.1%
Other/Declined	--	6.8%

Table II-6. Program of Study

III. Student Profile

One of the goals of the survey was to gain a more complete perspective of graduate and professional students-- to try to "fill in" some gaps. By asking questions that aren't typically asked, and by focusing on data that is typically acquired but only infrequently presented, we hoped to better answer a couple questions about graduate and professional students at UCSD: Who are they, and what is their life like while here?

Who are graduate and professional students?

Education, pre-USCD

As part of the UC system, UCSD strives both to serve the needs of California residents and perform research and provide training of an internationally-recognized caliber. To get a better picture of the background of students (to see, generally, if they moved to California for UCSD, or if they were in California prior to pursuing their graduate studies, Respondents were asked where they obtained their secondary and post-secondary education. As can be seen in Figure III-1, approximately one-fifth of graduate and professional students received their high school education abroad, and slightly less than one-fifth received their undergraduate degree abroad. Nearly two-fifths of graduate and professional students attended high school in California, and very slightly more received their undergraduate degrees in California. The largest proportion of respondents, slightly more than two-fifths, received their high school and undergraduate education domestically but outside of California.
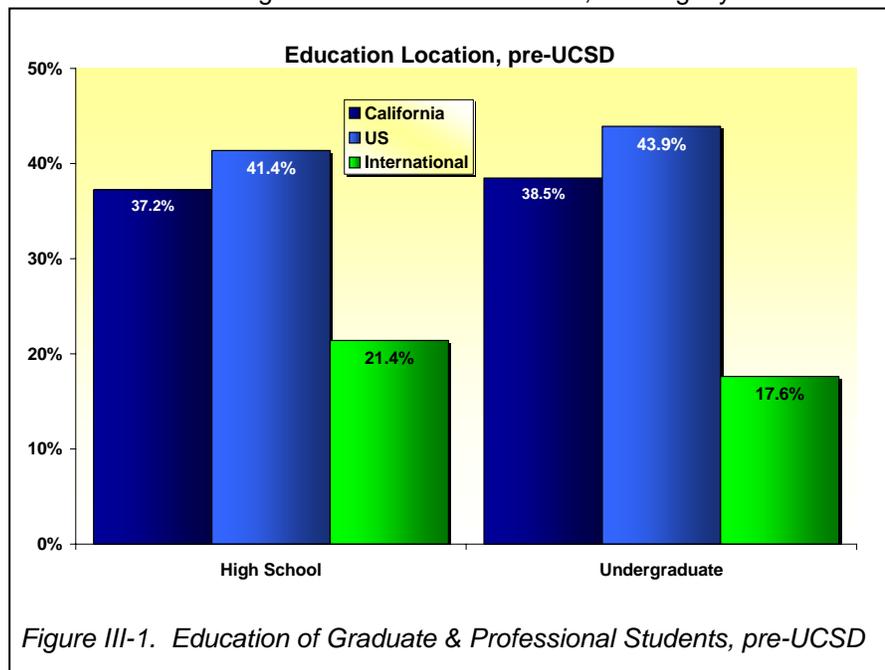

Figure III-1. Education of Graduate & Professional Students, pre-UCSD

Time elapsed between studies

How long did students wait before pursuing their graduate education? Respondents were asked the number of years elapsed between their previous and current degree programs. As can be seen in Figure III-2 (next page), slightly more than half of graduate and professional students appear to have enrolled at UCSD within one year of their previous degree program, and nearly a quarter waited less than two years before enrolling at UCSD. Slightly under 15% took several years (less than five), and only about 6% had more than five years between their previous degree program and UCSD enrollment.

Years Elapsed Between Degrees

Figure III-2. Time between previous degree & enrollment at UCSD
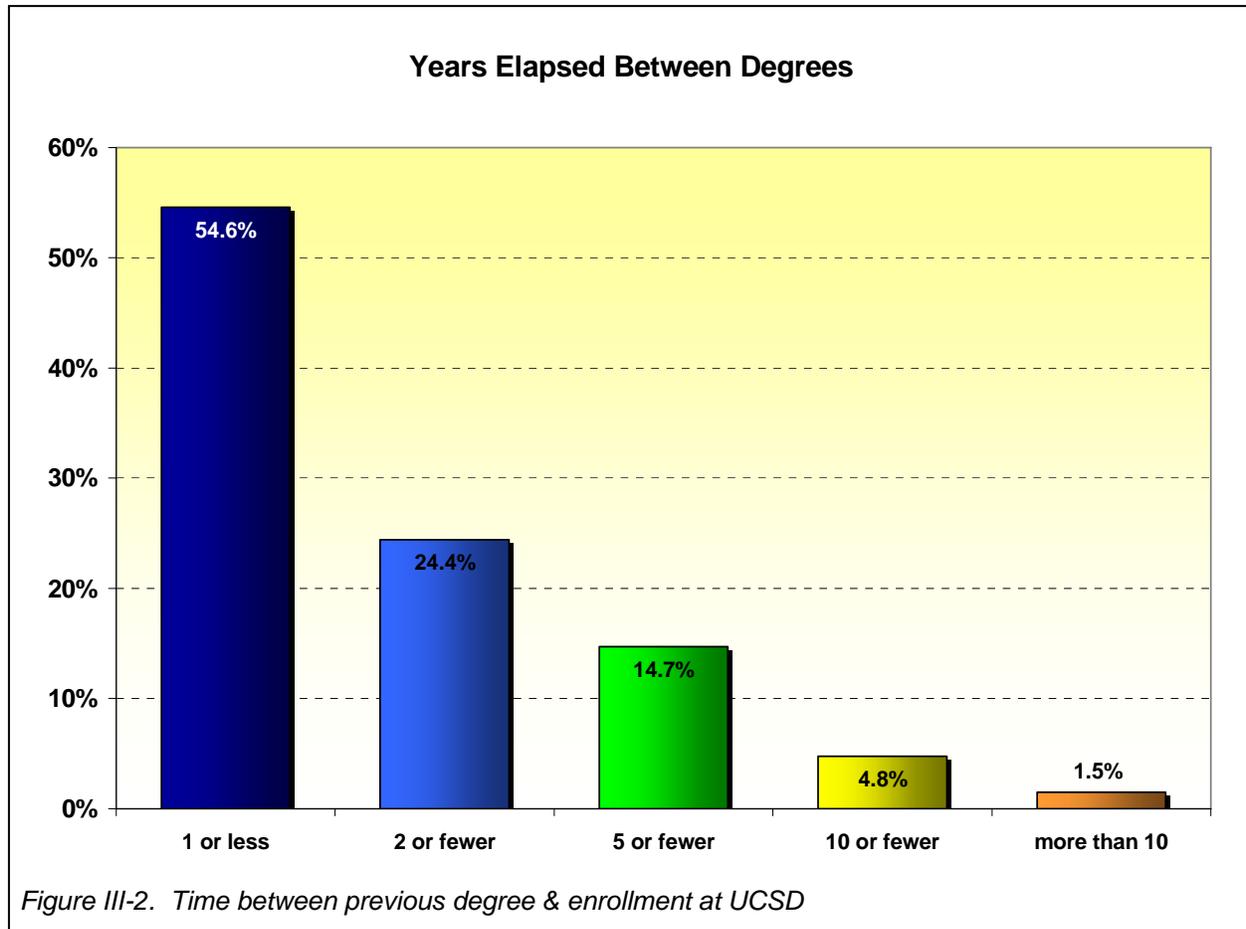
How old are students?

Admission to UCSD cannot be based on age, and indeed student age is frequently not asked or provided. However, to get a better picture of graduate and professional students, we did ask respondents their age. As can be seen in Figure III-3 (right), the average age of graduate and professional students is in the late twenties (average age is 27.8 years, with a standard deviation of 4.6 years). However, there is a sizable proportion of

Age of Respondents

Figure III-3. Age Distribution of UCSD Graduate & Professional Students
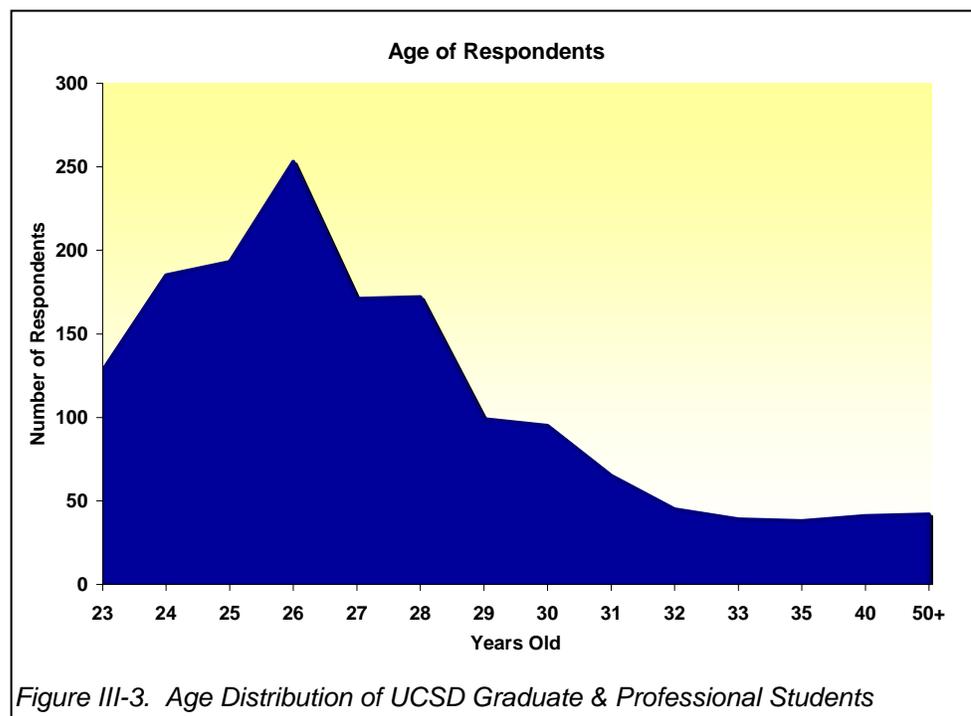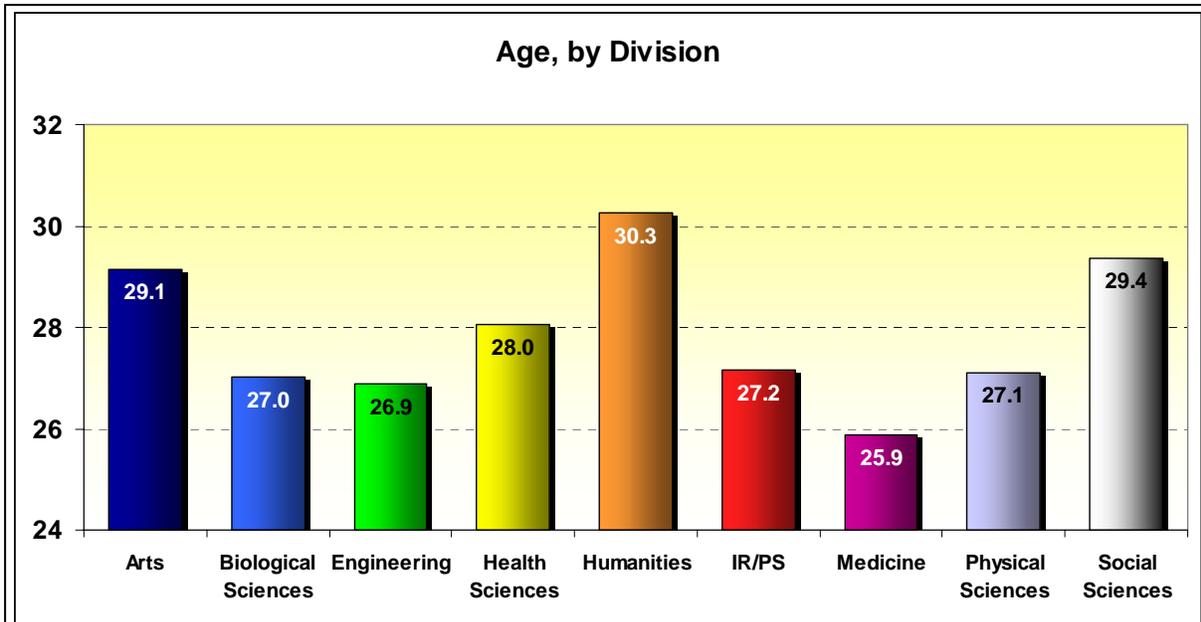
Age, by Division

Figure III-4. Age of UCSD Graduate & Professional Students by Division

graduate and professional students 35 and older-- approximately 6.3% of the student body.

As might be imagined, students in different disciplines don't present a uniform picture. In fact, there is a some variation in the age of graduate and professional students by division. As can be seen in Figure III-4, students pursuing a degree in Humanities are the oldest, averaging over 30, while students in the School of Medicine are the youngest, just under 26. So, graduate and professional students do vary in age, although overall the difference between divisions is not overly large (~4.4 years at the extreme).

Relationship status

The relationship status of graduate and professional students is rarely considered explicitly. Many are single, some are married, some are otherwise partnered, and so on. Respondents were asked their relationship status. As can be seen in Figure III-5 (right)., the majority (nearly three-fifths) describe themselves as single, but nearly two-fifths are married or otherwise partnered
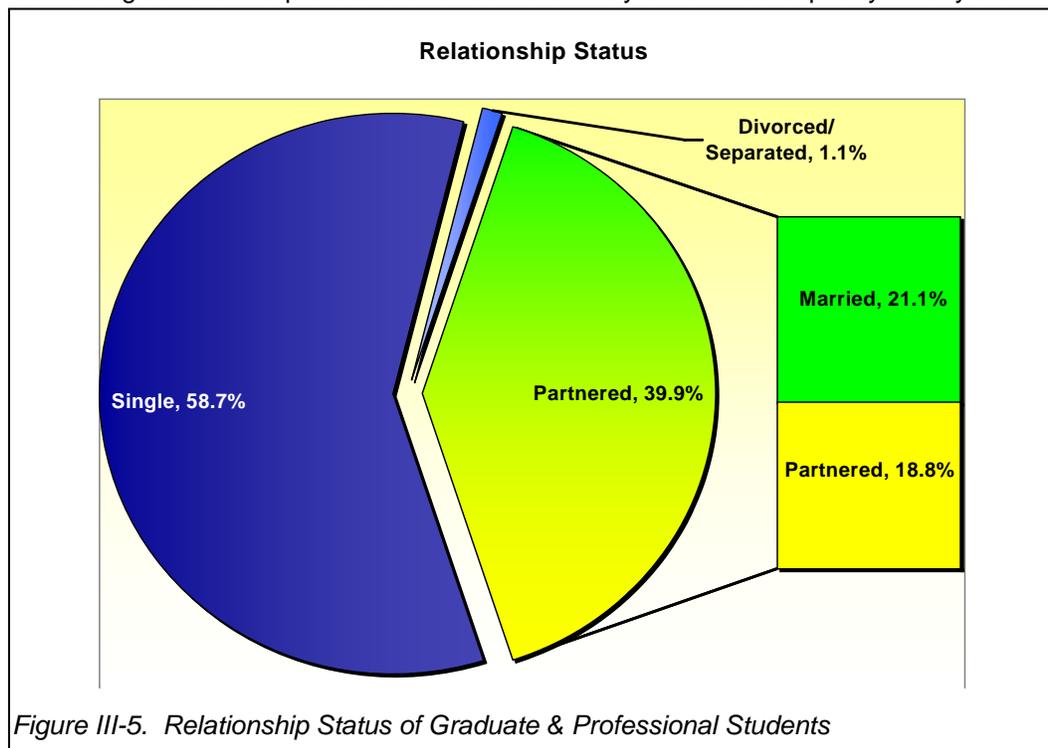
Relationship Status

Figure III-5. Relationship Status of Graduate & Professional Students

(approximately one-fifth for each). About one percent of graduate and professional students are divorced or separated.

Life as a graduate or professional student

What is life like as a graduate or professional student? We asked students how many hours in an average week they spent on various activities:

- Teaching
- Studying
- In Class
- Doing Research
- Writing
- Working
- Commuting
- Socializing

Given the many different types of degree programs offered at UCSD, we chose to look at general degree types: research doctorate, professional doctorate, research masters, and professional masters. Reassuringly, on average there was almost no variation in the amount of time students spent commuting and socializing based on degree type. However, as can be observed in Figure III-6 (below), there is some variation in students typical weeks based on the degree they are pursuing. For example, students pursuing a research doctorate devote more of their time to research; students seeking a professional doctorate spend more time in class; and students pursuing a professional masters spend more time working non program-related jobs.

Figure III-7 (next page) presents the typical week for students seeking a research doctorate (the largest group of graduate students, and the largest subset of respondents to this survey), broken down by year of study. As can be seen, the amount of time spent in class and studying gradually decreases as students proceed, while the amount of time spent doing research increases. Also, the amount of time spent writing increases substantially in the fifth year and beyond.
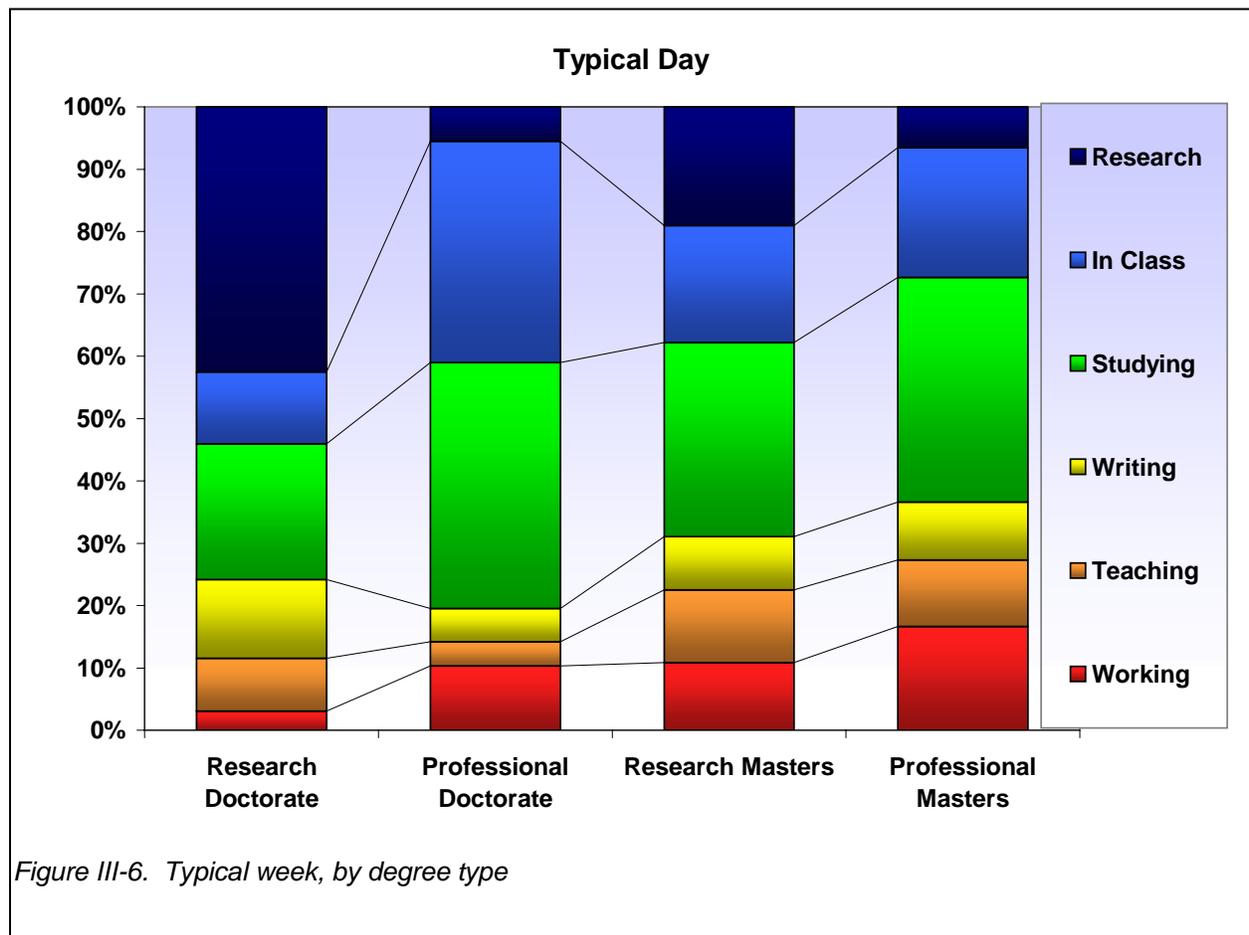

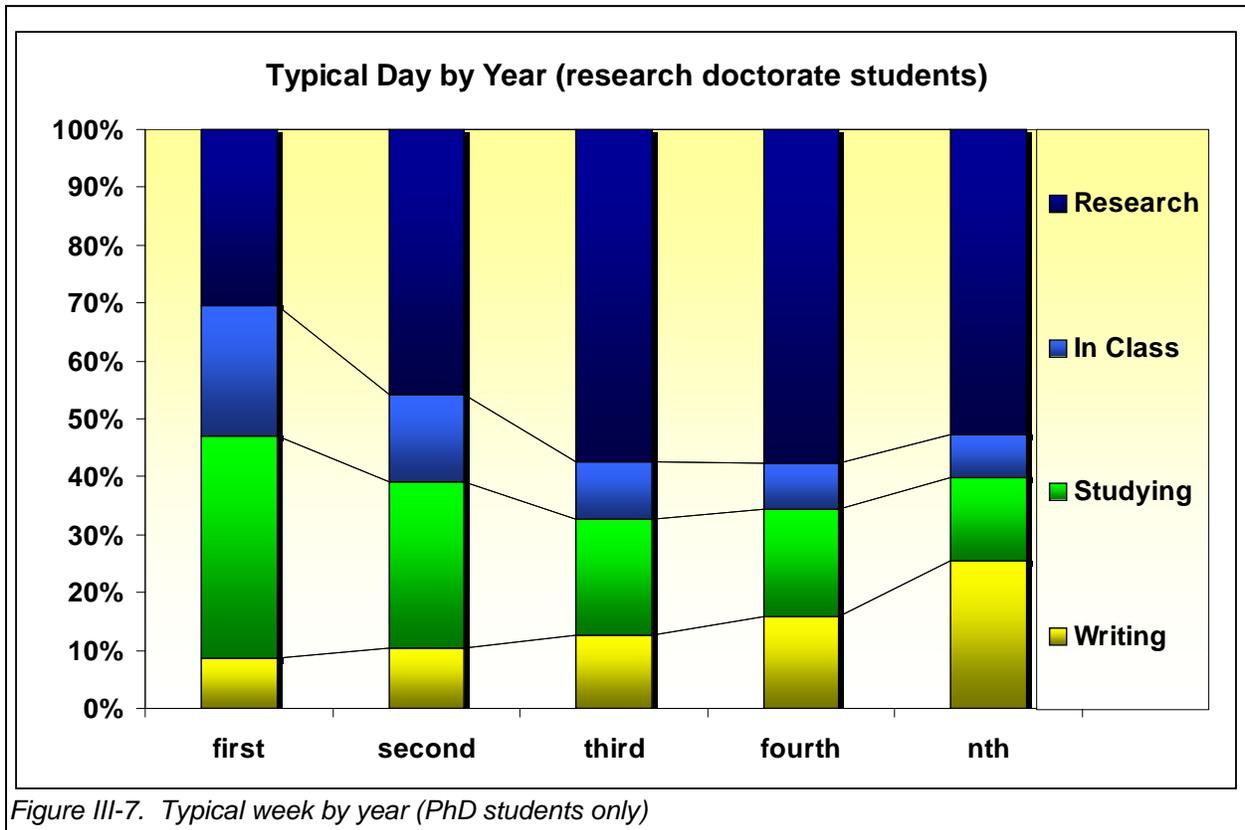Figure III-6. Typical week, by degree type

Figure III-7. Typical week by year (PhD students only)

Summary

The graduate and professional student body is quite diverse. Nearly two-fifths come from within California, and slightly more come from elsewhere in the US; nearly one-fifth received their previous degrees abroad. Over half of respondents enrolled in their programs within a year of completing their previous degree, while one-fifth waited two or more years before enrolling. The average age of students is about 28; although this varies by division of study, the overall average age for each division fits within a relatively narrow five-year band. Nearly three-fifths of respondents are single, while approximately two-fifths are married or otherwise partnered. As diverse as the background of graduate and professional students are their daily lives—the amount of time spent in class, in research, teaching, studying, writing, and working non academic jobs varies based on type and level of degree. Further, for research doctorate students (the bulk of the student body and respondents to this survey), time spent on each of these varies by the year of study. Overall, then, the UCSD graduate and professional student body are quite varied in where they come from and in what they do while here.

IV.   General Results

Method

This section looks at overall agreement with various statements on the GPSES. For each question, unless otherwise indicated, respondents were asked to rate their agreement on a scale from 1 to 5, where 5 was "strongly agree" and 1 was "strongly disagree." The figures show the proportion of respondents who agreed (answered "4" or "5"), were neutral (answered "3"), or disagreed (answered "1" or "2"). Differences in agreement between respondents on various demographic factors, such as **DIVISION OF STUDY** or **GENDER**, are presented in the next section (section V)

General Experience

Figures IV-1 and IV-2 (next pages) present respondent agreement with statements about the **GENERAL EXPERIENCE** at UCSD, as a graduate or professional student. As can be seen in Figure IV-1, respondents strongly feel that the UCSD campus is safe and secure, with 92% of respondents expressing agreement. Respondents showed less agreement, but were still positive, about other aspects of the general experience at UCSD: nearly two-thirds of respondents would again choose to attend UCSD (and a complementary one-third of respondents indicate that they have seriously considered leaving or quitting their programs). Interestingly, this figure of about two-thirds expressing satisfaction is very close the actual 10-year rate of persistence to degree as found in the OGSR common data set. Approximately the same proportion, two-thirds, are satisfied with their *academic* experience at UCSD—which is interesting as only 53% indicate that the UCSD experience has met their expectation. Possible reasons for this difference may be seen in Figure IV-2.

In Figure IV-2 we see additional agreement statistics for other aspects of student life at UCSD. However, these figures indicate markedly lower satisfaction for aspects of life not directly related to academics. Roughly speaking, only about one-third of respondents are satisfied with the social experience at UCSD, feel a sense of belonging at UCSD, have interactions with students outside of their own program, find opportunities for involvement in campus activities, or are satisfied with the cultural experience at UCSD. Overall, this presents a picture of a graduate & professional student body that is generally satisfied with what they are learning academically, but who do not feel integrated into the UCSD community (or perhaps the larger San Diego community): this is especially emphasized by the fact that only 10% of graduate and professional students report feeling a connection to the campus community.

Figure IV-1. General UCSD Experience, part I
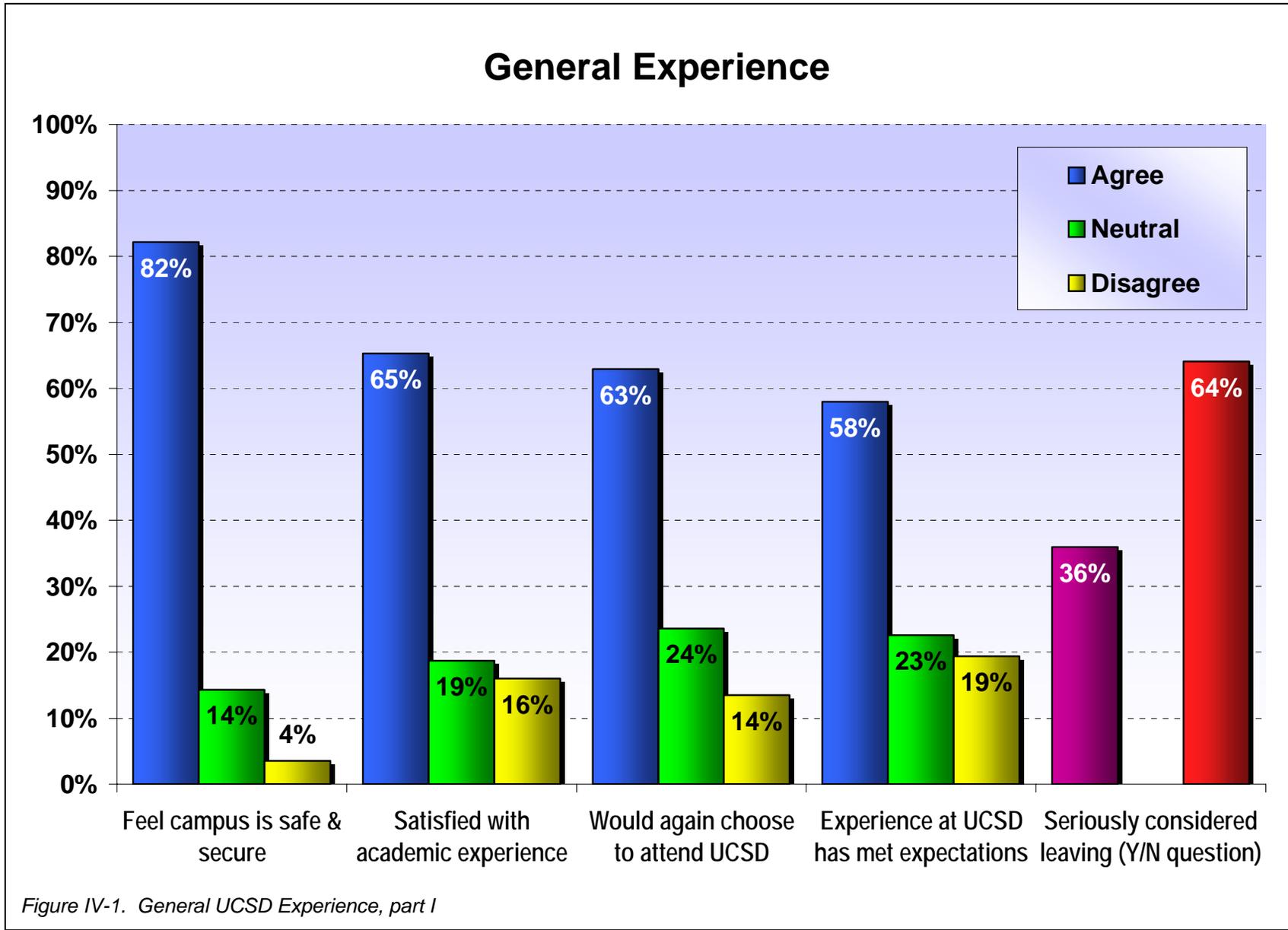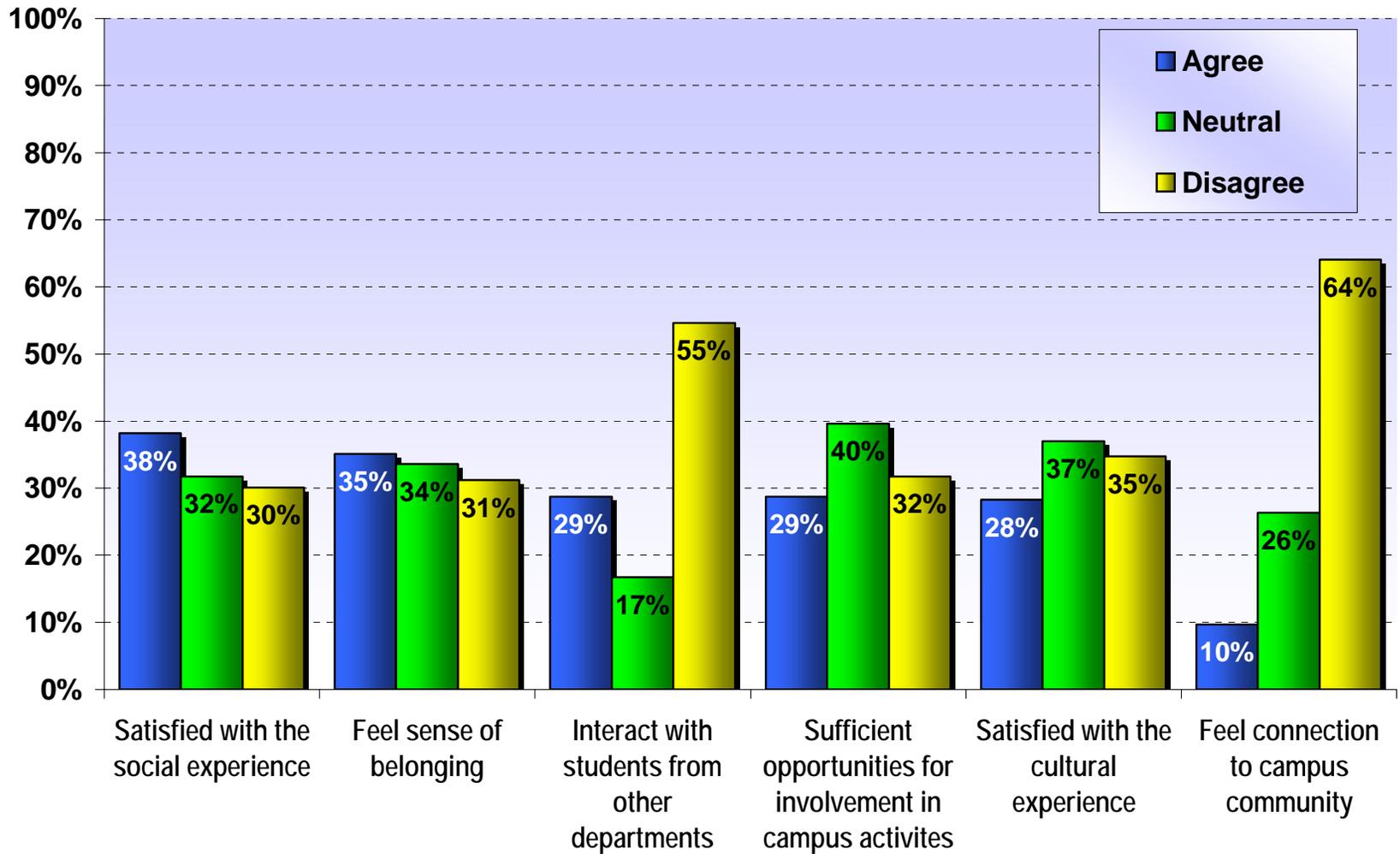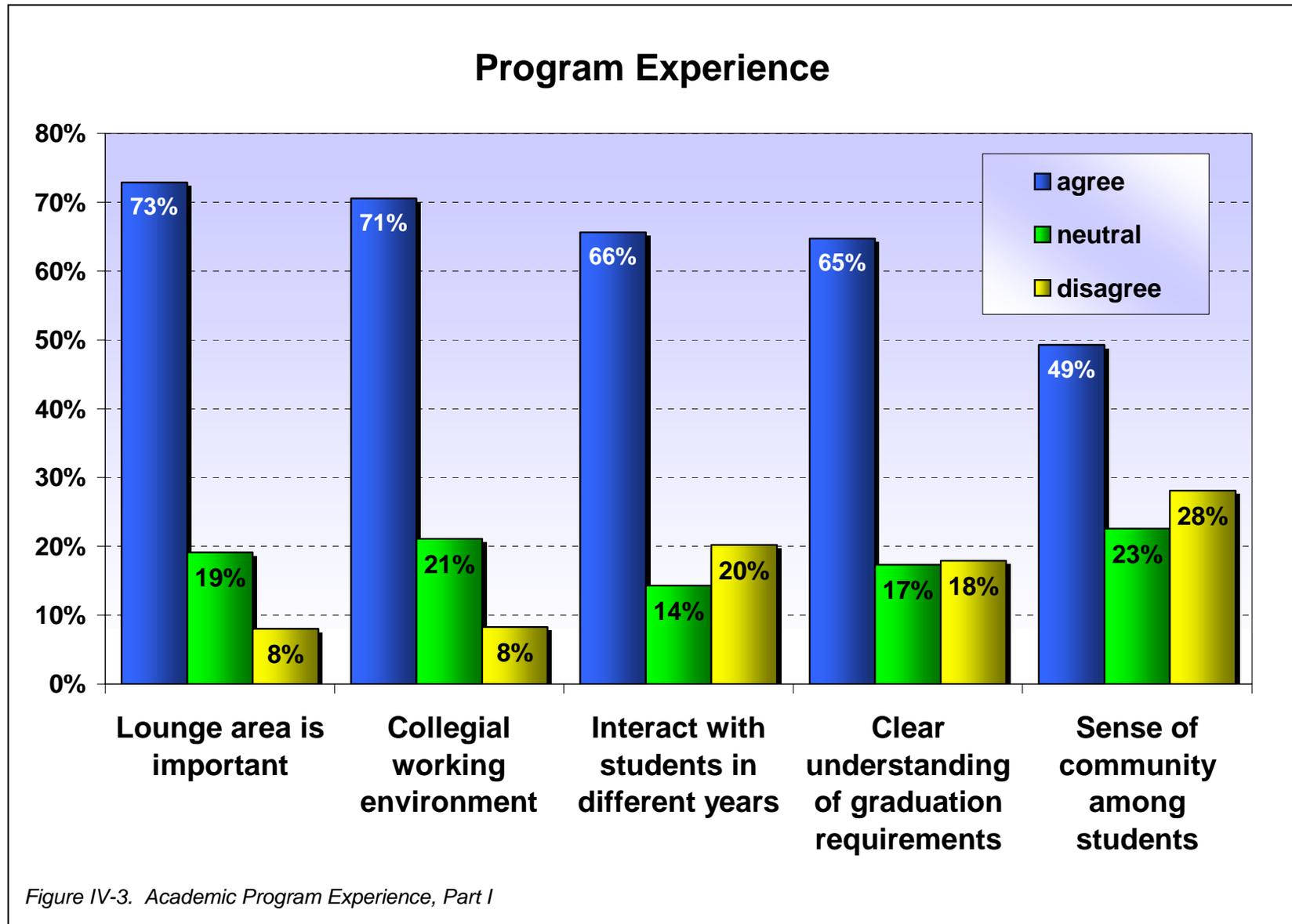
General Experience, cont.

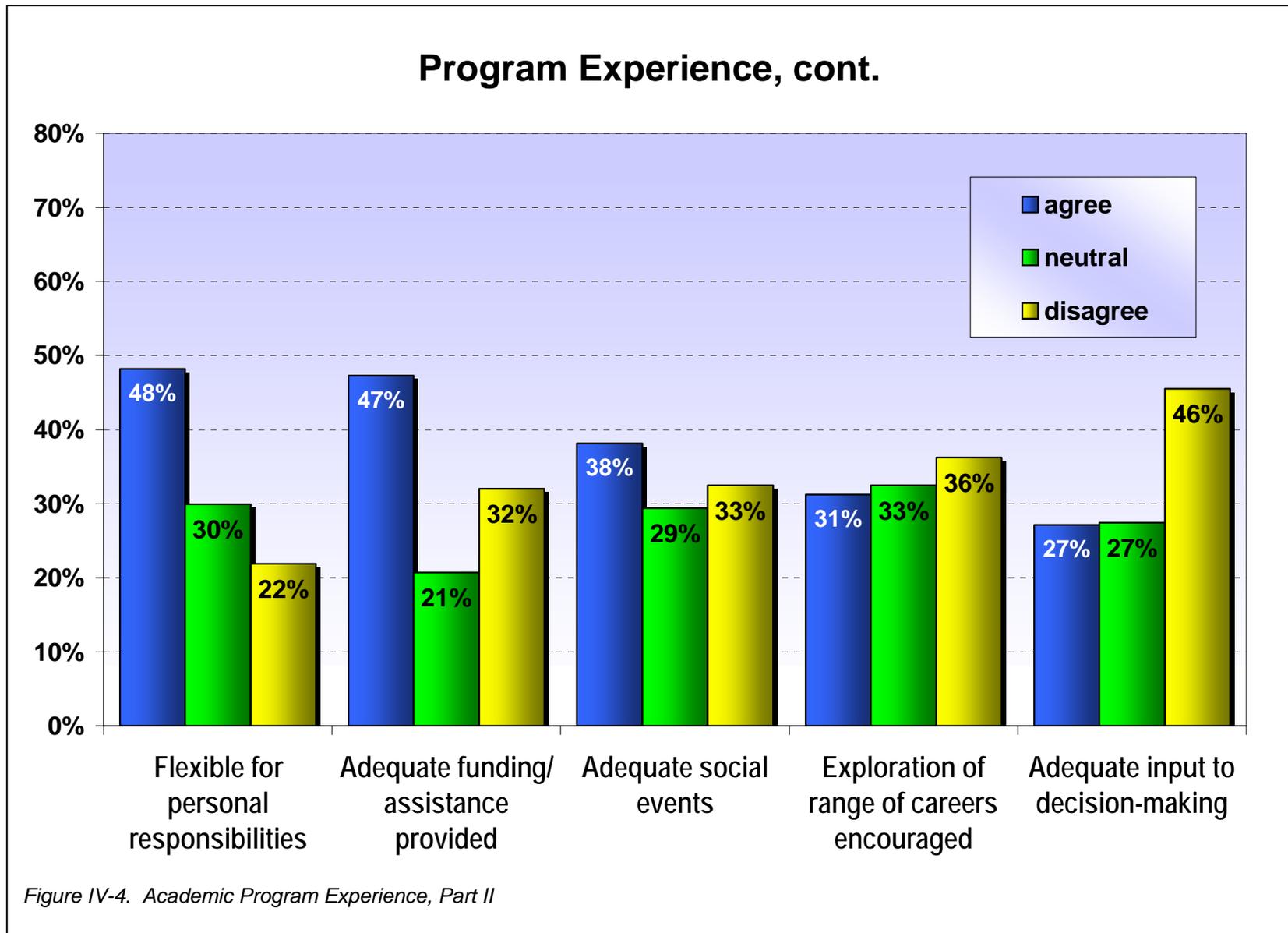Figure IV-2. General UCSD Experience, part II

Academic Experience

As presented in the previous section, nearly two-thirds of respondents were satisfied with their academic experience at UCSD. Interestingly, however, when asked about specifics of their academic programs respondents show generally less agreement.

Figure IV-3 presents respondents' agreement with statements about the environment in the program of study. The majority of students report that their programs offer collegial working environments, and that they interact with students in different years of study. However, fewer than half agree that their programs make a sufficient effort to foster a sense of community among students, and only 38% agree their programs provide adequate social experiences for students (which is on par with the satisfaction with the UCSD social experience, reported in Figure IV-2).

Figure IV-4 presents agreement with additional general statements about programs of study. While 73%of students feel they understand their graduation requirements, fewer than half find their programs offer flexibility for personal responsibilities, or offer adequate funding (or assistance in securing funding). Fewer than one-third of respondents report that their programs encourage a range of career options, and only about one-fourth of respondents feel their programs give students adequate input into decision-making. So again, it appears that although graduate and professional students are academically satisfied, when it comes to "extracurricular" aspects of their training environment (funding, flexibility during study, future career options, student input), there is room for improvement.

Program Experience

Figure IV-3. Academic Program Experience, Part I

Program Experience, cont.

Figure IV-4. Academic Program Experience, Part II

Mental Health

Any discussion of the graduate and professional student experience must consider mental health, in light of the high amount of stress and prevalence of depression reported in other surveys. Respondents were asked to rate the frequency with which they experienced stress due to various factors; the ratings ranged from "never" to "frequently."

As can be seen in Figure IV-5 (below), the results are relatively consistent between stressors. Academics, unsurprisingly, seems to cause the most stress in respondents: nearly two-fifths of respondents feel stress that impairs that functioning at least sometimes due to each—however, those "frequently" experiencing impairing stress does vary a bit more, with over a quarter of respondents frequently feeling stress due to academics, while only 15% frequently being stressed by other topics. Nearly half of respondents (48%) sometimes or frequently are overwhelmed by stress, and 11% may actually be experiencing symptoms of clinical depression, frequently feeling overwhelmed due to stress.

As can be seen in Figure IV-6 (right), 40% of graduate and professional students have considered counseling while at UCSD, and nearly one-fourth (24%) have sought counseling while students at UCSD
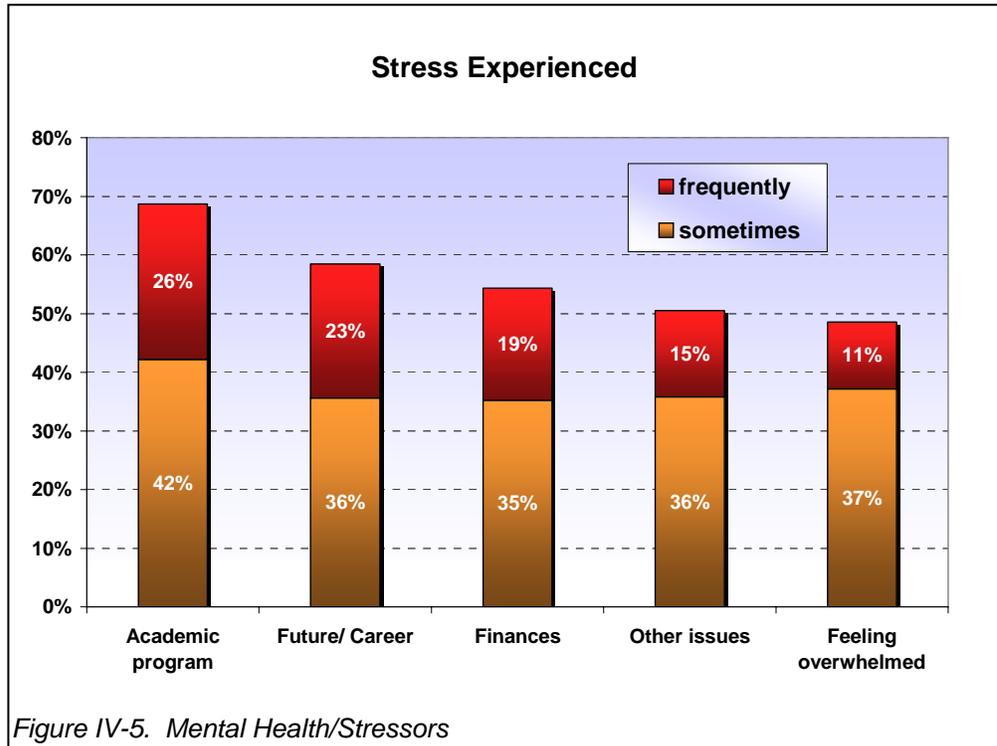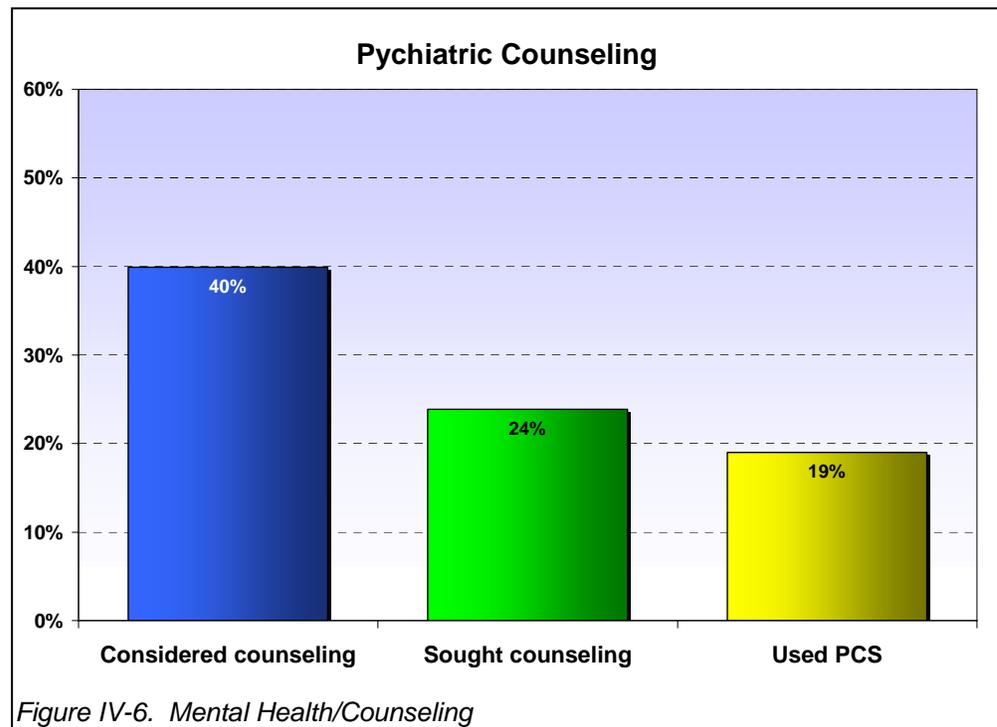

Figure IV-5. Mental Health/Stressors

Figure IV-6. Mental Health/Counseling

(with most of these using Psychological and Counseling Services/PCS). Note that this rate is substantially higher than the undergraduate rate as reported in UCUES (which is 15% for continuing students, and 7% for new/transfer students).

Summary

The state of mental health of graduate and professional students is somewhat poor. Nearly one-half of respondents are sometimes or frequently overwhelmed by stress, and over one-tenth may be experiencing symptoms of clinical depression. The biggest stressor is academic program, followed closely by the future/careers. Substantial numbers of students are also stressed by finances and "other" topics. Two fifths of respondents have considered seeking counseling while enrolled in their programs, and nearly one-quarter have actually sought counseling (with nearly four-fifths of those who have sought counseling using Psychological and Counseling Services). The frequency with which graduate & professional students seek counseling is greater than the undergraduate rate—although the relatively poor state of graduate and professional student mental health is not surprising; indeed, it is quite commensurate with results reported by UC Berkeley in 2004.

Mentor Relationship

The previous sections have shown that students experience substantial stress, and there is marked room for improvement in student satisfaction with social, cultural, and other non academic aspects of student life. Additionally, students on the whole were not extremely satisfied with many aspects of their academic programs either. That said, students are generally satisfied with what they are learning at UCSD. For students pursuing research degrees, the mentor relationship with their advisor is immeasurably important. 72.3% of survey respondents reported having a research advisor. Figure IV-7 (next page) presents the agreement, for students with research advisors, to statements about that relationship. Nearly three-fourths of respondents feel comfortable suggesting their own research directions to advisors, feel supported by labmates, feel their advisor values their work, and feel their advisor is available when needed. Somewhat fewer (63%) feel they receive sufficient feedback from their advisors. Overall, the results show that students are quite happy with the relationship with their advisors, and perhaps this explains in part why students report a relatively high degree of satisfaction with the academic experience at UCSD. It should be of concern, however, whether the nearly one-fifth of students who are dissatisfied with their mentor relationship are at special risk of attrition.

Mentor Relationship

Figure IV-7. Mentor/Advisor Experience
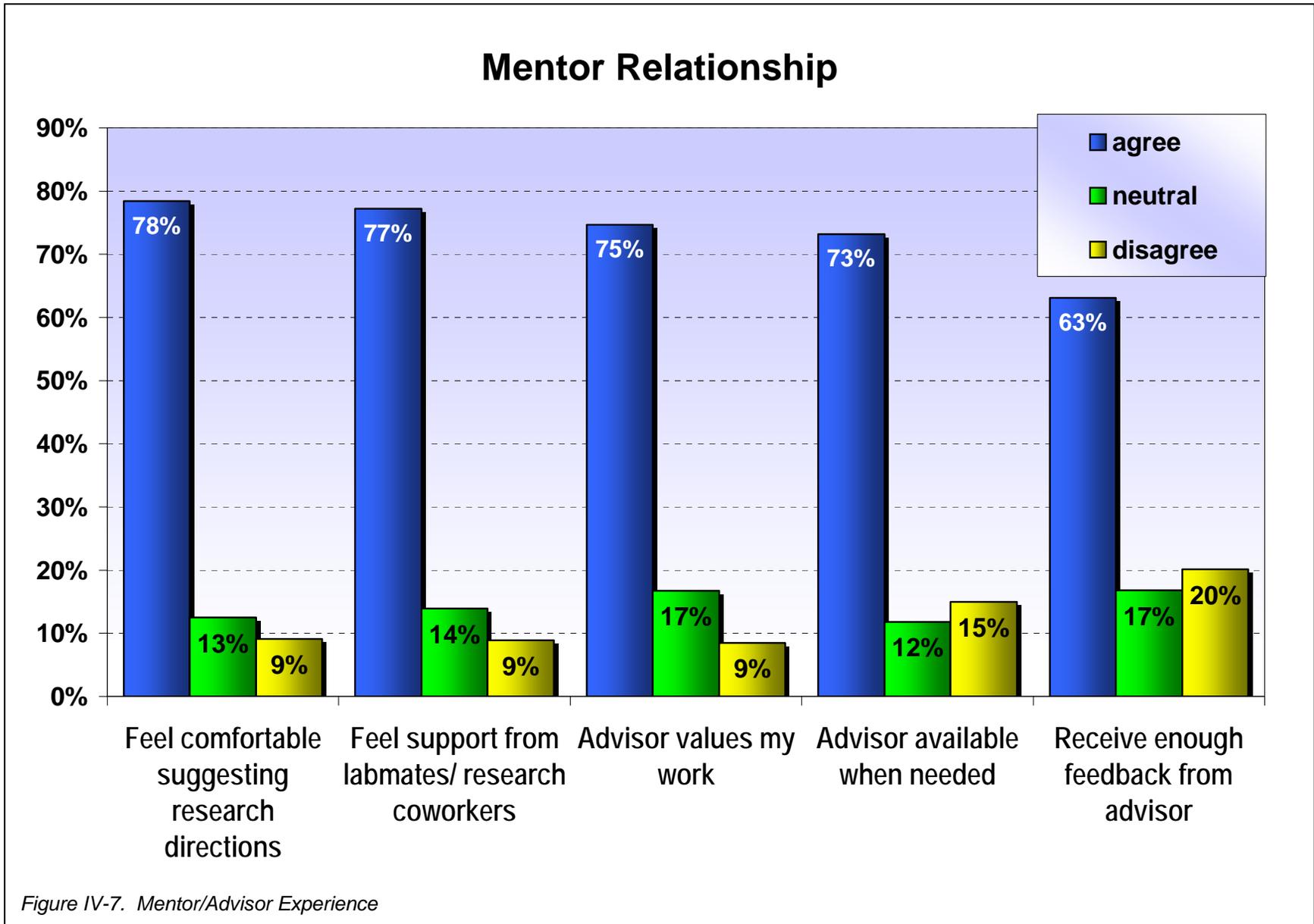
V. Experience by Group

For a general snapshot of participants' responses, we create composite measures covering major aspects of graduate & professional student life at UCSD (for more information on how these summary measures were created, please refer to *Appendix III. Factor Analysis*). Briefly, these measures are:

- **GENERAL EXPERIENCE**, which covers the general sense of satisfaction with UCSD, and is based in part on respondents' reports of whether or not they would again choose UCSD for graduate/professional study, if given the choice;

- **PROGRAM SATISFACTION**, which covers satisfaction with the program of study at UCSD; this is a composite of both satisfaction with the academic experience as well as the general environment created by the program

- **CONNECTION**, which assesses a general sense of belonging, i.e., the degree to which respondents feel affiliated to or "a part of" UCSD

- **MENTAL HEALTH**, which assesses the frequency and type of stress experienced by respondents, and covers multiple aspects of life including academics, finances, concerns about the future, and other topics;

- and **MENTOR RELATIONSHIP** (for students with research advisors only), which measures the general quality of the student-**MENTOR RELATIONSHIP**; this includes both subjective evaluations by respondents as well as qualitative measures such as the frequency of student-mentor meetings.

Our goal was to examine whether differences existed in the graduate/professional experience if we subdivided students. Thus, examined for differences on the above measures when students were divided along a number of axes (**DIVISION** of study, **DEGREE** sought, **YEAR** in program, student **GENDER**, student **ETHNICITY & CITIZENSHIP**, student sexual **ORIENTATION**, **FAMILY**/dependent status, and **DISABILITY** status; for more information on these divisions, please refer to *Appendix II. Grouping Variables*). If a reliable difference was found on a summary measure for a group (through and ANOVA), the individual survey questions composing that summary measure were analyzed to see where the differences lay[1]

It should be noted that the factors created by factor scores have a mean of zero—thus, for each of the five measures above, the "average" student group would in theory be at 0.

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[1] This was done rather simply, by comparing the average response on each question for a summary measure to that of the respondents in the relevant subgroups. Then, a t-test was calculated. Obviously, when there were only two subgroups (as in gender, disability status, family status, degree level, and sexual orientation), there was no need for these simple "post hoc" analyses.

Division of Study

There were reliable differences on all summary measures based on DIVISION of study.

For **GENERAL EXPERIENCE**, results are presented graphically in figure V-1. Students in most divisions reported approximately the same level of satisfaction, <u>except</u> for Arts & Health Sciences students, who reported substantially higher satisfaction with their **GENERAL EXPERIENCE** at UCSD; SOM students showed the lowest satisfaction with the **GENERAL EXPERIENCE**. There were many factors that appear to influence this pattern.

- Arts students were more likely than average to report that UCSD met their expectations, and to be willing to start over at UCSD; they are tended to report higher than average academic satisfaction.
- Biological Sciences students were close to the average response on all measures.
- Engineering students find their programs less collegial than average, but tend to be more satisfied culturally than average.
- Health Sciences students are less likely to have considered quitting, find their programs more collegial and that their programs met their expectations, are more satisfied academically and socially, and are more likely to be willing to start over again at UCSD.
- Humanities students report a greater sense of belonging on average, but are less satisfied culturally than average
- IR/PS students find their program less collegial than average, and tended to be somewhat less satisfied academically than average.
- Students in Physical Sciences were more likely than average to have considered quitting, and slightly more likely to feel a lower sense of belonging at UCSD.
- Students in Social Sciences were more likely to have considered quitting their programs and were somewhat more likely to feel a lower than average sense of belonging; however, they found their programs more collegial than average


Figure V-1. General Experience by Division of Study
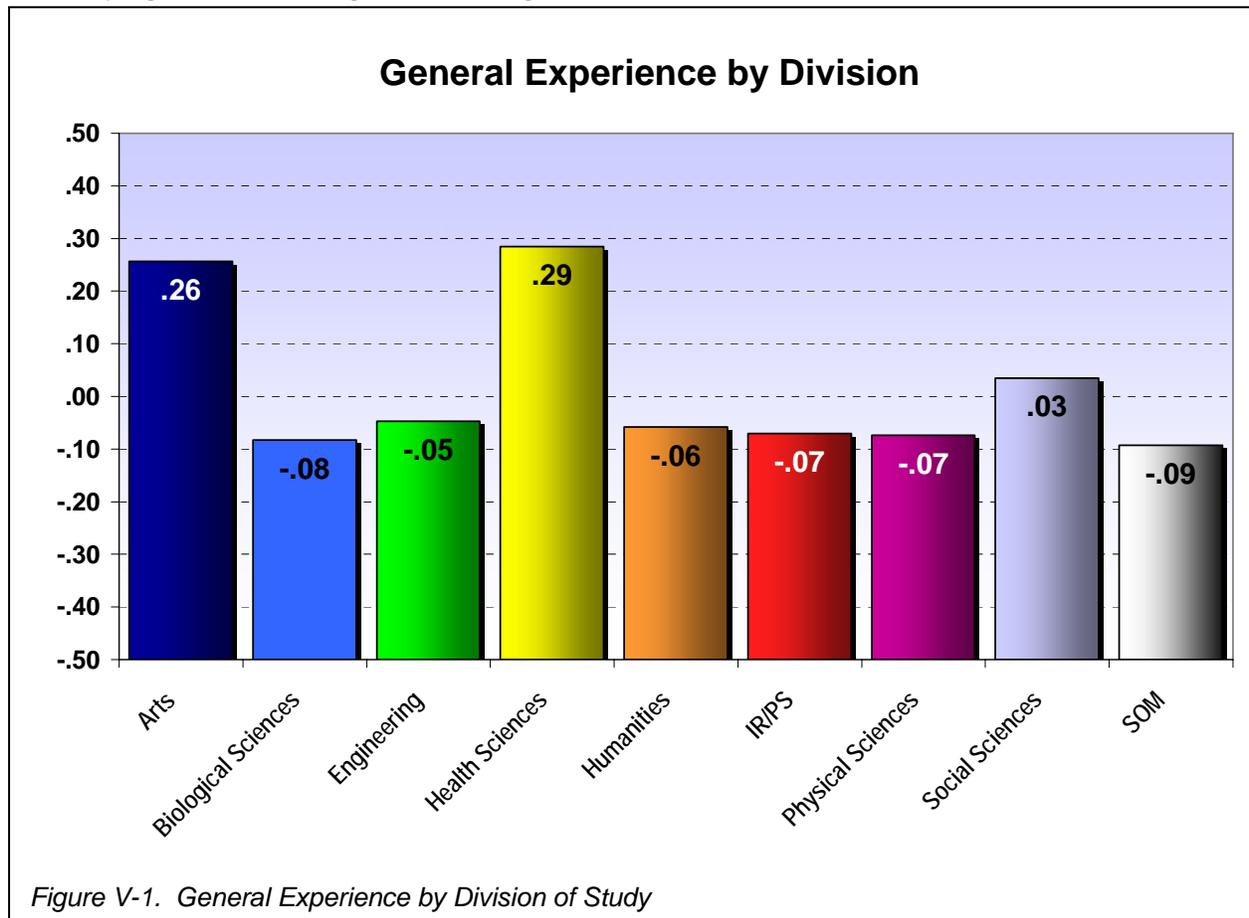
- SOM students were more likely to have considered quitting, feel their programs are less collegial, are less likely to say their programs met their expectations, are less satisfied academically, and are less likely to agree that they would start over again at UCSD.

For **MENTAL HEALTH**, there were clear differences among DIVISION of study, presented graphically in Figure V-2 (below). Students in Arts, Humanities, and Social Sciences experienced more stress than their counterparts; additionally, students in Biological Sciences also reported somewhat elevated stress, although not so great as Art, Humanities, nor Social Sciences students.

- Arts students experienced more stress due to finances, slightly more stress due to the future/career plans, more likely to experience stress due to "other" things, felt overwhelmed more frequently, and were more likely to consider seeking counseling[2].
- Biological Sciences students were close to the average response on all **MENTAL HEALTH** items, although they were slightly more likely to have sought counseling while at UCSD.
- Engineering students experienced <u>less</u> stress than average due to academics, finances, and "other" topics than average, and were less likely to have considered counseling.
- Health Sciences students experienced stress slightly <u>less</u> frequently than average due to future/career plans, and also felt overwhelmed less often than average.
- Humanities students experienced more stress due to finances, the future/career plans, and "other" factors, felt overwhelmed more frequently, and were more likely to consider seeking counseling than average[1].
- IR/PS students were close to the average response on all **MENTAL HEALTH** items, although they

Figure V-2.   Mental Health by Division of Study

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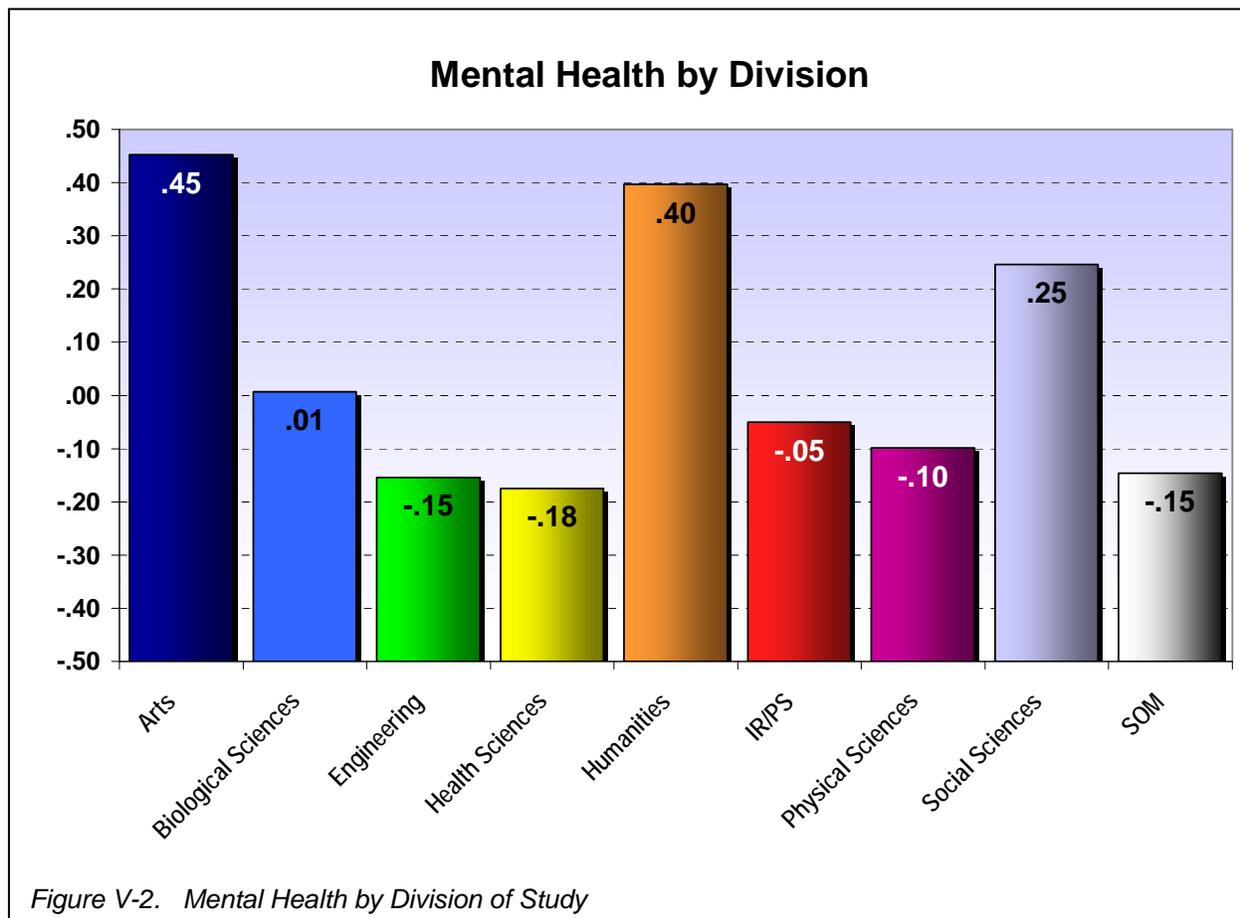
[2] Although students in the Arts & Humanities divisions self-identified as LGBTO in a markedly higher proportion than students in other divisions (see Appendix III), and as reported below LGBTO students are

were slightly more likely to have sought counseling while at UCSD.
- Students in Physical Sciences experienced <u>less</u> stress than average due anxiety over the future/career plans, and marginally <u>less</u> stress due to finances.
- Students in Social Sciences experienced more stress due to academics, finances, the future/career plans, and "other" factors, felt overwhelmed more frequently, and were more likely to consider seeking counseling.
- SOM students experienced markedly less stress about the future than students in other divisions.

For **PROGRAM SATISFACTION**, there were also clear differences among division of study (presented in Figure V-3 below). Students in Health Sciences were by far the most satisfied, and students in Biological Sciences & IR/PS also showed high satisfaction. On the other end, students in Humanities, Social Sciences, and SOM showed relatively low **PROGRAM SATISFACTION**.

- Arts students felt they had more input into decision-making in their programs than students in other divisions, but otherwise reported average satisfaction on other items.
- Biological Sciences students felt their programs offered more social events and more support in finding/securing funding than average, and felt their programs were slightly more flexible; they also felt their programs encouraged relatively few career options.
- Engineering students felt their programs offered fewer social events than average, but felt their programs were more flexible, encouraged more diverse career options, and offered greater student input into decision-making than average.
- Health Sciences felt their programs did more to foster a sense of community, offered more social events, were more flexible, offered greater student input into decision-making, and provided more help in finding/securing funding than average.
- Humanities students reported that their programs did not encourage varied career options, and provided relatively little help in finding/securing funding.
- IR/PS students found that their program offered more social opportunities and encouraged a


Figure V-3. Program Satisfaction by Division of Study
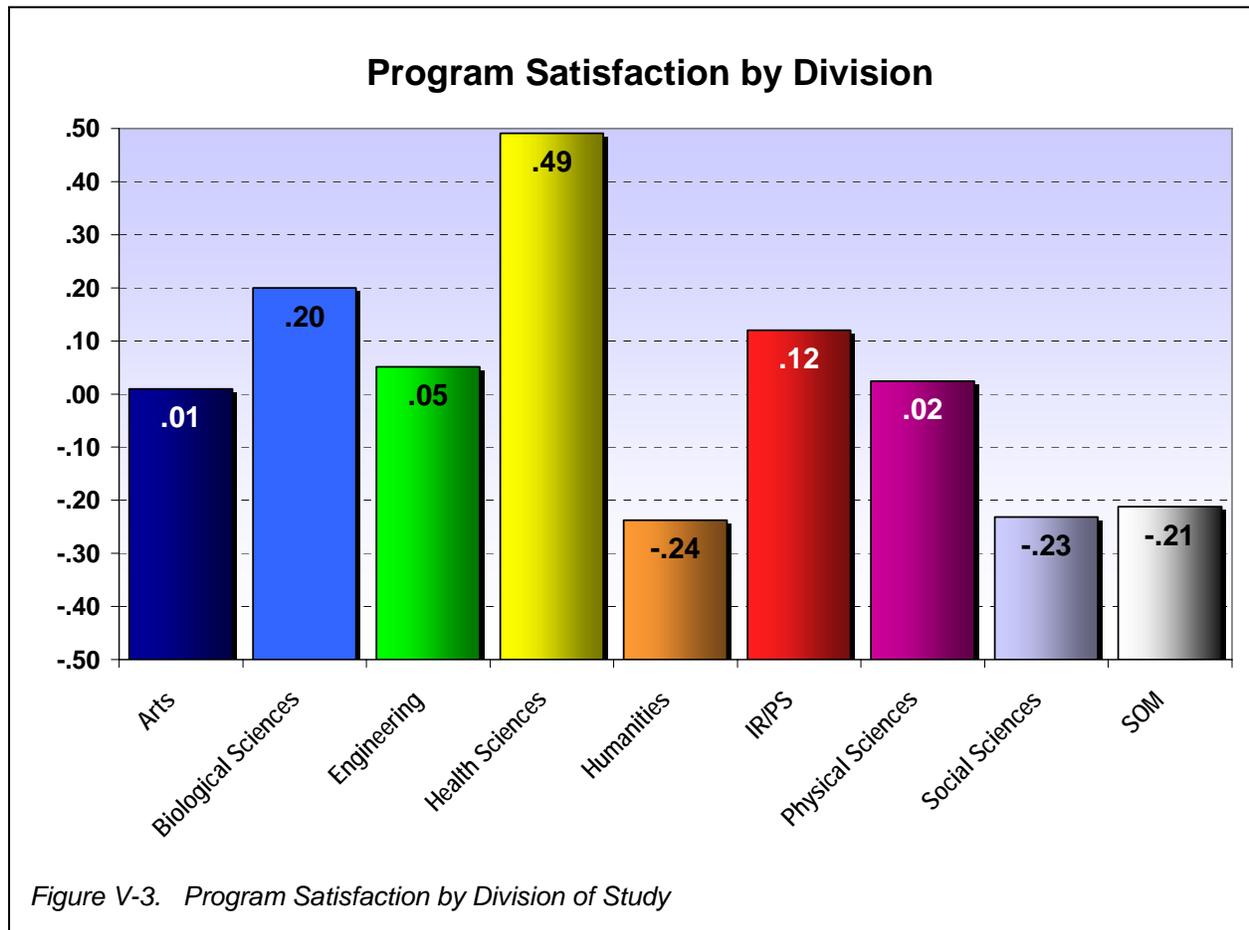
diversity of career options; however, they also felt the program offered less flexibility and slightly less input into program decision-making than average.

- Students in Physical Sciences reported their programs as more flexible and offering more help finding/securing funding, but providing less input into program decision-making than students in other divisions.
- Students in Social Sciences felt their programs offered fewer social opportunities, encouraged relatively few career options, and provided less help in finding/securing funding than students in other divisions.
- SOM students felt their programs did less to foster a sense of community, were relatively inflexible, offered students little input into decision-making, and offered marginally less assistance in finding/securing funding; however, SOM students felt their programs encouraged a broader range of career paths.

For **CONNECTION**, there was also a reliable difference by program (presented in Figure V-4 below); however, this difference was mainly driven by the fact that SOM and to a lesser extent IR/PS students felt less connected to UCSD than students in other divisions. Specifically, SOM students did not strongly agree that they interacted with students from other programs, felt they found fewer opportunities for involvement in campus activities, and felt a lower degree of **CONNECTION** to the greater campus community than students in other divisions. IR/PS students also did not strongly agree that they interacted with student from other programs.

For **MENTOR RELATIONSHIP**, it was necessary to exclude the IR/PS DIVISION, as there were only 7 students there who reported having a research advisor. As can be seen in Figure V-5 (below), overall there were differences in satisfaction with mentors between divisions; this effect was mainly due to Humanities and Arts students being very satisfied (Social Sciences students were marginally more satisfied overall as well), and Engineering students being least satisfied.

Figure V-4. Connection by Division of Study
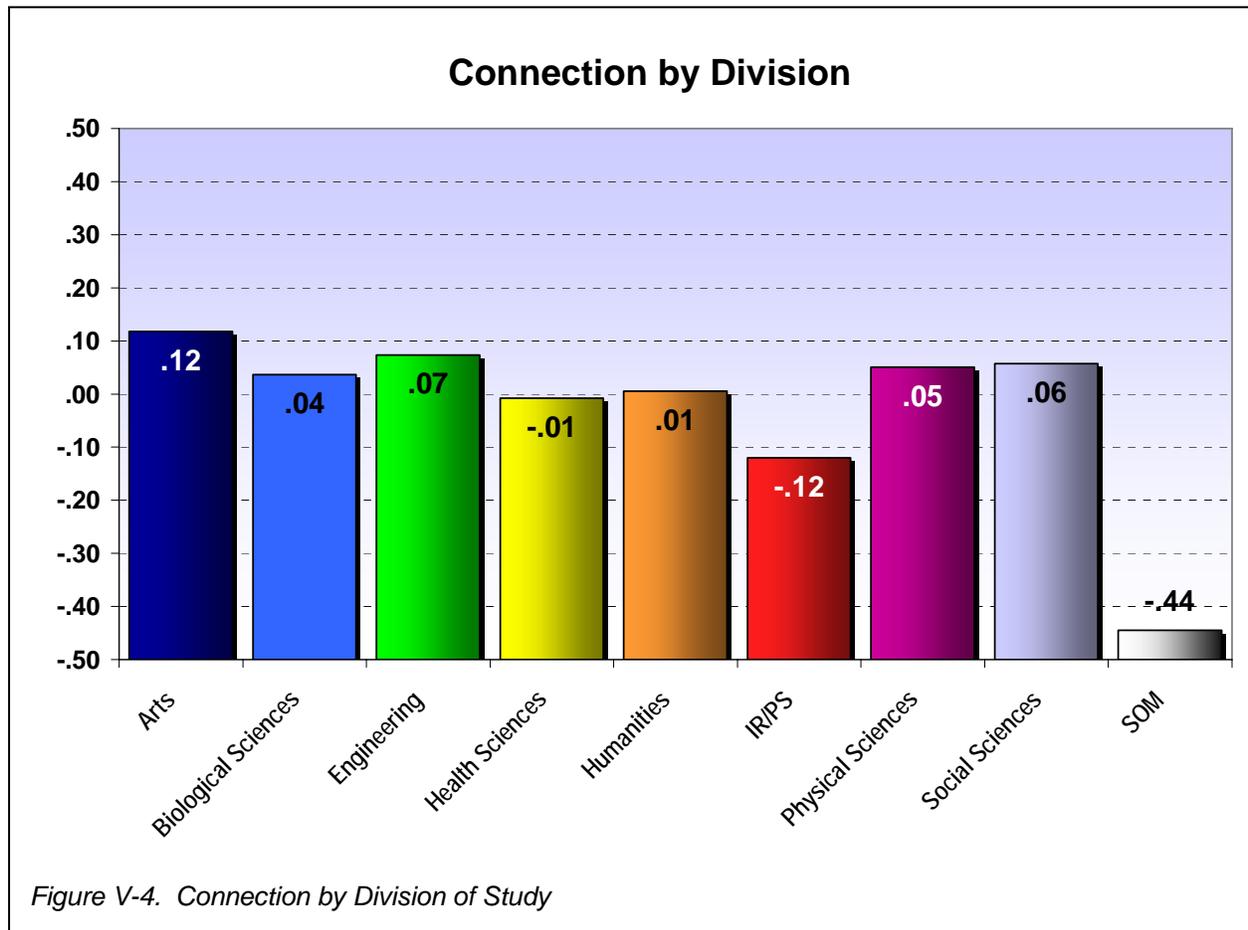
- Arts students, overall the most satisfied with their mention relationships, felt more than average that their advisors valued their work, were more comfortable than average suggesting directions for their work, and were in marginally greater agreement that their advisors provided enough feedback.
- Biological Sciences students met more frequently than average with their advisors, but otherwise did not differ from the "average" respondent.
- Engineering students reported the lowest satisfaction in their **MENTOR RELATIONSHIP**. Engineering students felt their advisors were less available when needed, felt less that they received sufficient feedback from their advisors, and agreed less that their advisors valued their work. Interestingly, Engineering students met _more_ frequently than average with their advisors.
- Health Sciences felt more than average that their advisors valued their work and were in marginally greater agreement that their advisors provided sufficient feedback.
- Humanities students, the second most-satisfied group, felt very strongly that their advisors were available when needed and felt comfortable suggesting directions for their work; this is despite meeting _less_ than average with their advisors.
- Students in Physical Sciences reported meeting more than average with their advisors; beyond this, they did not vary from "average."
- Students in Social Sciences, another group showing generally high levels of advisor satisfaction, were actually pretty average-- although they did report feeling more comfortable than average suggesting directions for their work. These students also met _less_ frequently than average with their advisors.
- SOM students with research advisors met the least frequently with their mentors (15 minutes or less per week, compared to the 30 minutes to an hour that was the norm); they were, however, marginally more likely to report receiving enough feedback from their advisors.

Figure V-5. Mentor Relationship by Division of Study
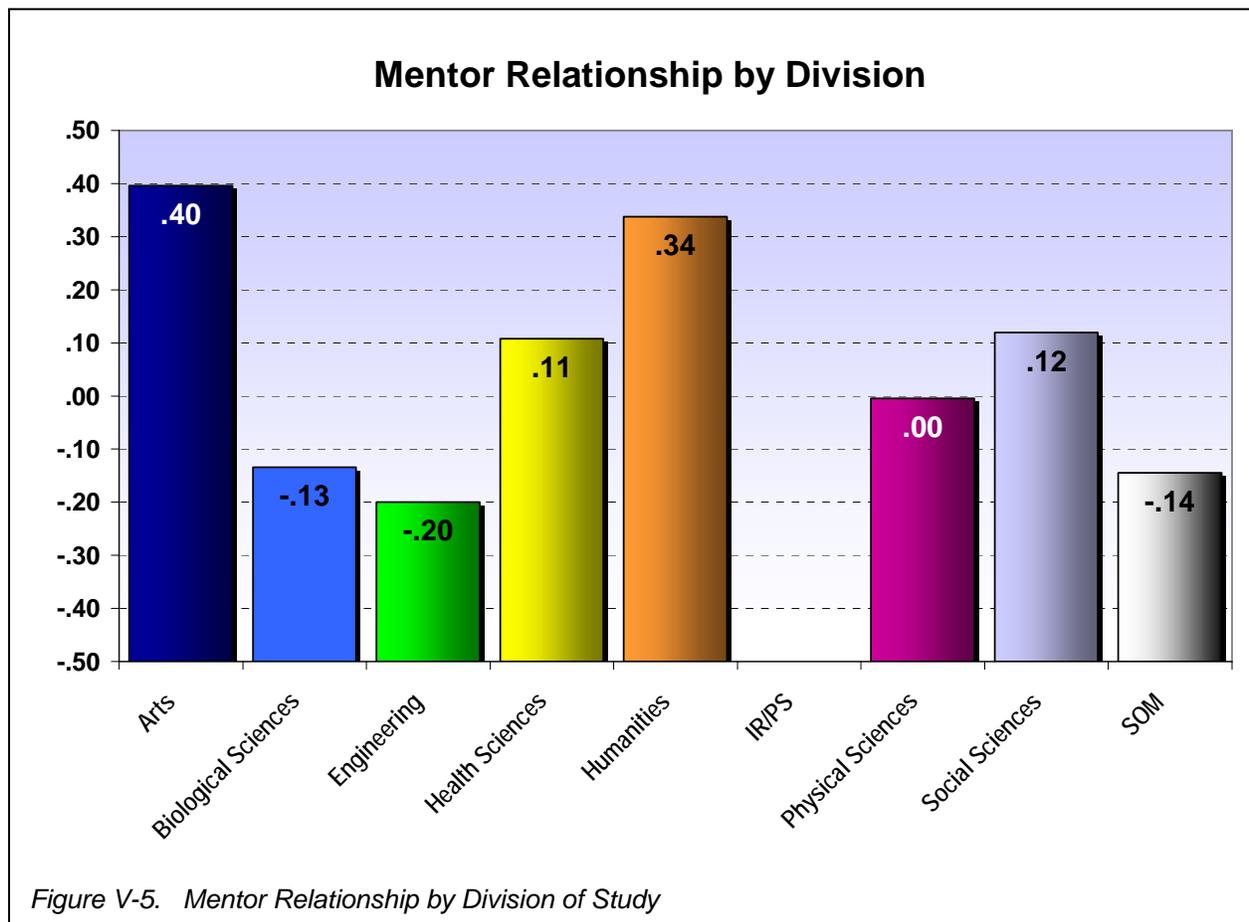
Degree Sought

For level of degree sought (research doctorate, professional doctorate, research masters, or professional masters), there were reliable differences in **MENTAL HEALTH**, **CONNECTION**, and **MENTOR RELATIONSHIP**[3], and a marginal difference in **PROGRAM SATISFACTION**. These are presented in Figure V-6 (below)

For **MENTAL HEALTH**, students seeking a PROFESSIONAL DOCTORATE reported significantly less stress about the future than any other degree type. There was also a significant difference between groups for whether counseling was considered; this pattern seemed to arise because MASTERS students (RESEARCH or PROFESSIONAL) were marginally *less* likely than average to consider counseling. Finally, there was an interesting non reliable pattern observed wherein RESEARCH MASTERS students reported higher stress than average, especially as regards academics. RESEARCH MASTERS students were also the *least* likely student group to seek counseling than other students.

There was a marginal difference in **PROGRAM SATISFACTION**. The overall effect was that PROFESSIONAL DOCTORATE students were *least* satisfied and PROFESSIONAL MASTERS students seemed *most* satisfied. However, in investigating the items making up program satisfaction, the effect turns out to be somewhat complex. PROFESSIONAL DOCTORATE fell on the bottom end: these students found their programs much *less* flexible than average, felt they had *less* input into program decision-making than average, and were *less* likely to agree their program made sufficient effort to foster a sense of community among students. RESEARCH DOCTORATE students found were *more* likely to agree their programs were flexible for personal responsibilities, and were *more* likely to agree they had sufficient input into department decision-making—but they also felt their programs encouraged *fewer* career options. PROFESSIONAL MASTERS students found their programs *less* flexible, but did find their programs

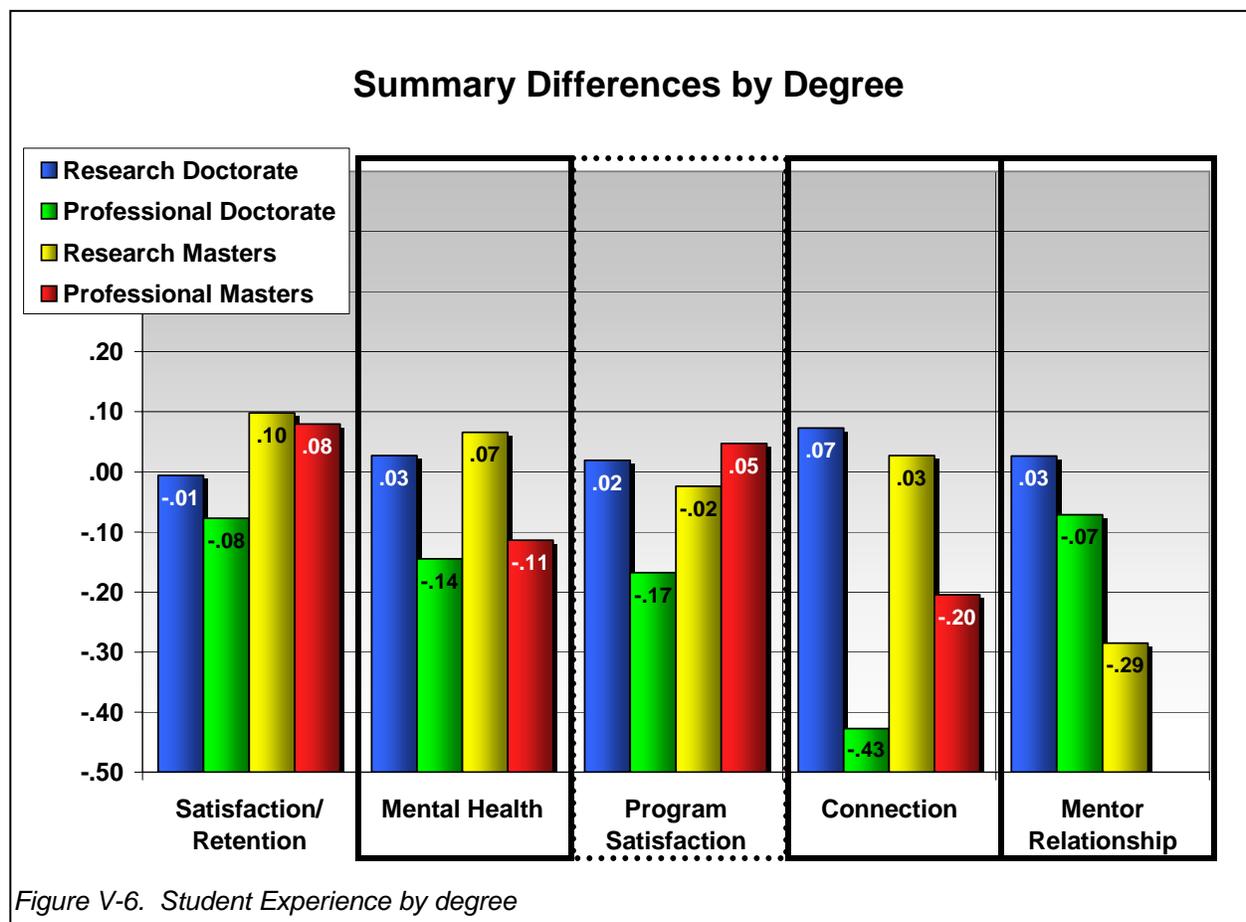*Figure V-6. Student Experience by degree*

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[3] This analysis only included research doctorate, research masters, and professional doctorate students, as there were too few professional masters students with a research advisor (14).

encouraged *more* career options. Overall, PROFESSIONAL students trended towards reporting their programs *less* collegial than RESEARCH students.

For **CONNECTION**, RESEARCH DOCTORATE students reported a relatively *higher* sense of belonging (it should be remembered that overall, graduate and professional students feel very disconnected from UCSD). In particular, RESEARCH DOCTORATE students agreed *more* than average that they interacted with students from other programs, and felt *more* than average they found sufficient opportunities for involvement in campus activities. PROFESSIONAL DOCTORATE students reported an *extremely low* sense of belonging at UCSD as a group. Overall, they felt they interacted *less* with students in other programs, found *fewer* opportunities for involvement in campus activities, and felt much *less* connected to the campus community. PROFESSIONAL MASTERS students were in between, reporting that they interacted *less* with students from other programs, and were *marginally less* likely to find sufficient opportunities for campus involvement. RESEARCH MASTERS students did not differ from "average" an any question in particular.

For **MENTOR RELATIONSHIP**, overall RESEARCH MASTERS students were *less* satisfied. In fact, for every question composing the mentor relationship factor, they reported marginally lower satisfaction than DOCTORATE students (time spent with advisor, advisor availability, sufficient feedback received, work is valued, comfortable suggesting research directions). Research masters students reported the *lowest* satisfaction on all these measures. Additionally, PROFESSIONAL DOCTORATE students reported meeting *less* than average with their advisors; however, they were more likely to report that they received sufficient feedback from their advisors, so this appears to balance out. RESEARCH DOCTORATE students differed from "average" only in reporting they met slightly more often with their advisors.

It is also possible to summarize the differences in experience by simpler variables. For **MENTAL HEALTH**, RESEARCH students experience *more* stress than PROFESSIONAL students, for **CONNECTION**, RESEARCH students feel *more* connected to campus, for **PROGRAM SATISFACTION**, RESEARCH students are *somewhat more* satisfied than PROFESSIONAL students, and for **MENTOR RELATIONSHIP**, DOCTORATE students (RESEARCH and PROFESSIONAL) are *more* satisfied than MASTERS (here, exclusively RESEARCH MASTERS) students. These can be seen in Figure V-7.

It should be noted that PROFESSIONAL DOCTORATE students in particular do *not* feel connected to campus, and seem to have *less* satisfaction with their academic programs.
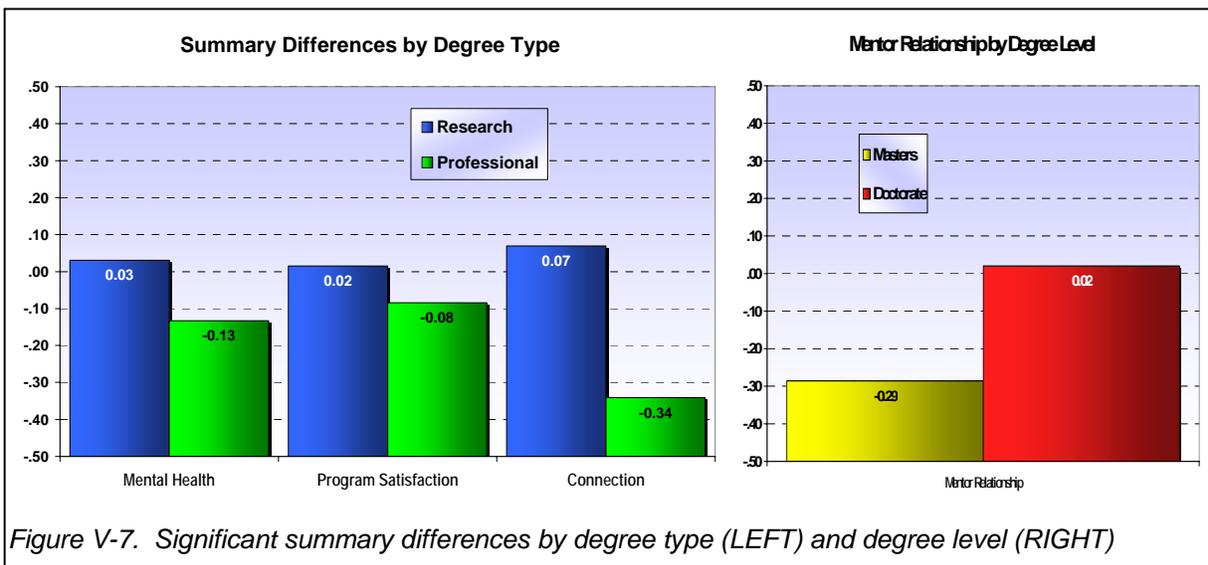
Figure V-7. Significant summary differences by degree type (LEFT) and degree level (RIGHT)

Year in Program

Quite clearly the experience of graduate & professional students changes over time. In fact, for every summary measure except MENTOR RELATIONSHIP, there was a reliable difference due to year of study.

For GENERAL EXPERIENCE, there was a small but reliable effect which appeared to arise from FIRST YEAR students reporting *higher* satisfaction than students at any other year of study, as seen in Figure V-8 (below). This was seen in three items in particular: FIRST YEAR students find their programs *more* collegial than students in their FOURTH YEAR and beyond, students in their FOURTH YEAR and beyond are *more* likely to have considered quitting their programs, and somewhat inexplicably, FIRST YEAR and LATE ("NTH") YEAR students are *more* satisfied with their social experience at UCSD than 2ND YEAR students; this last may be because 1ST YEAR students may be presented a social life to a degree by their programs, and senior students likely have developed their own social lives.

Regarding PROGRAM SATISFACTION, again there were differences between early and more senior students, as seen in Figure V-8. Specifically, 1ST YEAR students felt their programs fostered a *greater* sense of community and encouraged a *greater* diversity of career options than did NTH YEAR students.

For CONNECTION, as seen in Figure V-8, LATER STUDENTS reported feeling *more* connected than junior students. Later-year students (more than 2ND AND 3RD YEAR students) felt they interacted *more* with students from other departments, and felt there were sufficient ways to be involved in campus life.

There were also effects of year in program on MENTAL HEALTH, as can be seen in Figure V -8. Specifically, LATER-YEAR students experienced *more* stress about their future and finances. This effect was strongest for 3RD YEAR students. While this is possibly an effect of losing most masters students (who generally finish after two years), the effect still holds if degree level factored out. Additionally, the later a student is in their program, the more likely they are to have considered and/or sought counseling.
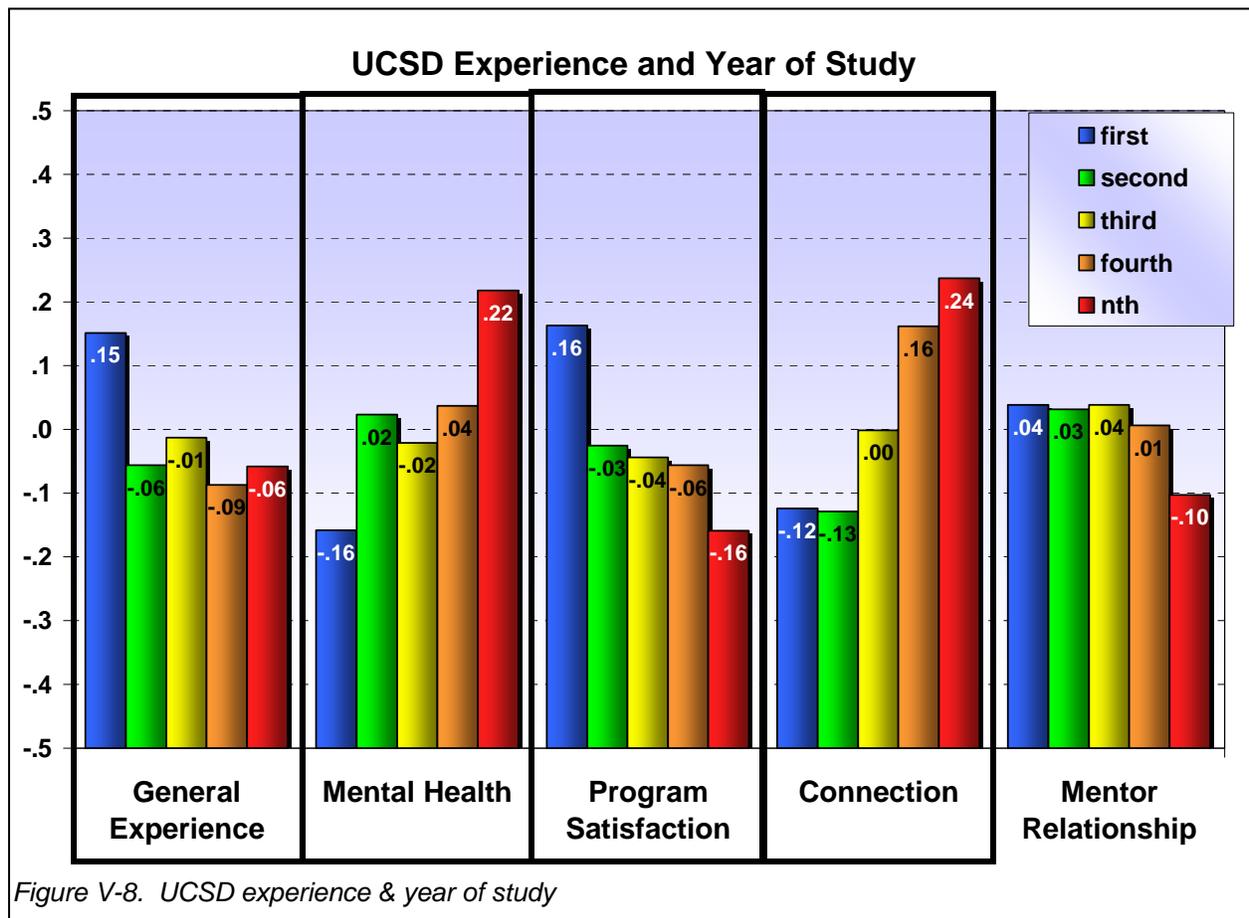

Figure V-8. UCSD experience & year of study

Gender

The results for UCSD experience by Gender are presented in Figure V-9 (below). Student gender showed two statistically reliable effects. First, MALE students reported a slightly better **GENERAL EXPERIENCE** at UCSD. This effect was small, but reliable. Examining the questions that make up the **GENERAL EXPERIENCE** factor, it seems this effect is carried mainly by three items: FEMALE students are *less* likely to agree that their UCSD experience has met their expectations, they report *lower* academic satisfaction, and are *more* likely to have considered quitting their programs.

Much more striking, for **MENTAL HEALTH**, FEMALE students reported experiencing *markedly more* stress than MALE students. On further exploration, this effect held for every single **MENTAL HEALTH** variable: stress due to academic program, finances, career/future plans, and other stressors, frequency of feeling overwhelmed, whether counseling was considered, and whether counseling was actually sought. A question that arises is if this is, at least in part, due to a greater willingness of FEMALE students report/acknowledge stress than MALE students.

Figure V-9.   UCSD Experience by Gender
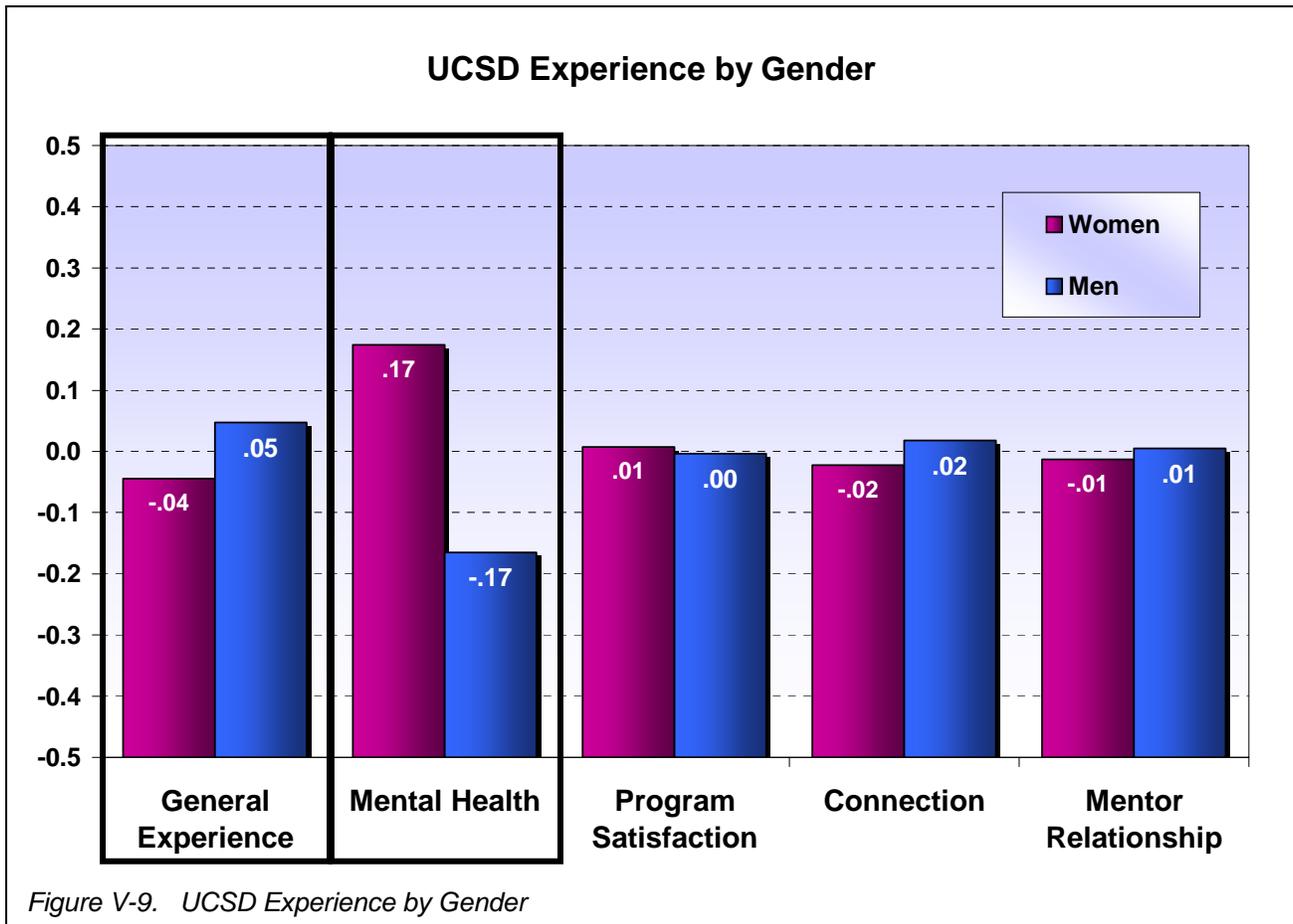
Ethnicity/Citizenship
Census

Overall, the ethnicity of survey respondents matched quite well to the ethnic background of the graduate & professional student body. This survey elicited very detailed descriptions of ethnic background from respondents. Indeed, the descriptions are more detailed than current UCSD records, in that respondents could (& frequently did) choose to describe their backgrounds as mixed. In Table V-1, the ethnicity of respondents is presented, conforming to the OGSR reporting standard. For analyses exploring the relationship between ethnicity, citizenship, and the UCSD experience, three overarching categories were used:

ETHNICITY/CITIZENSHIP	Total Population	Survey Respondents
US Citizens & permanent residents		
White/Asian	**63.9%**	**68.9%**
White	46.5%	53.4%
White/Asian		.5%
Asian	17.4%	15.0%
single Ethnicity		*13.3%*
mixed Ethnicity		*1.7%*
Underrepresented Minority	**7.8%**	**10.5%**
single Ethnicity		*6.1%*
mixed Ethnicity		*4.4%*
Other/ Declined to state	**9.7%**	**3.0%**
International	**18.7%**	**17.7%**

Table V-1. Ethnicity/Citizenship

- White/Asian. This category includes only US citizens and permanent residents. Students identifying as white are the majority of survey respondents (and the graduate/professional student body), and students identifying as Asian represent about one-sixth of the respondents/student body (not an underrepresented minority in terms of the California population). This category also includes participants claiming a combined white/Asian heritage. It should be noted that given their overall presence, fewer than expected white/Asian respondents are pursuing an MA degree; further, they are disproportionately overrepresented in respondents pursuing the MD degree (DEGREE), and are thus overrepresented in SOM respondents (DIVISION).
- Underrepresented minorities. Any US citizen or permanent resident respondent who either fully or partially claimed an ethnic heritage of any of the following, which are underrepresented in the UC system in terms of makeup of the state population:
  - African-American
  - American Indian & Alaskan Native
  - Chicano/Mexican-American/Puerto Rican
  - Latino/Latino-American
  - Polynesian/Micronesian

These respondents are disproportionately represented in those seeking a masters-level degree, specifically the MA degree (DEGREE); underrepresented minorities are also overrepresented in respondents studying the humanities (DIVISION).

- International. Any student who is **not** a US citizen or permanent resident (that is, all students studying at UCSD on temporary visas). There are more male international students than white/Asian or underrepresented minorities (GENDER), international students tend to be in farther along in their degree programs (YEAR) and the international students disproportionately pursue doctorate, particularly research doctorate, degrees. Moreover, disproportionately few international students are pursuing the MD degree (DEGREE) and are underrepresented in SOM respondents (and tend towards underrepresentation in Health Sciences and Humanities). International students are overrepresented in Engineering (DIVISION)

Survey Results

The ethnic background of respondents was reliably related to differences on all summary measures (**GENERAL EXPERIENCE**, **MENTAL HEALTH**, **PROGRAM SATISFACTION**, **CONNECTION**) <u>except</u> **MENTOR RELATIONSHIP**, which showed no difference base on ethnic background. Results can be seen graphically in Figure V-10 (below).

For **GENERAL EXPERIENCE** with the UCSD experience, there was a *marginally* reliable difference based on ethnicity/citizenship. In particular, underrepresented minority respondents reported somewhat less satisfaction with the general experience than white/Asian respondents. This marginal effect held even if DIVISION of study and degree sought are removed from the analysis. In terms of particular questions making up the general experience factor, white/Asian respondents found their programs slightly *more* collegial than average, underrepresented minority respondents were less likely than average to feel their programs had met their expectations, they reported significantly *lower* social **and** cultural satisfaction than average, and were marginally likely to report lower academic satisfaction than average. International students on the one hand reported *lower* than average collegiality in their programs, but on the other hand were *more* satisfied academically, marginally *more* satisfied socially, and *less* likely to have considered quitting their programs than average.

For **MENTAL HEALTH**, underrepresented minorities reported experiencing substantially *more* stress than white/Asian **and** international students. In fact, across-the-board, underrepresented minorities reported more stress about their programs, their future/careers, finances, and other topics, are *more* likely to feel overwhelmed, and are *more* likely than average to have considered seeking counseling). International students reported *more* stress about the future/career than average, but were *less* likely to consider seeking counseling.

For **PROGRAM SATISFACTION**, there was again an effect where underrepresented minorities reported lower satisfaction than white/Asian respondents. This effect, though small, also held if DIVISION of study and degree sought were removed from the analysis. This effect seems to be driven in large part because underrepresented minorities reported *less* agreement that their programs made sufficient efforts to foster a sense of community. Interestingly, international students also showed this pattern; on the
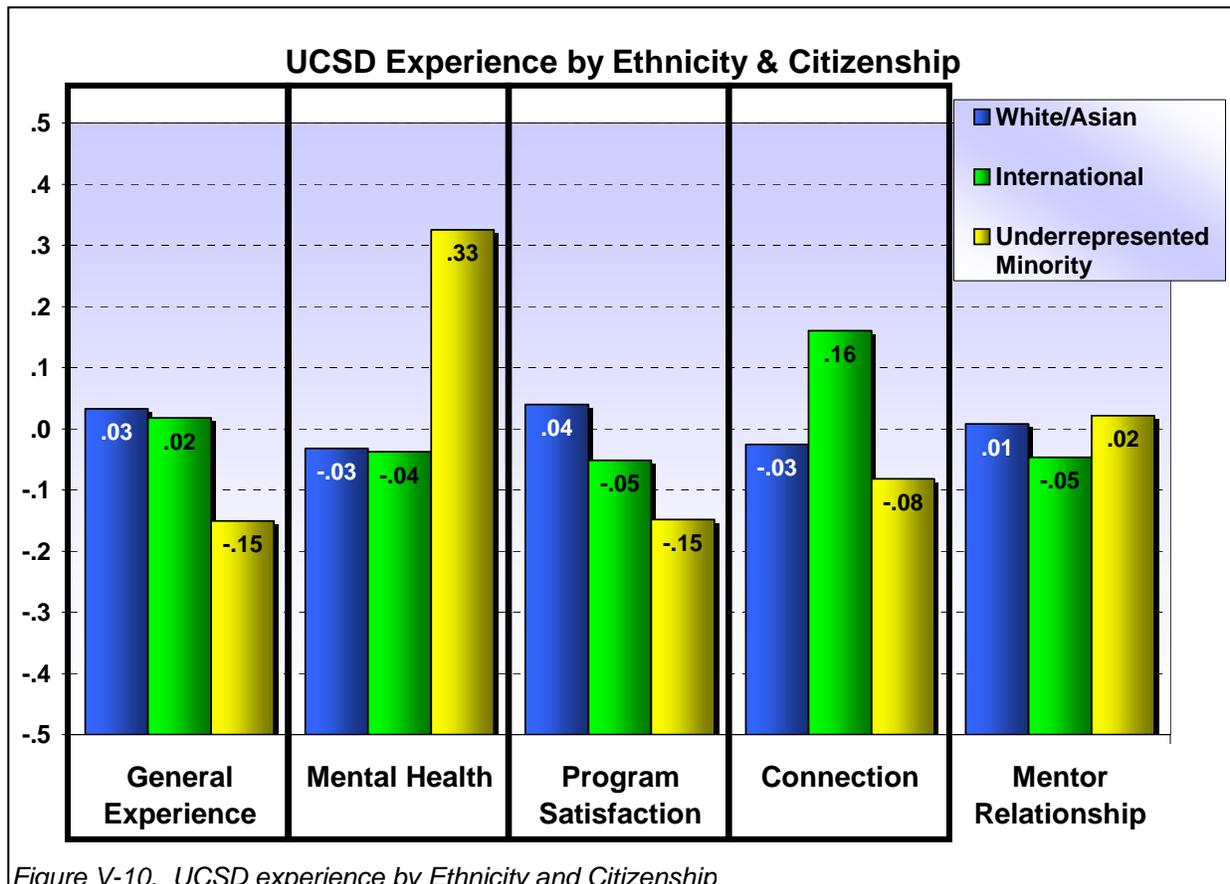
Figure V-10. UCSD experience by Ethnicity and Citizenship

other hand, international students were *more* likely than average to agree that their programs encouraged
a variety of career options, and felt they had greater input into decision making than average (although as
above, overall, international students differed neither from white/Asian students nor underrepresented
minorities on **PROGRAM SATISFACTION**).

For **CONNECTION** to UCSD, international students expressed a stronger **CONNECTION** than **either**
white/Asian or underrepresented minority students (who did not differ from each other).
White/Asian students felt they interacted *less* than average with students from other programs, and
international students felt they interacted much *more* than average with students from other programs and
reported a stronger sense of connection to the greater campus community. As reported above,
underrepresented minorities express *less* satisfaction than average with both their social and cultural
experiences at UCSD.

Sexual Orientation
Census
To our knowledge, this information is not collected elsewhere at UCSD-- thus, it is not possible to compare the representation of respondents to that of the general student body.

83 respondents (5.4%) identified themselves as gay/lesbian, bisexual, or otherwise claimed sexual minority status; if this trend holds across the student body, this extrapolates to 233 individuals. Table V-2 presents the breakdown. As there were relatively few respondents in the non heterosexual categories, to facilitate analyses two categories were created:

Sexual ORIENTATION	Survey Respondents
Heterosexual	94.6%
LGBTO	5.4%
Gay/Lesbian	*2.5%*
Bisexual	*2.8%*
Self-Identified	*0.1%*

Table V-2. Sexual Orientation of respondents

"heterosexual" and "LGBTO;" [4] respondents who declined to state their sexual orientation were excluded from these analyses." It should be noted that LGBTO respondents were overrepresented in the Arts (and somewhat so in Humanities & Social Sciences), and underrepresented in IR/PS & Engineering. Additionally, LGBTO respondents were exclusively pursuing doctorates (the PhD, MFA, or MD degree).

Survey Results
Results for the summary factors are presented in Figure V-11 (below). For these summary factors, only a single effect was statistically reliable: for **MENTAL HEALTH**, LGBTO students reported experiencing *more* stress than their straight counterparts.
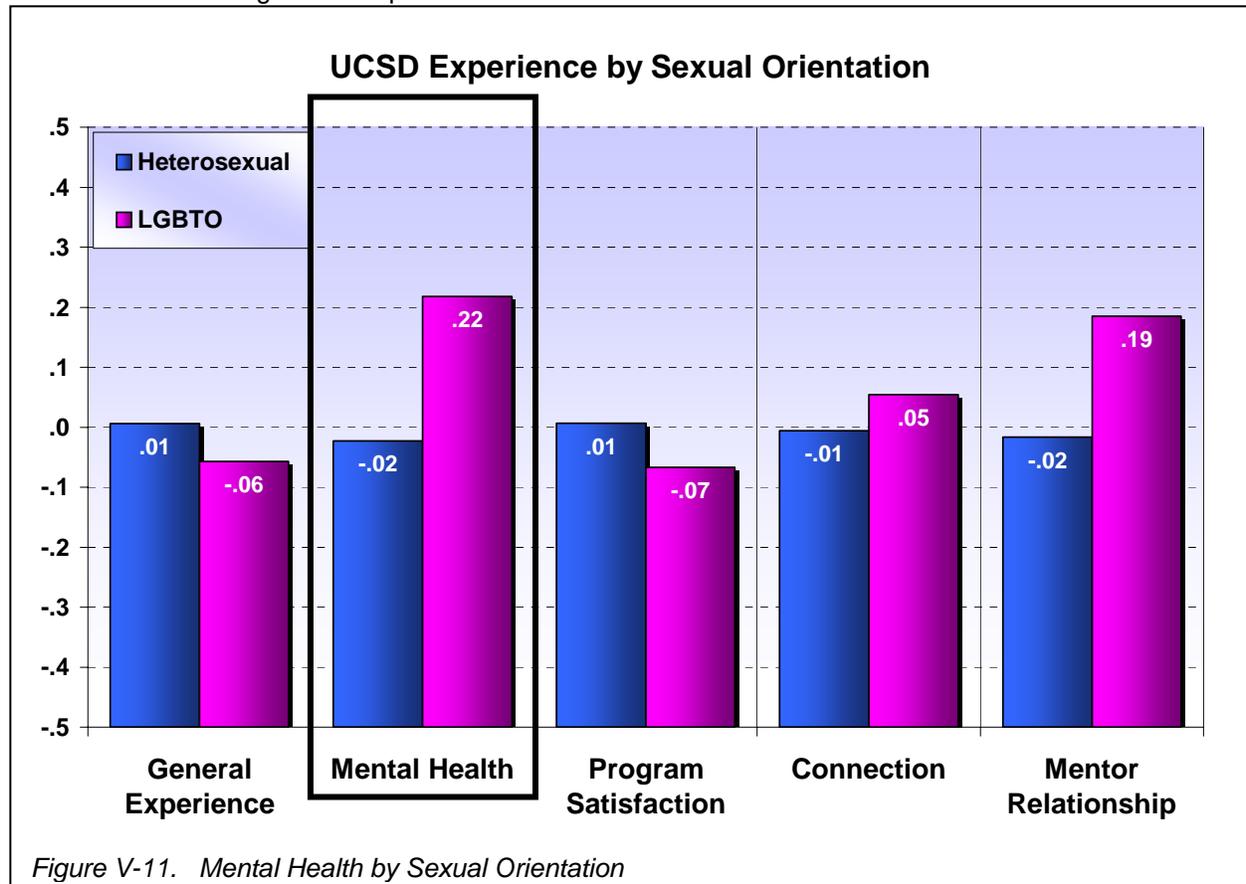

Figure V-11.   Mental Health by Sexual Orientation

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[4] It should be noted that all respondents who identified their gender as other than male or female also identified their sexual orientation as non heterosexual.

V. Experience by Group

For **MENTAL HEALTH**, LGBTO students experienced *more* stress on every **MENTAL HEALTH** variable except stress about the future: LGBTO students reported *more* stress related to academic program, finances, and "other" topics, reported feeling overwhelmed more often, and considered seeking counseling at a higher rate than their Straight counterparts.

It should be noted that students in the Arts division generally report the highest levels of stress for graduate & professional students, and as above, the Arts division has nearly 4 times more LGBTO respondents than the general student body. IR/PS and Engineering students report relatively lower levels of stress, and there are few LGBTO respondents in those divisions. When DEGREE & DIVISION are removed from the analysis to control for the unequal distribution of LGBTO respondents, the difference on the **MENTAL HEALTH** factor is reduced in size and becomes only marginally reliable. Thus, it may be the case that some of the higher stress experienced by LGBTO students derives from DIVISION or DEGREE sought, and not from LGBTO status per se—but stress levels still appear higher than average for LGBTO students.

Disability Status

Census

As can be seen from Table V-3 at right, 3.8% of survey respondents (59 people) reported having a disability; this predicts that there are approximately 163 graduate & professional students with some form of disability.

Disability Status	Survey Respondents
Disability	3.8%
No	96.2%

Table V-3. Disability status of respondents

Although this information is ostensibly recorded by the Office of Students with Disabilities/OSD, it appears likely that the results of this survey provide a more accurate census of disabilities in the graduate & professional student population. As can be seen in Figure V-12 below, only 42% of disabled students report that they have disclosed their disability to OSD; similarly, only 43% report disclosing their disability to their program, and only 53% of students with disabilities appear to have disclosed their disability to either OSD or their program. For these reasons, it would seem that any statistics UCSD might have on graduate & professional students with disabilities is likely to grossly underestimate the actual prevalence. It should also be noted that only 6% of students with disabilities were referred to OSD by their programs, and possibly as a result, only 50% of students with disabilities report that their disabilities have been accommodated.

Based on survey respondents, it seems that students with disabilities are fairly evenly distributed throughout the student body-- however, there are somewhat more students with disabilities in the Humanities, Social Sciences, & Biological Sciences than expected, and somewhat fewer in Engineering & Health Sciences.
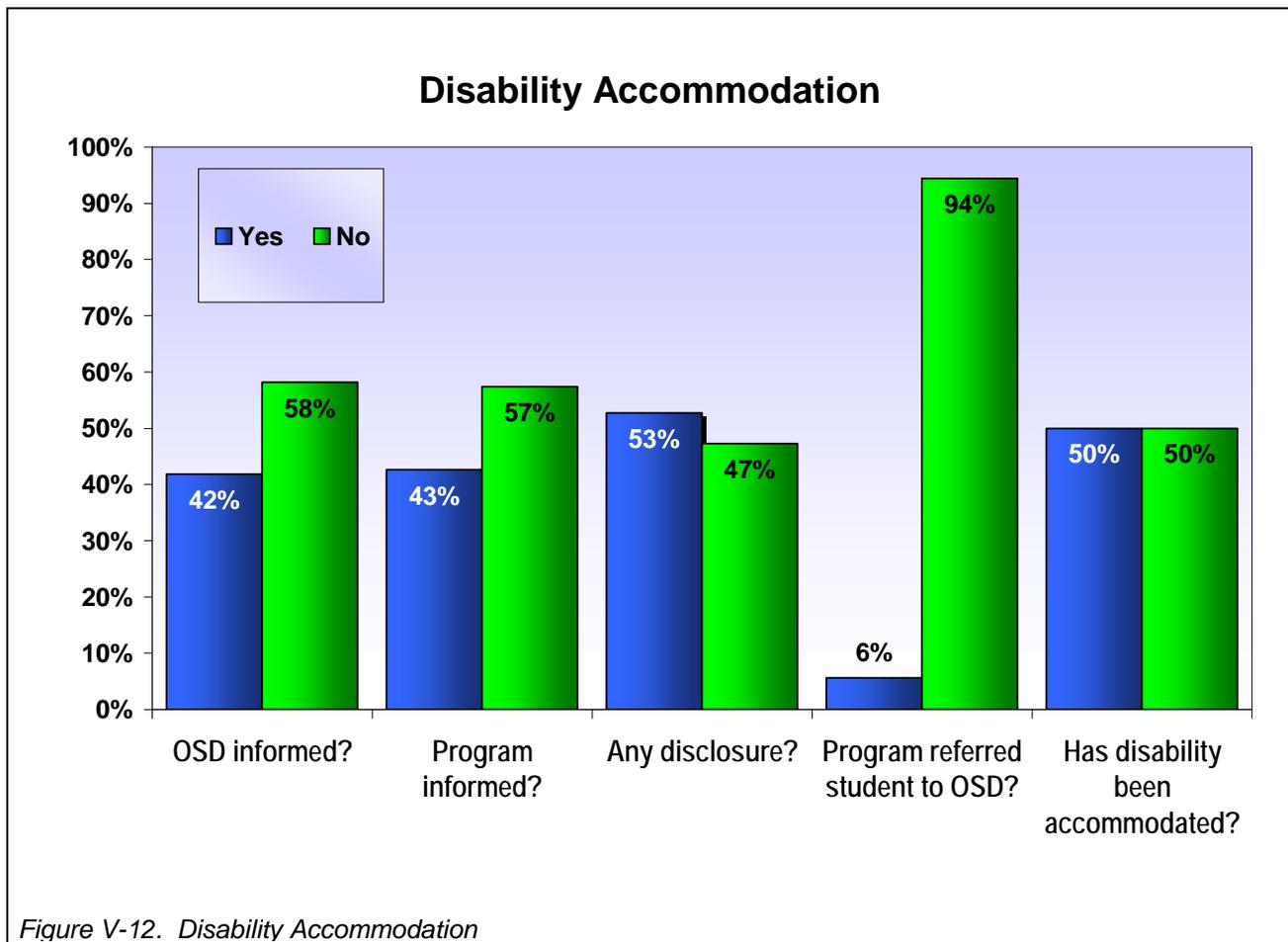

Figure V-12. Disability Accommodation

V. Experience by Group

Survey Results

The results for the experience of disable students are presented graphically in Figure V-13 (below). There were three statistically reliable differences between students with disabilities and non disabled students on the summary measures: students with disabilities reported experiencing more stress, were less satisfied with their programs, and were marginally less satisfied with their GENERAL EXPERIENCE at UCSD.

For GENERAL EXPERIENCE, students with disabilities showed marginally lower satisfaction with their GENERAL EXPERIENCE at UCSD, as can be seen in Figure V-13. Specifically, they are more likely to have considered quitting their programs, and are marginally less likely to say that their programs have met their expectations, and that the feel a sense of belonging at UCSD. When DIVISION of study is factored out of the analysis, disabled students are still marginally less satisfied with the UCSD experience than non disabled students.

For MENTAL HEALTH, students with disabilities experience more stress than non disabled students. This mainly seems to arise from stress due to their academic programs-- although disabled students report considering as well as seeking counseling more than non disabled students. When DIVISION of study is factored out of the analysis, there remains a marginal difference with lower MENTAL HEALTH for disabled students.

For PROGRAM SATISFACTION, students with disabilities show lower happiness with their programs. This correlates with markedly lower satisfaction with department assistance with securing funding; there is also a marginal effect wherein disabled students feel their programs encourage a lesser diversity of career options. When DIVISION of study is factored out of the analysis, the overall difference in PROGRAM SATISFACTION is no longer reliable, so it may be the case that this effect is related mainly to the fact that disabled students are not evenly distributed throughout programs at UCSD.

Figure V-13.   UCSD Experience by Disability Status
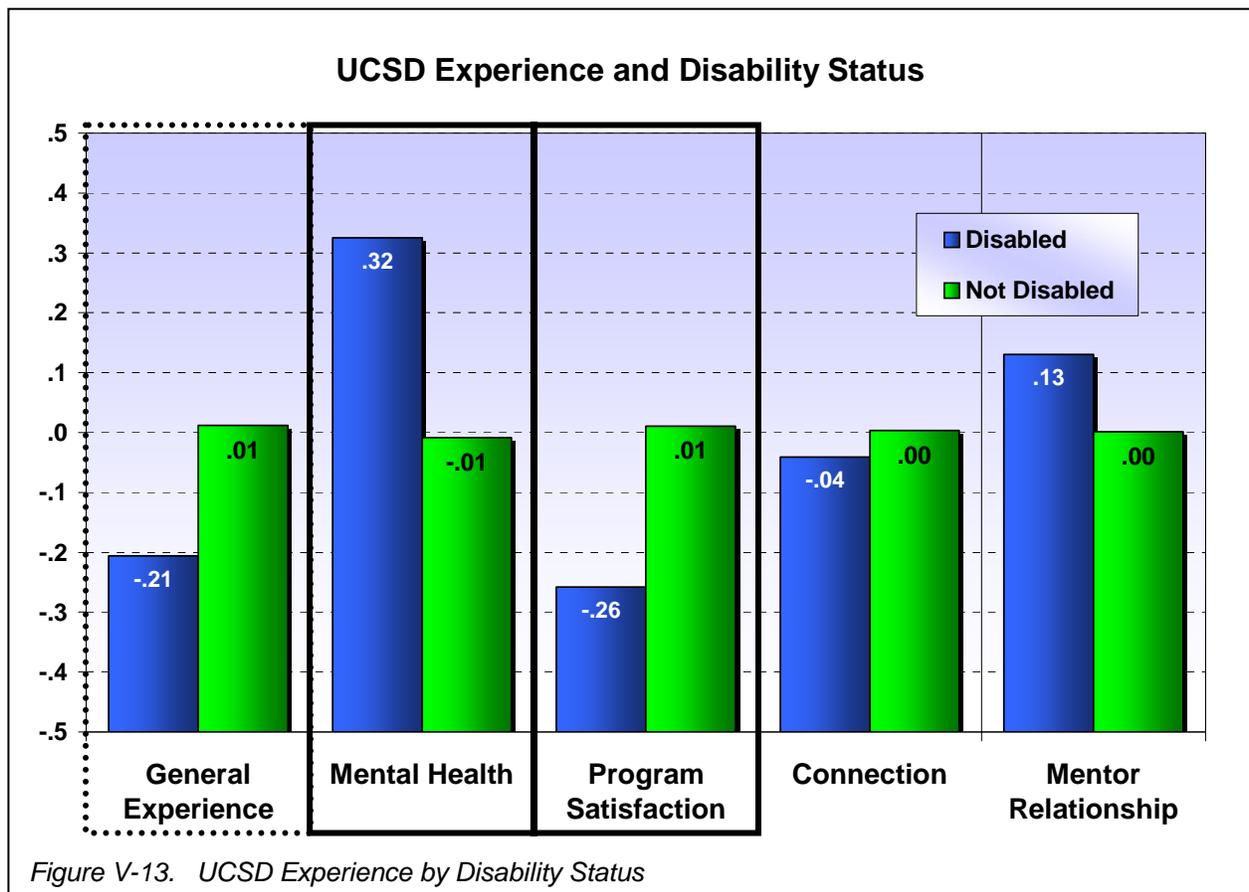
Students with Families

Census

To our knowledge, this information is not recorded elsewhere at UCSD, so this represents the first census of the family status of graduate & professional students. One-hundred respondents (6.4%) reported having children; if

FAMILY Status	Have children?	Have children at home?
yes	6.4%	5.7%
no	93.6%	94.3%

Table V-4. Family Status

extrapolated, this predicts that there are approximately 276 graduate & professional students with children. Eighty-nine (5.7%) respondents reported having dependent children; if extrapolated, this predicts 245 graduate & professional students have children at home.

As can be seen in Figure V-14 (right), over more than half of students with children reported their children were born during their course of study-- and over one-eighth of students have taken a leave of absence to accommodate family responsibilities, while over one-fourth have reduced their workload.

Graduate &

Figure V-14. Family & Academics

professional students do not utilize UCSD resources for students with families: as can be seen in Figure V-15 (below right), less than 10% of students have utilized lactation or childcare facilities, and sizeable percentages of students are unaware of these resources. Very few students have used any Women's Center resources, while nearly half of graduate & professional students with families have taken advantage of accelerated admission to Affiliated Housing.
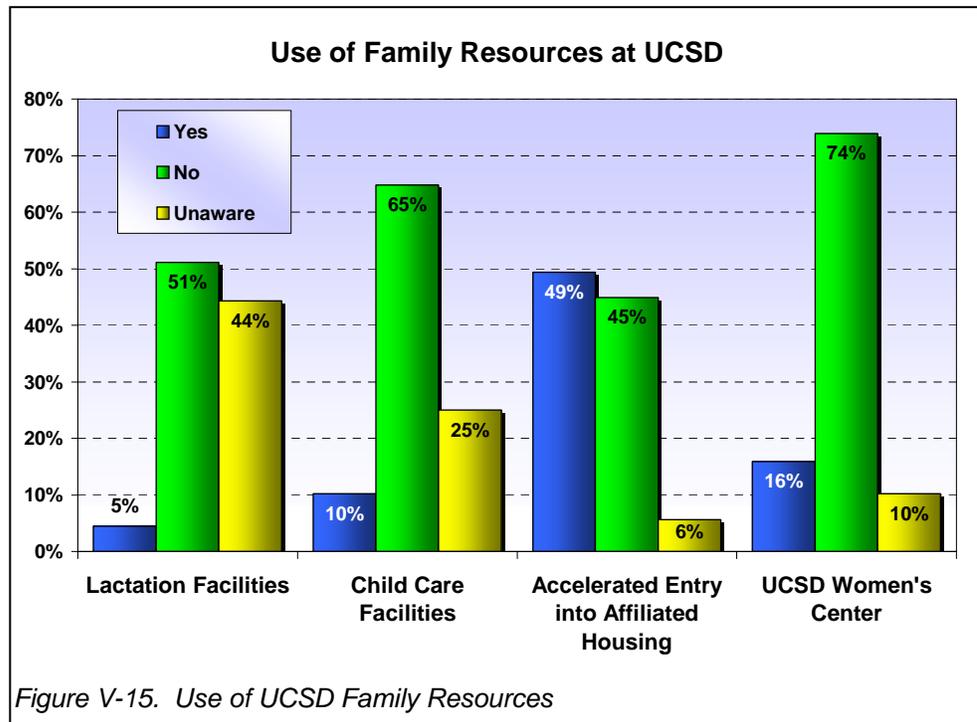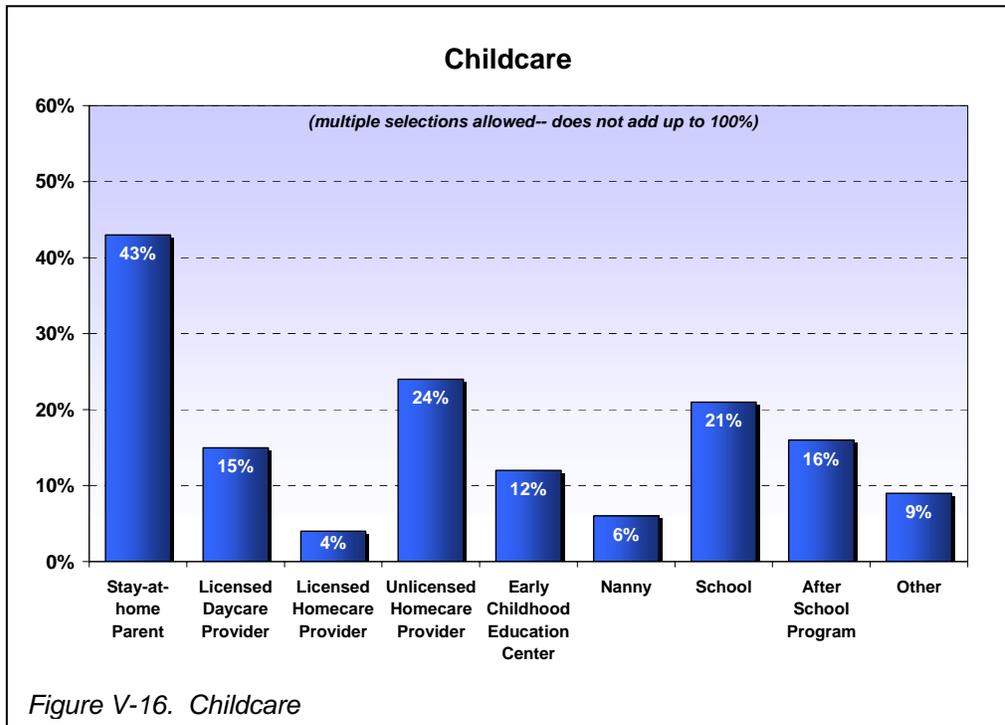

Figure V-15. Use of UCSD Family Resources

Graduate & professional students use many and varied resources for childcare, as can be seen in Figure V-16 (left). The most popular option is a stay-at-home parent, used by 43% of students with families. Nearly one quarter of students use unlicensed homecare providers or school for some portion of childcare, and students also report taking advantage of

Childcare

(multiple selections allowed-- does not add up to 100%)

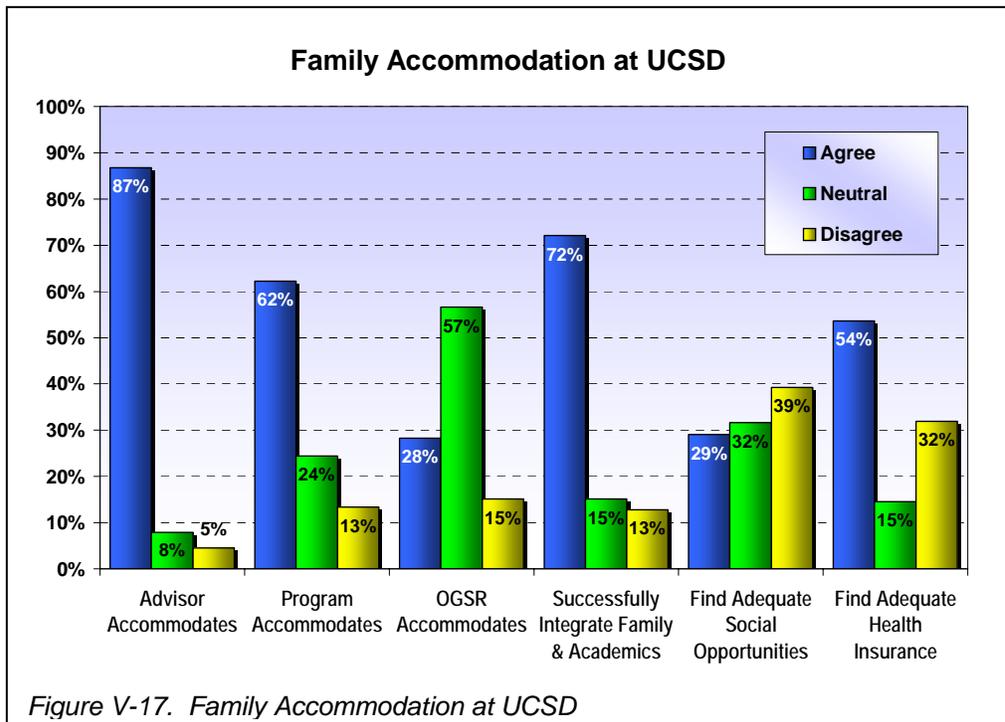| Category	Value
Stay-at-home Parent	43%
Licensed Daycare Provider	15%
Licensed Homecare Provider	4%
Unlicensed Homecare Provider	24%
Early Childhood Education Center	12%
Nanny	6%
School	21%
After School Program	16%
Other	9%

Figure V-16. Childcare

licensed daycare, the ECEC, nannies, and after school programs; none of the respondents to this survey reported using the International Center Co-op/Nursery School.

Students with families face additional burdens. As can be seen in Figure V-17 (below), most students with families find their advisors accommodating of the additional responsibilities, and the majority of students with families also find their programs accommodating; a sizably lower percentage (less than one-third) find OGSR accommodating-- as relatively few students report that OGSR is "unaccommodating," this may simply mean that relatively few students with families have interacted specifically with OGSR. The majority (72%) of students feel that they successfully integrate family & academic responsibilities-- although students do not find overall that they are adequate social opportunities for students with families; nearly one-third of students with families also report that finding adequate health insurance is a problem.

Graduate & professional students with families do not form a "clean" group-- they are spread disproportionately throughout the

Family Accommodation at UCSD

Legend: Agree, Neutral, Disagree

Category	Agree	Neutral	Disagree
Advisor Accommodates	87%	8%	5%
Program Accommodates	62%	24%	13%
OGSR Accommodates	28%	57%	15%
Successfully Integrate Family & Academics	72%	15%	13%
Find Adequate Social Opportunities	29%	32%	39%
Find Adequate Health Insurance	54%	15%	32%

*Figure V-17. Family Accommodation at UCSD*

student body, according to the results of this survey. Slightly more female students reported having dependent children. Students with dependent children tend to be farther along in their programs than the average student, with in particular many students with dependent children being in their fifth year or beyond. There are no arts students and few IR/PS students who reported having dependent children, while humanities students were four times more likely than average, and social sciences students were twice as likely as average, to report having dependent children.

Survey Results

The results for the UCSD experience of students with families is presented graphically in Figure V-18 (below). There were two statistically significant differences on summary measures between graduate & professional students with families; however, both of these effects are only marginal: students with families report experiencing more stress, but also feel a greater CONNECTION to campus.

      For MENTAL HEALTH, students with children report experiencing marginally greater stress. This is mainly due to marginally *more* frequent stress over finances, and significantly *more* stress over "other" topics. As above, there are many other factors that describe students with children-- gender, year of study, division of study, and degree sought all vary predictably with family status. If all of these variables are controlled for, the difference in MENTAL HEALTH between students with families and those without is eliminated; nonetheless, the difference in MENTAL HEALTH merits further exploration.

      For CONNECTION to campus, students with children are marginally more likely to report a greater CONNECTION to campus. There is no single question driving the relationship-- although students with families report marginally higher cultural satisfaction—rather, there is a small but consistent pattern of responses wherein students with families are very slightly higher-than-average on all CONNECTION questions. As with MENTAL HEALTH, if all of the other demographic variables associated with students having families (gender, year of study, division of study, degree sought) are controlled for, the effect disappears. In this case, it probably indicates that the difference in sense of CONNECTION is unrelated to family status, since there was no difference on any subcomponent of the CONNECTION factor, and as CONNECTION, as reported in previous sections, is known to vary markedly based on division of study and year of study.

Figure V-18.   UCSD Experience by Family Status
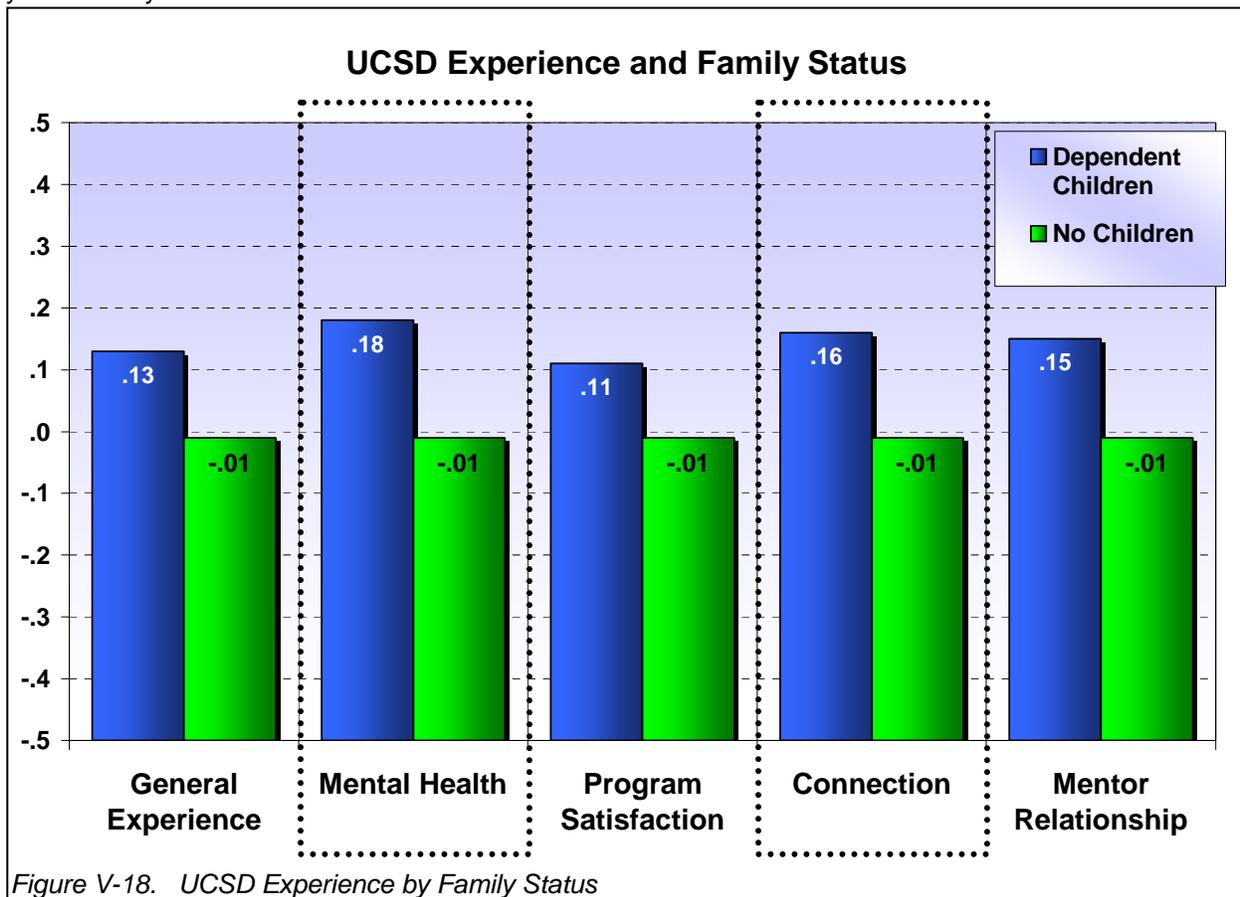
VI. Focus: Mentor Relationship

Background

For students pursuing a research degree, the relationship with a research mentor is critical to a positive and productive training experience. We can examine this in more depth with the results of this survey: of the 72.3% respondents having a research advisor, most answered specific questions regarding their mentors.

Students don't always know the experience

Mentor's Experience

Figure VI-1. Previous graduates histories of mentors

level of their mentors. As can be seen in Figure VI-1 (above), nearly two-thirds of respondents reported that their mentors had previously graduated at least a few (or many) students. Nearly one-fifth of students were working with mentors who had not previously graduated a student, and approximately one-

tenth did not currently know the graduation record of their advisors. Students seeking a research doctorate were much more likely to know the graduation record of their mentors than students seeking a research masters or professional doctorate (and to have known it prior to matriculation, as can be seen in Figure VI-2 (right). Students seeking a research doctorate were also more likely to have mentors with previous mentoring experience[1].

A Priori Knowledge of Mentor's Experience

Figure VI-2. Awareness of mentor experience before matriculation

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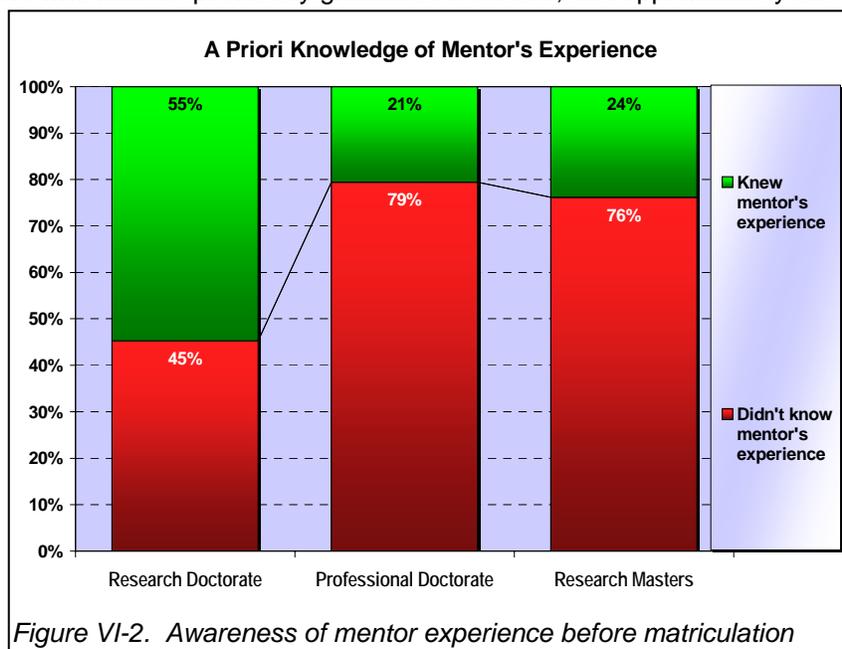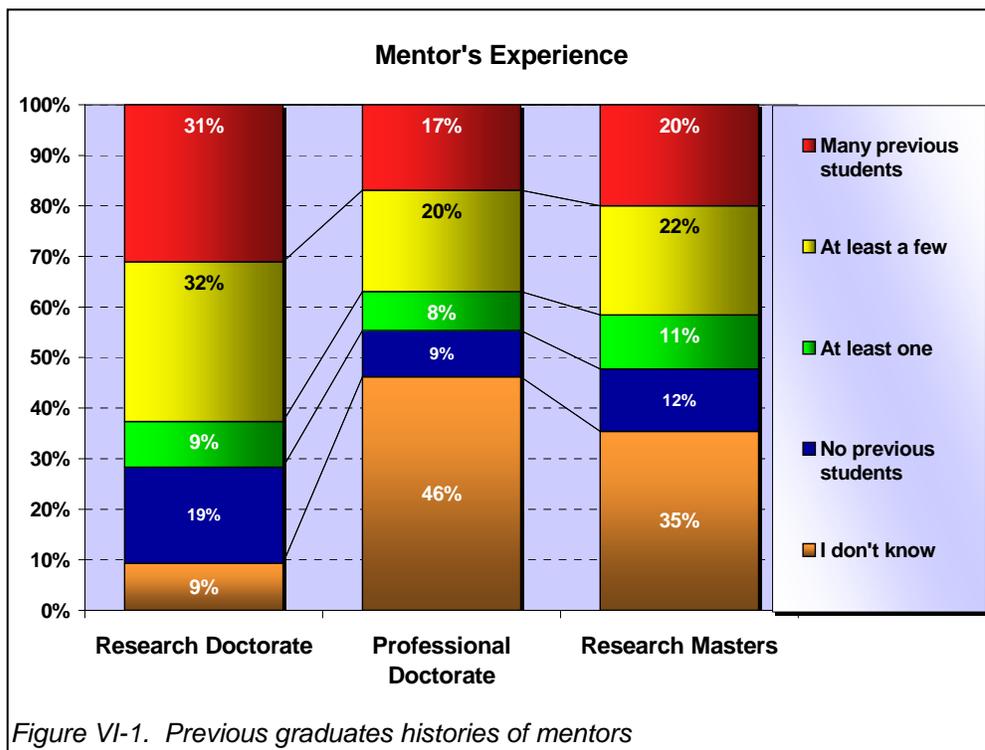
[1] It should be noted that there were too few students seeking a professional masters with a research advisor (7) to include in these analyses.

Effects of mentor relationship

As described in Section IV and Appendix III, we identified a factor that we called "**MENTOR RELATIONSHIP**;" it was based on five specific questions related to the mentor relationship. In order to investigate the effects of the mentor relationship on student experience, we performed several analyses by first breaking respondents into two groups: those whose **MENTOR RELATIONSHIP** score was above the average, and those whose mentor relationship score was below the average. In order to control for the

	Respondents
Mentor relationship score below the division average	43.8%
Mentor relationship score above the division average	56.2%

Table VI-1. Breakdown by mean mentor relationship score

possibility that students in different divisions might have different overall advisor experiences, this separation into two groups was performed within each division (that is, the mean mentor relationship was determined separately for each of the eight divisions in which sufficient respondents reported a research mentor[2]).

It should be noted that there were no differences between the "below-average" and "above-average" groups on any of our demographic groups (**YEAR OF STUDY**, **DEGREE**, **GENDER**, **ETHNICITY & CITIZENSHIP**, **SEXUAL ORIENTATION**, **FAMILY STATUS**, **DISABILITY STATUS**, nor, obviously, **DIVISION OF STUDY**). Thus, it would appear that the two groups are relatively comparable save their mentor relationships. Further buttressing this comparability is that while the students in the below-average group experienced more stress due to their academic programs and the future/careers—both areas presumably in part dependent on one's mentor relationship, they did **not** experience more stress due to finances nor "other" topics; it might be tempting to infer that students with a below-average mentor relationship were simply "having problems," but the lack of stress in other aspects of their lives seems to indicate that the problems are specific to the UCSD experience.

Mentor relationship very strongly predicts the student experience. As can be seen in Figure VI-3 (below), every summary measure differed based on mentor relationship: for those with below-average mentor relationships, general experience was less positive, more stress was experienced, and program satisfaction was decreased; interestingly, connection/belonging was also diminished, perhaps indicating that the mentor relationship has repercussions beyond that of academics and careers. In fact, those whose mentor relationship was below average for their divisions differed reliably on so many items that it is not practical to present the results graphically. For every single item making up the mentor relationship measure, and on every summary question **except** whether the campus was safe, students with below-average mentor relationships were reliably
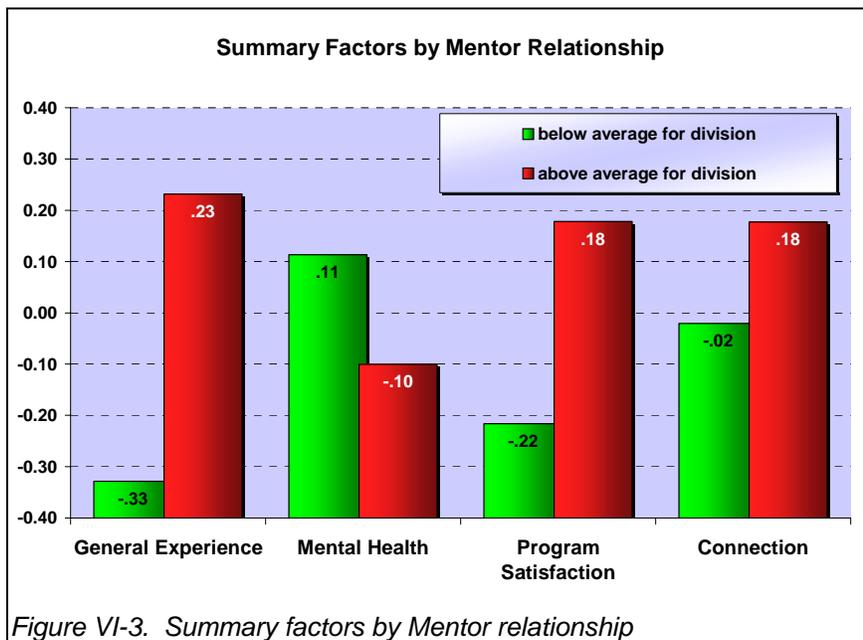
Summary Factors by Mentor Relationship

*Figure VI-3. Summary factors by Mentor relationship*

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[2] Arts, Biological Sciences, Engineering, Health Sciences, Humanities, Physical Sciences, Social Sciences, and the School of Medicine

worse off. They were also more likely to report that they had been subject to unfair treatment or unwelcome advances, and were more likely to have considered quitting their programs. They were more likely to not know their mentors' previous student history currently, and were less likely to have known their mentors' histories before matriculation. Interestingly, students with below average mentor relationships were more likely to be considering a non academic career and less likely to be considering an academic career. Perhaps the best summary measure depicting the experience of students with below-average mentor relation-ships is that on average they were essentially neutral (an average score of 3.06, where 3 was neutral) as to whether UCSD had met their expectations.

Focusing in on a few measures, students with below-average mentor relationships were marginally more likely to be in larger-than-average[3] labs.   those whose mentor relationship is below average meet less with their advisors than those whose mentor relationship is above average, as can be seen in Figure VI-4 (below). If the average meeting time per week is computed for both groups[4], there is a marked difference: those with an above average relationship meet nearly an hour-and-a-half (88 minutes) each week with their mentors, while those with a below average relationship meet on average 40 minutes a week with their mentors-- and nearly half of those with a below average mentor relationship (47%) meet

Figure VI-4. Mentor weekly meeting time, by above & below average mentor relationship
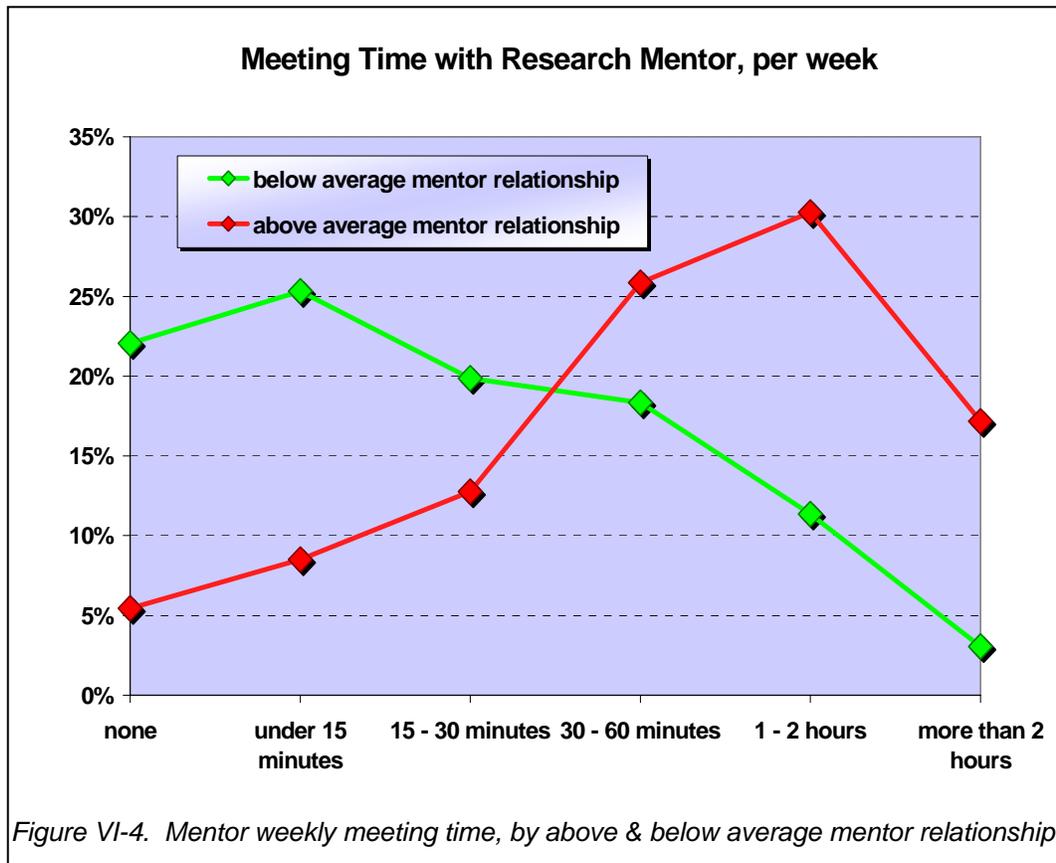
15 minutes or fewer with their mentors each week. Indeed, of the 146 respondents who reported asked their advisors for more feedback, 143, or **98%**, had below-average mentor relationships.

Those who have a below-average mentor relationship are more likely to have considered leaving their programs (46% vs. 29%). There are many reasons students consider leaving; however, as seen in Figure VI-5, when the reasons for having considered leaving are compared for those with an above- and below-average mentor relationship, the only reason that differs in selection rate is "quality of relationship with advisor."

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[3] As lab size likely differs from program to program and between divisions, respondents were asked to identify their lab size within their own program in terms of "smaller than average," "about average," and "larger than average."

[4] With each category assigned a "maximum," so for example, "under 15 minutes" was assigned 15 minutes, 1 – 2 hours was assigned 120 minutes (2 hours), and "more than 2 hours" was arbitrarily assigned 180 minutes (3 hours)

Finally, while very few programs appear to have any means of evaluating mentors (only 17% of respondents report their programs do so), reliably more students whose mentor relationship is above-average are in programs where there is a means of evaluating mentors: 21% of students with above-average mentor relations are in programs where there is a means of evaluating mentors, versus only 13% of students with below-average mentor relationships.

Summary

Nearly three-fourths of respondents report a research mentor. If respondents are compared based on their overall mentor relationship, there are no demographic differences between those with an above-average relationship and those with a below-average relationship, indicating that the two groups are roughly comparable except for their mentor relationships. When these two groups are compared for the quality of their UCSD experience, quality of the mentor relationship very strongly correlates with a neutral-to-negative UCSD experience, marked by general dissatisfaction, higher stress, and a greater likelihood of considering quitting. Concretely, students with a below-average mentor relationship report less mentor "face time" (less than half has much), and less advisor availability, support, and feedback. There is also a marginal trend for students with a below-average mentor experience to be in larger-than-average labs. Finally, it is the case that students with above-average mentor relationships are more likely to be in programs where there is a means of evaluating research mentors.

Figure VI-5. Reasons for considering leaving, based on mentor relationship
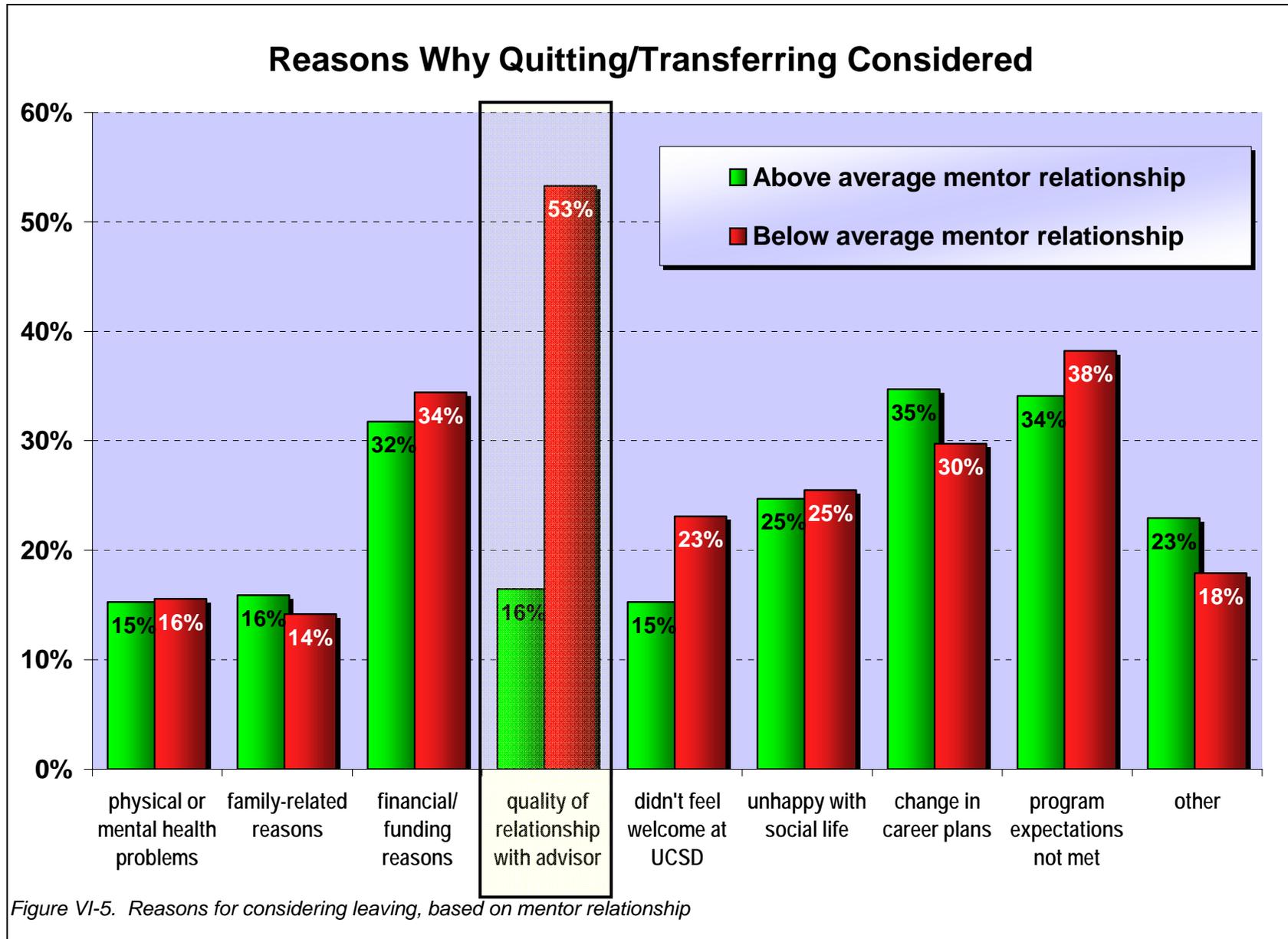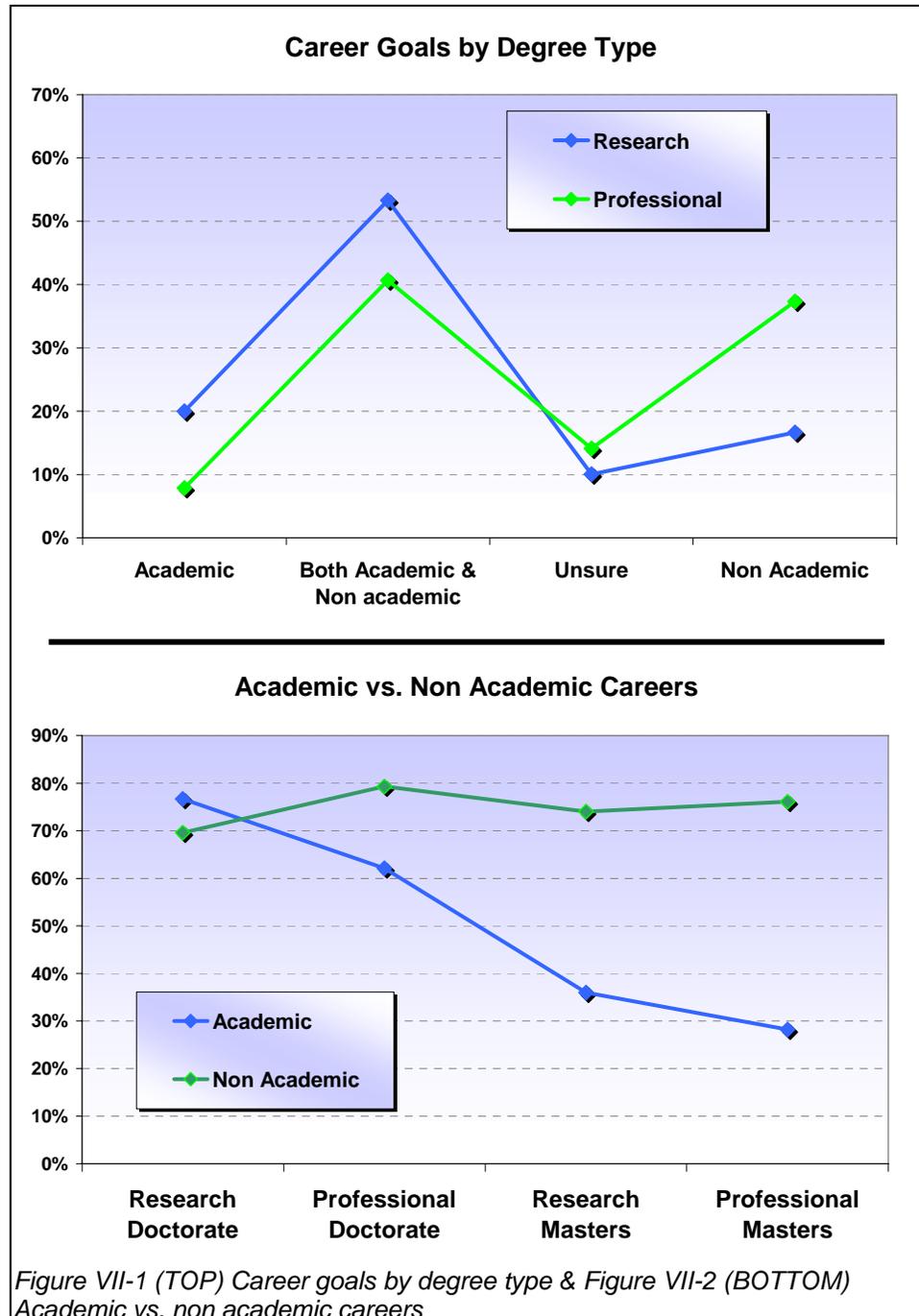
VII. Focus: Careers

Graduate or professional education is a means to an end. Thus, it makes sense to examine the future plans of graduate and professional students—especially since, as reported in Section V, the majority of graduate and professional students sometimes or frequently experience stress about careers and the future.

In a top-ranked research institution, it is probably assumed that most students pursuing research degrees wish to continue in academia, and most students pursuing professional degrees will seek positions in those professions. The results of this survey show quite clearly that this is not the case. Respondents were asked what careers they were considering; if they indicated they were solely or in combination considering a non academic career, they were further asked to identify the field(s) they were considering.

Career goals

As can be seen in Figure VII-1 (right), while the general type(s) of career(s) being considered varies by the type of degree being pursued, students seeking either research- or professionally-oriented degrees are considering **both** academic and non academic careers. Students pursuing a doctorate, regardless of whether it is professional- or research-based, consider academic and non academic careers with essentially equal frequency; students pursuing masters degrees, whether they are professional- or research-based, are mostly considering non academic positions (although a sizable minority are considering academic positions as well). Overall, then, it seems that non academic careers are much

Figure VII-1 (TOP) Career goals by degree type & Figure VII-2 (BOTTOM) Academic vs. non academic careers

more frequently considered than might have been previously thought. Figure VII-2 (previous page) confirms that non academic careers are surprisingly popular with **all** degree types: nearly three-quarters of **all** respondents are considering non academic careers either solely or in conjunction with academic careers.

What types of non academic careers are under consideration? The 900+ respondents considering non academic careers were asked to choose from a list of possibilities; Figure VII-3 (top right) presents those results. Business and teaching are under consideration by nearly half of non academic career-seekers, and jobs in biotech/pharmaceuticals and government interest over one-third of non academic career-seekers. Jobs in non profits generally interest over one-quarter, and over one-fifth are considering careers in writing.

Of course, the type of non academic
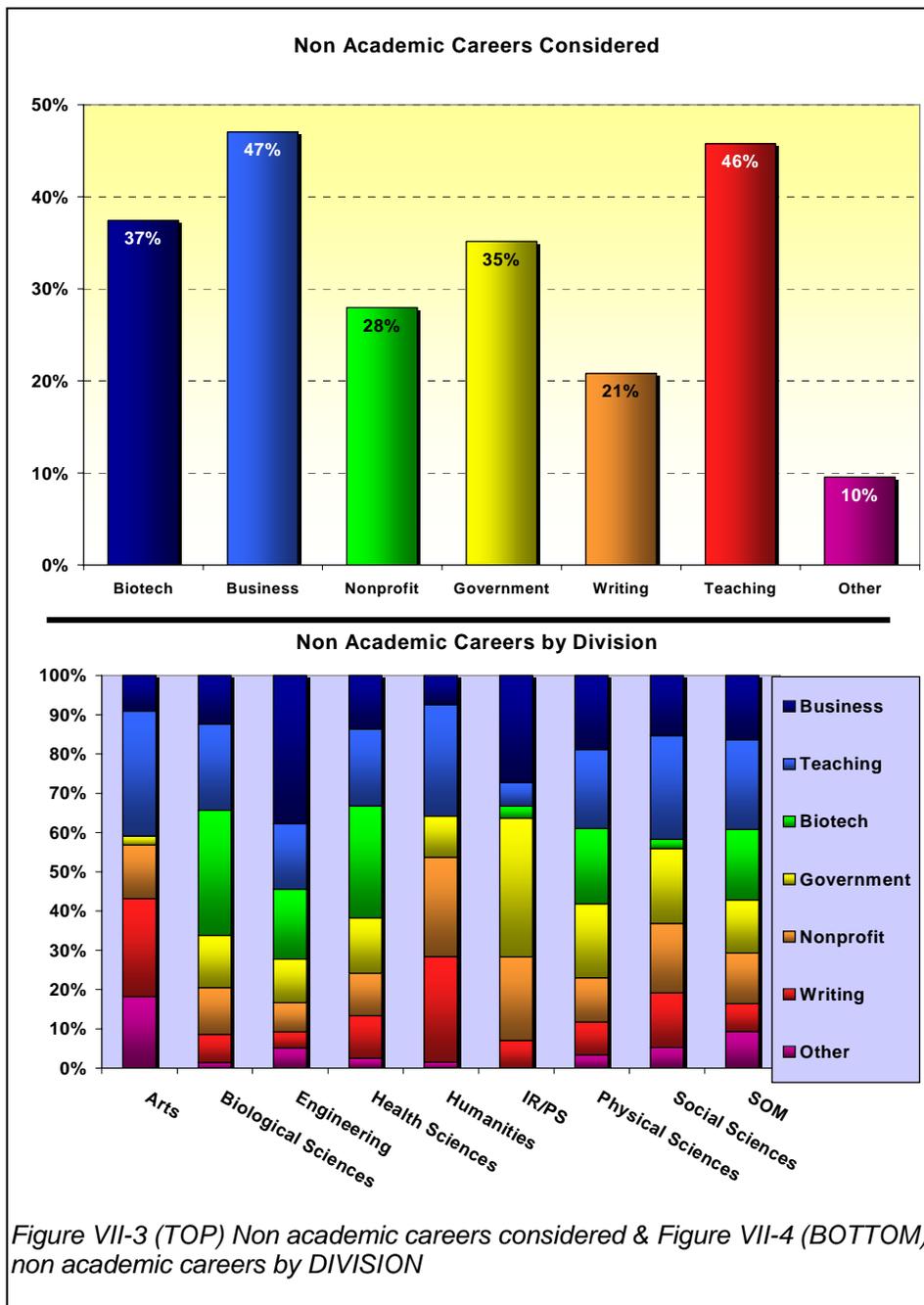
Figure VII-3 (TOP) Non academic careers considered & Figure VII-4 (BOTTOM) non academic careers by DIVISION

career(s) under consideration varies with division of study, as can be seen in Figure VII-4 (above). Relatively few in the arts, humanities, IR/PS, and social sciences are considering positions in biotech/pharmaceuticals-- mainly students in biological, health, and physical sciences, as well as medical students, consider these positions. Many humanities and arts students are considering careers in writing, as do a sizable number of social science students. Work in non profits appeals to most, but especially to students in humanities. Most are open to careers in business, but it is especially appealing to IR/PS and engineering students. Government jobs attract most respondents, but are especially popular for students in IR/PS. And teaching is popular among nearly all students except those in IR/PS.

VII. Focus: Careers

Career resources

Given this diversity of careers under consideration, it is clear that satisfactory career advising is essential. However, before we even consider the results of this survey, we know that career advising is a possible weak spot: OGSR's Exit Survey of PhD & DMA recipients[29] shows that fewer than half (46%) found career advising within the program to be "above average" or "excellent." That data comes from students who have finished their programs; this survey seems to indicate that current students find career advising within programs problematic. As can be see in Figure VII-5 (top right), fewer than half of professional students find that their programs encourage career diversity, and approximately one-fourth disagree. When considering students seeking a research degree, only 29% agree their programs encourage career options, while 38% disagree. Given that the majority of graduate and professional students are considering both academic and non academic careers, and that most students are considering a variety of non academic careers, it may be concluded that students may not find adequate career advising within their programs.

Students need not solely rely on career counseling within their programs: another resource is the Career Services Center/CSC. However, as can be seen in Figure VII-6 (lower right), while use of the CSC is quite high for masters students, doctoral students rarely use any CSC resources until they have passed their fourth year of study. In a logical

Program Encourages Career Options by Degree Type

Use of Career Services Center by Year of Study

Figure VII-5 (TOP). Career options encouraged by program & Figure VII-6 (BOTTOM) Use of Career Services Center/CSC
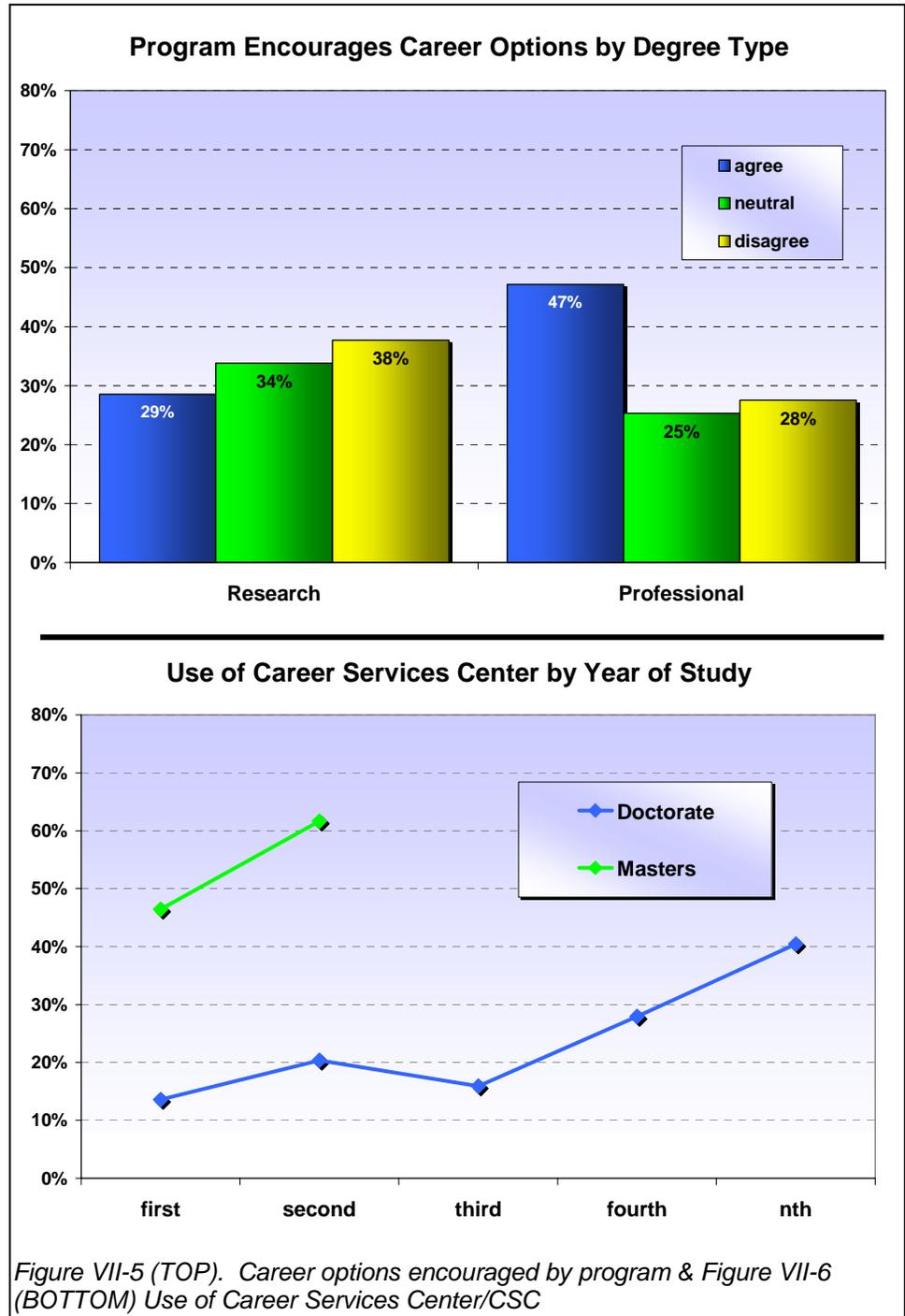
[29] Summary of Survey Responses Given by Doctoral Degree Recipients: Ratings of Their Graduate Programs and Services Offered by OGSR and the Campus; http://ogsr.ucsd.edu/reports/graddata/04Fall/

world, students
who were most
dissatisfied by
career resources
within their
programs would
be most likely to
utilize CSC
resources—and
this hold
generally for
masters
students, as can
be seen in Figure
VII-7 (right).
However, among
students seeking
a doctorate,
there is only a
minimal
difference in the
rate of CSC use
when those
satisfied, neutral,
or dissatisfied

CSC Usage by Program Career Advising "Satisfaction"

Figure VII-7. CSC usage by program career diversity (by degree)
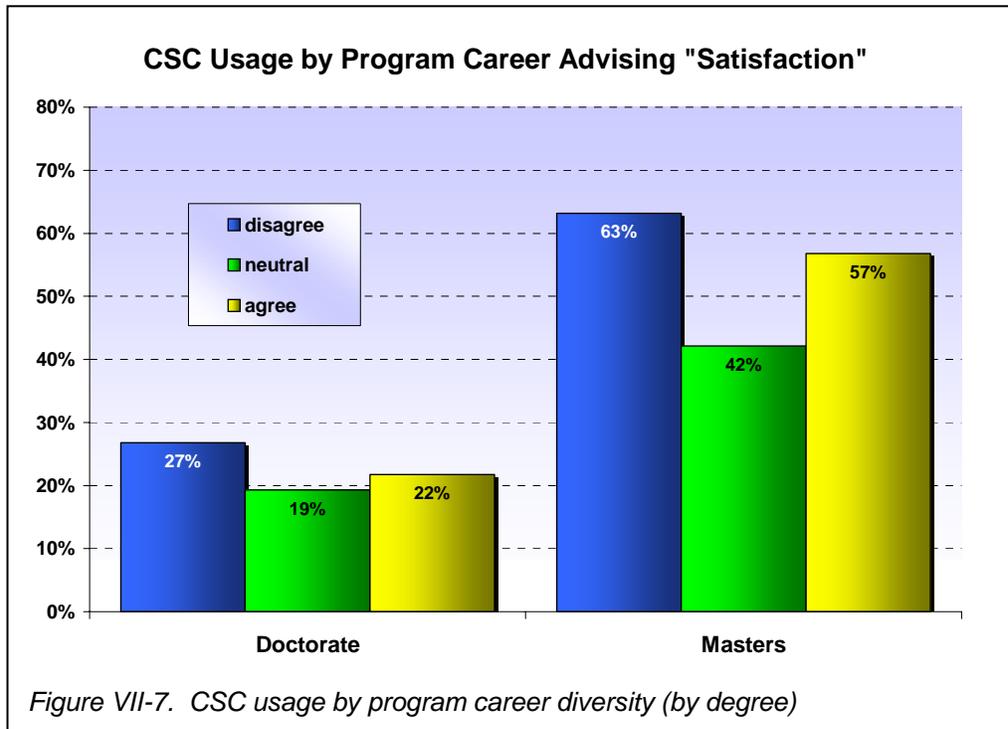
with within-program career resources are compared. Thus, when doctoral students at UCSD are
dissatisfied with career resources within their programs, they do not appear to seek out other UCSD
resources which could alleviate the problem. A possibility to consider, then, is that the relatively low use
of the CSC by doctoral students, coupled with general dissatisfaction of within-program career resources,
may contribute to stress and dissatisfaction over time.

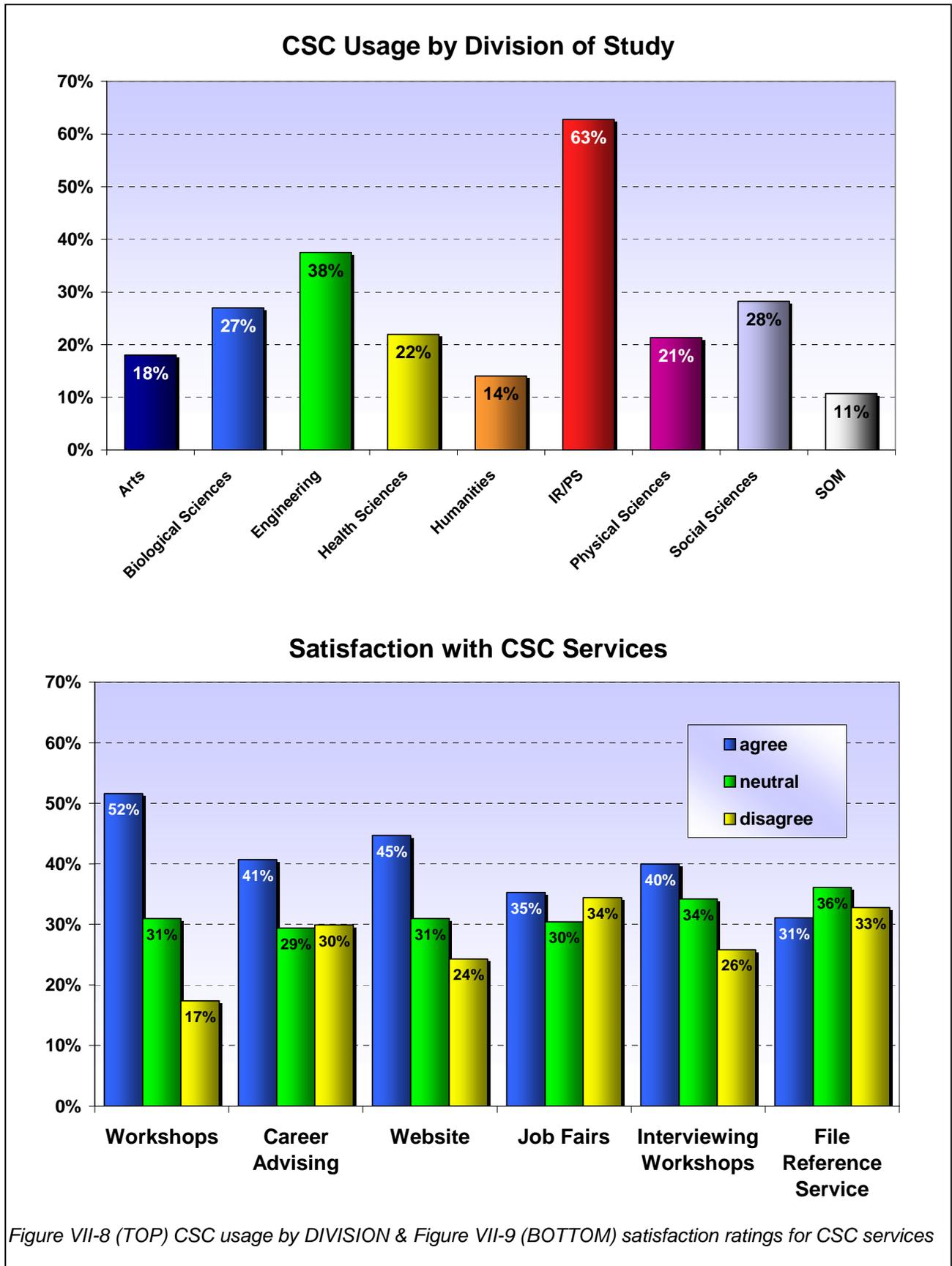As can be noted in Figure VII-8 (next page), usage of the CSC varies quite dramatically by
DIVISION of study. In particular, use is very high by IR/PS students (63%) and Engineering students
(38%)—although it is the case that a lot of the Engineering use is carried by masters students (57% of
Engineering masters students have used CSC resources, compared to 32% of Engineering doctoral
students). In particular, Humanities & Arts students use CSC at very low rates (as do SOM students,
although SOM likely receive career counseling within their program).

Regarding services offered by the CSC, as can be seen in Figure VII-9 (next page), most
students are satisfied with the workshops, and students are somewhat satisfied with career advising and
the CSC website. On the whole, students are relatively neutral about CSC job fairs, interviewing
workshops, and the reference file service.

Summary

Interest in non academic careers is widespread among graduate and professional students, with
nearly three-quarters of all students considering various non academic career options. However, fewer
than half of professional students feel their programs encourage career diversity. Fewer than one-third of
research students feel their programs encourage career diversity, and more than one-third disagree. The
Career Services Center might be expected to alleviate this problematic situation, and it may for masters
students, over half of whom have used CSC resources. Among doctoral students, however, fewer than
one-third use any CSC resource—even those who are most dissatisfied with their within-program career
resources. Overall, students are satisfied with CSC workshops, somewhat satisfied with CSC career
advising and the CSC website, and neutral about CSC-organized job fairs. It would appear then that for
many students, career resources are a gap in their UCSD experience—in particular, the low use of the
CSC by doctoral students, coupled with general dissatisfaction of within-program career resources, may
contribute to stress and dissatisfaction over time.

CSC Usage by Division of Study

Satisfaction with CSC Services

Figure VII-8 (TOP) CSC usage by DIVISION & Figure VII-9 (BOTTOM) satisfaction ratings for CSC services

VIII. Climate & Conflict

General campus climate/environment needs to be considered, and conflict is unpleasant reality: people may experience unfair or unwelcome treatment. Other institutions have attempted to assess these factors, such as Ohio State through its G-QUE[1], and Cal Tech[2]. The GPSES attempted to climate and conflict experiences among graduate and professional students. In this survey, 352 respondents (approximately 23%) reported experiencing some form of "unwelcome attention or unfair treatment." If extrapolated to the graduate and professional student body, this predicts that 988 graduate & professional students would report experiencing some type of unfair treatment or unwelcome attention. The types of unfair treatment were many and varied, as can be seen in Table VII-1. The most common type selected was gender/sexism (one-fourth of all "yes" responses, 5% of all survey respondents), with race or ethnicity and age-related prejudice each being selected by about 3% of all survey respondents. It should

be noted that the most frequently selected descriptor was "other," chosen by 40% of those who responded reported experiencing a conflict (9% of the total survey respondents). This indicates that a large number of respondents were unable to classify their experience into an existing category—in an attempt to clarify this result, the descriptions entered by those who selected "other" were examined to see if any patterns emerged. These "post hoc" coded responses are also included in Table VIII-1. Topics that recurred included program or course-related conflict (typically relating to "unfair" grading or instructor expectations), and conflicts with advisors, other faculty members, or other students.

As above, conflict is a fact of life. While it would be desirable to eliminate such problems, realistically, that will not occur. It is important, however, that there are methods of conflict resolution if and when conflict arises. Of the 23% of students who experienced unfair treatment, over two-thirds

Conflict Type	Percent Experiencing
Age-related prejudice or discrimination	3%
Gender/Sexism	5%
Race or Ethnicity	3%
National origin	1%
Sexual orientation	0%
Religion	1%
Unwelcome sexual advances	2%
Other	9%
Program or course	*2%*
Advisor relations	*1%*
Competition/ favoritism	*1%*
Culture/Language/Class	*1%*
General personal relations	*1%*
Personal relations with faculty	*1%*
Uncoded	*2%*

Table VIII-1. Conflicts experienced by students

did **not** seek assistance in dealing with the problem; this is presented graphically in Figure VIII-1. Of the slightly less than one-third who sought assistance, fewer than half found sufficient help. Figure VIII-2 presents these results graphically, and shows reasons respondents selected for not seeking assistance: the most common responses selected were that students didn't think there was anything that could be done (31%), or that the problem did not seem important enough (30%); substantial numbers of respondents also indicated they were afraid of retaliation if they did seek assistance (19%), and that they didn't know where to seek assistance (14%).

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[1] previously cited
[2] Gender Harassment in the Caltech Graduate Student Experience
(http://www.its.caltech.edu/~survey/docs/Gender_Harassment.pdf)

Unwelcome Attention or Unfair Treatment Experienced

Found adequate assistance
Didn't find adequate assistance
Didn't seek assistance

No: 78%

Yes: 3%, 4%, 15%

Reasons for not Seeking Assistance

(multiple selections allowed-- does not add up to 100%)

- problems didn't seem important enough: 30%
- didn't know what to do or where to find assistance: 14%
- afraid of retaliation: 19%
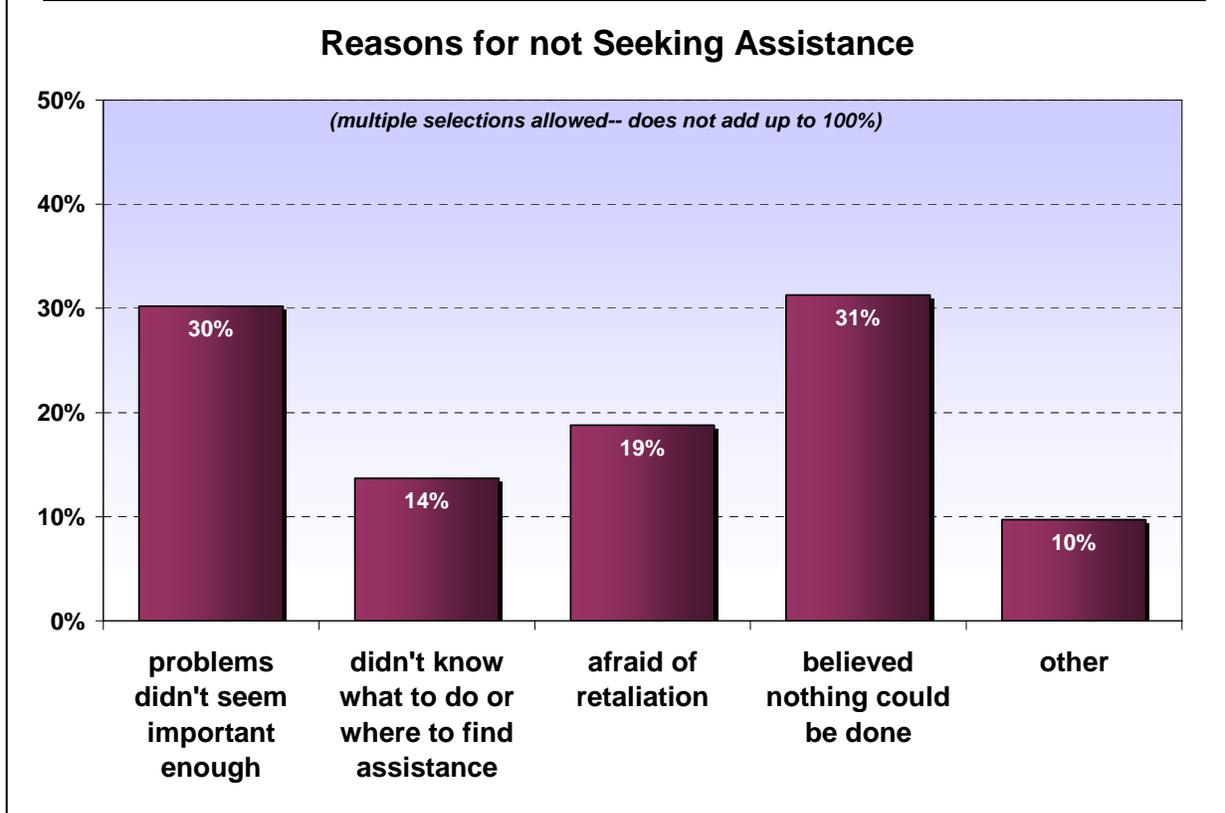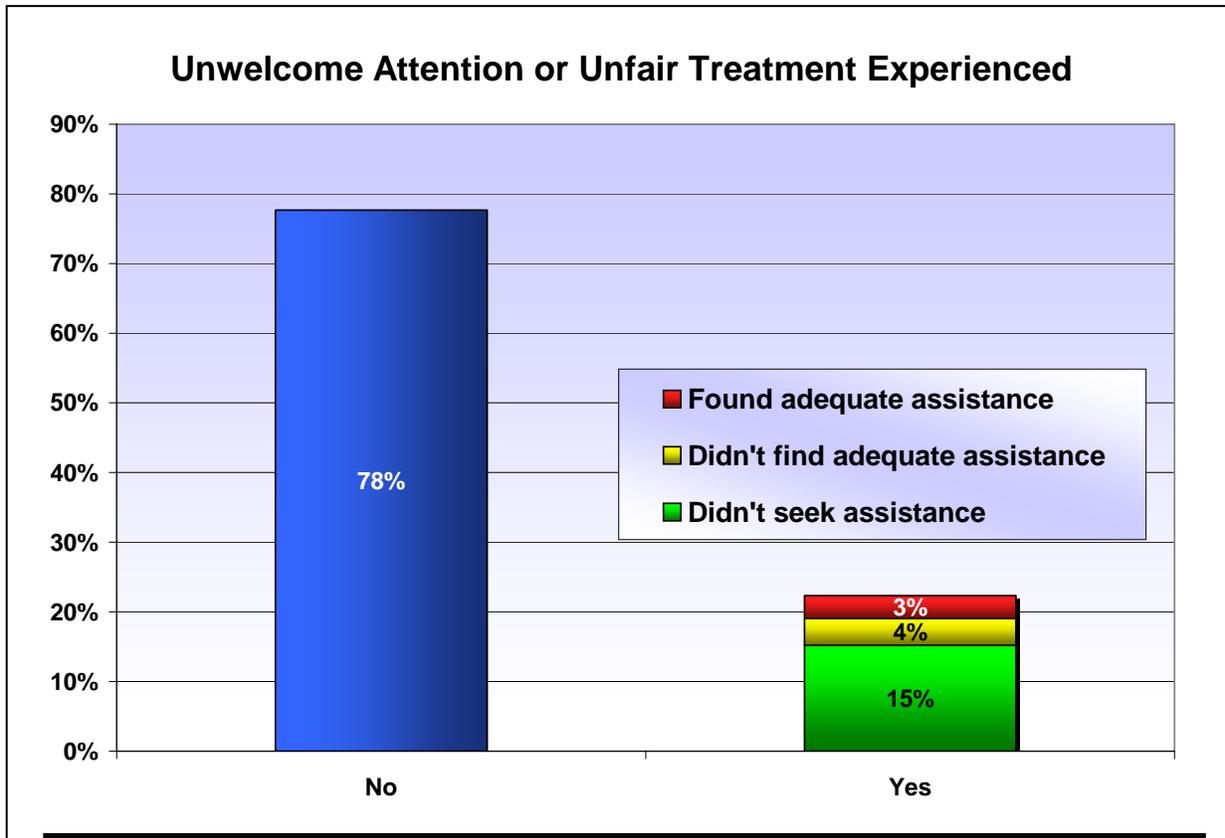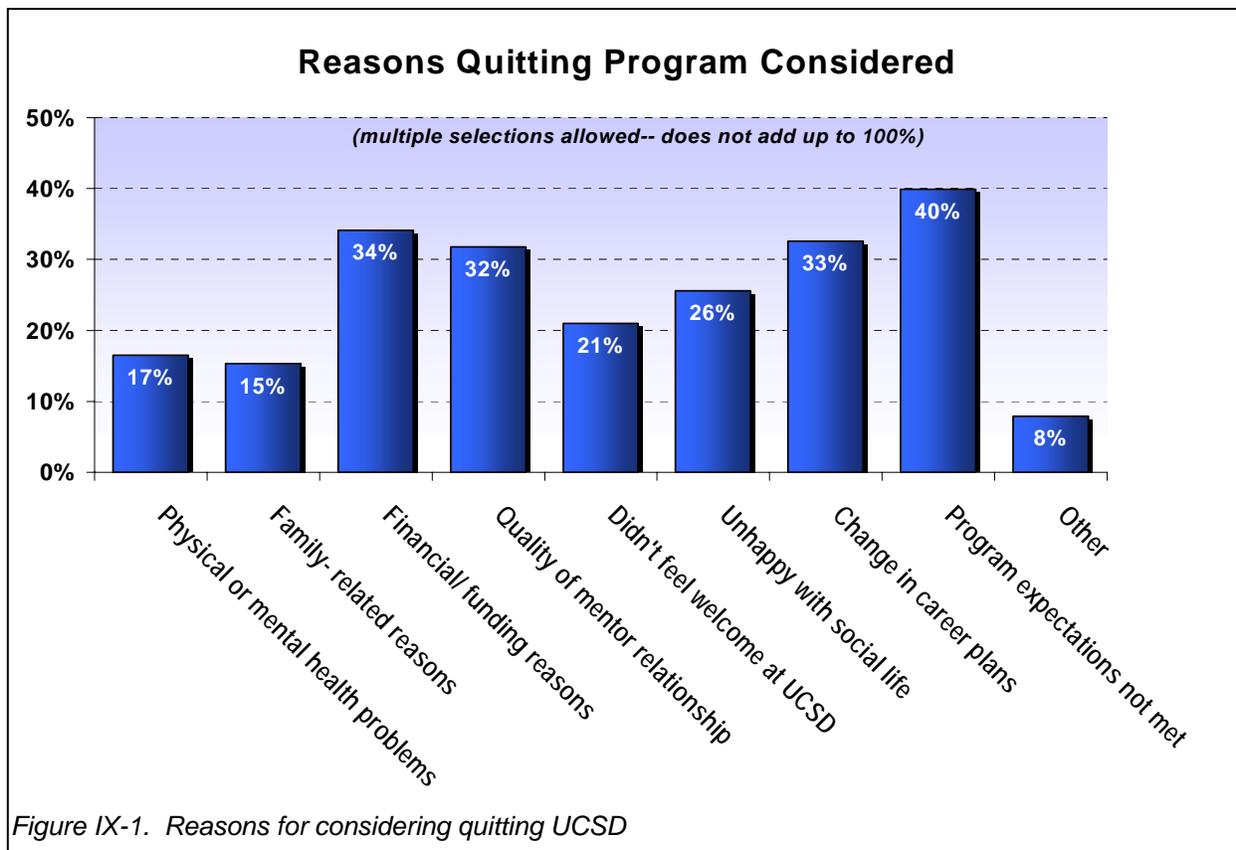- believed nothing could be done: 31%
- other: 10%

Figure VIII-1 (TOP). Experience of unwelcome attention or unfair treatment at UCSD & Figure VIII-2 (BOTTOM) reasons for not seeking assistance with conflict resolution

IX.   Retention & Persistence

Another reality is that not all students who begin graduate and professional programs complete them. Attrition has been viewed as a waste of individuals' talent and programs' training; it has also been viewed alternately as not necessarily negative if people leave for jobs where their training is put to use. As previously mentioned OGSR reports an attrition rate for graduate studies of 35%[1]. As presented in Section IV, over one-third of respondents (36%) have seriously considered leaving or quitting their program of study. These figures are eerily close.

Students who indicated that they had seriously considered withdrawing were asked to select reasons why.   Figure IX-1 (next page) presents the reasons that respondents gave. The most frequently given reasons were that program expectations were not met (40%), financial/funding concerns (34%), and changes in career plans (33%), advisor relations (32%). Large percentages of respondents also indicated that problems with their social life (26%) or an unwelcoming environment at UCSD (21%) provoked such considerations. These should all be unsurprising—each of these has been a recurrent theme in previous sections (and indeed, they played a major role in the general plan of this report).

Reasons Quitting Program Considered

(multiple selections allowed-- does not add up to 100%)

- Physical or mental health problems: 17%
- Family- related reasons: 15%
- Financial/ funding reasons: 34%
- Quality of mentor relationship: 32%
- Didn't feel welcome at UCSD: 21%
- Unhappy with social life: 26%
- Change in career plans: 33%
- Program expectations not met: 40%
- Other: 8%

Figure IX-1. Reasons for considering quitting UCSD

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[1] Doctoral Completion and Attrition Rates for Entering Cohorts 1990-1991 through 1994-1995 (within 10 years) (http://ogsr.ucsd.edu/reports/graddata/04Fall/index.htm)

X. Summary

Overall, the 2005 Graduate and Professional Student Experience Survey offers a comprehensive overview of student life at UCSD. With participation from a large and highly representative proportion of the graduate and professional student body (as presented in Section II), the data show that graduate and professional students at UCSD are generally satisfied with their academic experience and training. However, only about half feel that UCSD has met their expectations. Possibly this differential occurs due to the general dissatisfaction with the social and cultural opportunities on campus, and an extremely low sense of connection to UCSD (presented in Section IV). While it could be considered that this poor "extracurricular" experience is part of the graduate student's lot, sentiment at UCSD is markedly lower than among other graduate institutions.

Graduate and professional students experience a lot of stress, mainly due to academics and careers. Nearly one-fourth have sought counseling while at UCSD—a rate much higher than undergraduates. Thus, access to and use of counseling services should be of concern.

The UCSD experience differs along many variables, as presented in Section V. Of special note are that newer students generally have a more positive outlook on UCSD; and women, underrepresented minorities, disabled students, and LGBTO students experience markedly more stress than the norm. Further, there are many differences in student experience and satisfaction between divisions—studying these differences may highlight ways to address weaknesses.

Most students with research mentors are quite satisfied with these relationships. However, there are striking differences in student experience for those with below-average mentor relationships, as presented in Section VI. Nearly every aspect of the student experience is severely and negatively impacted for these students; it is quite possible that "intervention" for these students would be beneficial.

As presented in Section VII, a potentially surprising finding is that nearly three-fourths of students are considering non academic careers. Yet, very few (as low as 28%) feel their programs encourage career diversity. While some students take advantage of the Career Services Center, many do not, and among those that do, satisfaction is not overwhelming. These could contribute to the generally high level of anxiety about the future and careers which students experience.

Almost one-fourth of students report having experienced some form of unwelcome attention or unfair treatment, with sexism, ageism, and ethnic and cultural conflicts being the most frequent (presented in Section VIII). Additionally, a sizable number of students report course- or grading-related conflicts, as well as personal conflicts with advisors, other faculty, and other students. Some of this is a fact of life; however, only one-third of those experiencing conflict sought assistance, with most indicating they felt nothing could be done, they feared retaliation, or did not know where to go for assistance. And among those seeking assistance, only one half felt they received adequate help. There may thus be gaps both in awareness of assistance and the quality of institutional assistance available in cases of conflict for graduate and professional students.

Finally, over one-third of graduate and professional students have "seriously" considered quitting their programs (as seen in Section IX). The reasons they give are many and varied, but the most prevalent reasons are those mentioned above: program expectations were not met, changes in career plans, quality of advisor relations, problems with their social life, an unwelcoming environment at UCSD, and/or financial/funding concerns. Most of these have been recurrent themes in this report. Hopefully, this report provides a foundation by which these problems can be further investigated and addressed.

Appendix I. Text of 2005 GPSES Questions

A. DEMOGRAPHICS

- Which graduate or professional program are you enrolled in at UCSD (*checklist*)?
- What is your degree aim (*checklist*)?
- What year are you in your program (*checklist*)?
- What is your enrollment status (*checklist*)?
- What is your gender (*checklist*)?
- What is your year of birth?
- How much time elapsed between finishing your previous degree (undergraduate or graduate) and your enrollment as a graduate or professional student at UCSD (*checklist*)?
- Has there been an interruption (longer than a summer) in your graduate studies at UCSD?
- What is the highest educational attainment of your father? Mother (*checklist*)?
- Where was the high school (or secondary school) you last attended (in CA, other state, outside US)?
- Where did you receive your (most recent) undergraduate degree (*checklist*)?
- What is your citizenship status (*checklist*)?
- How do you describe your ethnic background (*checklist*)?
- Is English your primary language?
- How do you describe your sexual orientation (*checklist*)?
- How do you describe your relationship status (*checklist*)?

B. INTERNATIONAL STUDENTS

- What type of temporary U.S. visa do you have (*checklist*)?
- Is your visa "multiple entry"?
- Is your visa issued for the full length of your I-20 or DS-2019?
- How long did it take you to obtain your visa (*checklist*)?
- Which of the following delayed your visa (*checklist*)?
- When all was added up: visa application fees, SEVIS fee, etc., how expensive was the visa application process (*checklist*)?
- Rate your agreement:
  - The Office of Admissions was helpful in obtaining my visa.
  - The International Center advisor was helpful in obtaining my visa.
  - The International Center website was helpful in obtaining my visa.
- When you arrived at UCSD, did you:
  - Officially check-in
  - Attend the regulatory part of the new student orientation
  - Attend the services fair
  - Attend the dinner and square dance
- Have you ever had an appointment with an International Center advisor?
- Rate your agreement:
  - The International Center advisor was helpful.
  - The International Center advisor had enough time for me.
  - The problem was taken care of.
- At any point, has the time it has taken to obtain or renew a visa prevented you from attending UCSD for at least one quarter?
- Of what country (or countries) are you a citizen (*checklist*)?

C. FAMILY:

- Is your spouse or partner: a student; a homemaker; employed at UCSD; employed elsewhere; other?
- Do you have children?
- Were any of your children born while you were in graduate school?
- Have you used any of the following: on-campus lactation facilities; child care referral program; accelerated entry into UCSD affiliated housing; UCSD Women's Center?
- How many children do you have living with you?
- What arrangements do you use to care for your child(ren) (*checklist*)?
- Have you ever taken a leave of absence due to family circumstances or responsibilities?
- Have you ever reduced your academic load due to family circumstances or responsibilities?
- Rate your agreement:
  - My advisor/lab has been accommodating with regard to my family obligations.
  - My program has been accommodating with regard to my family obligations.
  - I have been able to integrate my course schedule with my family obligations.
  - OGSR has been accommodating with regard to my family obligations.
  - I find adequate social opportunities open to me as a graduate student with family responsibilities.
  - I have had difficulty obtaining health insurance for my dependents.

D. HOUSING:

- What is the ZIP code of your local residence?
- What type of housing do you live in?
- Do you have a car?
- How do you get to campus (*checklist*)?

E. FINANCIAL:

- Do you have any outstanding debt?
- Which of the following have been sources of support for you during your graduate or professional education at UCSD (*checklist*)?
- What is your annual take-home income (*checklist*)?
- What kind of health insurance do you have (*checklist*)?

F. DISABILITIES:

- Do you have any physical or learning disabilities?
- Have you reported or disclosed any physical or learning disabilities to your program?
- Have you reported or disclosed any physical or learning disabilities to the UCSD Office for Students with Disabilities (OSD)?
- Were you referred to the Office for Students with Disabilities by your graduate or professional program?
- Regarding your disability or disabilities, have you been academically accommodated by your program?

G. MENTAL HEALTH:

- How many hours per day do you usually sleep?
- In the past year, have you experienced difficulties managing your thoughts and feelings due to
  - * your academic program (workload, grades, setbacks at work, relationship with advisor, etc.)?
  - * concerns about your future after the program (indecision over next career step, difficulty in finding a job, etc.)?
  - * Finances?
  - * Other?
- Please describe the circumstances that caused you difficulties managing your thoughts and feelings in the past year.
- * In the past year, have you felt overwhelmed by all you had to do, exhausted (but not from physical activity), or so depressed that it was difficult to function?
- * While studying at UCSD, have you ever considered seeking counseling or MENTAL HEALTH services (*checklist*)?
- * While studying at UCSD, have you ever sought counseling or MENTAL HEALTH services (*checklist*)?
- While studying at UCSD, where have you sought counseling or MENTAL HEALTH services (*checklist*)?
- Why didn't you seek counseling or MENTAL HEALTH services (*checklist*)?

H. UNFAIR TREATMENT:

- * Have you experienced any unwelcome behavior or unfair treatment in the course of your studies at UCSD?
- Did the unwelcome behavior or unfair treatment relate to: age-related prejudice or discrimination; gender/sexism; race or ethnicity; national origin; sexual orientation; religion; unwelcome sexual advances; other?
- Did you seek assistance in dealing with the unwelcome behavior or unfair treatment?
- Why didn't you seek assistance in dealing with the unwelcome behavior or unfair treatment (*checklist*)?
- Did you find adequate assistance in dealing with the unwelcome behavior or unfair treatment?

I. ACADEMIC PROGRAM:

- In an average week **this quarter**, how many hours do you spend on each of the following: Teaching and related activities ; studying; attending class; research, writing; residencies; commuting; socializing?
- * Have you ever seriously considered quitting or transferring out of your program?
- What primarily motivated you to consider leaving: Physical or MENTAL HEALTH problems; Family-related reasons; Financial funding reasons; Quality of relationship with advisor; Didn't feel welcome at UCSD; Unhappy with social life; Change in career plans; Program expectations not met?
- Rate your agreement with the following statements.
  - * The working environment in my program is collegial
  - * Students in my program behave competitively
  - * My program makes an effort to foster a sense of community among its graduate students.
  - * My program provides an adequate number of social events for graduate students.
  - * It is important to have a lounge area for graduate students in my program.
  - * My program allows flexibility for personal and family responsibilities.
  - * My program encourages students to explore a broad range of career options
  - * Students have adequate input to decision-making in my program (e.g. Faculty hires, changes to required coursework or qualifying exams)
  - * The funding (or assistance in securing funds) provided by my program is satisfactory.
  - * I have a clear understanding of what is required of me in order to graduate.
  - * I often interact with students in my program who are a different year.

J. TEACHING:

- *Have you been a teaching assistant at UCSD?
- *How many quarters have you been a teaching assistant at UCSD (*checklist*)?
- Rate the helpfulness of the following sources of TA training in your department.
  - Senior TA
  - TA training session
  - Official quarter-long course
- Rate the helpfulness of the Center for Teaching Development services you have used (*checklist*).
- Why haven't you used CTD services (*checklist*)?
- Rate your agreement:
  - *Overall I have received adequate training for being a teaching assistant.
  - The services offered by CTD are geared to my needs and interests.

K. MENTORING:

- *Do you have a research advisor?
- *Relative to other research advisors in your program, how many graduate students does your advisor have: Fewer than average; About average; More than average?
- *How many graduate students has your advisor graduated: None that I know of; At least one; At least a few; A lot; I don't know?
- *Did you know your advisor's record of graduating students before choosing him or her as your advisor?
- *In a typical week, how much time do you meet with your advisor: None; less than 15 minutes; 15-30 minutes; 30 min- 1hr; 1-2 hr; more than 2 hrs?
- Rate your agreement with the following statements:
  - *My advisor is generally available when I need to speak with him/her.
  - *I receive enough feedback from my research advisor.
  - *My research advisor values my work.
  - *I feel comfortable suggesting directions for my own research.
  - *I feel support from my labmates, research coworkers, or the people in my unit.
- *Have you asked for more feedback from your research advisor?
- Why haven't you asked for more feedback from your research advisor (*checklist*)?
- *Have you ever changed advisors?
- Why did you change advisors (*checklist*)?
- *To your knowledge, does your program have methods of evaluating or training research advisors?

L. CAREER SERVICES CENTER

- Have you used resources at the Career Services Center?
- Why haven't you used resources at the Career Services Center (*checklist*)?
- Rate the helpfulness of the Career Services Center resources you have used. Programs, workshops, events; Career advising; Career Services Center web site; Job fairs; On-campus interviewing; Reference file service
- What career-related topics do you most want to see covered in programs, workshops, groups, or advising: Career decision-making; Prep for the academic job market; Prep for the non-academic job market; Alternative career options to academia; Professional etiquette; Other?
- Which statement best describes your present career goals: I'm firmly decided on pursuing the academic faculty track; I'm considering both the academic and non-academic career options; I'm unsure of what my career options are; I'm firmly decided on pursuing a non-academic career; Other?
- Which non-academic career options are you considering: Biotech; Business/consulting; Non-profit/associations; Government/policy; Writing/editing; Teaching/education; Other?

M. GSA

- Do you know one or more Graduate Student Association (GSA) representatives from your department?
- Rate your agreement:
  - GSA should engage in campus advocacy (representation on UCSD committees, and so on).
  - GSA should engage in external advocacy (coalition efforts to lobby UC Regents, state government, and so on).
  - GSA should organize campus-wide social events (Fall Free-for-All, and so on).
  - GSA should fund inter-departmental social events (Opposites Attract, and so on).
  - GSA should organize family-friendly events.
  - GSA should fund grad-student events within individual departments.
  - GSA should fund graduate student lounge improvements.
  - GSA should relay information (about events, and so on) to graduate students.
  - GSA should conduct surveys such as this one!

N. STUDENT LIFE

- Would you be interested in participating in any of the following programs or activities (*checklist*)?
- What networking and professional development opportunities would you attend?
- What are the best times to hold professional development activities (1-2 hour workshops)
- Would you be willing to attend outings or social events if they were held during (*checklist*)?
- How often do you use these campus vendors?
  - Che Cafe?
  - Food Co-op
  - General Store Co-op
  - Grove Caffe
  - Groundwork Books
  - Porter's Pub
  - Price Center Bookstore
  - Price Center Food Court
- How often do you use the following Student Life services?
  - Student Organization Leadership Office (SOLO)
  - Student Programs Business Office (SPBO)
  - University Events Office (UEO)
  - Leadership, Engagement, Activism, and Development Center(LEAD)
- Have you ever participated in an activity through: Craft center; Intramural sports; UCSD recreation classes; UCSD extension classes?
- Which of the following, if any, restrict your participation in campus activities (*checklist*)?

O. GENERAL EXPERIENCE

- Rate your agreement:
  - *Grades provide me with a meaningful evaluation of my performance.
  - *I often interact with graduate students from other departments.
  - *I find sufficient opportunities for involvement in campus activities.
  - *I feel a **CONNECTION** to the greater campus community.
  - *I feel a sense of belonging here.
  - *I feel the campus is safe and secure.
  - *My experience in graduate or professional school at UCSD has met my expectations.
  - *I am satisfied with the overall academic experience at UCSD.
  - *I am satisfied with the overall social experience at UCSD.
  - *I am satisfied with the overall cultural experience at UCSD.
  - I*f I could start over again, I would still choose to attend UCSD.
- Do you have any comments or other feedback?

Appendix II. Grouping Variables

A. Degree.

This is performed at two levels.

- The type (**research** vs. **professional**) & level of degree (**doctorate** vs. **masters**) sought by a respondent; in order of most-to-least respondents:
  - o **Research Doctorate**: PhD, MFA,
  - o **Professional Doctorate**: MD, PharmD, EdD, DMA
  - o **Research Masters**: MS, MA,
  - o **Professional Masters**: MPIA, MFA, MEng, MED, MBA, MAS.
- Where relevant, the *specific* degree being sought by a respondent. This is necessarily more limited, as for some degree programs there were only a few respondents. So, only degree programs with more than 25 respondents were broken down in this way: PhD, MD, MS, MPIA, MFA, MA, MEng

B. Division

The division/school of a respondent. Due to low response rates, some divisions were omitted, and for others certain programs conflated. Rady School of Management was not included, as there were only 5 respondents. Most JDPs with SDSU were excluded with the exceptions of the JDP in Biology (included in Biological Sciences) and the JDP in Clinical Psychology (included with Health Sciences). The School of Pharmacy, with 21 respondents, was included in the SOM totals. Included divisions were:

- ARTS (Music, Theater, Visual Arts)
- BIOLOGICAL SCIENCES (Biology & Biology JDP)
- ENGINEERING (Bioengineering, Chemical Engineering, Computer Science & Engineering, Mechanical & Aerospace Engineering, Materials Science & Engineering& , Structural Engineering)
- HEALTH SCIENCES (Biomedical Sciences, Clinical Psychology, Leadership/Health Care Organizations, Molecular Pathology, Neurosciences,
- HUMANITIES (History, Literature, Philosophy)
- IR/PS
- PHYSICAL SCIENCES (Chemistry, Mathematics, Physics, Scripps Institute of Oceanography)
- SOCIAL SCIENCES (Anthropology, Cognitive Science, Communication, Economics, Latin-American Studies, Political Science, Psychology, Sociology, Teacher Education Program)
- SOM (Medicine & Pharmacology)

C. Year

The number of years a respondent has been in his/her program. There is a similar proportion of respondents in their 1st, 2nd, 3rd, and 4th years; beyond 4th year, the number of respondents (and students in the general student body) drops quickly. Respondents who were in their 5th year or beyond were conflated into a single group to create more stable analyses. It should be noted that YEAR in program is not necessarily easy to interpret, as programs finish coursework and/or advance at different times (end of 1st, 2nd, or 3rd or later years).

D. Gender

Respondent gender, which was mainly male or female, although there were several respondents who identified as transgendered.

E. Ethnicity

The ethnic background of respondents. Although this survey elicited very detailed descriptions from respondents of their ethnic background, three overarching categories were created to facilitate analyses. The ethnic background of survey respondents matches quite well with that of the UCSD graduate & professional student body. It should be noted, however, that some of the previous grouping variables are somewhat disproportionately represented by the various categories of the ethnic background of respondents (& the student body), as noted below.

- o White/Asian. Students identifying as white are the majority of survey respondents (and the graduate/professional student body). While students identifying as Asian represent only about one-sixth of the respondents/student body, they are not an underrepresented minority in terms of the California population. This category also includes participants claiming a combined white/Asian heritage. Fewer than expected white/Asian respondents are pursuing an MA degree, and are disproportionately overrepresented in respondents pursuing the MD degree (DEGREE), and are thus overrepresented in SOM respondents (DIVISION).
- o International. Any student who is not a US citizen or permanent resident (all students studying on visas). There are more male international students than white/Asian or underrepresented minorities (GENDER), international students tend to be in farther along in their degree programs (YEAR) and the international students disproportionately pursue doctorate, as opposed to masters, degrees; Further disproportionately few international students are pursuing the MD degree (DEGREE). International respondents are disproportionately student in Engineering, and are underrepresented in SOM respondents (and tend towards underrepresentation in Health Sciences and Humanities) (DIVISION)
- o Underrepresented minorities. Any respondent who either fully or partially claimed an ethnic heritage of any of the following, which are under-represented in the UC system in terms of makeup of the state population:
    - o African-American
    - o American Indian & Alaskan Native
    - o Chicano/Mexican-American/Puerto Rican
    - o Latino/Latino-American
    - o Polynesian/Micronesian

These respondents disproportionately pursue masters, as opposed to doctorate, degrees, specifically the MA degree (DEGREE); underrepresented minorities are also overrepresented in respondents studying the humanities (DIVISION).

F. Sexual Orientation

The self-identified sexual orientation of survey respondents. To our knowledge, this information is not collected elsewhere at UCSD. Possible responses were heterosexual, gay/lesbian, and bisexual; additionally, participants could self-identify. As there were relatively few respondents in the non heterosexual categories, to facilitate analyses two categories were created: "heterosexual" and "LGBTO;" this latter category also included respondents who identified as transgender in the Gender item above. It should be noted that there were more LGBTO respondents than expected in Arts (over 20%) (and marginally so for respondents in Social Sciences & Humanities, over 10%), and fewer than expected in IR/PS & Engineering (under 2%). Related to this, there were disproportionately many LGBTO respondents pursuing the MFA degree, and in fact, LGBTO respondents were only pursuing the PhD, MD, or MFA degrees (no LGBTO respondents reported pursuing the MS, MPIA, MA, or MEng degrees).

G. Children/Family

Whether respondents had family (child dependents). To our knowledge, this information is not collected elsewhere at UCSD. It should be noted that female respondents were more likely to report having children than male respondents (GENDER), respondents with children were slightly more likely than expected to be pursuing a doctorate as opposed to masters degree (DEGREE), were more likely to be studying Humanities or Social Sciences (DIVISION), and tended to be farther along in their studies than respondents without children (YEAR).

H. Disability

Whether a respondent identified as having a disability (the type of disability was not surveyed). It should be noted that respondents with disabilities were disproportionately likely to be studying Humanities or Social Sciences, and were less likely to study Engineering or Health Sciences (DIVISION); more disabled students than expected were pursuing the MA degree (DEGREE)

Appendix III. Factor Analysis

For a general snapshot of participants' responses, we wanted to create "summary" measures covering several aspects of student life: general experience, academic satisfaction, campus connection/sense of belonging, social satisfaction, and mental health. To see if our a priori ideas about these summary measures were valid, various factor analyses[a] were performed on 45 of the questions[b].

In fact, the factor analyses identified five groups of questions that tended to follow our desired summary measures:

GENERAL EXPERIENCE factor
- I feel a sense of belonging here;
- My experience in graduate or professional school at UCSD has met my expectations;
- I am satisfied with the overall academic experience at UCSD;
- I am satisfied with the overall social experience at UCSD;
- I am satisfied with the overall cultural experience at UCSD;
- If I could start over again, I would still choose to attend UCSD;
- Have you ever seriously considered quitting or transferring out of your program?
- The working environment in my program is collegial.

MENTAL HEALTH factor
- In the past year, have you experienced difficulties managing your thoughts and feelings due to your academic program (workload, grades, setbacks at work, relationship with advisor, etc.)?
- In the past year, have you experienced difficulties…due to your future after the program (indecision over next career step, difficulty in finding a job, etc.)?
- In the past year, have you experienced difficulties…due to finances?
- In the past year, have you experienced difficulties…due to other topics?
- In the past year, have you felt overwhelmed by all you had to do, exhausted (but not from physical activity), or so depressed that it was difficult to function?
- While studying at UCSD, have you ever considered seeking counseling or mental health services?

PROGRAM SATISFACTION[c] factor
- The working environment in my program is collegial.
- My program makes an effort to foster a sense of community among its graduate students.
- My program provides an adequate number of social events for graduate students.

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[a] Factor analyses look for patterns of variation in the data, via correlations among responses to questions; items that correlate highly to each other, as well as to overall variation in the data, are typically placed by the analysis into "factors." These factors can be used in place of or alongside the individual questions that generated them. Our factors were extracted with Principle Axis Factoring, and coefficients less than .3 were suppressed. Analyses were performed once on all cases, and once on only those respondents who had a research advisor. The analyses were performed once looking for 5 factors, and once for 6. Analyses were performed once with VARIMAX rotation, and once with DIRECT OBLIMIN rotation. All solutions generally identified similar factors, and the scores from these solutions tended to correlate very highly across the various techniques (generally, r > .9 between the same factor in different iterations). The factors used in the analyses in this report were: for OVERALL EXPERIENCE, MENTAL HEALTH, PROGRAM SATISFACTION, CONNECTION/BELONGING, DIRECT OBLIMIN (6 factors), on all cases; for MENTOR RELATIONSHIP, DIRECT OBLIMIN (5 factors) on only participants with a research advisor.

[b] The questions included in these analyses are marked with a red asterisk (*) in Appendix I.

[c] Note that although the GENERAL EXPERIENCE & CONNECTION factors do have several questions in common, in neither factor were these the largest contributors to that factor score. While there may be some covariation between these factors, as permitted by a DIRIECT OBLIMIN rotation, the correlation between these factors is low (r = .19); thus, we are confident that these measures, despite the questions in common, tap unique components of the participants' responses.

- My program allows flexibility for personal and family responsibilities.
- My program encourages students to explore a broad range of career options.
- Students have adequate input to decision-making in my program (e.g.. faculty hires, changes to required coursework or qualifying exams).
- The funding (or assistance in securing funds) provided by my program is satisfactory.

CONNECTION (at UCSD)[iii] factor

- I often interact with graduate students from other departments.
- I find sufficient opportunities for involvement in campus activities.
- I feel a connection to the greater campus community.
- I feel a sense of belonging here.
- I am satisfied with the overall social experience at UCSD.
- I am satisfied with the overall cultural experience at UCSD.

MENTOR RELATIONSHIP[i] factor

- In a typical week how much time do you meet with your advisor?
- My advisor is generally available when I need to speak with him/her.
- I receive enough feedback from my research advisor.
- My research advisor values my work.
- I feel comfortable suggesting directions for my own research.