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GRADUATE EDUCATION:

THE EXPERIENCE OF WOMEN AND MINORITY PH.D.S AT U.C. BERKELEY, 1980-1989*

Introduction: Graduate Education and the Issues of Women and Minority Students

How successful are graduate programs in making women and members of ethnic minorities welcome? How is success measured? Since there has been sustained growth in this decade in the numbers of women in most disciplines earning Ph.D.s and some increase in minority student Ph.D.s, it would be easy to assume that the climate for members of these groups in graduate programs is improving.¹ Yet numbers by themselves are a small part of the full story of graduate education and clearly do not reflect overall satisfaction with the situation of women and minorities. Since the early 1990s at a time of even greater participation of women and minorities in graduate programs, there has been a blossoming of programs and studies addressing the overall "climate" and the persistent shortage of minority and women graduate students in specific fields.² In all of this effort, however, much of the internal functioning of graduate education remains beyond close scrutiny.

The most important reason for this is the nature of Ph.D. training itself. Ultimately it is a highly personal experience in which the student works closely and individually with one or more faculty members in relationships critical to intellectual growth and persistence in the program.³ The form and frequency of interaction with the thesis director and a few other faculty have a direct effect not only on a student's satisfaction level, but on the chances of a student finishing the program.⁴ However, the character of these relationships is not easily accessible as they are in many respects privileged. The graduate faculty member and particularly the thesis advisor has extraordinary discretion in dealing with students as that is a basic part of the institutional

recognition of his or her scholarly achievement and related capacity to teach graduate students. This private sphere between student and advisor is reinforced by the exclusiveness of graduate training and the mystique around a hallowed process.⁵ There are next to no mechanisms which evaluate the quality of his or her teaching or the nature of the relationship with the student. The only measures are external in the form of the department or graduate division tracking the student's progress through the program's milestones. These, however, are usually seen as the student's responsibility. So if the relationship with the faculty advisor is unsupportive or other respects dysfunctional for the student, it is usually left to the student to develop some kind of survival strategy.

This points to another important issue which affects the success of graduate training. The graduate student and the faculty member occupy two separate perceptual worlds. Graduate students all too often enter graduate programs without a clear idea of what is expected of them. They are worried about succeeding, yet may be unclear about the standard they are to meet. They may or may not get adequate information from faculty or departmental staff about what they should do at each stage of their training. They worry about money and paying their way through to the completion of the degree.⁶ If they are different in some respect from the faculty in their department, from a working class background, an ethnic minority, a foreign country, or are female, they may pick up a sense of their difference from the prevailing culture of the department. Incidents with faculty in which students think they were misunderstood can lead to alienation. It can also lead to uncertainty about how to behave around faculty, stress in interacting with faculty and potentially to a perception of discrimination. Underlying all of these considerations is the fact that graduate training is difficult. It requires personal growth and adaptation, developing

intellectual discipline as well as effective time management. As one passes through the process, it becomes transformational, the student is changed, the change is irrevocable. This adds further stress as the student tries to begin to think of him or herself as a professional in the making, a junior colleague, with a new role in life. A further sustained source of unease is the fluctuating, often over-saturated job market which has too often shattered expectations for academic employment since the early 1970s. At the same time going through a graduate program provides a sense of accomplishment, gratification about one's personal achievement, a sense of direction and focus, and a growing acceptance of one's own competence and mastery of a discipline. The critical issue in a graduate student's life is how the negative and positive aspects of the experience weigh on the character/personality of the student and enable him or her to complete the program, or not.

An element in the all too often uncomfortable mix of circumstances which surrounds graduate students and adds to their uncertainty is that they very often really have little idea about what it means to be a faculty member. As students they only see slices of a faculty member's life—in the seminar room, in the lab, as the lead instructor for a course in which they are a teaching assistant. They know little about the pressures and obligations of senior faculty although they are often aware that faculty are very busy. Yet they have almost no material to assess how the world looks from the faculty perspective. They may feel invisible in their first year particularly in disciplines which require basic course work and a preliminary examination at the end of the first or second year. Students in such a situation have little opportunity to interact with faculty except in the classroom and would generally be surprised to learn that it is in this period that most students drop out of a program.⁷ Hence the tendency of faculty to develop more of a relationship with

advanced students may be seen as favoritism, rather than a pragmatic economy of effort.⁸

Students react differently to demands that they work harder, or up to a higher standard, although the faculty may be making these demands because his/her perception is that mastery in the demanded area is critical for further intellectual development. As a respondent of this study put it, “tough advisor [I] didn’t enjoy at the time, but appreciate now—pushed [me] to a higher level of performance.” Students also react differently to standards they perceive as too low.⁹ The shortage of time bedeviling modern faculty as increasing demands are put on them for campus and professional service, maintaining their own publication and research program, administering departments, institutes, among others, is only vaguely known to students who have but a dim idea of faculty responsibilities.¹⁰ Sheer shortage of time can be interpreted by students as dis-interest, rudeness, even discrimination. Add to this the deference students may pay scholars and a frequent sense of intimidation, student perception of the faculty can be sadly warped.

Faculty perception of graduate students has the potential to be similarly distorted. The advantage faculty have is that they were once a graduate student themselves, but the impact of the experience can be lost in the time and circumstances of their own training. For senior faculty, especially those hired before the early seventies when the academic job market crashed in many fields, the world of their training was very different from today’s. Graduate departments tended to be smaller; faculty there were mostly white men as were the students they were training. Ph.D.s were completed more quickly and employment was not a serious worry. Higher education was expanding, there was optimism about education’s future in the United States, and critically, jobs could be had easily with no more than a phone call from an advisor. Costs of education proportionate to income and funding levels were lower than today, heavy indebtedness was

uncommon, and the financial responsibilities of students were less as fewer were married, let alone had children.¹¹ Faculty who found employment at graduate institutions and worked their way through the professorial ranks did so with generally lower expectations for publishing output, administrative, and campus service than is demanded by such institutions today. Faculty still teaching graduate students today have ineluctably expanded their work load to meet today's conditions, but tend to forget the differences when they started teaching twenty to thirty years ago.

The changing composition of the graduate student population which resulted in graduate students in the late 1990s being very different than those of the early 1970s, is possibly only imperfectly understood by faculty. Today's graduate student is older, more likely to be female, somewhat more likely to be from an ethnic minority, to be married, to have children, and to be paying his or her own way, therefore working and attending graduate school part-time.¹² Graduate students today accumulate substantial debt, yet face very uncertain employment prospects. If they are in scientific fields which normally require a postdoctoral position, the time spent in these positions and the relative dependency of them can be extended for many years. Not only are there many fewer tenure track positions than there are eligible candidates, the standard to be admitted to these positions has shot up astronomically. It is no longer enough to have a good dissertation, but to have published in reputable journals, to also have significant teaching experience and, depending on the field, preferably a book contract if not a book. At the same time while requirements are also expanding for tenure, tenure track positions are under threat by the increased use of temporary and part-time positions.¹³

To what extent are faculty today fully aware of the situation of their students, or understand

how different many of them are in circumstances and background from themselves? Would the observation made by a former Berkeley student that “there is a lack of appreciation of the differences of being in graduate school in the 50s and 60s and the 80s,” be surprising to faculty? It is an open question, but one bearing directly on how graduate education is being discussed.

Graduate education has been quite extensively studied to the point that it can be considered an academic specialty, yet the politics of disciplinary specialization and the fact that internal administrative bodies such as graduate divisions (“the administration”) conduct these studies tend to preclude the results of such work from easily coming to the attention of faculty. Because of disciplinary cultures, it is most likely that faculty would receive information through their professional associations, if the association concerns itself with graduate student issues. Most commonly, however, faculty who are already actively engaged in graduate student affairs are most susceptible to receiving new information.

The way in which research on graduate education is structured also is something of an impediment to promoting greater sensitivity to current graduate concerns among faculty of all disciplines, particularly in reference to issues of women and minorities. Within the major organizations sponsoring research on graduate education, there has developed a subset of research areas concerned with minority and women graduate students, augmented by a growing body of work by individual researchers. These can examine the complex issues of gender roles, academic successes or failure, examine the treatment and barriers to minority access, retention and completion.

There is, however, a disjunction among the various levels of analysis and discussion of graduate education. The study of graduate education tends to be compartmentalized. Within these

various types of disjunctions, many of the as yet relatively limited number of discussions about the experience of women and minority students tend to remove the group under discussion from the context of the totality of graduate education. This has the effect of isolating these particular experiences from that of the system of graduate training as a whole.

My argument here is that good or bad as individual experiences may be, they cannot be solely ascribed to gender or ethnicity—even if these are the unmistakable touchstone of the experience. Intensifying the student's experience is the system of graduate education itself which is ultimately the responsibility of a few faculty who in a certain sense interact with students in a private and privileged sphere without many external controls or evaluation. Adding to this culture of privilege are the various disciplinary sub-cultures which intensify the distance or closeness of the advisor to the student in the context of the larger competitive culture of the academy. The purpose of this analysis, then, is to show, by looking at the fulness of graduate student concerns, that the experience of students in graduate school cannot be predicted by gender or ethnicity. Serious complaints and dissatisfactions occur among all groups, which too often are exacerbated by issues of gender and ethnicity. Racism and sexism are not peculiar to the academy, but in the context of a privileged activity in an elite institution with aspirations to open intellectual exchange, the effects can be particularly pernicious. How Berkeley students have reacted to this situation is the focus of this paper.

Research on Graduate Education at Berkeley:

This is far from the first study conducted on the graduate experience of Berkeley students, nor the first on the experiences of minority and women graduate students there.¹⁴ Between 1973 and 1975 the Wright Institute in Berkeley conducted an examination of the student in graduate and

professional education, remarking in its report that “the student has rarely been the focus of systematic attention in the over one hundred years of graduate and professional training in the United States.”¹⁵ The article on minority students by Birt L. Duncan in the same volume augments the Wright Institute data with an additional survey of the experiences of 550 of the 1,490 then currently enrolled minority students, of whom 88 percent responded.¹⁶ The experiences of the students who responded have much in common with those in this study; it is possible even some of the same students could have responded to both studies’ questions. Unfortunately, only the results published in the article are available, not the original questionnaires. Notwithstanding, the responses are remarkably similar and show a pattern of much longer duration than the ten years of this study.¹⁷

While the research results presented in this article on Berkeley graduates students is that of one major institution, it can be reasonably inferred that this type of experience is not unique to Berkeley at all, but is part of a large, general concern about how graduate education is structured in American universities even if there might be variation by institution. Indeed, an inquiry into the condition of graduate education initiated in 1989 that uses data from Berkeley along with nine other top ranked institutions has made that inference an assumption. Also noting that graduate education “is relatively unexamined and not carefully monitored,” the authors of the In Pursuit of the Ph.D. discuss a set of problems which again are echoed in the research results presented here. As they acquired information for the Ph.D. cohort entering in 1974, there is a further temporal overlap with the population of this study.¹⁸

Graduate Education at Berkeley, 1980-1989

In 1989 eighty-eight departments at U.C. Berkeley granted a Ph.D., the institution producing the

largest number of Ph.D.s of any single U.S. university, ranging from 600 to 850 in the years between 1980 and 1989. During this period the number of Ph.D.s granted annually in the nation remained between 32,000 and 35,000 while the percentage of degrees awarded to women and minorities was growing. Growth in the number of women was concentrated in the Humanities, the Social Sciences, and the Life Sciences, to the point where nearly 50% of all Ph.D.s in these areas were granted to women. Ph.D.s granted to under represented minorities were largely in the same fields with the addition of Education. The number of Ph.D.s granted to both women and minorities in Engineering and Physical Sciences also increased, but remained very low in absolute numbers. Although this situation has improved, the result is that in 1998 as in 1989, individual women and American minorities find themselves in many departments still greatly outnumbered by white male peers and still taught largely by white men.

The majority of those 338 interviewed had something to say about their experience at Berkeley, and the large majority of those were generally positive about it. Still, such a study has inherent biases. The first is that the study group is comprised of those who succeeded in obtaining their Ph.D. If there were obstacles, the members of this population overcame them. The voices of those who left the Ph.D. program are not presented. Also, most interviews were conducted years after the former student had left Berkeley. In some cases this promoted explicit relativizing of the experience at Berkeley, a diminution of the sharpness of the graduate experience (both good and bad), and even a degree of disinterest in the past. ("Experience was not the highlight of my life, but has mellowed over time, was worse earlier on.") Interviewers also occasionally noticed some reticence in how respondents answered questions and explicitly declined to comment on their experiences. As a result, less than half actually made extensive comments.

The emphasis in this article is on how graduate students view their own experience in graduate school accentuating the voices of women and students from ethnic minorities. What do they have to say about their training, the way in which their departments and advisors brought them into their discipline? The questions asked were specifically about their relationship with their advisor, broken into categories of overall relationship, moral support, ability to find financial support, ability to comprehend non-academic issues in a student's life, and the extent to which the advisor brought the student into the discipline and profession. This last question was further broken down into advisor support/encouragement for publications, paper giving, and his or her willingness to provide introductions to the student and to help the student find employment. The questions on the department were similar with an emphasis on intellectual development in the context of the department's program. All answers were ranked from 1 to 5 with one the highest score. No questions were asked specifically about racial or gender issues, although all students were asked to comment on their experience as they chose. Almost half chose to comment and it is in this unstructured commentary that much of the discussion in this paper is grounded. Telephone interviews were conducted in two rounds in 1990 and 1991 using a standard questionnaire.

Because the populations discussed are sometimes quite small, a real concern is to maintain anonymity for those who had critical things to say about their treatment. This is another element in such studies that is intensified by real and very strong fears of some that, even though long out of Berkeley, somehow the faculty advisor would still have the power to damage them. Two respondents were so frightened about what could happen to them that they refused to speak to us at all; a few others needed special reassurance. Whether there was a basis for their fears remains an open question, but it certainly points to a serious breakdown in the advisor/student relationship

that they should leave Berkeley, Ph.D. in hand, with this idea. It should be stressed that this kind of reaction was from a very small number of respondents, however.

General Characteristics of the Study Population

The minority graduates for this study were selected by drawing up cells in each discipline reflecting the gender and ethnic distribution within each. If there were enough graduates, the distribution by year of graduation was taken into account so we would have numbers which reflected the overall distribution of Ph.D.s for that year. This pattern was used for all groups in the study. Whites were selected in relationship to the concentration of minority Ph.D.s following the same cell pattern to find those with parallel experience by discipline and by year. Asian Americans were selected the same way. The result is that we have a sample of each major ethnic group. In some cases, as with the Filipino students and Native Americans, we interviewed either the total population or one individual less than the total. The difficulty of locating former students was often great, so our choice of interviewees was influenced in some cases by whom we could find. Another distortion of the original numerical plan was brought about by the way people identified their ethnicity. We began with institutional records which contained ethnicity, and used these records to construct our cells. However, at the end of each interview we asked people to which ethnic group they belonged. Several identified themselves as White who were in our records as something else. Hence the original target figure of 80 for the White group was substantially increased (see Table 1). Women, however, were deliberately selected in greater numbers than their proportion of total Ph.D.s granted. Berkeley as a whole granted 6,377 Ph.D.s in the period 1980-89; 29% were women. For our study women were 41% of those interviewed.

	<u>Total / %</u>	<u>No./ % Interviewed</u>	<u>% of Study</u>
• Blacks	129 (2.0%)	95 (74%)	28.1%
• Asian Americans	358 (5.6%)	53 (15%)	15.7%
• Chicanos	49 (0.8%)	37 (76%)	10.9%
• Filipinos	5 (-)	5 (100%)	1.5%
• Latinos	72 (1.1%)	45 (63%)	13.3%
• Native Americans	19 (0.3%)	12 (63%)	3.6%
• Whites	4144 (65.0%)	91 (2%)	26.9%
• Foreign Students	1372 (21.5%)		
• Other (Unknown)	229 (3.4%)		
TOTALS	6377	338	100.0%

The intention had been to select approximately equal numbers of graduates for each year of the study. Barring 1980 which includes only December graduates, and 1989 which only includes June graduates, the numbers we actually interviewed fluctuated between 28 and 54 per year since we had serious problems locating earlier graduates. Of the population we interviewed, the largest number of Berkeley recipients (33.7%) were between 30 and 34 years old, with around a quarter receiving degrees between the ages of 25 and 29, and another quarter receiving their degrees between 35 and 39. Above age 39, the number of degree recipients tapers off fairly sharply, but still, 33 (9.8%) received degrees between the ages of 40 and 44.

In order to make the data easily comparable with the National Research Council's data, the individual disciplines were categorized by the NRC list, rather than by the Berkeley campus's departmental affiliations. Distribution among the seven major areas for this study is very uneven as minority graduates were not uniformly distributed among them (see Table 2). Hence, fully one quarter of respondents (85, 25%) who received Ph.D.s are in the Social Sciences since that is where the largest number of different minority Ph.D.s were to be found. The least numbers were interviewed in the Professions, Education, Engineering, and the Humanities because in all but Education there was a paucity of minority graduates. In the case of Education, although home to

the greatest number of minority graduates (18.3% of all Ph.D.s), the experience of graduate students was assumed to be different from those in other departments since so many were already employed, active in their professions, and older.¹⁹ As the interviews were conducted, however, it became apparent that the experience of graduate school for Education Ph.D.s was similar in quality to that in other fields, notwithstanding that only 5 (13.5%) of the respondents of this study in Education received their degrees before the age of 34 while the majority (14 or 38%) were granted between the age of 40 and 44. By contrast, the youngest to receive Ph.D.s were in Physical Sciences with 31 (65%) received before age 29. Engineering follows with 17 (47%) receiving their degrees before age 29.

While the qualitative focus of the interviews was on the experience of former students with their departments and advisors, the interviews also provided a wealth of quantifiable data. These data deal with sources of support during graduate school, progress and work, grants and fellowships, time to degree, family life and responsibilities, and placement and careers after the Ph.D. Interesting as this material is, it is reserved for subsequent publication. Only a limited amount is presented in this discussion to provide basic information about the study population in order to understand the context which gives rise to student commentary.

Life before Berkeley

Berkeley draws on the full spectrum of undergraduate institutions for its graduate population.

Using the 1987 Carnegie Classification system, the study population comes from:²⁰

	<u>All</u>	<u>Men</u>	<u>Women</u>
• Research and Doctoral Granting	59.4%	61.3%	56.9%
• Comprehensive Institutions	24.0%	26.1%	20.8%
• Liberal Arts	9.2%	6.5%	13.0%
• Other (mostly Foreign)	7.4%		

When research I universities are paired with prestigious liberal arts colleges, the greatest number of students coming from such places are Asian American (67.9% or 33 of the 53 in the study), followed by Whites at 63.7%, Blacks at 51.6%, Latinos at 46.7%, Chicanos at 45.9%, then Filipinos at 40% (only 2 people) and Native Americans at 25% (also only 3 people).

More Whites than any other group went to private undergraduate institutions (39.6%), followed closely by Blacks (38.9%). There is a substantial drop to the next highest group, Asian Americans, of whom 24.5% attended private colleges, to Native Americans, only one of whom attended a private college, the rest coming from public colleges and universities.

The graduates of these years came from a broad range of educational backgrounds with some parents having virtually no formal education, and some having Ph.D.s, J.D.s, or M.D.s. Generally, women came from slightly more educated backgrounds than men, excepting Asian American women whose families had less education than those of Asian American men. Fathers usually had more education than mothers, the exception being Blacks and Chicanos where mothers were more educated than fathers. Dividing the universe of education in two with "high" meaning at least one parent had a college degree or more, and "low" meaning neither parent had a college degree, produces striking results. Fifty-five percent of women came from families with education levels ranked "high;" 55% of men came from families with education levels ranked "low." In this area the contrast among ethnic groups is great. African American men and Chicanos were overwhelmingly the first in their families to obtain a college degree with 72% African American men and 83% Chicanos coming from "low" educational backgrounds. In comparison, 77% of White women came from "high" educational backgrounds, followed by 70% of Asian American men, 65% of White men, and 62% of Latino women.

General Characteristics of each group

Native Americans: Twelve of the thirteen Native Americans who received Ph.D.s from Berkeley were interviewed. (Eighteen of 19 listed on the record were located, but six identified themselves at the end of the interview as White.) Together these twelve were only 3.6% of the total study population. In this ten year period, the number of U.S. Native Americans receiving Ph.D.s only exceeded 100 once at 115 in 1987, the range in these years otherwise extending from 74 to 99.²¹ Berkeley's contribution to the national totals every year was one or two. Evenly divided between men and women, eight of them attended California undergraduate institutions, five California State Universities, one a private liberal arts college and two U.C.s. The rest came from state universities in Kansas, New Mexico, Nebraska, and Oklahoma. Like the study population as a whole the majority changed fields when entering graduate school, only one leaving a science field for education. Their Ph.D. fields ranged from anthropology to public health, but there were no degrees in the humanities or engineering.

Two of the twelve graduates received Ph.D.s in physical science and are among the youngest to receive their degrees among the study population (range: 25 to over 50), at age 27 and 28. Their profile is that of any successful science degree: same undergraduate major, both finishing the program in six years, both were teaching assistants, both had good relationships with their advisors. Neither had children. Both also had parents who had some college education, although the highest degree of any parent was an A.A. degree. Ethnicity was not raised as an issue by either.

The remaining ten graduates present a much more complicated picture. The other science degree was a self-supporting woman who because of her employment took ten years to finish her

degree at the age of 36. She was the only one whose parents had advanced degrees (Ph.D., M.A.). All the other Native American Ph.D.s were older than she, ranging in age from 38 to 48 when they received their degrees, although many entered at a greater age and finished their programs quickly, while others were employed during most or all of their education. Most of their parents had a high school education or less, although three parents had two years of college. Four of their degrees were in professional fields (education, public health), the rest in various social sciences. Unlike those with science degrees, seven of the ten wrote dissertations on a topic concerning Native Americans; the titles of two other degrees suggest they also could be concerned with Native American issues.

As a group they have the highest scores for their relationship with their advisor. All, with one exception, ranked his or her support very highly. Of course, these rankings come with caveats in some cases, but generally if there was substantial dissatisfaction, it was with the departments and how they were organized—or not—.

Blacks: Out of the 129 Blacks who received Ph.D.s from Berkeley between 1980 and 1989, 95 were interviewed. Together they comprised 28% of the study population; 41 were women, 54 were men. In the nation from 1980 through 1982 there were more than 1,000 Black Ph.D.s granted a year. After that the numbers range from 768 to 953 through 1989. The numbers of Black men dropped from 499 in 1980 to 327 in 1989; the numbers of women dropped from 533 in 1980 to 494 in 1989.²² Of the 95 Blacks in this study, 61% came from public institutions and 39% from private institutions, with a much larger number of men (10) than women (3) attending private colleges. In terms of prestige, more Black men (27 versus 18 women) attended Research I undergraduate institutions, although no Black men went to a private Liberal Arts college, but 4

women did. The greatest source for all Blacks was Research I Universities (45 or 47%) followed by Comprehensive Institutions (28 or 30%). Slightly more Black students changed from their undergraduate major when entering Berkeley, 57% versus 54% for the entire study group.

Of the 95 Black Ph.D.s in this study, 34 (36%) received their degrees in Social Science, evenly divided between men and women. The next largest NRC area was Education with 18 graduates (19%), Life Science with 16 (17%), 11 (11.6%) in Humanities, 7 (7.4%) in the Professions, followed by 4 in Physical Science and 4 in Engineering. (See Table 2) This approximately represented the distribution of Black Ph.D.s on the Berkeley campus, but differed from the national trends in which the majority of Black Ph.D.s were granted in Education, followed by a sharp drop to Social Science of more than one half, from 48% to 20% in 1989, with all other subject areas graduating less than 9.2% of Black Ph.D.s. Equally significant is that national Black Ph.D.s in 1989 were 60% women versus 40% men.²³ This reflects the decline in numbers of Black men receiving Ph.D.s which began in 1978 resulting in a more than 50% decline in numbers by 1989.²⁴

The greatest percentage (31.6%) of all Black Ph.D.s in this study received their degree in the normative age group for the study population as a whole: between age 30 and 34. Unlike any other group, however, their age distribution was the greatest extending from 25 (15.8%) to over 50 with 26% between 35 and 39, 13.7% between 40 and 44 and 3.2% aged 50 or older. The higher age at degree distribution is explained by the fact that many of these people received degrees in Education, including the three people over fifty. This compares with the national trend in which between 45-50% of all Ph.D.s granted to Blacks are in Education, so consequently Blacks constituted the oldest mean age (39 years) of any ethnic group.

Forty-three of the 95 members of this group made comments about their advisors, although as a group their evaluations were mixed. For those who commented on their relationship with their advisor, 25 had very good things to say; a few positively raved about their advisors finding that “[he] couldn’t have been better, good in every area.” In addition to commenting on advisors and department, members of this group had quite a bit to say about training, department stars, sexism, and various other topics, including racism. Several completed degrees in topics related to their ethnicity.

Filipinos: This was a tiny group (1.5%) in the study population, a mere five people, all of whom were interviewed, only one of whom was female. Two had undergraduate degrees from the University of the Philippines, 2 came from California Research I Universities, one public, one private, and one came from a public Liberal Arts II college. None of them changed fields from their undergraduate to graduate programs, and therefore, perhaps not surprisingly as a group they were among the youngest to receive degrees, ranging from age 25 to 34. Three earned Ph.D.s in science fields; all finished by the age of 30 or earlier. The parents of all three had educational levels ranging from two years of college to one set of parents with a Ph.D. and M.A. This was also true for the one Engineering graduate. The remaining degree holder in the Social Sciences fell out of the pattern for this particular group of Filipinos, but belonged squarely in the Social Science group: somewhat older (34), from an experimental college and with parents from very low educational backgrounds. None provided extensive commentary about their experience at Berkeley, although two made very positive remarks about their advisors.

Chicanos: The members of this ethnic group for this study are U.S. citizens of Mexican heritage. Berkeley granted 49 Ph.D.s to members of this group between 1980 and 1989, 37 of whom

(76%) we interviewed including 24 men and 13 women. Unfortunately, the Survey of Earned Doctorates does not treat this group separately from others of Hispanic origin, so there are no comparable figures for the number of Ph.D.s granted in the nation. As an American group greatly under represented in higher education in this country, it is important to consider their experiences independently. Of the 37 who were interviewed, 16 came from an undergraduate program at Doctoral Granting to Research I Universities, one from a private Liberal Arts college, and 17 from Comprehensive I's. These were overwhelmingly public institutions (29) and from California (32), the rest coming from New Mexico, Texas, and a few eastern universities (Columbia, Chicago, MIT). Like most of the study population, slightly more (19) changed from their B.A. field than remained in the same field (18).

The largest number (13) received their degrees in Social Science, followed by 7 in Life Sciences, 5 in the Professions, 4 each in Education and Humanities, 3 men in Physical Science and one man in Engineering (see Table 2). This approximates the distribution of Chicanos among degree areas for the entire Berkeley population, the one exception being Education which graduated 6 Ph.D.s. There was only one Engineering Ph.D. earned by a Chicano at Berkeley in the entire ten year period, a total of 6 Ph.D.s in Physical Science, and 9 in the Life Sciences. For those who were interviewed from these three areas, all had done their undergraduate degree in the same field, and with the exception of those with a degree in Engineering, Forestry, and Statistics, all received their degrees at thirty years of age or younger. One woman in the Life Sciences finished at age 25, having taken only four years to complete her Ph.D. With only one exception in these three areas, all parents had at least a high school diploma, a few had B.A.s, and one had parents who both had Ph.D.s. Overall, however, Chicanos had the lowest parental educational

level with 38% having grade school or less, and 68% having parents who never attended college.. Those from the lowest educational background earned degrees in Education, the Professions, and Social Sciences. Humanities Ph.D.s all had parents with a high school diploma, and one parent who had an A.A., B.A., and M.A. Parents' education level seem to have no relationship, however, to the prestige of the undergraduate institution or the selection of field, since some from the lowest educational backgrounds went to the most prestigious schools.

A very broad spectrum of Chicano issues were treated in dissertations by those who received degrees in Social Welfare, Education, Humanities, and almost all of those in the Social Sciences. For some this was a source of conflict with advisors, and overall Chicanos did not rate advisors very highly, with three ranking their advisor with the lowest possible score, and the least percentage (73%) ranking advisors in the top two ranks. Their concerns were multifaceted, however, since class and gender issues also were important to this group. The strongest expression about an advisor (and the only one of its intensity) illustrates the complexity: “[Advisor was] terrible, forced to take her, previous advisor left the university. New advisor had a hard time dealing with women, all women. Sexist/racist. Advisor felt she shouldn't be there, only Mexican in the program, he didn't respect her, made continual racist/sexist comments.”

Latinos/Hispanics: Forty-five members of the 71 non-Mexican Hispanic population were interviewed, 63% of the total number. Like the Chicano population they were a small percentage of the total Berkeley Ph.D.s amounting to only 1.1%. Women were under represented in this group, and consequently 32 men and 13 women were interviewed. In the nation 412 Ph.D.s were granted to Hispanics (including Chicanos) in 1980, growing to 482 in 1989. In 1980 only 156 Ph.D.s were earned by women compared to 256 men. In 1989 women were much closer to parity

at 273 versus 309 men.²⁵ Of those interviewed 5 received their undergraduate degrees from foreign universities, 21 from Research Universities, 12 from Comprehensives and none from Liberal Arts colleges. The overwhelming number were public (32) institutions; only 8 were private. About half came from highly educated backgrounds, half from very poorly educated backgrounds.

The concentration of Hispanic Ph.D.s were earned in Science and Engineering with a total of 19 Ph.D.s in the Life Sciences, 9 of whom were interviewed; 12 Ph.D.s in Physical Science, 9 of whom were interviewed; 10 in Engineering, 9 of whom, all men, were interviewed. Eleven received degrees in Social Science, 8 were interviewed. Of the other areas, 3 of the 4 in Education were interviewed, 5 out of 10 in the Humanities, and 2 out of 3 in the Professions. One more had a B.A. (23) in the same field as had changed degree areas (22). Latinos had the highest percentage of Ph.D.s awarded before the age of 29 with 38% (17), and 33 % (15) earned before the age of 34, then dropping off to 18% earned before age 39, 11% before age 44. The concentration of degrees in the two lower age groups is explained by the concentration in Science fields, assisted by the sprinkling of foreign B.A. degree holders who tend to be much faster than domestic American students in completing degrees.

Since 27 out of 45 received degrees in scientific areas, issues of ethnicity were not widely raised. Still, concerns about advisors were raised and in terms of their overall satisfaction with them, Hispanics fall in the middle with 84% ranking advisors in the top one and two place, after Native Americans, Filipinos and Blacks.

Whites: Whites were the overwhelming majority of Ph.D. recipients at Berkeley and in the nation with 4,144 Ph.D.s granted at UCB in this ten year period, 91 or 2% of this total was interviewed.

Their number had been declining in the nation between 1980 and 1989 going from 21,994 to 20,892, while the number of White men declined from 14,848 to 11,987. White women increased their number from 7,146 to 8,905.²⁶ For this study 91 Whites were interviewed, 52 men and 39 women, 2% of the total Berkeley population. At least for the those included in this study, Whites tended to come from more prestigious and private institutions. Forty-six received their B.A.s from Research and Doctoral Granting Universities, 12 from Liberal Arts colleges, with only 10 from Comprehensive Institutions. Eight in this study were from foreign universities. Excluding them, 47 received their degrees from public institutions, 36 from private ones—a much higher proportion than any other group. Whites also have the highest parents' educational level of any other group with the largest number of parents holding graduate degrees. Excluding the Professions (57% of all degrees went to Whites), Whites ranged from 69% to 80% of all degrees granted by Berkeley including Education (74%), Humanities (80%), Life Science (78%), Physical Science (70%) and Social Science (69%). The anomaly is Engineering where Whites received only 41% of the Ph.D.s granted, Foreign students, 45%. For this study they were more or less distributed equally among the NRC areas except Education.

The largest number of Whites in the study received their degrees in the normative age group for the study population as a whole, between the ages of 30 and 34 (37%), 30% receiving their degrees before age 29, 25% receiving their degrees before age 39. Seven or 8% received their degrees up to age 49. Many more had changed degree areas from their B.A. (53) than stayed in the same field (38). Forty-five of the 91 Whites in this study had comments about their advisors. While the majority of these comments were favorable, quite a few are not, and as a group, Whites ranked their advisors next lowest after Chicanos and Asian Americans.

Asian Americans: This population earned 359 Ph.D.s from Berkeley between 1980 and 1989, 5.6% of the total number of 6,377. For this study 53 were interviewed, 27 men and 26 women. While the total number of U.S. citizen Asian Ph.D. recipients had been growing nationally from 458 in 1980 to 625 in 1989, the number of Asian women grew very slowly from 145 to 184, compared with 313 men increasing to 441.²⁷ Thirty-three of the study population received their B.A.s from Research Universities, 3 from Liberal Arts colleges and only 5 received their B.A.s from Comprehensives. Eight received their B.A.s from foreign universities. Excluding the later, the overwhelming number (32) received their degrees from public institutions, only 13 from private ones. Next to Whites, Asian Americans came from the highest over all educational background.

For the entire Berkeley Asian American population the greatest number of degrees were awarded in Engineering with 144 out of 359 Ph.D.s (40%), with only 20 Ph.D.s in the Humanities, 15 in the Professions and 13 in Education. After Engineering the largest numbers were earned in Physical Science (69 or 19%), Life Science (54) and Social Science (40). For this study the population was distributed more or less evenly among NRC areas, excepting Education in which only 2 people were interviewed. The majority of Asian Ph.D.s were given to those between 30 and 34 with the largest percentage (42%) of any ethnic group in this bracket. Equal numbers were granted to those in ages 25 to 29 and 35 to 39 (14 or 26.4%) with only 3 people receiving degrees after 39. Education. After Chicanos, Asian Americans were more critical of their advisors than members of other groups. Seventy-seven percent assigned their advisors scores of 1 or 2, and 25 out of the 53 volunteered remarks about their advisors. Again the majority of remarks were positive to very positive, but issues of gender and ethnicity, among others, were

raised.

The Issues

The comments made by these former students encompass a substantial number of issues, but with very few exceptions, no commentary is simple, indeed it can sometimes appear contradictory. The one issue which takes precedence over all others concerns mentoring. Looked at from the perspective of the high scores given advisors by all groups, where the percentages assigning scores of one and two range from 73% for Chicanos to 100% for the smaller groups of Native Americans and Filipinos, it would seem that advisors on the whole did a pretty good job. Indeed, so much of the favorable commentary is laden with remarks such as “always there when I needed help,” “good education due to advisor,” “lucky to have [this] advisor.” What makes these scores difficult to evaluate from the outsider’s perspective looking for logic or constancy is that a student may rate an advisor overall with a score of one or two, but on some other aspect of the relationship such as quality of evaluations or professional development a much lower score is assigned. Or, remarks are made of this kind, “my advisor was OK, he was never there, though, so I had to be self-reliant,” or “ I don’t blame not getting a lot of help from my advisor, I didn’t ask. It was a good experience.” One of the more critical put it, “live and let die.” An unrelenting theme in much of the commentary relates to this: faculty advisors were very often not there, not accessible or plainly uninterested. A great many students thought this was a good thing as they wanted to be left alone, liked educating themselves, and were forced to become independent and self-motivating. Quite a few of these students articulated this “hands off approach” as Berkeley’s strong point.

The issues arise as points of criticism for those who needed more help for whatever reason,

those who “wasted a lot of time,” and “did not receive much help or direction.” Both points of view are in the comment,

“[re advisor] overall I have to say a 2 or a 1. The most outstanding academic quality of my advisor is that he let you do your entire research totally by yourself. You invented it. As a consequence I’m an extra independent researcher. The negative side of that is that there’s not enough direction in the early stages so I floundered quite a bit.”

It is important to keep in mind when evaluating this commentary that these are the people who came to terms with their educational situation and figured out a way to survive. Help was solicited by students from other faculty, some of whom are mentioned repeatedly in glowing terms, from fellow students, particular for members of minority groups, or even outside the university in former employers or advisors.

Certain issues also tended to be articulated within specific disciplines with the Social Sciences generating the most extensive commentary on racism, sexism and classism, topics such disciplines investigate. At the same time these disciplines had the largest number of minority students from the groups under discussion, and generated the largest number of dissertation topics related to issues of ethnicity. This in no way minimizes the significance of these students’ observations; on the contrary it enhances the significance since part of their training is to understand and articulate social interaction. They have the vocabulary to express their ideas. In science and engineering fields students are trained to think of other things so their lower expression on issues of race—although not gender—is both an expression of the lower numbers of minority students in these fields and a system of training which does not provide a vocabulary or analytic structure to express dissatisfaction.

Moreover, issues voluntarily raised by the interviewed students were raised by themselves, not prompted by specific questions. The way in which they raised issues were very often interconnected. Taking the most difficult of cases, a female minority student from a poor and uneducated background could experience treatment based on several counts of being an “outsider” in relation to the faculty, and experience, as several did, substantial discomfort with her treatment by faculty and even fellow students in her department. As a minority woman commented, “Advisor had a hard time dealing with women, all women. Made continual racist/sexist comments. Insensitive comments were discussed in non-professional way with other faculty. Stars were upper middle class white males.” Without resorting to the most extreme case, the mixture of sexism, racism and classism appears throughout the commentary, so that in many respects separating them is artificial.²⁸

Overall Satisfaction with Advisors: Turning to the actual numerical rankings of advisors, some clear patterns can be established, however much commentary might qualify them. Women were somewhat more critical than men with only 51% ranking her advisor as a number 1, while 55% of men did. Twenty-six percent of women ranked advisors with a 2, 32% of men. Seventeen percent of women assigned a rank of 3, only 9% of men. Women continue to assign ranks of 4: 5% (7) women versus 2% (4) for men, although one more man (3) assigned a rank of 5 than a woman (2). Native Americans were most satisfied with 75% giving a rank of 1, 25% giving a rank of 2. Blacks follow with 66% giving a rank 1, 23% a rank of 2. After this the percentages assigning a rank of 1 drop to 40% (Filipinos) to 51% (Latinos). Asian-Americans were close to the lowest with only 43% giving a rank of 1, followed by Whites (47%) and Chicanos (49%).

Moral support: Under this heading is understood the ineffable sense of having a degree of

commitment from the advisor and his or her interest in the student's success or failure. Because of the distant but generally workable relationship students had with many advisors, this category was usually ranked lower than overall support. Slightly less than half (157 or 47%) ranked their advisors as tops in this category, with one quarter (85) ranking advisors with a 2, 16% with a 3, 8.4% with a 4, 3.3% with a 5. Women were generally more critical than men and assigned much lower scores, half the percentage of men giving a 2, twice the percentage of women giving a 3. Among ethnic groups Asian Americans and Chicanos were equally dissatisfied with only 35% of each group giving advisors a rank of 1. The most satisfied were Native Americans with 75% giving scores of 1, followed at some distance by Blacks (53%), Latinos (52%) and Whites (47%). Favorable comments in this area include, "supportive, and understood problems of minority in majority institutions," "[advisor] was a super support person and friend," "mixed moral and psychological support." Of the more than thirty remarks made in this area, only 4 were negative, and two indicated that it was "not important in graduate school." The favorable comments were from all ethnic groups with two of the negative remarks made by Chicanos. The low scores would seem to be explained by larger sources of dissatisfaction with either the advisor or the program so that the possibility of securing moral support did not arise. This area is also tied to perceptions of the quality of education colored by racism in which students remarked [advisor] "not aggressive for minority success," more of the "hands off" approach. Sexism also played a role in commentary where, "Advisor's limited view of capability was related to gender and race issues..." so she felt undermined.

This is a very difficult category to evaluate by itself, although the concept "moral support" spoke clearly to the interviewed population in that they assigned definite scores. How such

support is manifest in interaction with the advisor and evaluated depends on what the student is looking for. Some have low expectations, some actually do not want that much help or even closeness, some may want too much. Others because they are older or have professional and other networks do not seek such support. It is one of the trickiest areas in the student-advisor relationship. Still, with all these observations, overall students would have like more support of this kind and many (but certainly not all) were disappointed that they did not receive it.

Broader understanding of non-academic issues: This area too is not necessarily straight forward as it also depends on what a student might be looking for. At the same time is clearly tied to the difference between who was a graduate student in the 1980s and what faculty expected of students. The issues connected to the advisor's understanding or lack of it relate to comprehending cultural difference between themselves and their students, gender issues, problems with financing graduate education and the related need to work, adjusting to older fully autonomous adults and recognizing the demands of family life and children on their students. Following the trend that being left alone was a good or at least an acceptable behavior from the advisor, 32 people assigned no scores at all saying it wasn't applicable. 45% of those who ascribed a rank, ranked with a 1, 28% with a 2. Twenty-seven percent ranked this area with a 3 or less.

Women generally were more critical than men with only 40% giving a score of 1, versus 48% of men, but women have much higher percentages of 4's and 5's (8% and 13%) versus men (6% and 2%). Asian-Americans assigned the lowest percentage of 1's (35%) followed by Chicanos (40.6%). The spread of Chicano rankings indicate much greater dissatisfaction in this area with 19% giving ranks of 5. Latinos, Blacks and Whites all have fairly similar distribution patterns

showing levels of moderate satisfaction in this area with 73% to 78% giving scores of 1 or 2.

Only 8 made specific comments on this topic, half were positive and 2 felt advisors shouldn't be concerned with non-academic issues. Opinions in this area are imbedded in commentary on discrimination and racism where some of the 47 made remarks similar to this one, "Advisor didn't mentor minority students outside the world of work," or "race influenced a lack of commitment to her, no one overtly racist, but she felt separation."

Ability to find financial support: The ability of the advisor to assist the student to some form of financial support was a fairly aggravating aspect of relations with advisors. Men and women did not differ so greatly in evaluating advisors in this area with 54% of men and 47% of women assigning a rank of one. Fully 21% of women, however, assigned a score of 5. This issue is also related to the issue of advisors being seen to have favorites or for there to be "stars" in the department ("the stars were upper-middle class white men") to whom all financial advantages accrue. Almost every minority student in this study received some form of fellowship for a period of one year up to several years. If students took longer, eligibility for university sources ran out, and since teaching assistantships were not available in sufficient numbers, this area generated some bitter responses. Chicanos, who took the longest overall time to finish their degrees were the most dissatisfied with only 39% giving a rank of 1, and 26% giving a rank of 5.²⁹ Native Americans also felt this was a problematic area, but the much larger numbers of Blacks (95 versus 12 Native Americans) meant their dissatisfaction affected more graduate careers. Forty-eight percent gave a rank of 1, 17% a rank of 5. Whites were not far behind in dissatisfaction levels with 47% giving a rank of 1, 12.5% giving a rank of 5. Overall Whites received far less institutional support than any other group in the study. Latinos were quite satisfied with 71%

giving a score of 1, eight a score of 5. Latinos were more highly concentrated in scientific fields than any other group and received proportionately more research assistantships. Although the lack of financial support and particularly the awarding of teaching assistantships were seen by some as racist—"race bias against being a T.A. needed T.A. for later academic jobs"—minorities were generally concentrated in disciplines such as the social sciences and education with less financial resources.

Quality of Evaluation: However else advisors were seen to be ineffective, quality of evaluation was not an area of intense dissatisfaction: on the contrary, around 77% assigned a score of 1 to 3. Again women are consistently, if not dramatically less satisfied than men, with only a 6% difference with men in the first three ranks. Whites were substantially more unhappy in this area than any other group with only 30% giving a rank of 1 against a range of 42% to 50% of 1's given by other groups. However, combining rank 1 and 2 every group comes out to around 75%. The most critical in terms of giving the lowest scores were Chicanos 11% of whom gave a score of 5.

Only 13 made specific remarks on this area, the majority positive. Many more remarks about evaluation are imbedded in the 46 remarks about the quality of education at Berkeley, remarks usually made by different individuals than the 13 on evaluation. Remarks under the category "race" are also germane. The thrust of complaint was that advisors were not critical enough, "not as critical of work as should be," "benign neglect," "some professors didn't work because of race, the aggressiveness wasn't there toward minorities."

Satisfaction with Departments: Department evaluations were generally lower than advisor evaluations among other reasons because it was generally the support of an advisor which got the student through, even if every other aspect of the department was distasteful to the student.

Fortunately, most departments were not so bad, but the adjectives which were used for the worst are not inspiring “never a supportive, positive environment ... [like] being thrown to the wolves.” Departments get blamed for poor curriculum, lack of system, inadequate training for field, along with cut-throat competition between faculty or faculty and students. They can be described as mis-managed, Darwinian. They also have been described as “excellent,” “very good program,” and “created a family atmosphere.” There is far less ambiguity in either student comments or the agreement between numerical rank and commentary, generally because the department relationship was in some respects more straight forward than with the advisor.

Sixty-seven percent of all students gave their departments ratings of 1 or 2 with women again being slightly more critical than men. Latinos assigned the greatest percentage of 1s at 44%, followed by Whites (35%), Blacks (35%), Chicanos (33%), Native Americans (25%), and Asian Americans (23%). The mixture of comment in which some aspects were very positive at least for the student and some were not is fairly uniform for either specific ethnic groups or NRC categories. In all of the commentary there is a very similar theme usually of a more negative character than otherwise. Isolation from other students and from faculty is mentioned often, sometimes in connection with the need to be self-reliant and therefore possibly not bad, or in connection to a poverty of experience and a lack of interaction. Some were satisfied with the course work in the department, many more were not and in any NRC category there were far more remarks about the need for greater structure than that the absence of structure allowed a great and valued freedom to design one’s own program. Commentary was extensive from students in all NRC groups varying from 39% of all Engineers interviewed to 68% of all those in Education, so there is no shortage of a varied disciplinary perspective. While individual faculty

advisors are praised, more praise is given to fellow graduate students for enabling the particular respondent to get through the program. Calls for more advising especially for first year students are frequent along with references to “years lost,” “drifting”—a particularly common complaint in the Social Sciences. All of these issues also affected every ethnic group. Many respondents made specific recommendations as a result of their experience and these are presented below.

Induction into the Profession: Many comments on training for life as an academic are made in reference to department activities. Again there were most often positive remarks made about intellectual development, although these were also linked closely to advisors, but numerous complaints about the lack of teaching opportunity and the absence of training in teaching.

Moreover, students in every NRC area complained about the lack of training in grant writing, in assistance in scholarly publishing and about the lack of opportunity or encouragement to present conference papers. Both advisors and departments were singled out for criticisms in these areas.

Racism: Forty-seven brought up issues concerning race and ethnicity, 9 commenting that it was not an issue or even that one department was very good at race relations, another department “good for a southern black woman,” “an essential part of the department was interaction with graduate students with diverse race/age/backgrounds.” The remaining 39 voluntary comments, however, made by 15% of the minority participants in this study bring to light every conceivable issue related to race or ethnicity ever discussed in such literature as there is on the topic. The weight of the remarks has to do with a difficult to hostile climate created by white insensitivity. The range of acts shaping this climate are from the overtly racist (often combined with sexist) remarks to a more generalized insensitivity to minority students as people, to their interests and to their needs for direction, support and concrete professional development. The absence of minority

faculty is raised in close to half of the remarks.

The results of this were to make students feel “isolated and alienated,” “had to work 2-3 times as hard [as white students],” “people on campus didn’t identify with her.” “get pigeon holed,” “race influenced a lack of commitment to her,” a lack of mentorship expressed as: “for a minority there should be someone who acts as a mentor, not just dollars to get in, although that is also important.” One remarked that faculty and fellow students in her department “could use racial sensitivity training. [She] was the only Black graduate student in department, two more were admitted later. Professors often got their names confused even though we looked nothing alike.”

Apart from adding to the weight of graduate training these attitudes had quite specific consequences for students. Unless they finally found a mentor of some kind, their progress was delayed through the program because of being “left to find their own way by themselves.” Specific dissertation topics related to minority concerns were discouraged or if formally approved, not always supported. Several students had a sense to of being steered into less demanding or stereotypical occupations for minorities (see below under “The Hidden Curriculum”). Assistance in professional development and job placement was felt to be minimal or to go to white men. Overall there is a feeling that for many minorities their perspective and unique contribution was not respected, or worse that their interests and persons were directly disrespected. Always keeping in mind that these are the students who overcame all of the obstacles of the their graduate education, it raises the question about how many minority students left because of the disrespect they experienced.

Sexism: Only 22 people made separate remarks about sexism, not all of them women and by every ethnicity excluding Native Americans. These remarks reveal fairly active interference with

women's progress through graduate school going beyond the articulated "no satisfactory role models for women," to classic Chilly Classroom Climate behaviors: "Women were hit hard in the department, [they were] shouted down by male graduate students and ignored by faculty. A lot of women dropped out. Women [were] cut off in classes which reinforced the system for women."³⁰ One commented also that she didn't pay attention to sexism in the past, "but it was apparent in graduate school." Like many minorities, women felt they had to "prove ourselves above the call of duty, had to be better than men." However, the same person remarked that the department hired a senior woman faculty member and that things have changed since then.

Star system: This concept refers to the perception by some students in a department that others are singled out for exceptional, favorable treatment and receive benefits and status denied or withheld from other students. It goes beyond racism, sexism or classism, although the "stars" were usually white upper middle class men. Most of the 18 comments on this topic were made by both Whites and Blacks with a few by members of other groups. Racism and sexism has a similar functional effect to the star system as it is seen as another form of discrimination. One woman remarked that "students are marked in their first year, or before they enter, and there is open talk of their rankings." Another comments, "[that a] tracking system in department. Stars grounded and anointed to be successful..." Another, "hotshots were promoted." Another remarked, "Professors make snap judgements about ability of students, very limited judgements. Should be able to make use of all talent not just talents of a few stars."

The outcome is a perception of an unmistakable allocation of scarce department resources going to a privileged few who receive money, teaching assistantships, scarce faculty time, and most galling to others, highly selective active support in professional development and job

placement. The star system appeared completely arbitrary to students; part of the way in which faculty chose to define their relationship with a limited number of students. While all other issues may play a role, the conclusion of one student is that faculty support those most like themselves, "white upper class males."

Classism: While there is a close connection to the perception of how the star system functions and the class background of the students, class issues were more extensive and destructive. Not surprisingly those complained about feeling different and isolated because of classism came from the two groups with the lowest level of parental education, Blacks and Chicanos. It is another aspect of the experience of being from a different background than those in the White majority institution which adds to the burden of finishing a Ph.D.

The Hidden Curriculum/Tracking: This concept is in a sense a summary of much of the experience of women and minority students already described. However, it is valuable to consider it separately because it focuses on the nature of the socialization process in graduate school and gives a name to attitudes and behaviors intended to reinforce existing majority values, intellectual paradigms and even forms of interaction. This was exactly the area which was so difficult for minority students whose perspective was different than that of their department, their interests in race and gender issues and social activism unvalued, and a sense of civility denied. Further comments on this: "attitude of contempt for students in general, but much worse for Blacks and women." "Socialization into the field [seen as] brutal which benefits the men [who are] taught to be aggressive ... people were combative at conferences."

In addition to the aspects of the hidden curriculum which Margolis and Romero discuss and which Berkeley students experienced (although from a broader range of disciplines than just

sociology), the other issue under this heading is tracking.³¹ This took a variety of forms, the most blatant being that “Blacks [were] tracked into Ed.D. program and told they were more suited for this.” There is the more pervasive “department discourages research related to the minority community,” with the result that students felt directed out of traditional disciplines to ethnic or woman’s studies, although to be sure some students found the atmosphere in these departments more congenial. It is another piece of the ambivalence toward minorities in the academy.

Self Reliance: This attribute has been mentioned extensively in the commentary, but deserves the emphasis of a separate heading. The frequency of its mention as a way of getting through the program and becoming an independent researcher raises questions about the purpose of graduate education as a whole. The idea was once that of an intellectual apprentice, acquiring the skills which eventually led to becoming an independent practitioner. For those entering graduate school, including the slightly more than half who changed fields from their undergraduate degree, guidance and intellectual development are both necessary and desirable. The prevalence of remarks about the lack of advising and direction and the necessity to become self reliant suggests that the model is not effective in making the benefits of graduate training equally accessible to those who have been carefully selected to profit from this training.

Recommendations: Taking all the student commentary as a whole a fairly coherent set of recommendations were made about how graduate study could be improved. More orientation for first year students was articulated to explain the degree programs in a department and to make clear what is expected of students in relation to pursuing different degrees. Also recommended were orientation and advice to first year students so that they have a better idea what courses to take or how to create an effective program for their interests. “Department should educate about

how to get what you want out of graduate school..." "It is important to guide student to specific courses in own area." Even "should be more defined first and second year courses." All groups and fields expressed these ideas and the related thought that students should be encouraged to move through the program more quickly.

Faculty teaching was an area which several thought should be worked on. Comments such as "department should pay more attention to better faculty teaching." How exactly this could be improved was not expressed, but one had an idea about dealing with unfair evaluation: "should be able to turn to a review board if professor is felt to be unfair." This suggestion could also be taken up in the occasional expression of student powerlessness in the advisor-student relationship.

Teaching for students was articulated as an area of dissatisfaction without many suggestions beyond either making teaching mandatory in every program and making more teaching assistantship available. Both ideas would address the issues especially if the repeated comment to have teaching taken more seriously all around was effected. Teaching is also connected to professional development issues and the expressed desire to have more interaction between faculty and students: in weekly informal seminars, through social events, through more faculty interest in graduate student life—more meetings with individual faculty to discuss work, to acquire skills in writing papers and grants. For some even more interaction with fellow students would have been advantageous.

Fairness about treatment by either faculty individually or in a department were central themes expressly tied to dissatisfaction with gender and racial discrimination. Women and members of minority ethnic groups repeatedly suggest hiring more of each, fortified with remarks about how eventually finding an appropriate role model, or even someone well disposed to the student's

research helped them finish the program. More minority students was also suggested to build a “critical mass” for support and overcoming the “minority” label. There were many calls for improving the cultural awareness of majority faculty through actual training programs as there were for calls for gender sensitivity. Cultural issues were not only about how a student was treated, but how faculty respect student interests and encouraged work related to one’s own group.

Conclusions

The graduate experience of the former students in this study was for around a quarter of those interviewed explicitly challenging and difficult even though they finished their degrees. Evaluation of advisors suggest that most were reasonably well intentioned toward their students and would help if explicitly asked to do so, but through their preoccupation with their own careers and concerns too often implicitly sent the message “don’t bother me.” Really serious violations of trust in the role of thesis director are seldom, although two cases of students reporting that the thesis director never read the dissertation is still unacceptable. But disappointments in various areas of advisor activity are numerous as students have reported on the lack of effort or interest in training them for induction into the academic (or any other) profession. These take the form of no help or advice about publishing, no help or interest in having students present papers at conferences, no introductions to others in the field, no assistance in preparing for the job search, although most wrote letters of recommendation when asked. Questions were also raised about the lack of training in teaching as well as complaints about the limited or non-existent opportunities to teach.

Women and members of minority groups felt they had been treated unfairly and in a

discriminatory manner either by their advisor, other faculty members in the department, the department as an organization, or by other students. Some of these commentaries also included information about how difficulties were resolved and a few of those who remark on problems also remark on how they and their advisors resolved them. However, the concern remains that the way in which the study is structured has created biases for under reporting problems students had. The population had succeeded in finishing the Ph.D., no specific questions were asked about discrimination in any form at all. Also, the interviews were conducted up to eleven years after completing the Ph.D. so respondents had moved into different lives, so were in some cases no longer that interested in their graduate school experience. There are further issues outside the university which bear on evaluation of these results. Racism and sexism permeates the fabric of American life and while often subtle, its commonplace nature hardly warrants particular commentary. As a survival mechanism, the pricks of daily existence are most often ignored.

Taking these factors into account this means that this group of students made the best of their situation and were able to finish, but did not necessarily discuss how they were able to overcome hurdles. Hence the results are more suggestive than conclusive, pointing to issues about going through a graduate program which deserve greater attention. An unanswered question is how strongly these issues drove people out of graduate programs, the suggestion being made by a few respondents that the same issues they raised did in fact drive others out of the program. Even with these qualifications, the volume and diversity of comment always return the focus to the private sphere of interaction between student and advisor. The student has to rely on his or her own resources rather than being able to develop optimal relationships for mastering graduate school, intellectual development and socialization into the profession.

Is the situation better in the 1990s? The passage of Proposition 209 which prohibits all preferential treatment of minorities, including affirmative action admissions, has had the result of bring race and ethnicity into the forefront of consciousness and has generated great tension about the treatment of minorities in higher education. It also appears to have heightened a sense of isolation among minority faculty members several of whom have articulated a desire to leave Berkeley. As a consequence the issues raised by the students in this study seem more germane than ever as the passage of a few years does not suggest that the issues they raise have gone away.³²

Moreover, specific dissatisfaction with advisors and departments were not only articulated by members of minority groups. The overarching issue for everyone is mentoring during the program. It is in this area that the problem of mutual understanding between student and advisor becomes so important. Many of those advisors who received a positive ranking from students still demonstrated a distant interest in student progress and an absence of commitment to assist the student in succeeding in the program. Some of these advisors were reported to be excellent scholars, but terrible teachers, or to have personality problems which brought them into conflict with students. A picture emerges of programs which are made unnecessarily difficult by a lack of attention to individual students and a lack of alternatives for these students but to become self-reliant and find such support as they can elsewhere. Some faculty clearly had difficulty in accepting the interests, the concerns and even the persons of women and members of minority groups, adding intensely to the burden of getting through the program.

Is the experience described here unique to U.C. Berkeley—the answer is unambiguously no. Because of its size and high volume of Ph.D. production Berkeley forms a cosmos of graduate

educational issues. At one level, certainly, this discussion is about the one to one interaction between advisor and student, as indeed that is the essence of graduate education. But the issues of a particular advisor and a particular student are superseded by the system of education of which they are both a part. It is surely time to consider developing a more inclusive model of graduate education less destructive of human potential which brings more light into the relationship between student and advisor.

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1. Thurgood, D.H. and Weinman, J.M. Summary Report 1990: Doctorate Recipients from United States Universities. (Washington, D.C.: National Academy Press, 1991); hereafter SED. Table 5-3, pp. 42-43. In 1975 6,199 women citizens received Ph.D.s, in 1990 10,347 did, going from 23% to 43% of all Ph.D.s. Table S-1, p. 39, In 1975 all U.S. citizen minorities received 1,624 Ph.D.s, 6.3% of all doctorates, in 1990 they earned 2,236 or 9.4% of all U.S. citizen doctorates. Peter D. Syverson, "The New Majority: CGS/GRE Survey Results Trace Growth of Women in Graduate Education." CGS Communicator 1997.

2. For example the National Science Foundation Directorate for Education and Human Resources, Minority Graduate Education Program, and the Sloan Foundation Program, Promoting the Success of Underrepresented Minorities in Mathematics, Science and Engineering.

3. Rodney T. Hartnett, "Environments for Advanced Learning," Scholars in the Making: The Development of Graduate and Professional Students, Joseph Katz and Rodney T. Hartnett, eds. (Cambridge, Mass.: Ballinger Publishing Co., 1976), p. 59. Gail E. Thomas, "Student Satisfaction and the Graduate School Experience of Majority and Minority Students." Research and Policy Report Series, Texas A&M University, Report III, Number III, (Spring 1993), p. 2.

4. Michael T. Nettles, "Success in Doctoral Programs: Experiences of Minority and White Students," American Journal of Education (August 1990), p. 497

5. Ann M. Heiss, Challenges to Graduate Schools. (San Francisco: Jossey-Bass, Inc., 1970), pp. 3-4, 20.

6. Leonard L. Baird, "Who Goes to Graduate School and How They Get There." Scholars in the Making. pp. 49-59.

7. William G. Bowen and Neil L. Rudenstine, In Pursuit of the Ph.D. (Princeton: Princeton University Press, 1992), pp. 107-113.

8. As a former student put it, "Faculty keep [their] distance in first and second years, very Darwinian setting."

9. Some 15% of respondents in this study were dissatisfied for a broad range of reasons with their training at Berkeley, much of it related to standards perceived as too low. Representative comments include: "department lacking in methodology," "better curriculum needed that is rigorous and demanding," "more opportunity to develop thinking."

10. J. Eugene Haas, "The American Academic Profession." Philip G. Altbach, ed. The International Academic Profession. (Princeton, N.J.: The Carnegie Foundation for the

Advancement of Teaching, 1996), pp. 360, 387.

11. Leonard L. Baird, "Who Goes to Graduate School and How They Get There," Scholars in the Making, pp.19-48.

12. Peter Syverson, "The New American Graduate Student—Challenge or Opportunity?" CGS Communicator 1997.

13. American Association of University Professors, Academe, January/February 1998.

14. Ann Heiss, Bibliography on Graduate Education. (1968). Ann Heiss, The Challenge of Graduate Education. (San Francisco: Jossey Bass, 1971).

15. Katz and Hartnett, Scholars in the Making, p. xiii.

16. Birt L. Duncan, "Minority Students." Scholars in the Making, pp. 227-242.

17. Other studies concerning these issues: Joyce Bennett Justus, et. al., The University of California in the Twenty-First Century. (Oakland: University of California, 1987). Christine Maslach, "Promoting Student Success at Berkeley: Guidelines for the Future," Commission on Response to a Changing Student Body (University of California at Berkeley, 1991).

18. Bowen and Rudenstine, In Pursuit of the PhD, p. xv.

19. Anne J. MacLachlan, Berkeley Placement Project: Report I, Placement of All Berkeley Ph.D.s between 1980 and 1989. (University of California Berkeley, 1992), Table 4 "Ethnic Distribution by NRC Area 1980-1989."

20. Carnegie Foundation for the Advancement of Teaching, A Classification of Institutions of Higher Education, 1987 Edition. (Princeton, N.J.: The Carnegie Foundation for the Advancement of Teaching, 1987).

21. SED 1994, Table B-2, p.78.

22. SED 1990 (1991), p. 28, Table B-2 pp. 84-86.

23. SED 1989, (1990), p.76.

24. SED 1990 (1991), p. 31.

25. SED 1990, Table B-2, pp. 84-86.

26. SED 1990, Table B-2, pp. 84-86.

27. SED 1990, Table B-2, pp. 84-86.

28. Eric Margolis and Mary Romero, "The Department Is Very Male, Very Old, and Very Conservative: The Functioning of the Hidden Curriculum in Graduate Sociology Departments." Harvard Educational Review, vol. 68, no. 1 (Spring 1998), discusses these issues in greater detail.
29. The correlation with an extended time to degree and greater dissatisfaction is made by Gail E. Thomas, "Student Satisfaction and the Graduate School Experience of Majority and Minority Students," Research and Policy Report Series (Texas A&M University), III No. III, Spring 1993. That Chicanos experience more difficulties than others dealing with graduate education are discussed in Patricia Gandara, Over the Ivy Walls, The Educational Mobility of Low-Income Chicanos. (Albany, N.Y.: State University of New York Press, 1995).
30. Bernice R. Sandler, Lisa Silverberg and Roberta M. Hall, The Chilly Classroom Climate: A Guide to Improve the Education of Women. (Washington, D.C.: National Association for Women in Education, 1995).
31. Margolis and Romero, "The Department is Very Male, Very Old and Very Conservative," Harvard Educational Review 68, 1.
32. Shirley Hune, "Doing Diversity: Adding to the Chill or Warming the Climate of Academe," Achieving Graduate Diversity in a Post-Proposition 209 Environment. (Berkeley, Conference Presentation September 23, 1998). In her view [as Associate Dean of the UCLA Graduate Division] the "glass is half empty" and that "there are still great problems with insensitivity."

Table 1
Demographic Information for Doctoral Interviews

<u>1. Gender</u>	<u>N.</u>	<u>%</u>
Male	199	58.9%
Female	139	41.1%
	338	100.0%

<u>2. Erthnicity</u>	<u>N.</u>	<u>%</u>	<u>Male</u>	<u>Female</u>
Asian Amer.	95	28.1%	54 27.1%	41 29.5%
Black	37	10.9%	24 12.1%	13 9.4%
Chicano	5	1.5%	4 2.0%	1 0.7%
Filipino	45	13.3%	32 16.1%	13 9.4%
Latino	12	3.6%	6 3.0%	6 4.3%
Native Amer.	53	15.7%	27 13.6%	26 18.7%
White	91	26.9%	52 26.1%	39 28.1%
	338	100.0%	199 100.0%	139 100.0%

3. Year in which Ph.D. completed

	<u>N.</u>	<u>%</u>		<u>N.</u>	<u>%</u>
1980	6	1.8%	1985	39	11.5%
1981	28	8.3%	1986	54	16.0%
1982	32	9.5%	1987	44	13.0%
1983	34	10.1%	1988	41	12.1%
1984	38	11.2%	1989	22	6.5%
				338	100.0%

<u>4. Age</u>	<u>N.</u>	<u>%</u>	<u>Male</u>	<u>Female</u>
25-29	86	25.4%	51 25.6%	35 25.2%
30-34	114	33.7%	69 34.7%	45 32.4%
35-39	88	26.0%	51 25.6%	37 26.6%
40-44	33	9.8%	20 10.1%	13 9.4%
45-49	14	4.1%	7 3.5%	7 5.0%
50+	3	0.9%	1 0.5%	2 1.4%
	338	100.0%	199 100.0%	139 100.0%

5. National Research Council Subject Area

	<u>N.</u>	<u>%</u>
Education	37	10.9%
Engineering	36	10.7%
Humanities	40	11.8%
Life Sci	59	17.5%
Physical Sci	48	14.2%
Professions	33	9.8%
Social Sci	85	25.1%
	338	100.0%

Table 2
NRC Area by Gender and Ethnicity

	Blacks			Chicanos			Filipinos			Latinos			
	M	%	F	M	%	F	M	%	F	M	%	F	%
Education	8	14.8%	10	4	10.8%	1	2			2	6.3%	1	7.7%
Engineering	4	7.4%	7	1	2.7%		1	25.0%		9	28.1%	2	15.4%
Humanities	4	7.4%	7	4	10.8%	2	2		1	3	9.4%	5	38.5%
Life Sci	11	20.4%	5	7	18.9%	2				4	12.5%	2	15.4%
Physical Sci	5	9.3%	2	3	8.1%		2	50.0%		7	21.9%	2	15.4%
Professions	5	9.3%	2	5	13.5%	2	1			1	3.1%	1	7.7%
Social Sci	17	31.5%	17	13	35.1%	6	1	25.0%		6	18.8%	2	15.4%
TOTALS	54	100.0%	41	37	100.0%	13	4	100.0%	1	32	100.0%	13	100.0%

	Native Americans			Asian Americans			White			
	M	%	F	M	%	F	M	%	F	%
Education	2	33.3%	1	1	3.7%	1	4	7.7%	3	7.7%
Engineering				6	22.2%	2	7	13.5%	6	15.4%
Humanities			1	6	22.2%	2	7	13.5%	4	10.3%
Life Sci			3	5	18.5%	5	6	11.5%	7	17.9%
Physical Sci	3	50.0%		4	14.8%	6	10	19.2%	6	15.4%
Professions				1	3.7%	5	7	13.5%	6	15.4%
Social Sci	1	16.7%	1	4	14.8%	5	11	21.2%	7	17.9%
TOTALS	6	100.0%	6	27	100.0%	26	52	100.0%	39	100.0%

Table 3
Overall Relationship with Advisor by Ethnicity

<u>Scores</u>	<u>Total</u>		<u>Blacks</u>		<u>Chicanos</u>		<u>Filipinos</u>	
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>
1	181	53.6%	63	66.3%	18	48.6%	2	40.0%
2	100	29.6%	22	23.2%	9	24.3%	3	60.0%
3	41	12.1%	8	8.4%	6	16.2%	0	0.0%
4	11	3.3%	2	2.1%	1	2.7%	0	0.0%
5	5	1.5%	0	0.0%	3	8.1%	0	0.0%
TOTALS	338	100.0%	95	100.0%	37	100.0%	5	100.0%

<u>Scores</u>	<u>Latinos</u>		<u>Native Americans</u>		<u>Asian Americans</u>		<u>Whites</u>	
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>
1	23	51.1%	9	75.0%	23	43.4%	43	47.3%
2	15	33.3%	3	25.0%	18	34.0%	30	33.0%
3	6	13.3%	0	0.0%	9	17.0%	12	13.2%
4	1	2.2%	0	0.0%	2	3.8%	5	5.5%
5	0	0.0%	0	0.0%	1	1.9%	1	1.1%
TOTALS	45	100.0%	12	100.0%	53	100.0%	91	100.0%

Table 4
Comparison of Specific Advisor Evaluations

<u>Scores</u>	<u>Overall</u>		<u>Moral Support</u>		<u>Quality of Evaluation</u>		<u>Financial Support</u>		<u>Non-Academic Issues</u>	
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>
1	181	53.6%	157	46.4%	138	40.8%	130	38.5%	136	40.2%
2	100	29.6%	85	25.1%	122	36.1%	50	14.8%	86	25.4%
3	41	12.1%	53	15.7%	50	14.8%	23	6.8%	44	13.0%
4	11	3.3%	28	8.3%	17	5.0%	17	5.0%	20	5.9%
5	5	1.5%	11	3.3%	8	2.4%	33	9.8%	20	5.9%
Not Reported			4	1.2%	3	0.9%	85	25.1%	32	9.5%
TOTALS	338	100.0%	338	100.0%	338	100.0%	338	100.0%	338	100.0%