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**ABSTRACT**

In May 1980, the 1973-1979 minority graduates of the University California at Davis were surveyed about their employment, graduate and professional school training, career progress, and university experiences. The response rate was 33.7 percent. Minority groups included were American Indian, black, Chicano, Latino, and Filipino. Most had taken graduate level coursework, and felt well-prepared by undergraduate work. American Indians were most likely to have undertaken graduate work, be currently enrolled, and be full-time students. Eighty-three percent of the respondents were currently employed, most full-time, and in a broad range of occupations. Fifty-three percent felt their occupations were highly or moderately related to college major, with Filipinos most likely to feel them highly related. Median annual salary of full-time workers was \$16,500. Job satisfaction was generally high. Respondents also reported on their feelings of personal, intellectual, and social growth as a result of their college experiences. In each area, respondents reported that the university contributed very much or somewhat to their growth. Over three-quarters would definitely or probably choose to attend the university again if they could start college over. Filipinos were least likely to choose the same university again. Attitudes toward choosing the university again were related to feelings about preparation for current occupations. Comparisons with a similar survey of all graduates from 1973 to 1979 show great similarities between the groups. Results of both surveys are illustrated in tables and graphs. The survey instrument is appended. (MSE)

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ETHNIC MINORITY GRADUATES OF 1973 THROUGH 1979:  
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What does a university education come to?— One measure of a university is its graduates--they are, in a sense, a university's "product," and their activities and achievements a reflection of its educational effectiveness.

What, then, are the outcomes of an education at UC Davis? To answer this question, 1973 and 1979 UC Davis graduates were asked in May 1980 about their employment, graduate and professional school training, career progress, and University experiences. UC Davis' Student Affairs Research and Information Office published the results of that survey in June 1981 as The Graduates of 1979 and 1973: Their Postgraduate Studies, Occupations, and Impressions of UC Davis.

Because the University has devoted considerable effort during the past decade to recruit, retain, and graduate underrepresented ethnic minorities, the postgraduate experiences of such students would have been of special interest in the survey of 1973 and 1979 graduates. Unfortunately, so few ethnic minorities graduated in those two years that their experiences could not be described separately from those of all graduates or be considered representative of UC Davis minority graduates in general. To obtain information on a large enough number of minority graduates to accurately interpret their postgraduate experiences independently of "majority" students, Student Affairs Research and Information surveyed all minority students who graduated from 1973 through 1979.

This report presents the findings of this seven-year cross-sectional survey. Specifically, it:

- 1) identifies the postgraduate studies undertaken by minority graduates;
- 2) examines minority graduates' occupations, job satisfaction, and the relationship between their occupations and undergraduate education;
- 3) describes UC Davis' contributions to minority graduates' personal, social, and intellectual growth;
- 4) explores minority graduates' impressions of their UC Davis experiences; and
- 5) compares findings of the minority graduates' survey with the results of the survey of 1973 and 1979 graduates.

The information presented here is of interest to several constituencies: to University officials looking at the effectiveness of programs and services for minority students; to faculty and support service staff members examining the effects of their efforts and attempting to improve the curriculum and allied services; and to current minority students setting career goals and forming expectations about "life after Davis."

## RESEARCH DESIGN AND LIMITATIONS

In May 1980, a four-page questionnaire (Appendix A) was mailed to all UC Davis minority students who had graduated during the calendar years 1973 through 1979 (N=936). "Minority graduates" were defined as those who, as students, had identified themselves as belonging to one of five underrepresented ethnic groups: American Indian/Alaskan Native, Black/Afro-American, Chicano/Mexican-American, Latino/Other Spanish-American, or Filipino/Pilipino. These five ethnic groups comprise UC Davis' target population for undergraduate affirmative action. For the purposes of this report, graduates from these five ethnic groups are designated "minority" graduates.

Replies to the questionnaire were received from 315 minority graduates, for a response rate of 33.7%.

Before making generalizations about all minority graduates based on the responses of those who returned the questionnaire, it is important to emphasize that the survey results may be influenced by response bias. Response bias occurs when those responding to a questionnaire differ significantly from those who do not respond. To check for the possibility of response bias, minority graduates completing the questionnaire were compared with all minority graduates on several key characteristics--ethnicity, year of graduation, sex, and major at Davis--to determine how well they represented all minority graduates. Appendix B details these comparisons; in general, the survey respondents are quite representative of all minority graduates on these characteristics.

Respondents may also differ from non-respondents in attitudes, perceptions, or experiences. In survey research, respondents tend to be more positive, more satisfied and, sometimes, more successful than non-respondents. Unfortunately, in this study non-respondents were not contacted to determine whether they differed from respondents, so the extent to which this bias affects the survey results cannot be estimated. The relatively low response rate--33.7%--increases the probability of this type of bias. The potential for response bias must be kept in mind as the survey results are read. In addition, graduates' reports of their further studies, occupations, and salaries reflect their circumstances as of Spring 1980.

Finally, the averaging of responses across the five ethnic groups or across the seven years of graduates at times obscures the variations in responses among ethnicities or across years, so where separate analyses by ethnicity or year are possible and appropriate, they are included. Quite often, however, the absolute number of respondents is too small to permit a separate analysis by ethnicity or year, or to generalize to the population. In these cases, only the average responses for all ethnic groups or all graduating classes are given. Table I shows the distribution of respondents among ethnic groups and across the seven years.

Table I  
 Characteristics of Minority Graduates  
 Responding to the Questionnaire  
 (N=315)

<u>Ethnic group</u>	<u>N</u>	<u>Year of Graduation</u>	<u>N</u>
American Indian	29	1973	44
Black	82	1974	47
Chicano	105	1975	48
Latino	73	1976	56
Pilipino	26	1977	33
		1978	41
Total	315	1979	43
		missing	3
		Total	315

#### CURRENT ACTIVITIES OF MINORITY GRADUATES

What were UC Davis minority graduates doing in Spring 1980? Asked to name their "current primary activity," 68% said they were employed, 23% were attending school, and 4% were looking for work. The remaining 5% specified homemaking or some "other" activity. Many minority graduates were involved in more than one of these activities. While 23% said their primary activity was attending school, 39% were enrolled in degree-granting educational programs. Similarly, 68% said working was their primary activity, but 83% were employed full-time or part-time.

#### POSTGRADUATE EDUCATION

##### Summary

In Spring 1980, 60% of the minority graduates who responded to the survey had taken graduate-level coursework; 39% were currently enrolled in degree-granting academic programs. Of those enrolled, 70% were full-time students.

A majority of graduates felt UC Davis had prepared them quite well for graduate work: 65% of those who continued their education beyond the baccalaureate said UC Davis had prepared them "very well" or "more than adequately."

Twenty-nine percent of the minority graduates had earned at least one advanced academic or professional degree; a third had degrees in progress. Minority graduates had earned or were studying for eight types of advanced degrees; of these, academic and professional master's degrees were the most common.

Education, the health professions, and the social sciences were the fields in which most graduates were acquiring or already held advanced degrees. These fields seem to correlate closely with their undergraduate majors.

Of the graduates holding advanced degrees, 45% earned them at UC Davis, 10% at other UC campuses, 18% at CSUC schools, and 15% at private postsecondary institutions in California.

#### Postgraduate coursework

Among the five ethnic groups, American Indians were most likely to have taken graduate-level courses (86%), to be currently enrolled (55%), and, of those then in school, to be attending full-time (83%). Just under 60% of Blacks, Latinos, Chicanos, and Pilipinos had taken graduate-level courses. After American Indians, Latinos were most likely to be currently enrolled (44%); about one-third of Blacks, Chicanos, and Pilipinos were currently enrolled.

Graduate study rates varied by sex: 60% of men graduates and 40% of women graduates had taken graduate-level coursework. Rates also varied by length of time since graduation: 48% of 1979 graduates, 59% of 1976 graduates, and 81% of 1973 graduates had taken postgraduate courses.

#### Preparation for graduate study

In general, minority graduates who have had some graduate-level education report UC Davis prepared them "more than adequately" for their advanced studies.

As Table II indicates, Blacks and Latinos were most likely to say UC Davis prepared them "very well" or "more than adequately" for their graduate studies (78% and 74%); Chicanos were most likely to indicate only "adequate" preparation (43%).

Table II

How Well Did UCD Prepare You  
for Your Graduate Education?  
(in percent of respondents from each  
ethnic group having taken coursework)

<u>Ethnic group</u>	<u>Very well</u>	<u>More than adequately</u>	<u>Adequately</u>	<u>Less than adequately</u>	<u>Poorly</u>	<u>N</u>
American Indian	42%	21%	29%	8%	--	24
Black	39	39	23	--	--	44
Chicano	30	23	43	2	2	60
Latino	43	31	26	--	--	35
Pilipino	33	27	27	13	--	15
Average, all ethnic groups	37%	29%	31%	3%	--	178

### Postgraduate degrees earned and in progress

Sixty-two percent of 1973-1979 graduates were working toward or had earned an advanced degree in Spring 1980. Tables III and IV show the distribution of graduates among various types of degrees. [Because 60% of the graduates continued their studies, it can be inferred that 2% undertook more than one kind of degree (62-60=2%), and are represented more than once in each table.]

Table III

Advanced Degrees  
(in number and percent of respondents, N=315)

<u>Degree type</u>	<u>In progress</u>		<u>Earned</u>		<u>Total</u>	
	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>
Teaching credential	2%	7	9%	29	11%	36
Academic master	8	25	10	30	18	55
Professional master	7	23	3	10	10	33
Law	4	12	3	11	7	23
Medicine	5	16	2	7	7	23
Veterinary medicine	1	4	<1	1	2	5
Academic doctorate	3	11	1	3	4	14
Professional doctorate	2	6	<1	1	2	7
All degrees	33%	104	29%	92	62%	196

Table IV

Advanced Degrees in Progress or Earned by Ethnicity  
(in percent of respondents from each ethnic group)

<u>Degree type</u>	<u>American Indian</u> (N=29)	<u>Black</u> (N=82)	<u>Chicano</u> (N=105)	<u>Latino</u> (N=73)	<u>Pilipino</u> (N=26)
Teaching credential	21%	6%	10%	8%	31%
Academic master	38	21	12	15	11
Professional master	7	12	13	8	4
Law	14	6	9	4	8
Medicine	3	5	10	5	11
Veterinary medicine	3	2	--	3	--
Academic doctorate	3	6	2	8	--
Professional doctorate	--	4	1	4	--
Total, each ethnic group	90%	62%	58%	56%	65%



### Earned degrees

Table V shows that Latinos were least likely to have already earned an advanced degree, followed by Blacks and Chicanos. Pilipinos and American Indians were most likely to already hold postgraduate degrees. Latinos may have been less likely to have earned advanced degrees because a significant percentage of them (22%) were working toward doctoral degrees, which take longer to complete. Pilipinos were more likely to hold advanced degrees because over half of them earned teaching credentials.

Table V

Graduates Earning Advanced Degrees by Ethnicity  
(in percent of respondents from each ethnic group)

	American Indian (N=29)	Black (N=82)	Chicano (N=105)	Latino (N=73)	Pilipino (N=26)
All advanced degrees	41%	29%	30%	19%	38%
All advanced degrees except teaching credentials	24%	24%	21%	15%	12%

As Table VI shows, more of the older graduates had earned postgraduate degrees than had the recent graduates, and they had earned more of those degrees that take more time to complete--law, medicine, and doctoral degrees.

Table VI

Graduates Earning Advanced Degrees by Year of Graduation  
(in percent of respondents from each year)

1979 (N=43)	1978 (N=41)	1977 (N=33)	1976 (N=56)	1975 (N=48)	1974 (N=47)	1973 (N=44)
7%	17%	15%	32%	45%	45%	56%

### Fields of postgraduate study

Sixty-one percent of minority graduates who were undertaking or had acquired postgraduate degrees were in education, the health professions or the social sciences. Degrees in law account for 50% of the 37 graduates holding or earning social science degrees; degrees in medicine comprise 60% of the 39 graduates in the health professions; and teaching credentials account for 49% of the 41 graduates in education.

How closely do minority students' postgraduate studies correlate with their undergraduate fields of study? Thirty-two of the 70 graduates (46%) who had majored in the social sciences as undergraduates were earning or had acquired advanced degrees in that same area of study; 28 of the 41



undergraduate Biological Sciences majors (68%) were working on or had earned further degrees in the health professions. Similar patterns were evident for other undergraduate fields of study, although the small numbers in each make generalizations difficult to draw. Eight of the 12 undergraduates in Food, Nutrition, and Consumer Science (67%), for example, were in Home Economics at the graduate level; 9 of 12 graduates who majored in Engineering as undergraduates (75%) were acquiring or held advanced engineering degrees. The relationship between specific undergraduate and postgraduate fields of study is detailed in Appendix C.

## EMPLOYMENT

### Summary

Eighty-three percent of the survey respondents were currently employed; 68% full-time, 14% part-time. Nearly all of those who identified employment as their "current primary activity" were full-time workers.

Minority graduates are represented in a wide array of occupations and employment fields. Of those employed full-time, most held positions as engineers, educators, personnel/social welfare workers, and administrators/managers. Educational services, manufacturing, and social services were the most common fields of employment for full-time workers. Just over half worked for public or governmental organizations. The median 1980 annual salary for 1973/1979 graduates working full-time was \$16,500.

Ninety-five percent of the minority graduates working full-time had chosen a career field; of these, 81% held positions in their chosen career fields; 19% did not.

How well did UC Davis prepare them for their present occupations? "Very well" or "more than adequately" said 46% of full-time workers; "adequately," said 40%.

Thirty-eight percent of the full-time workers said that their current jobs were "highly related" to their majors at UC Davis; 25%, that they were "moderately related;" 20%, "slightly related;" and 17%, "not related."

Three-fourths of those whose primary activity was employment were "very satisfied" or "satisfied" with their jobs overall. Most respondents expressed satisfaction with the challenge, people, location, and working conditions associated with their jobs.

### Occupations and fields of employment

The most common positions held by the 210 full-time workers who responded to the questionnaire are those in the agriculture, forestry or fishing industries, and in social or welfare services, followed by lawyers, personnel and training managers, primary school educators, civil or electrical engineers, sales and distribution managers, and physicians.

The greatest number of graduates were employed in educational services (N=42), manufacturing (N=24), and social services (N=24). The relatively high percentage (51%) of graduates employed by public or governmental agencies may be explained by the number of graduates in educational and social services.

Some ethnic groups differ from these averages, however. Filipinos were more concentrated in education than were other ethnic groups: 41% (vs. 18% average of other groups) worked in educational services; 35% (vs. 13% average) were educators. Blacks were more represented in social services than were other groups: 16% were in personnel or social welfare occupations (vs. 6% average for other groups), and 24% (vs. 7%) were employed by social service organizations. Over three-fourths of American Indian respondents were employed by the private sector; 71% of the Filipinos were in the public sector.

#### Relationships between undergraduate majors and occupations

"How related are minority graduates' jobs to their UC Davis undergraduate majors? Table VII describes the relationship."

Table VII

How Closely Related Is Your Current Occupation  
to Your Major at UCD?  
(in percent of respondents working full-time in each ethnic group)

<u>Ethnic group</u>	<u>Highly related</u>	<u>Moderately related</u>	<u>Slightly related</u>	<u>Not related</u>	<u>N</u>
American Indian	29%	29%	29%	14%	14
Black	35	24	24	18	55
Chicano	32	32	20	17	76
Latino	48	19	17	17	48
Filipino	<u>60</u>	<u>13</u>	<u>13</u>	<u>13</u>	<u>15</u>
Average, all ethnic groups	38%	25%	20%	17%	208

Filipinos were the most likely to see their jobs as "highly related" to their college majors, followed by Latinos. Equal numbers of American Indians perceived a high, moderate, and slight relationship. Recent and older graduates were equally likely to see a high or moderate relationship between their jobs and their majors.

Because of the small number of graduates in each major, it cannot be determined whether graduates with certain majors might have seen a closer relationship between their jobs and majors than graduates with other majors.

### Preparation for work

Minority graduates working full-time were asked how well UC Davis had prepared them for their present occupations. As Table VIII shows, about half of all ethnic groups except Pilipinos thought UC Davis prepared them "very well" or "more than adequately" for their current jobs. Only 31% of the Pilipinos felt UC Davis prepared them "very well" or "more than adequately"; 38% thought their preparation was "less than adequate" or "poor."

Table VIII

How Well Did UCD Prepare You for Your  
Present Occupation?  
(in percent of respondents working full-time in each ethnic group)

Ethnic group	Very well	More than adequately	Adequately	Less than adequately	Poorly	N
American Indian	14%	36%	43%	7%	--	14
Black	17	31	41	11	--	54
Chicano	18	30	41	8	3	76
Latino	24	20	41	10	4	49
Pilipino	13	19	31	31	6	16
Average, all ethnic groups	19%	28%	40%	11%	2%	209

Graduates' view of how well UC Davis prepared them is only somewhat related to whether or not they were working in their chosen career field. Forty-nine percent of those in their career fields and 41% of those not in their chosen fields reported UC Davis prepared them "very well" or "more than adequately" for their present occupation. However, only 11% of those in their career field said they were "less than adequately" or "poorly" prepared, while 27% of those not working in their career field said the same.

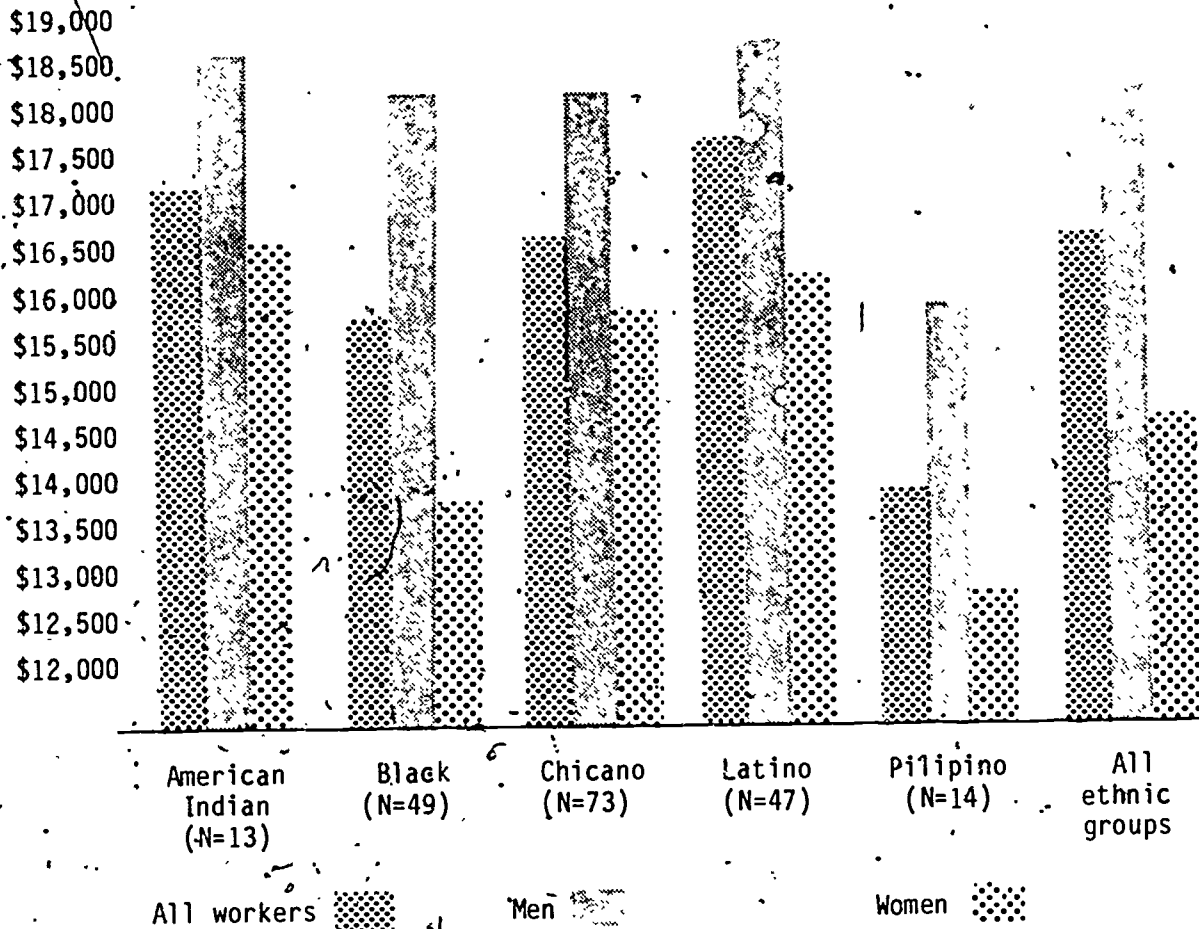
Graduates' perceptions of their UC Davis preparation did vary by their undergraduate grade point average: those with the highest GPAs were more likely to have said that UC Davis prepared them only "adequately" for their present occupations than those with lower averages. Fifty-two percent of graduates with self-reported averages of 3.5 to 4.0 said UC Davis had prepared them only "adequately" for their current occupations.

### Salaries

The median annual salary of minority graduates working full-time in 1980 was \$16,500. Salaries varied by ethnic group, year of graduation, and sex. As Table IX indicates, Latinos earned the highest average salaries; Pilipinos the lowest. Older graduates, understandably, earned more than recent graduates. The median salary of women minority graduates was \$3,500 less than that of men graduates.

Table IX

1980 Median Annual Salaries of Minority Graduates  
By Ethnicity and Sex  
(respondents working full-time)



Graduates Earning \$15,000 and Over by Year of Graduation  
(in percent of respondents working full-time from each year)

1979 (N=25)	1978 (N=26)	1977 (N=27)	1976 (N=35)	1975 (N=29)	1974 (N=38)	1973 (N=36)
28%	51%	56%	58%	70%	82%	76%

### Job satisfaction

Overall, minority graduates were quite satisfied with their current jobs: over three-quarters of the graduates whose primary activity was employment were "satisfied" or "very satisfied" with their jobs. Ethnic groups varied in their level of satisfaction, however. Blacks were least satisfied overall: 40% were "neutral" or "dissatisfied" with their current jobs. Latinos and Pilipinos were most likely to be satisfied: 89% and 87%, respectively, were "satisfied" or "very satisfied."

Whether graduates' jobs and their undergraduate majors are related does not affect their overall job satisfaction. Thirty-three percent of those who said their jobs were "highly related" to their majors reported being "very satisfied" with their jobs; on the other hand, 31% of those whose jobs were "not related" to their majors were nonetheless "very satisfied" with their jobs.

Graduates were asked as well about their satisfaction with seven specific aspects of their jobs. Table X summarizes their responses.

Table X

Minority Graduates' Satisfaction With  
Seven Aspects of Their Jobs  
(in percent of respondents whose primary  
activity is employment, N=212)

<u>Job aspect</u>	<u>Percent "satisfied" or "very satisfied"</u>
Challenge	82%
Co-workers	81%
Location	79%
Physical working conditions	67%
Career potential	67%
Advancement	55%
Salary and benefits	52%

Among the ethnic groups, there are some variations in job satisfaction. All American Indians were satisfied with their location, compared with 79% of all minorities. Chicanos were more likely to be satisfied with their salaries (63%) than the average. Blacks were significantly less satisfied than the average with the advancement potential (36%) and career potential (55%) of their jobs. Proportionately fewer Blacks said they were "very satisfied" on each of the eight specific aspects of their jobs than the average.

## PERSONAL, INTELLECTUAL AND SOCIAL GROWTH

Colleges and universities are typically perceived as institutions that not only prepare students for graduate school and employment, but provide them the intellectual, social, and personal skills important for success in life. Minority graduates were asked to assess how much UC Davis had contributed to their growth in thirteen specific areas of personal, intellectual, and social development. Table XI summarizes their responses.

Table XI

How Much Did UCD Contribute to Your Growth  
in the Following Areas?  
(percent saying UCD contributed "very much")

<u>Area of Growth</u>	Average, all ethnic groups (N=312)	American Indian (N=29)	Black (N=82)	Chicano (N=10)	Latino (N=73)	Pilipino (N=26)
Persisting in diffi- cult tasks	57%	55%	46%	63%	60%	62%
Defining and solving problems	48	45	37	53	53	54
Understanding written information	47	62	35	52	50	39
Recognizing assump- tions, making logical inferences, reaching correct conclusions	43	55	34	42	47	54
Self-confidence/ self-understanding	41	35	37	38	47	54
Understanding and applying scientific principles & methods	41	52	38	30	45	39
Understanding people of other races and ethnic backgrounds	29	21	29	32	23	42
Writing effectively	28	17	33	30	22	35
Leading others	27	31	29	25	19	39
Working cooperatively in a group	27	31	21	29	23	39
Understanding & ap- preciating the arts	23	10	23	24	22	39
Recognizing rights, responsibilities and privileges as a citizen	19	10	15	24	13	42
Public speaking	17	14	22	24	16	23



In each area, at least half the respondents reported UC Davis contributed "very much" or "somewhat" to their growth. Ninety percent said UC Davis contributed "very much" or "somewhat" to their ability to "define and solve problems;" 89% to their abilities to "understand written information" and to "persist in difficult tasks." At the other end of the scale, only 13% reported UC Davis contributed "very much" or "somewhat" to their ability to "understand the arts" or to "recognize a citizen's rights and responsibilities."

Patterns of student growth and development were made more evident through the use of factor analysis, a statistical technique for discovering whether some of the thirteen areas of growth relate to each other more than they do to other. The factor analysis identified four clusters of growth areas--or factors--which describe four distinct types of students: 1) problem-solver, 2) leader, 3) writer, and 4) culturally fluent. Appendix D details which growth areas associate with each of these factors and displays the factor loading of each growth area.

Areas of growth important in more than one factor for the minority graduates were: "defining and solving problems," "understanding written information," "speaking in public," and "understanding people of other races and backgrounds." "Defining and solving problems" was a high growth area for the problem solvers and the leaders, but not for the culturally fluent or the writers. "Understanding written information" was a high growth area for the problem solvers and the writers but not for the other two groups.

Leaders and writers both rated "speaking in public" as an area of high growth, while problem solvers and the culturally fluent did not. Finally, "understanding people of other races and ethnic backgrounds" was an area of high growth for the leaders and the culturally fluent, but not for the problem solvers or writers.

#### IMPRESSIONS OF UC DAVIS

Would minority graduates choose to attend Davis again if they could start college over? Would they choose the same major? What would they do differently--or the same?

As Table XII shows, over three-quarters of the minority graduates said they would "definitely" or "probably" attend UC Davis again. Filipinos were least likely to say they would choose UC Davis again. In contrast, most Latinos would "probably" or "definitely" choose UC Davis again.

Table XII

If You Could Start College Over, Would You Choose to Attend UCD?  
(in percent of respondents from each ethnic group)

<u>Ethnic group</u>	<u>Definitely yes</u>	<u>Probably yes</u>	<u>Uncertain</u>	<u>Probably not</u>	<u>Definitely not</u>
American Indian	31%	38%	14%	14%	3%
Black	35	42	14	7	3
Chicano	43	33	12	9	4
Latino	39	44	11	4	1
Pilipino	40	24	16	20	--
Average, all ethnic groups	38%	38%	13%	9%	3%

Minority graduates' attitudes towards choosing UC Davis again are related to how well UC Davis prepared them for their current occupations and for graduate education. Of the full-time workers who said UC Davis prepared them "very well" for their current jobs, 69% would "definitely" attend UC Davis again, but only 22% of those who felt "adequately" prepared would "definitely" choose UC Davis again. Of those graduates who had taken graduate-level coursework and who said UC Davis prepared them "very well" or "more than adequately" for that work, 82% would "definitely" or "probably" choose UC Davis again, but of those who said they were just "adequately" prepared for graduate work, 64% would "definitely" or "probably" choose UC Davis again. Whether minority graduates would choose UC Davis again is not related to the number of years since their graduation.

Fifty-nine percent of minority graduates said they "definitely" or "probably" would choose to graduate with the same major if they were to start over; however, 31% said they "probably" or "definitely" would not. As Table XIII shows, the ethnic groups varied in their response to this question. Recent and older graduates were equally likely to say they would choose the same major again.

Table XIII

Would You Choose the Same Major Again?  
(in percent of respondents from each ethnic group)

<u>Ethnic group</u>	<u>Definitely yes</u>	<u>Probably yes</u>	<u>Uncertain</u>	<u>Probably not</u>	<u>Definitely not</u>
American Indian	31%	38%	14%	7%	10%
Black	30	31	9	21	10
Chicano	32	30	9	19	11
Latino	22	32	15	19	11
Pilipino	20	24	4	28	24
Average, all ethnic groups	28	31	10	19	12

Graduates' disposition "to choose the same major again does not strongly affect whether they would choose UC Davis again. Of those who "definitely" would not choose the same major, 77% still would choose UC Davis again; of those who "definitely" would choose the same major, 84% would choose UC Davis again as well.

Graduates who majored in certain fields were more likely to have said they "definitely" or "probably" would choose the same major again. Table XIV outlines this relationship for those majors with larger numbers of graduates.

Table XIV

Minority Graduates Who Would Choose Same Major  
by Selected Undergraduate Fields of Study  
(in percent of respondents in each field of study)

Percent of respondents who would "definitely" or "probably" choose the same major again	
Engineering (N=22)	91%
Social/Behavioral Sciences (N=107)	61%
Biological Sciences (N=53)	60%
Interdisciplinary (N=28)	39%
Letters (N=25)	40%

If they could start college over, some graduates would do things differently, others would not. Some said they would choose majors with more direct job relatedness; others would increase the breadth of their college work; and still others, the breadth of their college experiences in general. Some would seek more or earlier counseling or would make different choices as a result of their experiences as minorities.

Students with low major-job congruence frequently indicated that they would take a different major. This pattern was particularly evident among graduates who majored in letters and interdisciplinary studies. One 1976 Latino History graduate, for example, remarked that he "would get into a major with greater potential for getting a major-related job." A 1976 Chicano English major said:

I would choose a major with more care so as to optimize later career potentials. Moreover, the major field would emphasize quantitative skills. Also, I would participate in more student organizations to gain practice in organizational and rhetorical areas. I would definitely still learn good writing skills.

A 1975 Black Biological Sciences major said that he "would not major in Bio Sci and go with Computers or Business," and a 1977 Black Child Development graduate noted that she "would have majored in Accounting or Business Administration with a minor or double major in Child Development."

Many graduates suggested that they would increase the breadth of their undergraduate coursework. A 1977 Black graduate in Biological Sciences said that she "would have taken more courses in the humanities and social sciences to have a more well-rounded background." Her sentiments were echoed by a 1977 Black Economics graduate who said: "I would take more humanities, e.g., English and History." A 1975 Chicano who graduated in Home Economics said she "would take more writing and communication courses."

Other graduates would increase the diversity and breadth of their college experience outside the classroom. Said a 1976 Chicano Biological Sciences graduate: "I would indulge in more socializing, including taking more liberal arts courses." One 1976 Latino graduate in Environmental Planning and Management put it succinctly: "Believe it or not, I'd cut back on my studying and have more fun. Also, I'd spend a quarter or two in the dorms. The social aspect of college should not be minimized." And from a 1975 Black Biochemistry graduate who has gone on to complete an M.D.: "I would have devoted myself to running track."

Some graduates say they would seek more or earlier career counseling. A 1974 Chicano reports: "I would seek better career counseling. Coming from a small town (pop. 3,000), I was not aware of all the different areas I could have entered. I was a junior transfer and pretty much 'stuck' with my career choice unless I wanted to add an extra year of schooling." A 1975 Black graduate in fashion design has similar sentiments:

I would have sought career information early. I may have joined ROTC for money and other experiences. . . . I felt isolation when it came to decisions about careers. Because of deprivation prior to school at college, my orientation, not even my parents were able to introduce me to enough experiences to know the many options.

Several graduates addressed their experiences as minority students. If one 1978 Pilipino Biochemistry graduate currently studying for her M.D. were to start college over again, she would change majors because she received "No encouragement from advisors who told me from the beginning 'It will be very, very difficult.' I was in constant fear of failure. Was it because I was a minority (a recent immigrant) attempting a field not common to minorities?" A 1978 Pilipino Dietetics graduate noted that, instead of choosing UC Davis again, "I might have chosen a school which was a bit smaller, with more minorities. Because I graduated from a high school with a high percentage of minorities, I suffered [from] a strong case of culture shock which took me two years to overcome."

## MINORITY GRADUATES COMPARED

How do UC Davis minority graduates compare with all UC Davis graduates? Are they earning advanced degrees at equal rates? Are they progressing in their careers at the same pace? Do they evaluate their University experiences similarly?

The Spring 1980 survey of minority graduates used the same questionnaire as the survey of all 1973/1979 graduates and was conducted simultaneously. Because the 1973/1979 study surveyed two years of graduates and the minority study surveyed seven years of graduates (1973 through 1979), only a few, limited comparisons between the findings of the two studies can be drawn. In addition, the lower response rate in the minority graduates' survey--34% vs. 58% for 1973/1979 graduate survey--increases the chances that "successful," positive minority graduates are overrepresented among the survey respondents vis-a-vis their proportion among all minority graduates. This occurrence could cause the results of the minority graduate study to appear more positive than they might have if more minority graduates had responded.

Subject to these qualifications, the answer to the questions above is yes: UC Davis minority graduates are making gains in their educational attainment and employment comparable to all UC Davis graduates. The similarities, in fact, are remarkable.

### Postgraduate Education

UC Davis minority graduates' educational attainments appear to be equal to those of all UC Davis graduates. Table XV, a "snapshot" look at the trend in postgraduate studies and degrees earned across seven years of graduates, reveals minority graduates are as--if not more--likely as all graduates to undertake postgraduate studies and to earn advanced degrees. (Because the number of minority graduates in any given year is small, the percentage for that year should not be compared with the percentage for 1973/1979 graduates of the same year. The comparison of the trends across years, however, is valid.)

Table XV

	<u>Years Since Graduation</u>		
	<u>One</u>	<u>Four*</u>	<u>Seven</u>
<u>Percent of respondents having undertaken postgraduate studies</u>			
all graduates	31	60	67
minority graduates	48	59	81
<u>Percent of respondents holding an advanced degree</u>			
all graduates	2	35	52
minority graduates	7	32	56

\*Data on all graduates four years out is drawn from a 1977 study of 1973 graduates: The Recent Graduates of UC Davis, Office of Student Affairs Research & Evaluation, UC Davis, June 1978.

Academic master's degrees, followed by teaching credentials, are the most common postgraduate degrees earned or in progress among 1973 graduates and among minority graduates. Roughly equal percentages of both groups are pursuing academic and professional degrees beyond the master's level, as shown in the following table.

Table XVI

Advanced Degrees Earned and In Progress  
(in percent of respondents)

Degree type	1973	1973-1979
	Graduates (N=1,337)	Minority Graduates (N=315)
Teaching credential	20%	11%
Academic master	21%	17%
Law	5%	7%
Medicine	5%	7%
Veterinary Medicine	3%	2%
Doctorate	5%	6%

Education (22%) and the health professions (21%) are the fields of study in which the most 1973 graduates and the most minority graduates have earned postgraduate degrees. Law is the third most common field for 1973 graduates (9%); social sciences (19%), for minority graduates.

Equal percentages of minority graduates and 1973/79 graduates said that UC Davis prepared them "very well" or "more than adequately" for their graduate work.

#### Employment

As with their postgraduate education, minority graduates and 1973/1979 graduates are remarkably similar with respect to their employment. Both groups hold a wide variety of positions in diverse fields. Over 90% of minority graduates and 1973/1979 graduates have chosen a career field; of these, 81% of both groups work in that career field. For neither group does overall job satisfaction depend upon a close congruence of job and undergraduate major.

Education and manufacturing are the two largest employers of minority graduates and 1973/1979 graduates. Significantly more minority graduates (51%) work for public employers than do 1973/1979 graduates (35%).

The average of the 1979 and 1973 graduates' mean salaries is almost identical to the minority graduates' mean salary: \$17,534 vs. \$17,617. In both groups, women earn at least \$3,000 less than men. Both 1973/1979 and minority graduates are satisfied with their jobs and think that UC Davis prepared them for their work.

### Impressions of UC Davis

Minority graduates and 1973/1979 graduates are equally likely to say they would choose to attend UC Davis again and to say they would choose the same major again. Approximately 90% of minority graduates and 1973/1979 graduates said UC Davis contributed very much or somewhat to their growth in defining and solving problems, understanding written information, persisting in difficult tasks, and recognizing assumptions/making logical inferences/reaching correct conclusions.



APPENDIX A  
SURVEY OF GRADUATES  
UNIVERSITY OF CALIFORNIA, DAVIS

For each question, place an X in the box that corresponds to the most appropriate alternative or write your response in the space provided. Please disregard the small numbers that appear throughout the questionnaire. We will use them to code your responses.

A. EDUCATION

1. Have you taken any graduate level courses since receiving your bachelor's degree? 5  
( )yes ( )no
2. Are you currently enrolled in an educational program for which you will be awarded a degree, license, or credential? 6  
( )yes ( )no If no, skip to question 3. 7-8
- a. Degree, license, or credential 9-11  
Major field 12-13  
Institution 14  
State 15
- b. Are you a ( ) full-time or ( ) part-time student?
3. List any graduate degrees, professional degrees, or teaching credentials which you hold.
- | Degree | Institution | State | Major Field |
|--------|-------------|-------|-------------|
| _____  | _____       | _____ | _____       |
| _____  | _____       | _____ | _____       |
| _____  | _____       | _____ | _____       |
| _____  | _____       | _____ | _____       |
4. How well did UCD prepare you for your graduate education?  
( )very well ( )more than adequately ( )adequately ( )less than adequately ( )poorly ( )n/a 32
5. List any state-issued licenses or credentials which you hold (e.g., nurse, lawyer, building contractor). 33-34
- 35-36

B. CURRENT EMPLOYMENT

- IF YOU ARE NOT CURRENTLY EMPLOYED, PLEASE CHECK HERE ( ) AND SKIP TO SECTION C. 40
1. What is your current occupation? (Use a descriptive title; e.g., computer programmer, graphic artist, secretary, law clerk, real estate agent). 41-43
2. Are you presently employed ( ) full-time or ( ) part-time? 44
3. Is your current employment part of a graduate training program? ( )yes ( )no 45
4. In what type of organization are you employed?  
( )public or governmental ( )private ( )self-employed 46
5. What is the nature of the organization's activity?  
(e.g., architectural consulting, electronics manufacturing, education) 47-48

6. What is your ANNUAL salary (to the nearest \$100)? \_\_\_\_\_ 49 51

7. Is this position in the career field of your choice?

( )yes ( )no ( )you have not chosen a career field 53

8. How well did UCD prepare you for your present occupation?

( )very well ( )more than adequately ( )adequately ( )less than adequately ( )poorly 54

9. How closely related is your current occupation to your major at UCD?

( )highly related ( )moderately related ( )slightly related ( )not related 55

10. Indicate your satisfaction with the following aspects of your present job using the following scale. 56

1=very satisfied, 2=satisfied, 3=neutral, 4=dissatisfied, 5=very dissatisfied 57

\_\_\_\_\_ challenge  
\_\_\_\_\_ location  
\_\_\_\_\_ salary and benefits  
\_\_\_\_\_ advancement potential

\_\_\_\_\_ people you work with  
\_\_\_\_\_ physical working conditions  
\_\_\_\_\_ career potential  
\_\_\_\_\_ overall satisfaction with your job 58  
59  
60

11. Explain your overall reaction to your job--why you are, or are not, satisfied. 61  
62  
63

12. What further training needs do you have in your present job? 64-65

### C. THE COLLEGE EXPERIENCE

1. If you could start college over, what would you do differently? Also, which of your college experiences would you NOT change.

2. If you could start college over, would you choose to graduate with the same major?

( )definitely yes ( )probably yes ( )uncertain ( )probably no ( )definitely no 66

Why or why not? 67-68

3. If you could start college over, would you choose to attend UCD?

( ) definitely yes ( ) probably yes ( ) uncertain ( ) probably no ( ) definitely no

4. How much did your undergraduate education at UCD contribute to your growth in the following areas? Place your answer in the blanks to the left, using the following scale.

1=very much 2=somewhat 3=very little 4=not at all

- Writing effectively 72
- Speaking in public 73
- Understanding written information 74
- Persisting in difficult tasks 75
- Working cooperatively in a group 21
- Leading or guiding others 2
- Defining and solving problems 3
- Recognizing assumptions/making logical inferences/reaching correct conclusions 4
- Understanding and applying scientific principles and methods 5
- Self confidence/self understanding 6
- Understanding and appreciating the arts 7
- Understanding people of other races and ethnic backgrounds 8
- Recognizing your rights, responsibilities and privileges as a citizen 9
- Knowledge of the job opportunities for your major 10

#### D. USE OF UNIVERSITY SERVICES

1. Check which of the following sources you used in obtaining your first full-time job after college? (You may check more than one.)

- ( ) UCD Work-Learn and Career Planning and Placement Office referral ( ) direct personal application
- ( ) UCD faculty referral ( ) word-of-mouth from friend/relative/associate
- ( ) public employment agency ( ) other (specify)
- ( ) private employment agency
- ( ) help-wanted ad in newspaper/magazine/journal

2. Indicate how significant each of the following forms of COLLEGE work experience has been in your present employment. Use the following scale:

1=very significant, 2=some significance, 3=little significance, 4=not applicable

- internship
- research assistant
- teacher aid
- other job held during school year
- summer job



# Appendix B

## Characteristics of Survey Respondents and All Minority Graduates from 1973 Through 1979

<u>Characteristic</u>	<u>Survey respondents</u> (N=315)	<u>All minority graduates*</u> (N=966)
<u>Ethnicity</u>		
American Indian	9%	1%
Black	26	32
Chicano	33	35
Latino	23	17
Pilipino	8	6
<u>Year of Graduation</u>		
1973	14%	12%
1974	15	11
1975	15	11
1976	18	19
1977	10	14
1978	13	17
1979	14	17
missing data	1	--

<u>Undergraduate field of study</u>	<u>Survey respondents</u> (N=310)	<u>All minority graduates</u> 1971-1978** (N=841)
Animal Science	5%	4%
Applied Economics	2	11
Food, Nutrition & Consumer Sciences	5	4
Plant Science & Plant/Disease Management	2	2
Biological Sciences	17	15
Resource Sciences	3	2
Engineering	8	6
Fine Arts	4	4
Physical Science & Math	1	0
Social/Behavioral Sciences	35	28
Letters	8	11
Interdisciplinary	9	11
Other	1	1

\* Source: Composite Undergraduate File, UC Davis.

\*\*Source: Kroll, Bonnie. Progress in Enrolling & Graduating Minority  
Graduates at UCD, Office of Student Affairs  
Research & Evaluation, UC Davis, June 1980.

## Appendix C

Postgraduate Fields of Study by Undergraduate Field of Study  
(in number of advanced degrees earned or in progress, N=202)

### Animal Science

- 1 Agriculture
- 2 Business & Commerce
- 1 Computers & Information Science
- 2 Education
- 1 Home Economics
- 7

### Applied Economics

- 1 Agriculture
- 1 Business & Commerce
- 2

### Biological Sciences

- 1 Agriculture
- 5 Biological Sciences
- 2 Business & Commerce
- 2 Education
- 28 Health Professions
- 3 Physical Science
- 41

### Engineering

- 2 Business & Commerce
- 9 Engineering
- 1 Health Professions
- 12

### Fine Arts

- 1 Education
- 2 Fine/Applied Arts
- 1 Foreign Languages
- 1 Letters
- 5

### Food, Nutrition, & Consumer Sciences

- 1 Agriculture
- 2 Business & Commerce
- 1 Education
- 8 Home Economics
- 12

### Interdisciplinary

- 1 Business & Commerce
- 15 Education
- 1 Foreign Languages
- 1 Health Professions
- 1 Letters
- 2 Social Sciences
- 21

### Letters

- 1 Biological Sciences
- 2 Business & Commerce
- 1 Computers
- 5 Education
- 5 Foreign Languages
- 2 Health Professions
- 1 Letters
- 3 Social Sciences
- 20

### Physical Sciences/Math

- 1 Communications
- 1 Engineering
- 2 Physical Science
- 4

### Plant Science & Plant/Disease Mgmt.

- 2 Agriculture
- 2 Biological Sciences
- 4

### Resource Science

- 1 Agriculture
- 1 Architecture
- 1 Biological Sciences
- 1 Computers
- 4

### Social/Behavioral Sciences

- 2 Agriculture
- 2 Architecture
- 4 Business & Commerce
- 1 Communications
- 17 Education
- 6 Health Professions
- 6 Community Service
- 32 Social Services
- 70

\* Related undergraduate majors are grouped into twelve general "fields of study." Appendix B of The Graduates of 1979 and 1973 shows which majors are grouped into field of study.

APPENDIX D  
VARIMAX FACTORS DERIVED FROM GRADUATES' RATINGS  
OF GROWTH DURING THEIR UNDERGRADUATE EDUCATION  
AT UC DAVIS

AREA OF GROWTH	FACTOR				COMMUN- ALITIES
	Problem solver	Leader	Writer	Culturally Fluent	
Recognizing assumptions, making logical inferences, reaching correct conclusions	.77				.48
Defining and solving problems	.72				.53
Understanding and applying scientific principles and methods	.60				.30
Persisting in difficult tasks	.7				.31
Understanding written information	.41		.48		.40
Leading and guiding others		.66			.38
Working cooperatively in a group		.62			.33
Self-confidence and self- understanding		.46			.29
Speaking in public		.40	.47		.36
Understanding people of other races and backgrounds		.31		.50	.35
Writing effectively			.82		.39
Understanding and appreciating the arts			.35		.29
Recognizing your rights, responsibilities and privi- leges as a citizen				.83	.38
Percent variance	29	14	8	8	
Cumulative variance	29	43	51	59	

Note: Loadings less than .30 in magnitude are omitted.