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ABSTRACT

In 1991, a mail survey was conducted of all students who received an associate degree or certificate from Howard Community College in Maryland (HCC) during fiscal year 1990. Telephone calls were made to those who did not return the survey, resulting in an adjusted response rate of 58%. A response rate of 52% was achieved for a subsequent survey of graduates' employers. Major study findings included the following: (1) in 1990, 207 associate degrees and 46 certificates were awarded to a total of 226 graduates; (2) 58% of all graduates were in transfer programs (with Arts and Sciences the most popular) and 45% were graduates of career programs (with Nursing the most popular); (3) the most prevalent personal goal of the graduates upon entering HCC was transfer to a four-year institution; (4) enhancement of self-confidence and increased enjoyment of learning were cited as HCC's major contributions to the graduates' personal development; (5) 67% of the respondents who entered HCC to prepare for transfer had achieved their goal within a year after graduating; (6) 82% of the HCC transfer students were enrolled in the same or a related field at the senior institution as at HCC; 73% reported a grade point average of 3.0 or higher; and 77% of the transfers rated HCC's transfer preparation as good or very good; (7) 96% of the respondents reported having achieved their employment goals within a year after graduating from HCC, 71% rated HCC's employment preparation as good or very good, and 23% the preparation as fair; and (8) 82% of the graduates' employers felt the match between education and job requirements was close, and 18% thought the program was somewhat related to the job requirements. Respondent comments and the survey instruments are attached. (JMC)

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**HOWARD
COMMUNITY
COLLEGE**

A COMPARATIVE ANALYSIS OF 1990 GRADUATES

Prepared by: Jean M. Frank

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Office of Planning and Evaluation
Howard Community College
Columbia, Maryland

**RESEARCH REPORT NUMBER 73
NOVEMBER 1991**

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Prepared by: Jean M. Frank

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**Office of Planning and Evaluation
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EXECUTIVE SUMMARY

INTRODUCTION

Tracking students after they leave Howard Community College (HCC) is a vital part of its planning and evaluation system. The follow-up survey of the college's graduates serves as a valuable tool in collecting data on the experiences of graduates and the various outcomes of their experiences at the college. This information on students' perceptions of HCC and its value in accomplishing their transfer and employment goals provides valuable feedback at the program, campus and state levels.

The follow-up survey asked 1990 graduates to respond to questions about goals, goal achievement, personal development, transfer success, student satisfaction, current educational or employment status, and experiences. The data collected by the survey was merged with college maintained information about all 1990 graduates, such as entrance status and goals, academic performance and demographic information to give a complete picture of where graduates were when they entered HCC, where they wanted to be, and how they had progressed approximately one year after leaving the college. In addition, employers of these graduates evaluated graduates' employment preparation and their performance relative to the education they received at HCC.

This report describes the findings of the 1991 survey of 1990 HCC graduates and their employers and compares these findings to those of 1986, 1987, 1988 and 1989 graduates. Two groups are included in the analysis. One consists of all graduates for any given fiscal year, whether or not they participated in the follow-up survey (total graduating class). The other group consists of those graduates who completed and returned the survey questionnaire (respondents).

METHODOLOGY

In the spring of 1991, a survey of all students who received an associate degree or certificate from Howard Community College (HCC) during fiscal year 1990 was conducted using survey questionnaires developed by the Maryland Community College Research Group in accordance with the Maryland State Board for Community Colleges (SBCC) procedures. There were two mailings of the questionnaires, the second being sent only to those who had not responded to the first mailing.

In an effort to boost an unusually low initial response rate to the 1990 survey, telephone calls were made to those who had not returned the survey. In the end, of the 226 follow-up questionnaires that were distributed, 124 were completed and included in this analysis, and 11 were returned as undeliverable. Adjusting for those undeliverable questionnaires, the response rate was 58%. An incentive to respondents might be recommended to increase participation rates in future years.

Graduates were asked if their current employers may be contacted to report how well HCC had prepared students for their jobs. The employers of those graduates who gave their permission were mailed follow-up questionnaires. Responses from 14 employers of 1990

graduates yielded an adjusted response rate of 52%. Although the response rate was within acceptable limits, the actual number of employers responding in fiscal years 1986 - 1990 has been typically low, with only 14 in 1990, making data gathered highly susceptible to fluctuation from year to year.

Data for the total graduate population were provided by Howard Community College's student database, gathered at the time graduates entered the college and again when they graduated. Data for those who completed and returned the follow-up surveys, conducted approximately one year after graduation, were self-reported.

Comparisons of characteristics such as gender, race, age and program type for both groups demonstrated the representativeness of the survey sample. As in previous years, the match was extremely representative for 1990 graduates, with the exception of males, who were somewhat underrepresented in the respondent group, as shown in Table 1.

**Table 1
1990 HCC GRADUATES: A PROFILE**

CHARACTERISTIC		% OF GRADUATES	% OF RESPONDENTS
GENDER	Female	67.3%	75.8%
	Male	32.7%	24.2%
AGE	15 - 19	1.3%	1.5%
	20 - 24	33.6%	28.8%
	25 - 29	23.9%	20.5%
	30 - 39	21.7%	23.5%
	40 - 49	16.8%	22.7%
	50 - 59	2.2%	2.3%
	60 and Over	.4%	.8%
RACE/ETHNIC STATUS	White	78.3%	79.1%
	Black	11.1%	10.1%
	Asian	5.3%	6.2%
	American Indian	0%	0%
	Hispanic	1.3%	1.6%
	Other	4.0%	3.1%
PROGRAM TYPE	Transfer	58%	55%
	Career	42%	45%
HIGHEST DEGREE EARNED	Associate Degree	89.4%	90.9%
	Certificate	10.6%	9.1%

THE 1990 GRADUATING CLASS

In 1990, 207 associate degrees and 46 certificates were awarded to a total of 226 graduates at HCC. Fifty-eight percent of all graduates were in transfer programs, with Arts and Sciences being the most popular. As in previous years, Nursing continued to be the most popular program among the 45% of 1990 graduates in career programs, although the number of graduates in Nursing declined 48% from that for 1989 graduates.

Seventy-four percent of 1990 graduates earned 46 or more credits at HCC, and 68% earned a GPA of 3.0 or higher.

The most prevalent personal goal these graduates had upon entering HCC was transfer to a four-year institution (60%). Sixty-nine percent of those who declared an academic goal upon entering wanted to pursue an AA degree or certificate, while 30% were interested in taking courses without working toward a degree.

In 1990 there were twice as many female than male graduates, 78% were white, and

the largest age category was 20 - 24 years old. Ratios for gender, race and age of all HCC graduates have remained generally stable over the past five years.

GRADUATES RESPONDING TO SURVEY

Ninety-seven percent of 1990 survey respondents indicated that they had achieved their most important goal either completely or partly.

They rated enhancement of self-confidence and increased enjoyment of learning as major contributions to their personal development while attending HCC. Other areas rated ranged from educational and career goals to art appreciation and improvement of writing, reading and math skills. 1990 respondents rated all areas of personal development higher than those of 1989, with the exception of writing skills improvement.

In their ratings of various services and programs at HCC, faculty availability and helpfulness, followed by both the overall quality of the college and quality of classroom instruction received the highest positive responses with mean ratings of 4.4 and 4.3, respectively, on a 5-point scale. When asked if they would do it again, 86% indicated that they would definitely or probably attend HCC, and 71% would enroll in the same program.

GRADUATES WHO TRANSFERRED

Sixty-seven percent of 1990 respondents who entered HCC with a goal to prepare for transfer had achieved their goal within a year of graduating. The most frequently named transfer institutions were the University of Maryland Baltimore County, the University of Maryland College Park and Towson State University. At their transfer institution, 82% were enrolled in the same or a related field as their program at HCC, and 73% reported a GPA of 3.0 or higher. Seventy-seven percent rated HCC's transfer preparation as good or very good, and nearly four-fifths of the transfer respondents reported losing six or fewer credits.

GRADUATES WHO WERE EMPLOYED AND THEIR EMPLOYERS

Ninety-six percent of 1990 respondents reported having achieved their employment goals within a year after graduating from HCC. Thirty-eight percent began their present job after attending HCC, and 97% of those who were employed were working in the Maryland/Washington, D.C. area, with over half of those in Howard County. Nearly three-fourths were employed in the same or a somewhat related field as their HCC program. Seventy-one percent of the respondents rated employment preparation at HCC good or very good, while 23% rated preparation as fair. Gross annual income from full-time employment reported by 1990 graduates ranged from \$11,000 to over \$50,000, with a mean annual income of \$26,064. With the exception of 1988, graduates' mean annual income reported one year after leaving HCC steadily increased from \$20,740 for 1986 graduates to \$26,064 for those graduating in 1990.

Employers' assessment of the match between education and job requirements showed that 82% of employers perceived the match to be close, while 18% thought the program was somewhat related to the job requirements. When asked to rate employment preparation in several areas, all rated HCC graduates as good or very good in writing skills. Ability to learn and oral communication skills followed in order, each with 93% of the responding employers rating preparation as very good or good. Employers consistently rated HCC's 1986 - 1990 graduates highest in ability to learn.

Seventy-nine percent of employers indicated that they would hire another HCC graduate from the same program, and 86% would recommend that other employers do the same.

HOWARD COMMUNITY COLLEGE COMPARATIVE ANALYSIS OF 1990 GRADUATES

1.0 TOTAL GRADUATING CLASS

Looking at the characteristics of all graduates of Howard Community College since 1986 indicates that a total of 226 graduates earned degrees during Fiscal Year 1990. The highest degree that 202 of these graduates earned was an associate degree, while 24 were awarded certificates. Eight graduates earned two degrees, two earned three and 5 earned four degrees, making the total number of awards 253, with associate degrees totalling 207 and certificates 46. Charts 1 and 2 summarize graduates and their awards information for the past five years. Both the number of graduates and total awards earned have steadily declined since 1986, with the exception of a slight increase in both for 1988 graduates. The number of graduates earning a certificate as their highest degree remained steady from 1986 through 1989 and declined sharply for 1990 graduates (from 49 in FY89 to 24 in FY90). The number earning associate degrees showed a general downward trend during the same period.

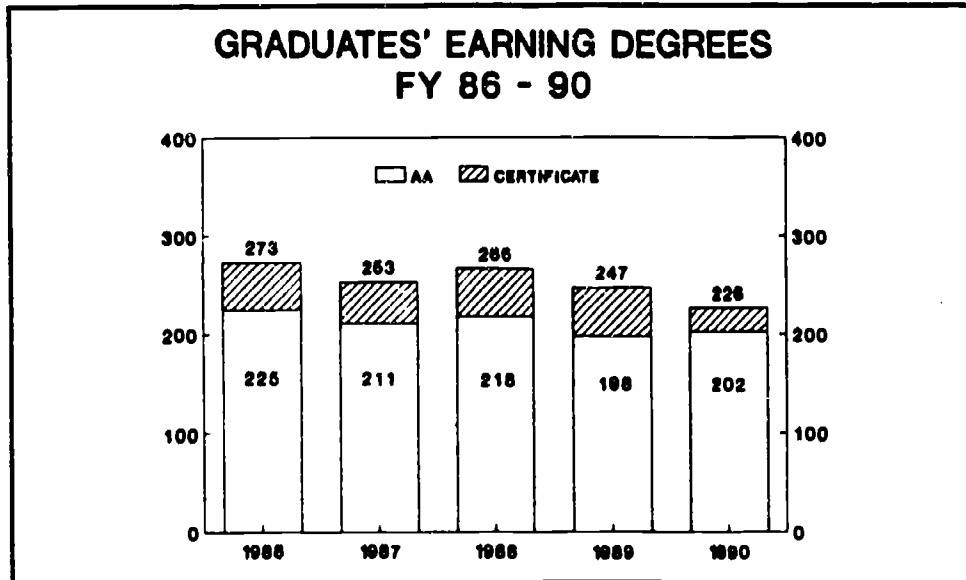


Chart 1

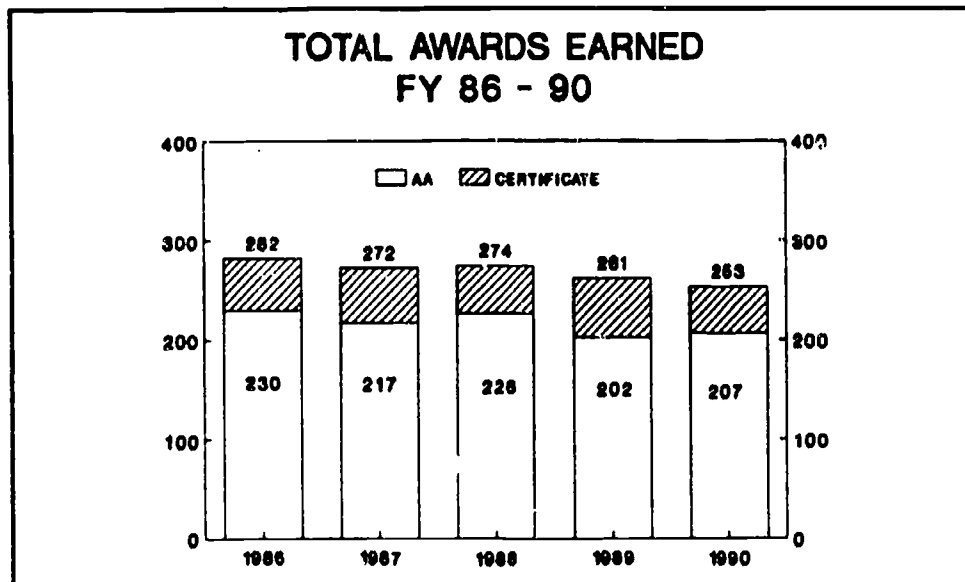


Chart 2

1.1 CHARACTERISTICS OF HCC'S GRADUATING CLASSES

In looking at gender, race/ethnicity and age of 1990 graduates, there were twice as many female as male graduates, 78% were white, and the largest age category was 20-24 years old. Sixty-five percent of the graduates were of non-traditional age (25 years or older). As shown in Charts 3 and 4 and Table 2, ratios for gender, race and age of all graduates have remained generally stable over the past five years, with only slight fluctuations for some years.

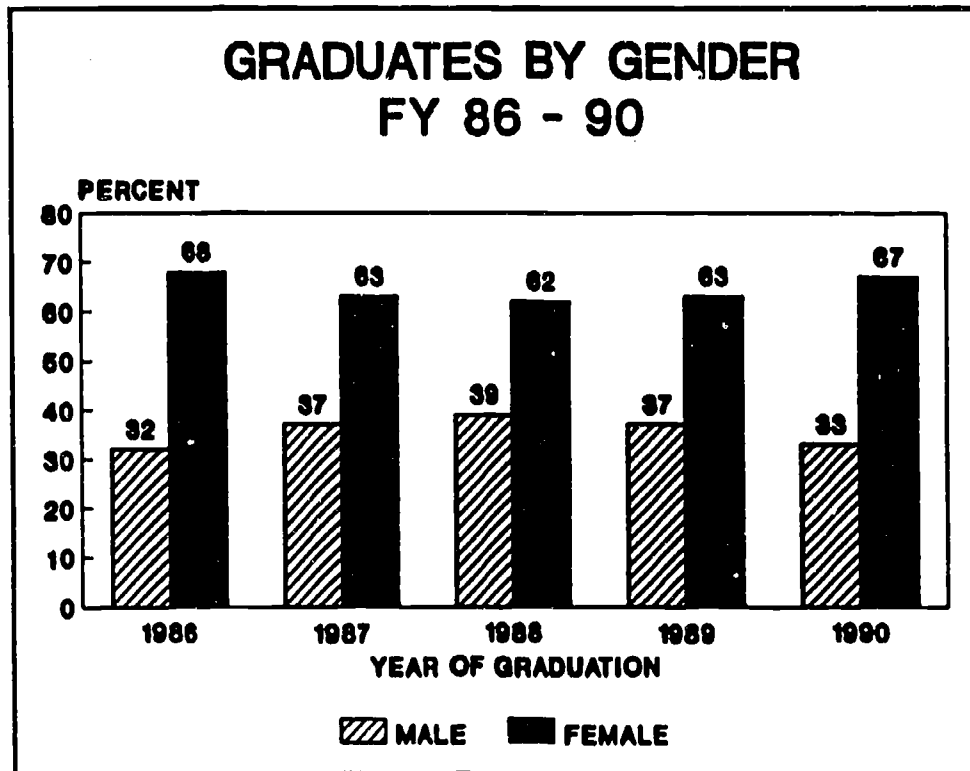


Chart 3

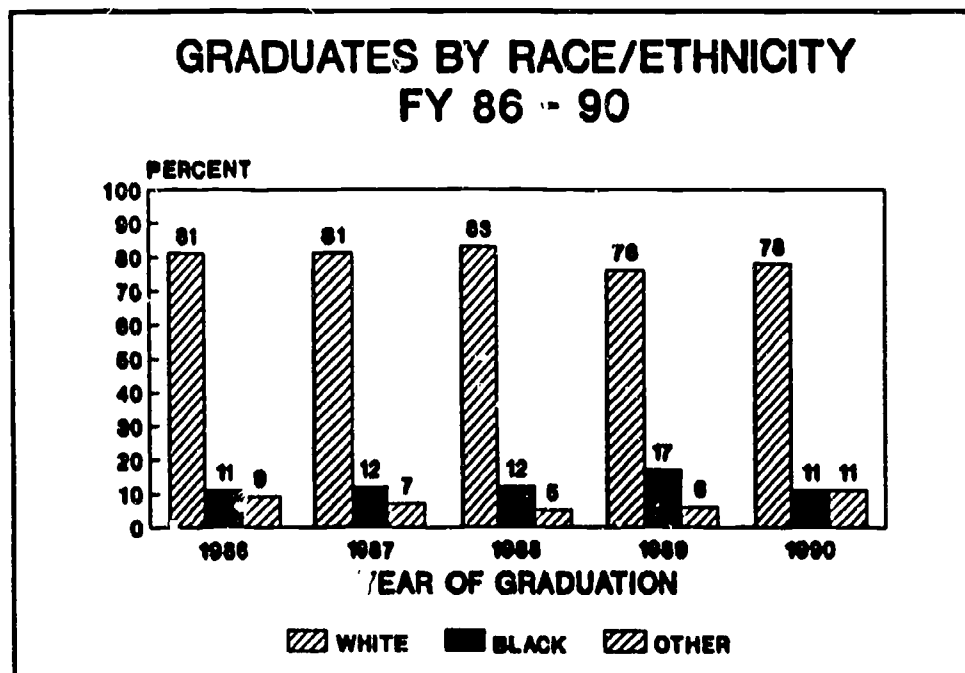


Chart 4

**Table 2
GRADUATES BY AGE**

AGE INTERVAL	1986	1987	1988	1989	1990
Less than 20	0%	1%	1%	2%	1%
20 - 24	35%	38%	32%	30%	34%
25 - 29	19%	21%	22%	21%	24%
30 - 39	26%	25%	27%	26%	22%
40 - 49	16%	14%	17%	17%	17%
50 and Over	4%	2%	1%	4%	2%

1.2 ACADEMIC CHARACTERISTICS

The graduating classes were also compared with respect to program type. Programs of study were classified into two categories:

- ◆ Transfer programs which prepare students to transfer to a four-year institution
- ◆ Career programs which directly prepare students for employment upon graduation from the community college

As shown in Chart 5, 58% of all 1990 graduates were in transfer programs and 42% were in career programs. The trend over the past five years has generally been toward higher percentages of graduates in transfer programs. The number of graduates in transfer programs increased from 33% in 1986 to 58% in 1990, while that of graduates in career programs decreased from 67% to 42% during the same period.

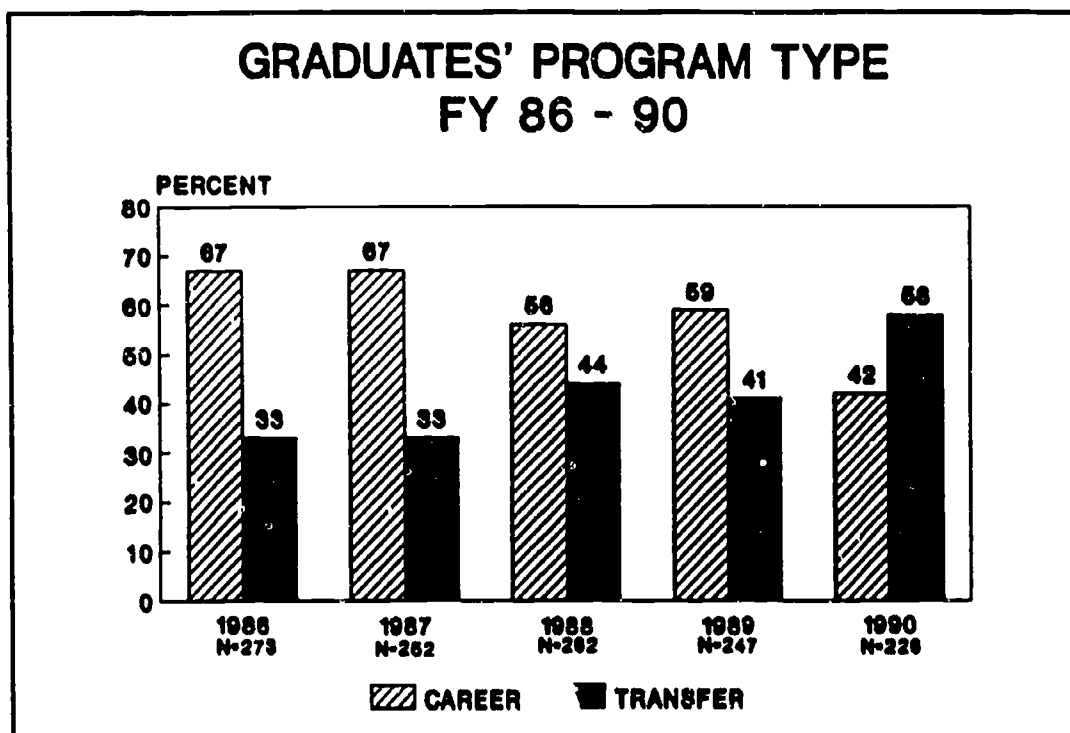


Chart 5

Table 3 details the number of graduates in transfer, general studies and career programs from 1986 - 1990. For the first time in five years, Arts and Sciences was the most popular of the transfer and general studies programs for 1990 graduates, followed closely by Business Administration and General Studies. For those graduating in 1986 through 1989, Business Administration was the most popular among transfer and general studies programs, with Arts and Sciences and General Studies following in order. Programs showing at least a 50% increase in number of graduates from 1986 to 1990 were Arts and Sciences (58%), Teacher Education (56%) and General Studies (50%).

Nursing continued to be by far the most popular career program among 1990 graduates, even though 1990 Nursing figures showed a 48% decrease from those of 1989 graduates. Business Management and Residential Construction followed in popularity for 1990 graduates (16 and 15 graduates, respectively). The overall decrease in graduates from each career program from 1986 to 1990 (with the exception of an increase for Residential Construction) can be attributed in part to the overall decrease in actual numbers of graduates of career programs (see Chart 5).

Table 3
GRADUATES IN TRANSFER, GENERAL STUDIES AND CAREER PROGRAMS

Program		1986	1987	1988	1989	1990
Transfer	Business Administration	39	29	45	39	34
	Arts & Sciences	15	22	27	21	36
	Teacher Education	7	4	11	13	16
	Engineering	7	9	7	5	6
	Computer Science	5	7	6	4	7
General Studies	General Studies	16	13	20	19	32
Career	Nursing	68	70	46	52	27
	Electronics Technology	31	19	22	16	6
	Business Management	24	19	18	13	16
	Data Processing	18	13	15	14	10
	Data Processing Equipment	0	2	0	0	0
	Secretarial Science	16	13	8	19	12
	Vision Care	12	6	5	4	0
	Biomedical Engineering Tech	7	5	2	4	1
	Developmental Disabilities	0	2	2	5	2
	Accounting	6	3	8	0	1
	Retail Management	0	1	1	0	0
	Plant Science	2	1	7	3	1
	Residential Construction	0	14	12	14	15
	Microcomputer Applications	0	0	0	0	4

In examining credits earned by 1990 graduates, Chart 6 shows that nearly three-fourths (74%) earned 46 or more credits at HCC. The percentage of graduates earning 61-130 credits at HCC was higher in 1990 than in any other year since 1986. While the percentage of graduates that earned under 26 and over 35 credits remained stable from 1989 to 1990, that for those earning 26 to 35 credits decreased 50%. This decline may be reflecting the overall lower number of graduates receiving certificates (see Chart 1).

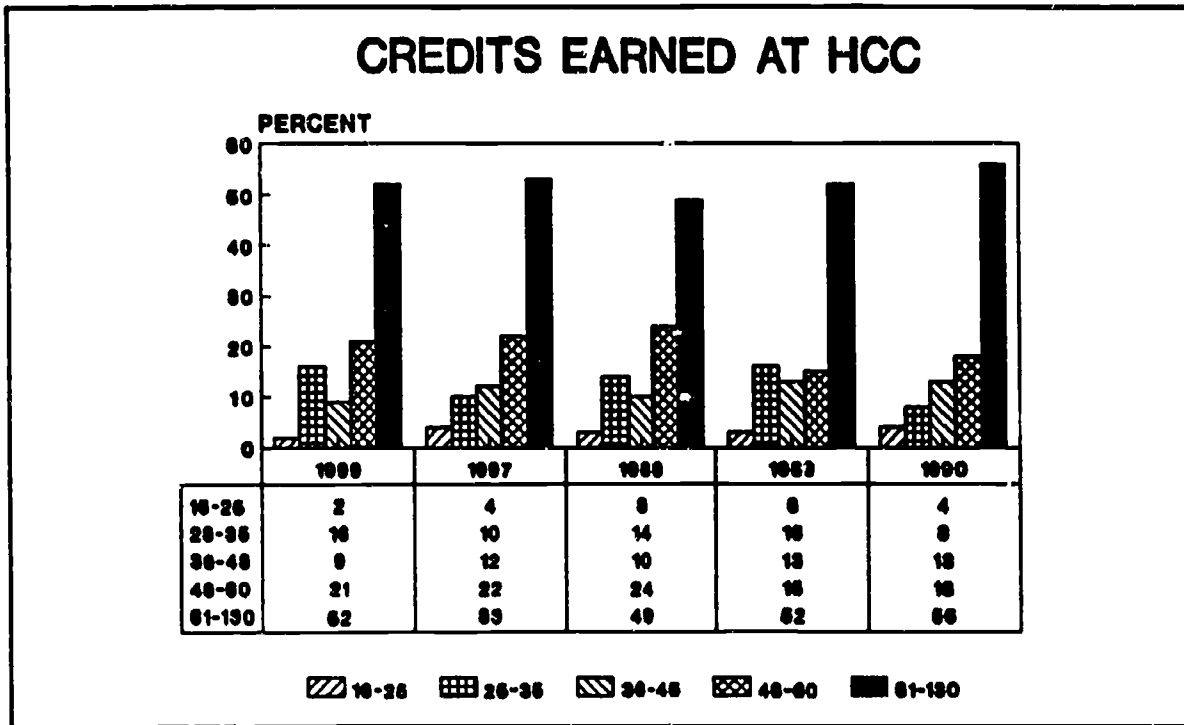


Chart 6

Chart 7 shows that 68% of 1990 graduates earned a GPA of 3.0 or higher at HCC. Not only was this the highest percentage of graduates earning a 3.0 or higher over the past five years, but more 1990 graduates earned a GPA of 3.5 or higher than in any other year included in this study. Among GPA's earned by graduates since 1986, the percentage earning under 3.0 was lowest for 1990 graduates.

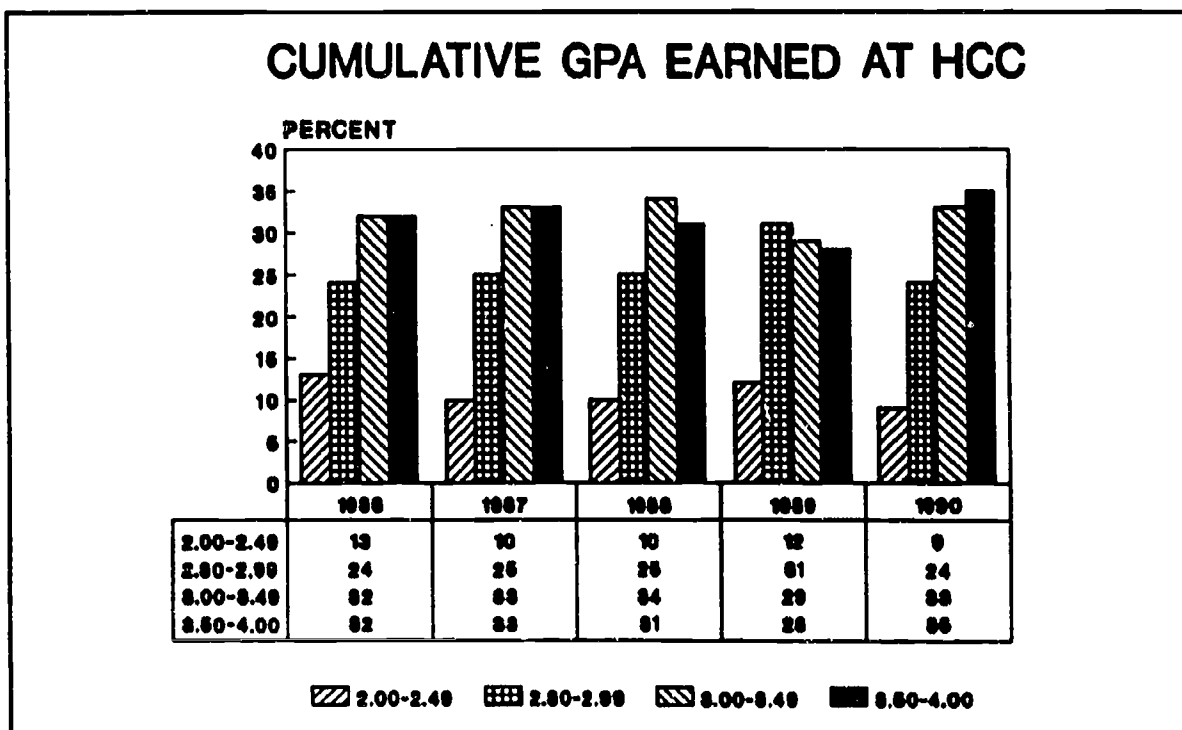


Chart 7

Turning to personal and academic goals upon entering HCC, three-fifths (60%) of 1990 graduates rated transfer to a four-year institution as their most important personal goal. Others wanted to explore a new occupational or academic area (27%) or prepare for entry into a career (13%). Among academic goals identified upon entering HCC, 46% of 1990 graduates wanted to pursue an AA degree, while 23% were interested in pursuing a certificate and 30% wanted to take courses without working toward a degree or certificate. Charts 8 and 9 detail the personal and academic goals upon entering HCC of those who graduated from 1986 through 1990.

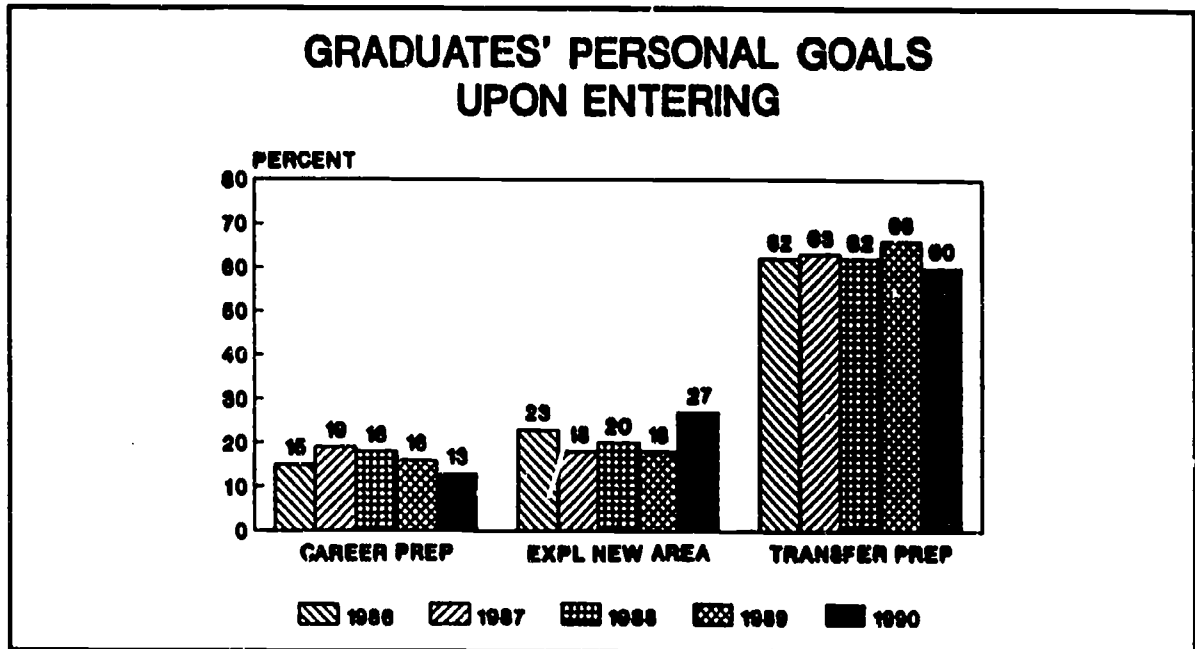


Chart 8

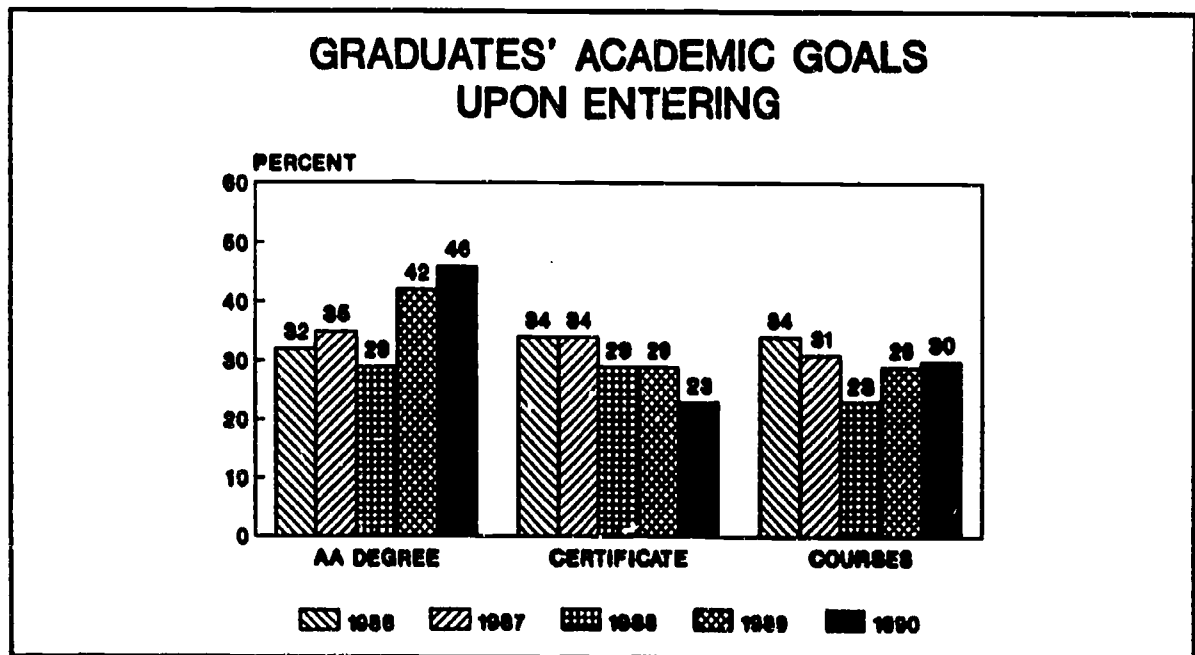


Chart 9

The percentage of graduates wanting to pursue an AA degree increased from 32% in 1986 to 46% in 1990, while that of those wanting to pursue a certificate steadily decreased over the same period (34% in 1986 and 23% in 1990). The percentage of those rating transfer to a four-year institution or career preparation as their most important personal goal was lowest for 1990 graduates, while that for exploring a new occupational or academic area was highest.

2.0 ALL SURVEY RESPONDENTS

Almost one year after graduation, 78% of the responding 1990 graduates were employed; 55% of them full time and 23% part time. Of the 44% who reported that they were students, over half (55%) were full time (12 or more credit hours). Table 5 outlines the work/education status of respondents to graduate follow-up surveys from 1986 through 1990 one year after graduation. Although slight fluctuations occurred for every status between the years of 1986 and 1990, overall percentages for each remained generally stable.

**Table 4
CURRENT WORK/EDUCATION STATUS**

STATUS	1986	1987	1988	1989	1990
EMPLOYED F/T	61%	61%	61%	59%	55%
EMPLOYED P/T	22%	25%	20%	19%	23%
EMPLOYED AND SEEKING NEW JOB	0%	7%	0%	0%	0%
F/T STUDENT (12 OR MORE)	24%	19%	27%	28%	24%
P/T STUDENT	18%	20%	20%	14%	20%
F/T HOMEMAKER	9%	2%	10%	3%	6%
ACTIVE MILITARY SERVICE	N/A	2%	1%	1%	1%
UNEMPLOYED & SEEKING JOB	N/A	0%	3%	5%	4%
UNEMPLOYED & NOT SEEKING	N/A	4%	N/A	N/A	2%
RETIRED	N/A	N/A	2%	0%	2%

*Percentages do not add up to 100% because respondents could choose more than one work/education category.

Earning an AA degree and preparing for transfer to a four-year institution were cited most often (74% and 63%, respectively) as very important reasons for 1990 respondents in deciding to attend HCC. Other reasons rated as very important in order of respondents' preferences included exploring a new occupational area and preparing for entry into different career (36% for each), followed by academic exploration and obtaining a salary increase and/or job promotion (34% and 32%, respectively). Chart 10, following, details 1986 - 1990 respondents' reasons for attending HCC. Earning an AA and preparing for transfer to a four-year institution have, when included as options on the survey questionnaire, consistently appeared as respondents' top reasons for attending HCC.

REASONS RATED AS VERY IMPORTANT FOR ATTENDING HCC

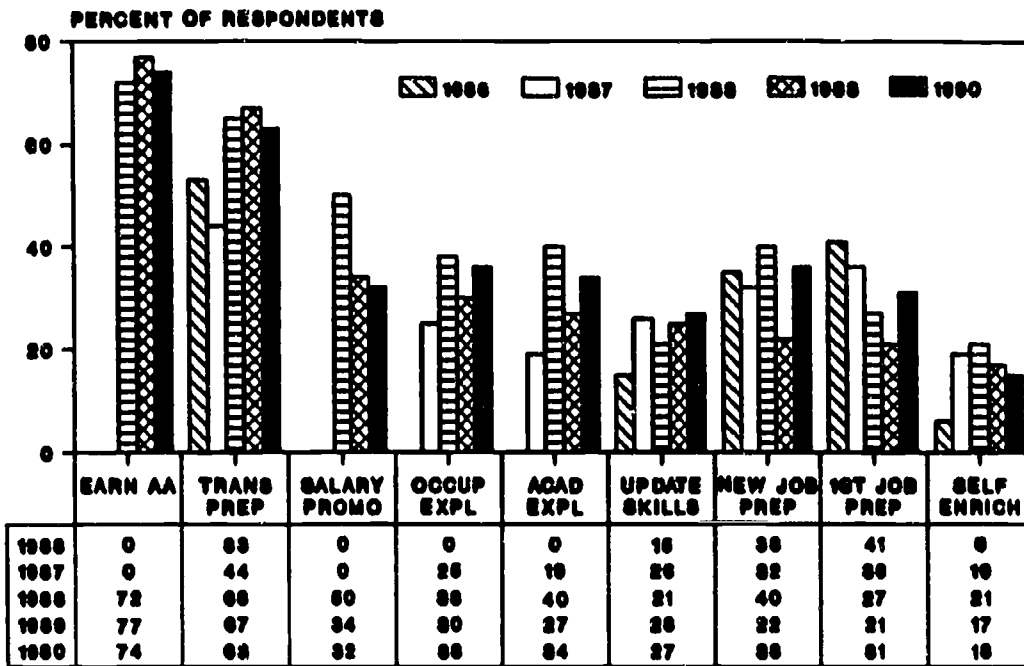


Chart 10

When asked if their most important goal had been achieved by the time they graduated from HCC, 81% of 1990 respondents reported that their goals had been achieved completely. Another 16% said that they had partly achieved their goal. Thus, 97% indicated that they either completely or partly achieved their most important goal. When compared to previous years, a higher percentage of 1990 graduates reported complete goal achievement than in any year since 1986. The responses for 1986 - 1990 graduates are summarized in Chart 11.

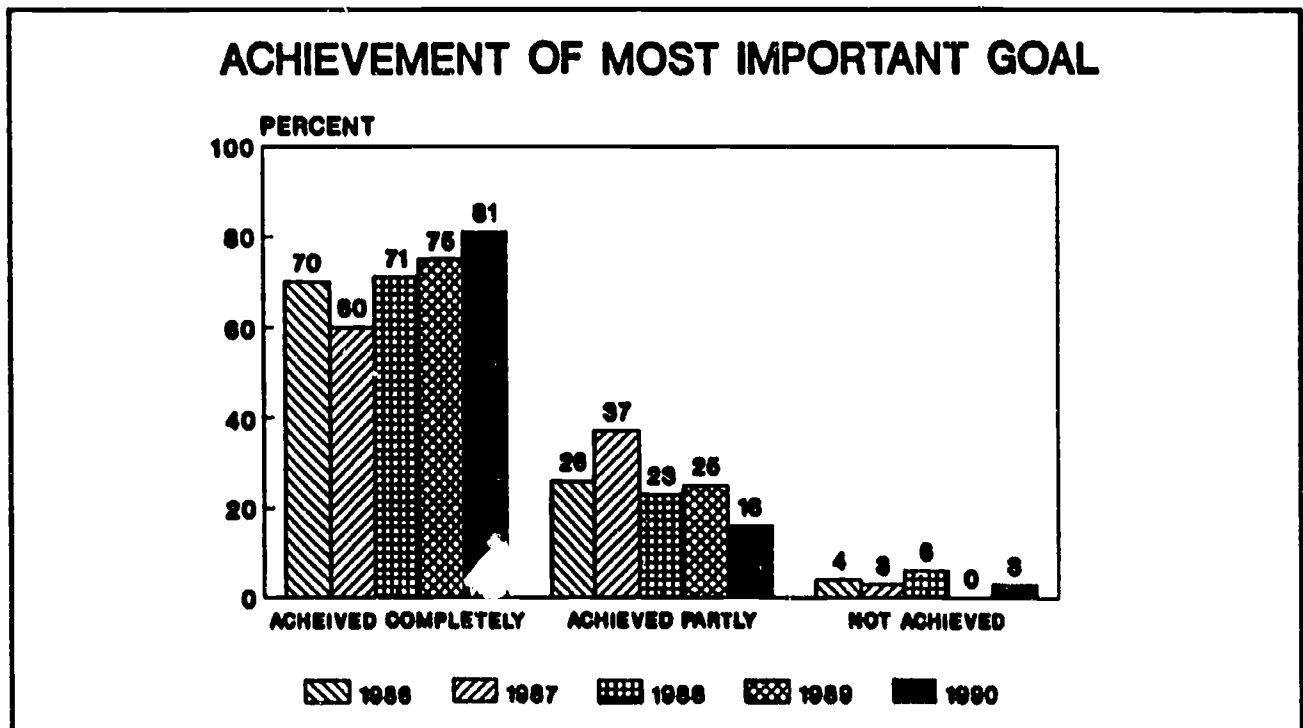


Chart 11

Graduates were asked to rate to what extent attending HCC contributed to their personal development in areas such as reading, writing and math skills improvement, art appreciation, self-confidence and goal clarification, and understanding of science and technology. 1990 respondents reported that, as shown in Chart 12, self-confidence and enjoyment of learning were enhanced a great deal, with mean ratings of 4.0 and 3.9, respectively, on a 5-point scale (with 5 being "a great deal" and 1 being "not at all"). Clarified educational or career goals and improved understanding of science and technology followed with ratings of 3.7 and 3.4. 1990 respondents rated all areas of personal development higher than those of 1989, with the exception of writing skills improvement.

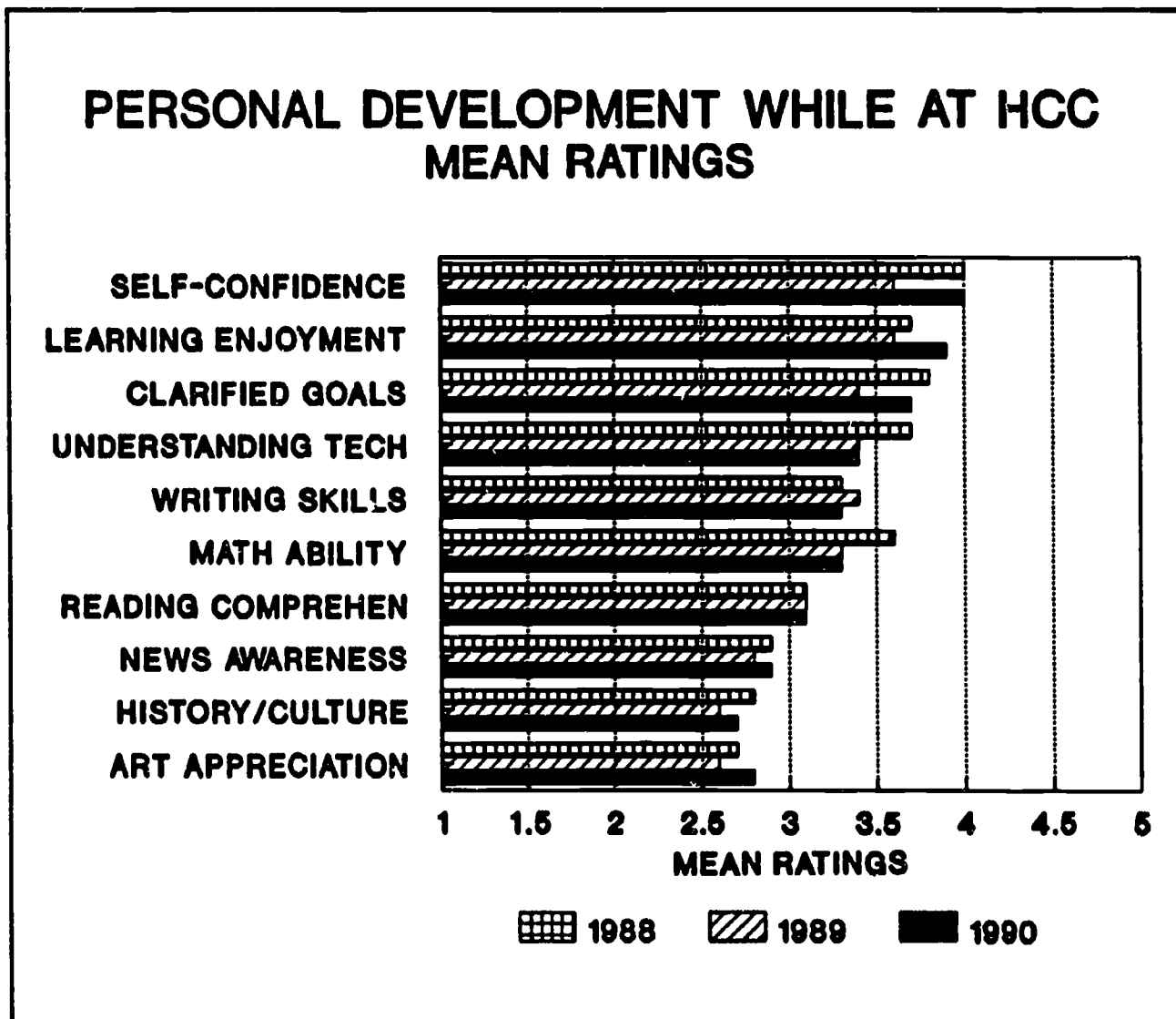


Chart 12

Each year graduates were asked to rate various services and programs at HCC on a 5-point scale ranging from 1, "very poor" to 5, "very good". Mean ratings of these scores are used to look at how graduates rate services and programs within each fiscal year as well as year-to-year comparisons of particular services by graduates over time. 1990 graduates rated faculty availability/helpfulness the highest, with a mean rating of 4.4. Overall quality of HCC and quality of classroom instruction followed closely with mean ratings of 4.3. Table 5 details mean ratings of college services by 1986 - 1990 respondents. It can be seen that faculty availability/helpfulness, overall quality of HCC, quality of instruction and instruction in program have consistently been rated 4.1 or higher by graduates over the years.

Table 5
MEAN RATING OF COLLEGE SERVICES AND PROGRAMS
BY RESPONDENTS TO 1986 - 1990 FOLLOW-UP SURVEYS

SERVICE/PROGRAM	1986	1987	1988	1989	1990
ACADEMIC ADVISING	N/A	N/A	3.8	3.5	3.9
CLASS SCHEDULING	3.8	4.0	4.0	3.9	3.9
ENGLISH SKILLS/DEVELOPMENTAL	N/A	N/A	3.9	4.0	4.0
FACULTY AVAILABILITY/HELPFULNESS	4.2	4.3	4.2	4.1	4.4
INSTRUCTION IN PROGRAM	4.2	4.4	4.2	N/A	N/A
JOB PLACEMENT	3.4	3.4	3.3	3.2	3.3
LAB EQUIPMENT	3.7	3.6	3.6	3.6	3.9
LIBRARY	N/A	N/A	N/A	N/A	3.9
MATH SKILLS/DEVELOPMENTAL	N/A	N/A	4.2	4.0	3.9
OVERALL QUALITY OF COLLEGE	4.1	4.2	4.2	4.1	4.3
QUALITY OF INSTRUCTION	4.2	4.3	N/A	4.1	4.3
READING SKILLS/DEVELOPMENTAL	N/A	N/A	4.0	3.8	3.9
STUDENT ACTIVITIES	N/A	N/A	3.3	3.3	3.5
TUTORIAL SERVICES	N/A	N/A	N/A	N/A	3.7

In perhaps the most critical assessment of the college and its programs, graduates were asked if they would attend HCC and enroll in the same program again. Eighty-six percent of 1990 respondents indicated that they definitely or probably would attend HCC again, and 71% said that they would enroll in the same program. The percentage of respondents who would definitely or probably attend HCC again remained stable, between 86% and 90% over the past five years. That of those who would definitely or probably enroll in the same program declined slightly over the same period. Charts 13 and 14 detail responses as to whether graduates would do it again.

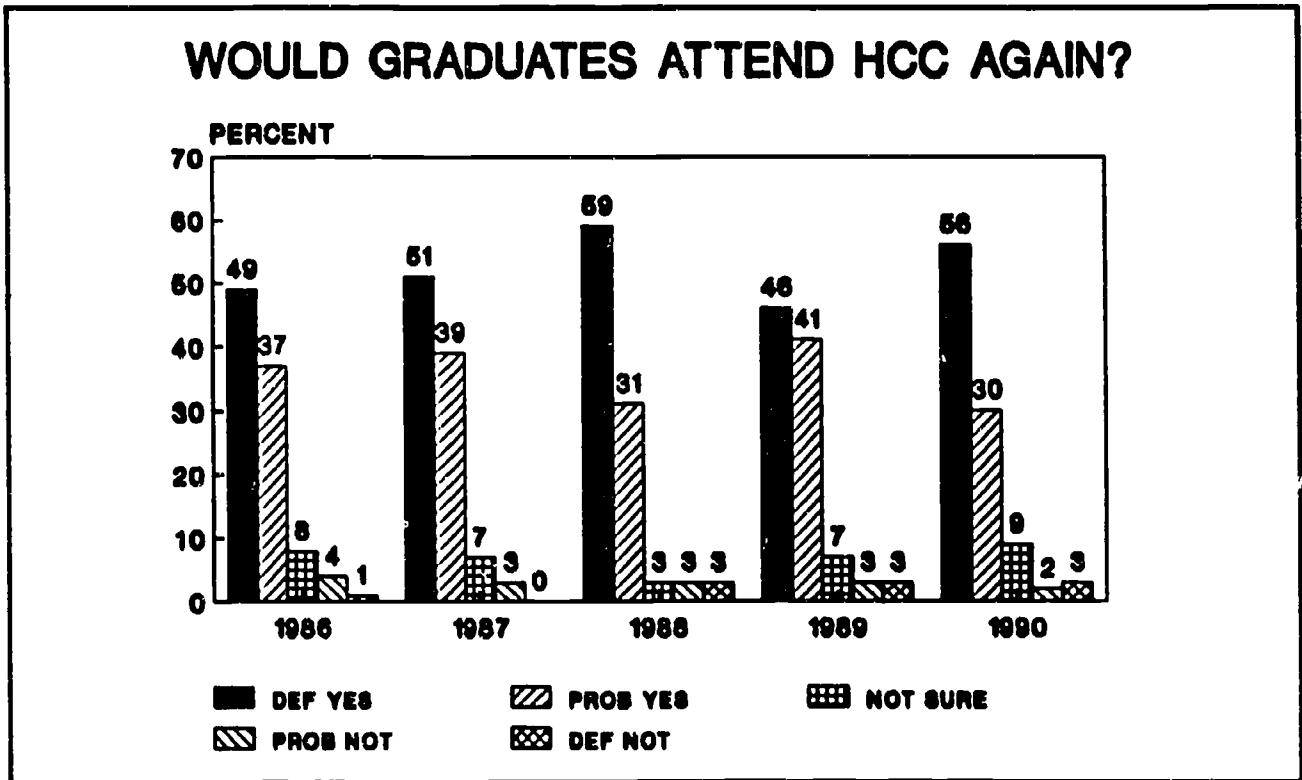


Chart 13

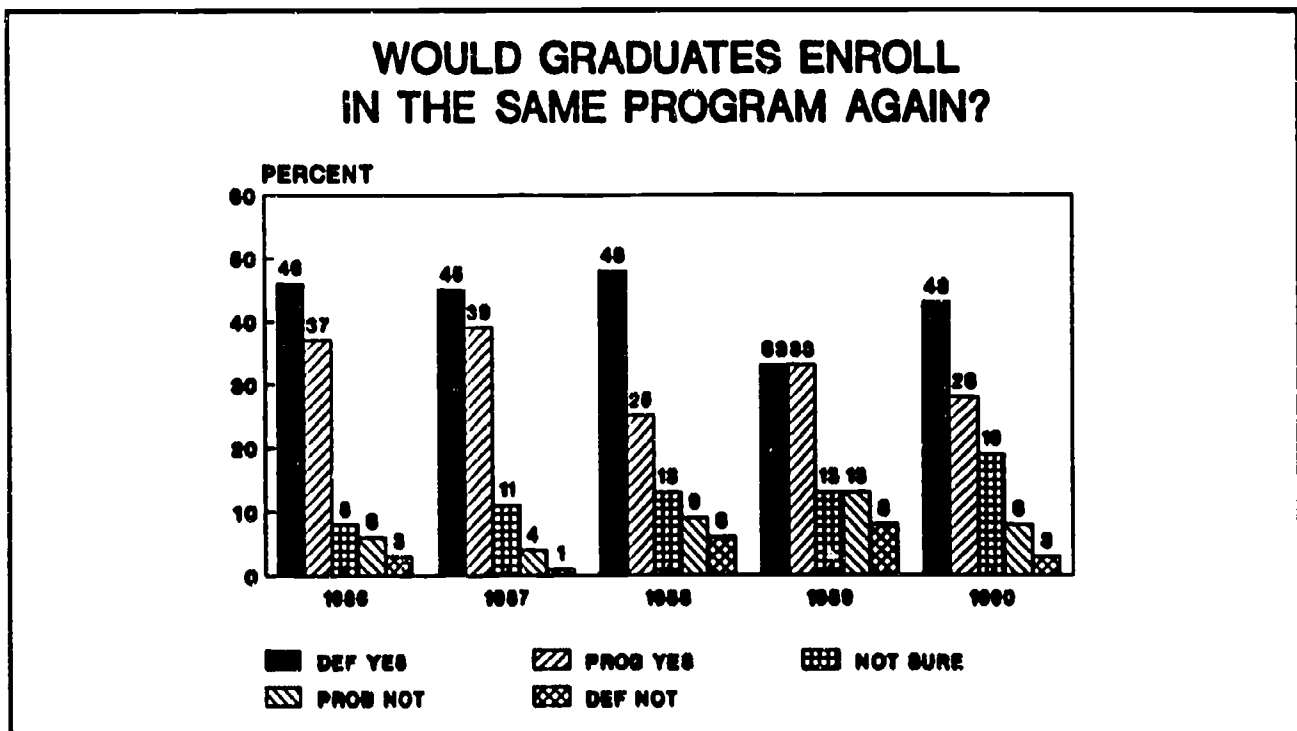


Chart 14

3.0 TRANSFER RESPONDENTS

Of those 1990 respondents who had entered HCC with a goal to prepare for transfer, 67% had achieved that goal within the year after graduation (see Chart 15). Although transfer goal achievement for 1990 graduates was down from that for 1989 graduates (from 74% to 67%), the rate surpassed that for 1987 and 1988 graduates (63% and 64%, respectively). The University of Maryland Baltimore County (UMBC) was the most frequently named transfer institution for 1990 graduates, followed by the University of Maryland College Park (UMCP) and Towson State University. As indicated in Table 6, UMBC has historically been the most popular transfer institution for HCC graduates.

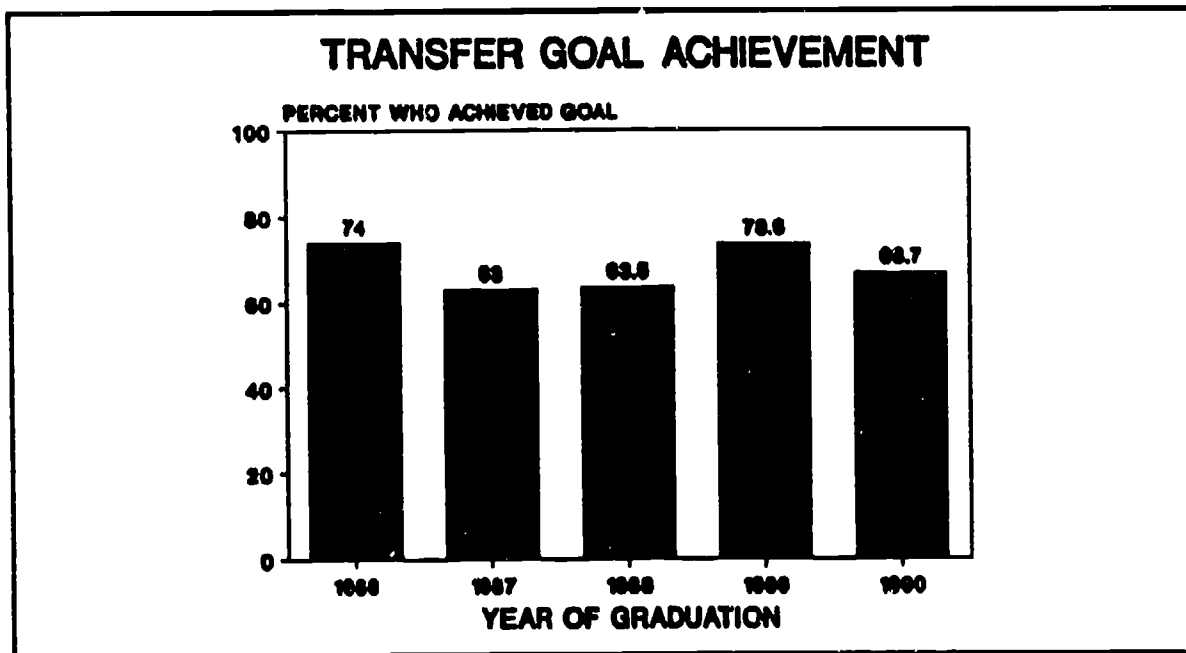


Chart 15

Table 6
TRANSFER COLLEGE

TRANSFER INSTITUTION	1986	1987	1988	1989	1990
UNIV OF MD BALTIMORE COUNTY	18	17	21	13	16
TOWSON STATE UNIVERSITY	5	6	9	8	7
UNIVERSITY OF BALTIMORE	7	5	6	6	2
UNIVERSITY OF MD COLLEGE PARK	18	5	8	3	11
UNIVERSITY OF MD UNIV COLLEGE	2	6	6	1	5
PRIVATE MD COLLEGE	3	5	3	4	6
MARYLAND COMMUNITY COLLEGE	0	3	4	2	0
NON-MARYLAND COLLEGE	2	1	5	5	5
OTHER	0	4	1	1	1

Chart 16 shows the relationship between the graduate's program at HCC and at the transfer college. Forty-two percent of 1990 respondents indicated that they were enrolled in the same field, while nearly the same percentage (40%) were in a related field. Eighteen percent reported being enrolled in a different field at the transfer college. When looking at data for the past five years, 1990 figures for enrollment in the same field were the lowest, while they were the highest for enrollment in a related field. 1990 percentages for enrollment in a different field were on par with previous years.

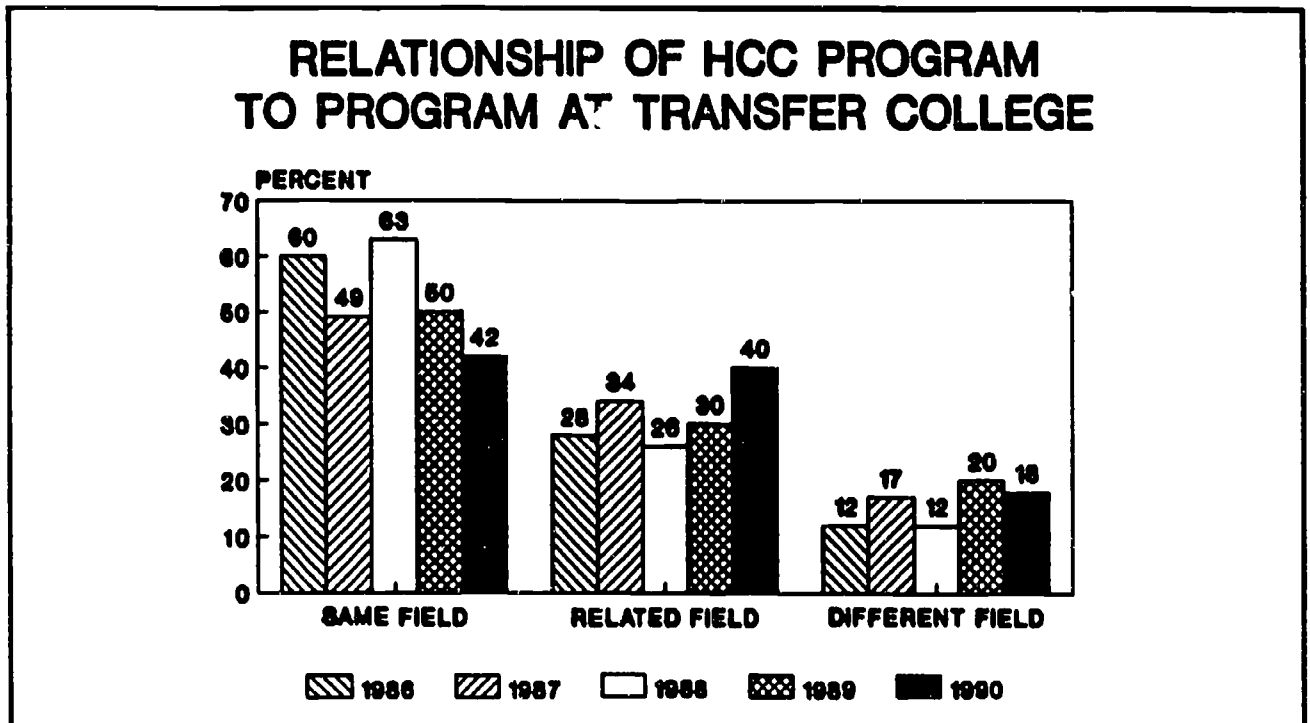


Chart 16

Chart 17 depicts graduates' reported grade point averages at their transfer institutions. Seventy-three percent of 1990 respondents reported a GPA of 3.0 or higher, over half of which were 3.5 or higher. The percentage of graduates reporting a GPA of 3.5 or higher steadily increased from 27% in 1986 to 40% in 1990.

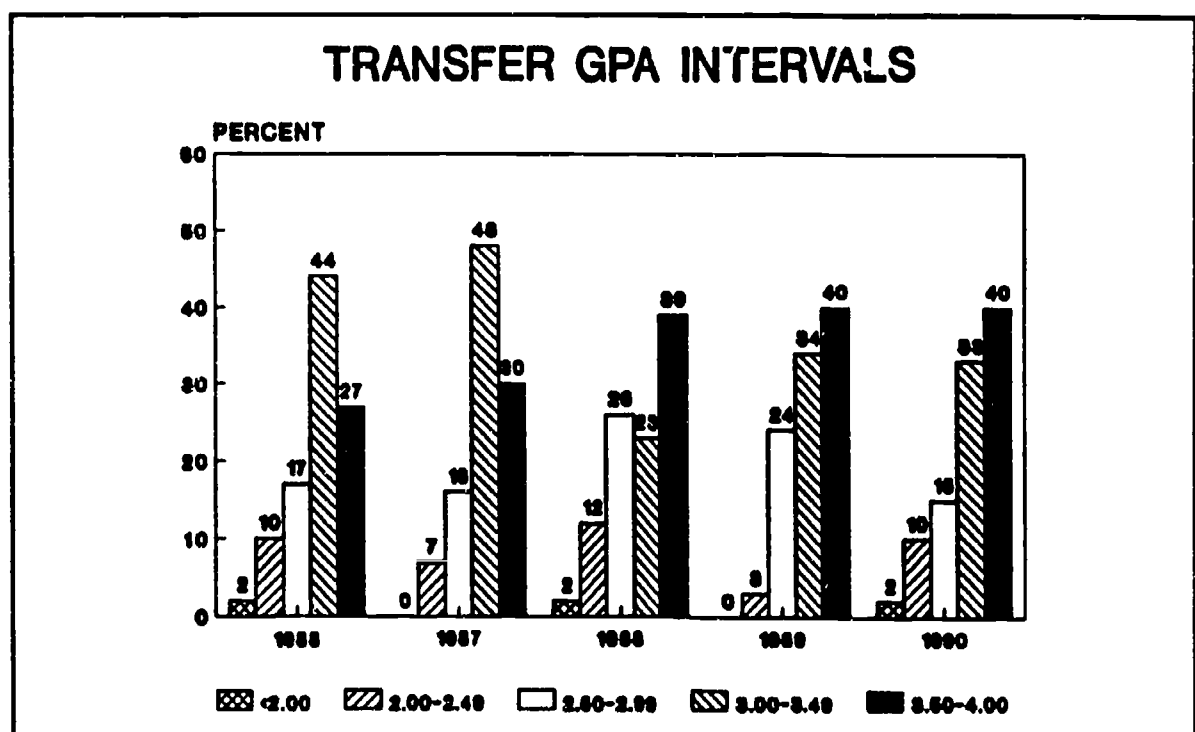


Chart 17

When asked how many credit hours for courses with a grade of "C" or better from HCC were accepted at the transfer institution, almost four-fifths (79%) of 1990 graduates reported transferring all but six or fewer credits. When 1990 graduates were asked why courses with a "C" or better were not accepted at their transfer institution, 39% said that there were no comparable courses offered at the transfer college, 35% had earned over the 60 allowable transferrable credits, 8% changed their major, and 19% reported other reasons. Table 7 details the number of credits lost when 1986 - 1990 graduates transferred to another institution.

**Table 7
CREDITS TRANSFERRED**

NUMBER OF CREDITS TRANSFERRED	1986	1987	1988	1989	1990
ALL TRANSFERRED	45	66	64	54	62
ALL BUT 1 - 3	3	7	11	11	7
ALL BUT 4 - 6	16	5	9	9	10
ALL BUT 7 - 12	17	7	2	9	14
ALL BUT 13 - 20	10	3	9	13	4
ALL BUT 20+	9	12	5	4	4

Over three-fourths (77%) of 1990 respondents rated HCC's transfer preparation as good or very good. Nine percent rated HCC's transfer preparation as poor. Chart 18 summarizes 1986 - 1990 ratings. Graduates' satisfaction with transfer preparation peaked in 1988 with 86% rating preparation as very good or good.

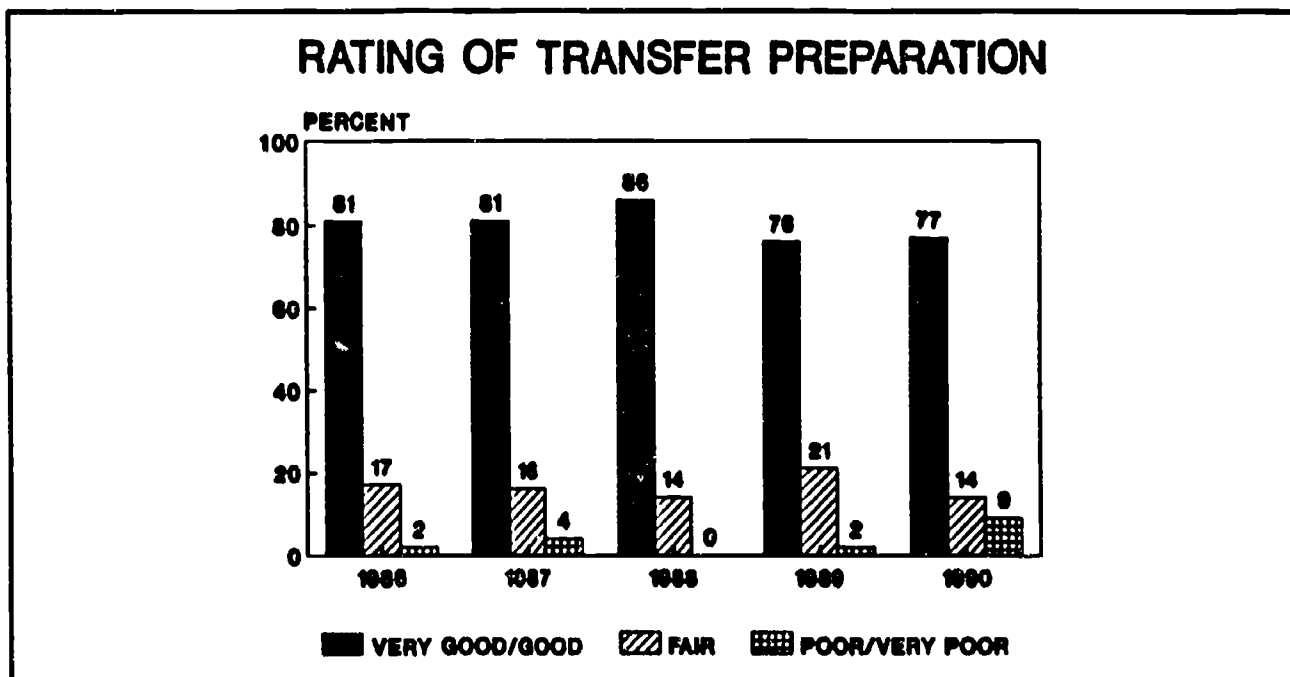


Chart 18

4.0 EMPLOYED RESPONDENTS AND THEIR EMPLOYERS

As indicated earlier in Table 4, 78% of all 1990 respondents were employed either full or part time. Among 1990 graduates for whom employment was a goal, 96% reported having achieved that goal within a year after graduating from HCC (see Chart 19). For 1986 - 1990 graduates, employment goal achievement rates were at least 95% each year, reaching a full 100% in 1986 and 1989.

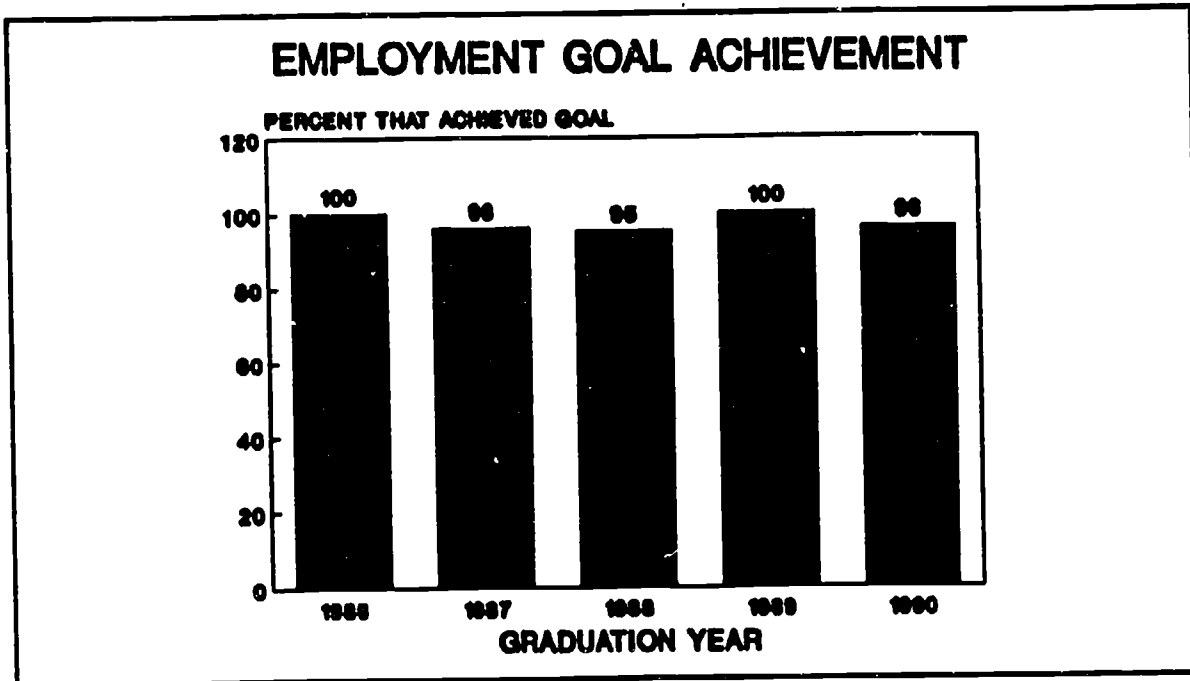


Chart 19

When asked how well HCC prepared graduates for employment, 71% of employed 1990 respondents rated their employment preparation as very good or good, while 23% rated preparation as fair. Six percent of 1990 respondents reported employment preparation as poor or very poor. Chart 20 shows ratings of employment preparation by 1986 - 1990 graduates.

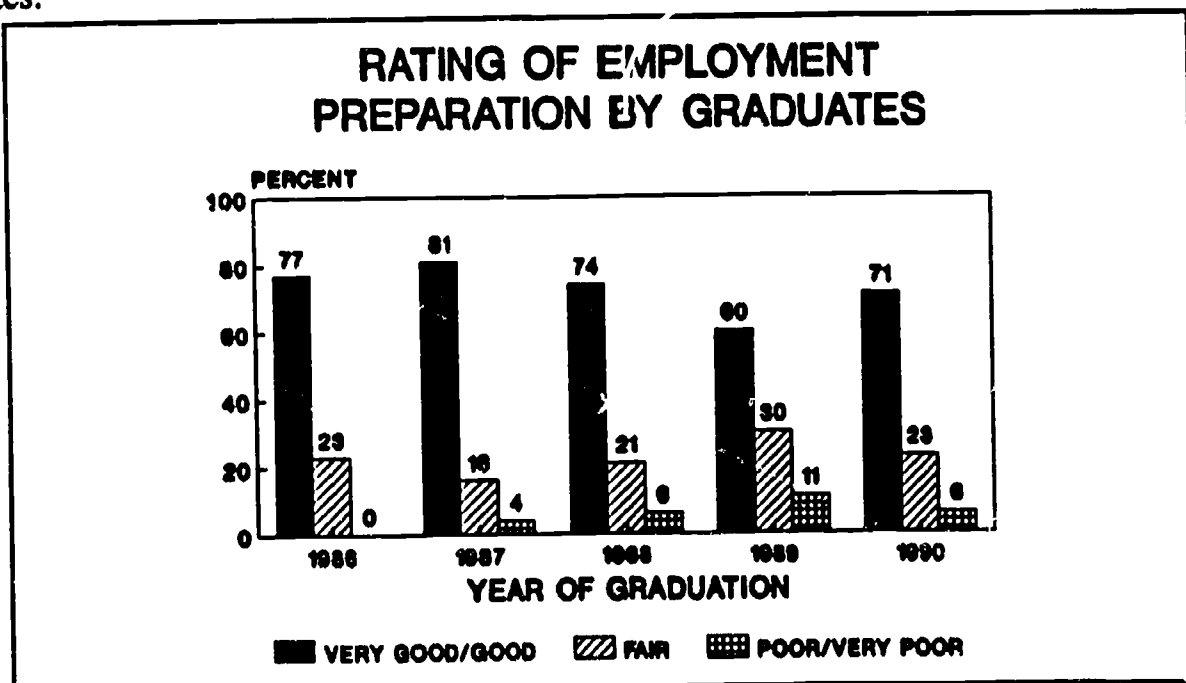


Chart 20

Chart 21 indicates that 97% of 1990 employed graduates worked in the Maryland/Washington, D.C. area, with about three-fifths of these being employed in Howard County. It is interesting to note that the percentage reporting employment in Howard County has increased from 33% in 1986 to 54% in 1990.

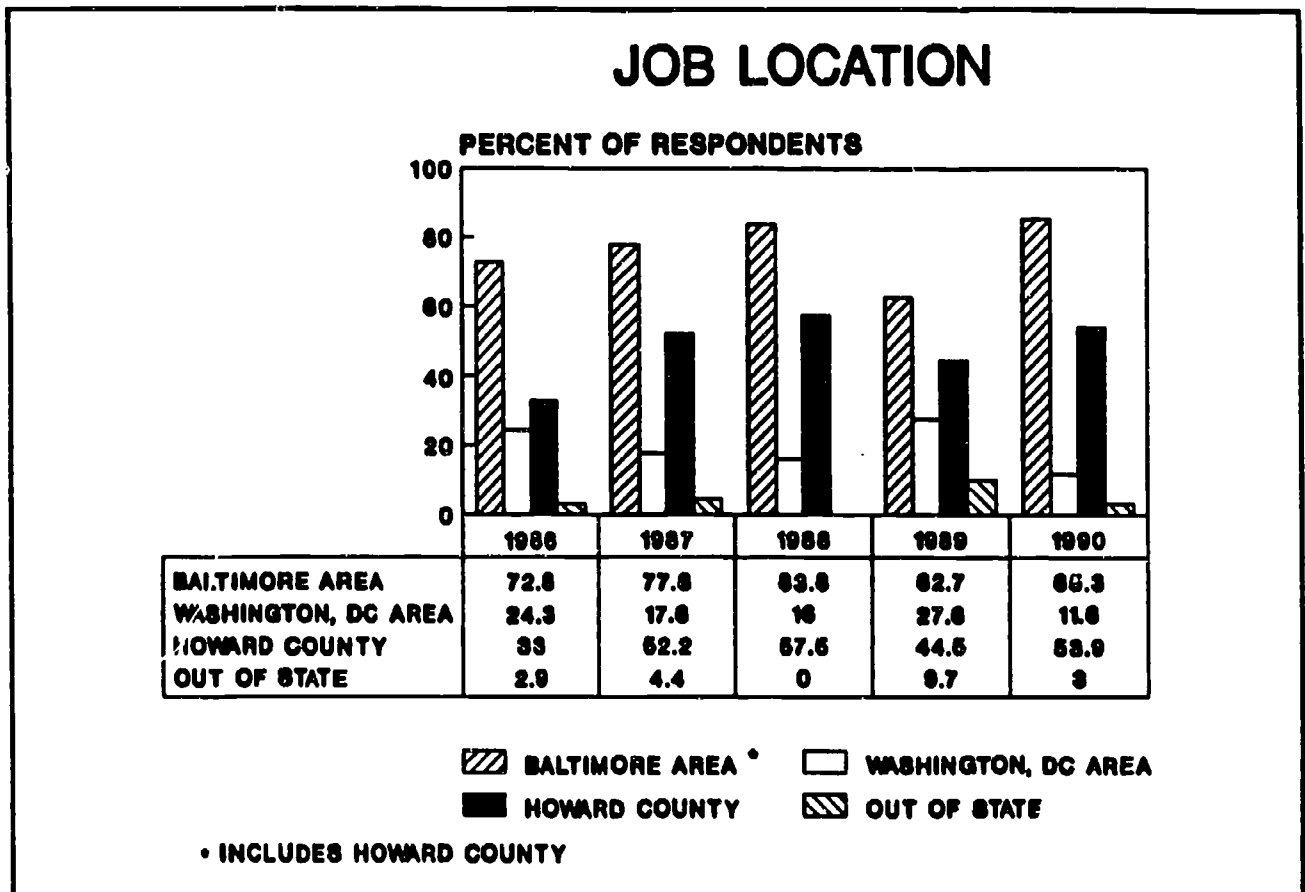


Chart 21

Thirty-eight percent of 1990 graduates began their present job after graduating from HCC (see Chart 22). While this is the lowest percentage of graduates beginning their jobs after graduating since 1986, the percentage of those who began their jobs before and while attending HCC was at its highest for 1990 graduates.

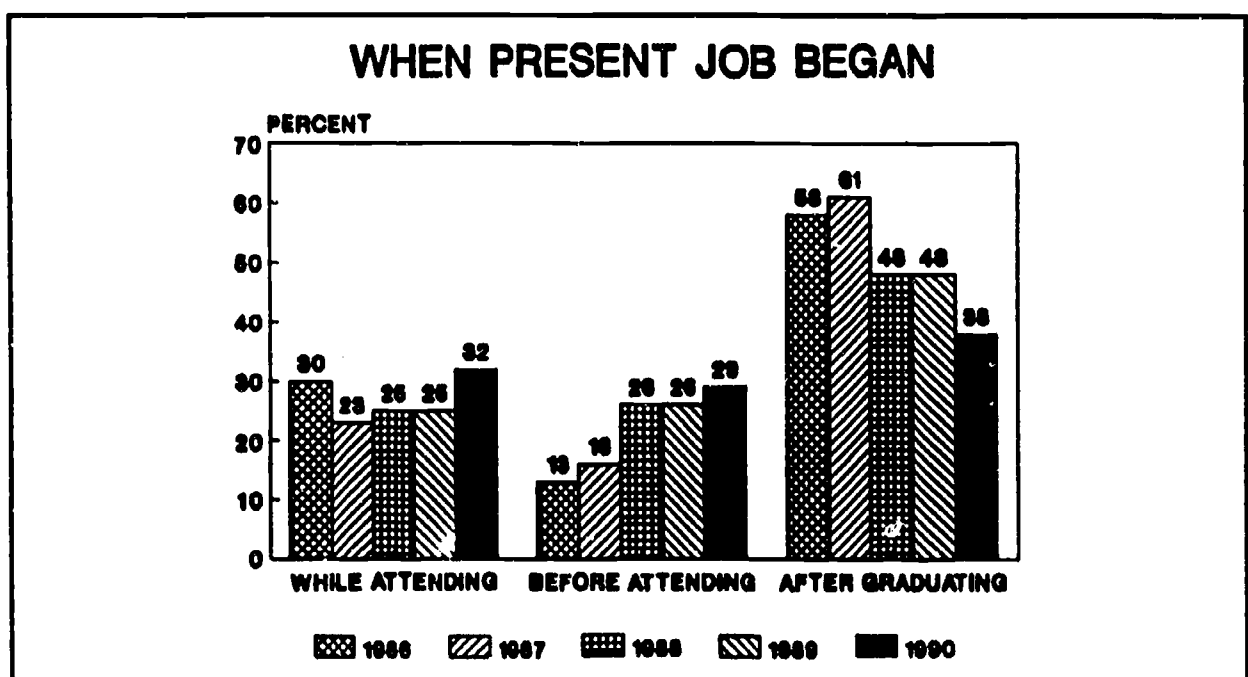


Chart 22

Nearly three-fourths (73%) of 1990 graduates were working in the same or a somewhat related field as their HCC program. Thirty percent were employed in a field that differed from their HCC program. In looking at employment fields of 1986 - 1990 graduates, the percentage of those working in the same or somewhat related field steadily declined (from 80% in 1986 to 73% in 1990), while that of those employed in a different field steadily increased from 20% in 1986 to 30% in 1990. Chart 23 summarizes the relationship of employed respondents' jobs, one year after graduating, with their program at HCC.

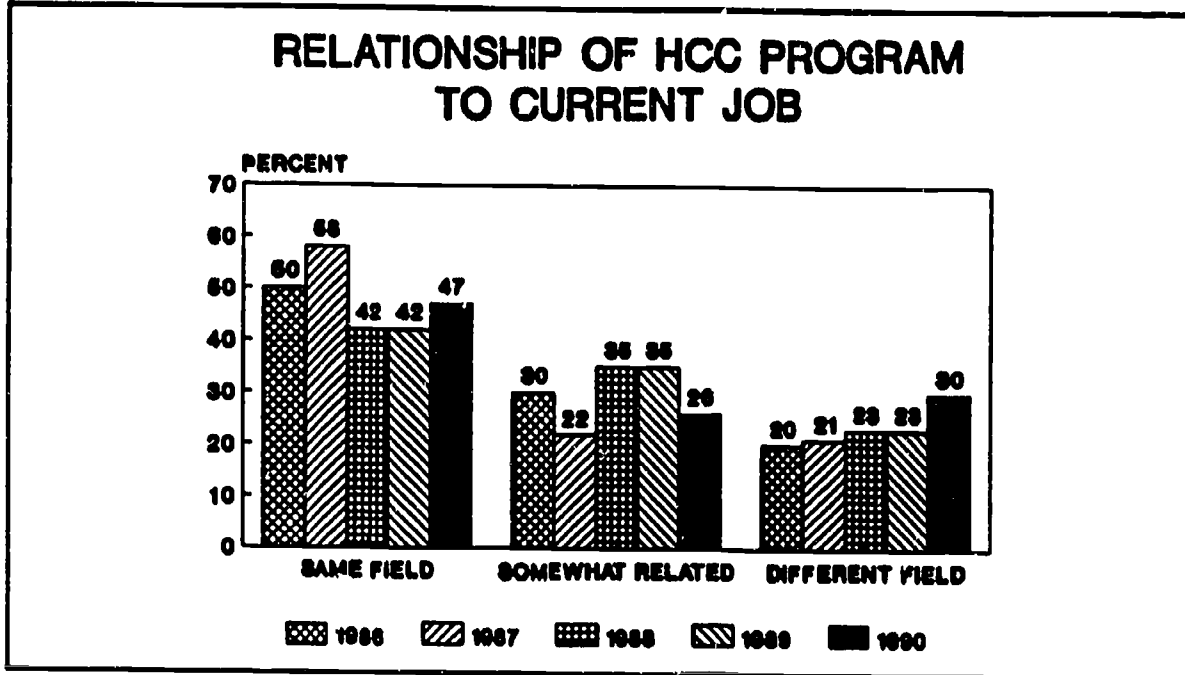


Chart 23

When asked why, if employed and their current job was not related to their program of study, 21% of 1990 graduates reported that their program of study at HCC was not career-oriented, 18% said that they could not find a job related to their HCC program, 12% did not want to work in the field of preparation, and 9% said there was better pay in the field in which they were employed. Chart 24 details these reasons for 1990 graduates.

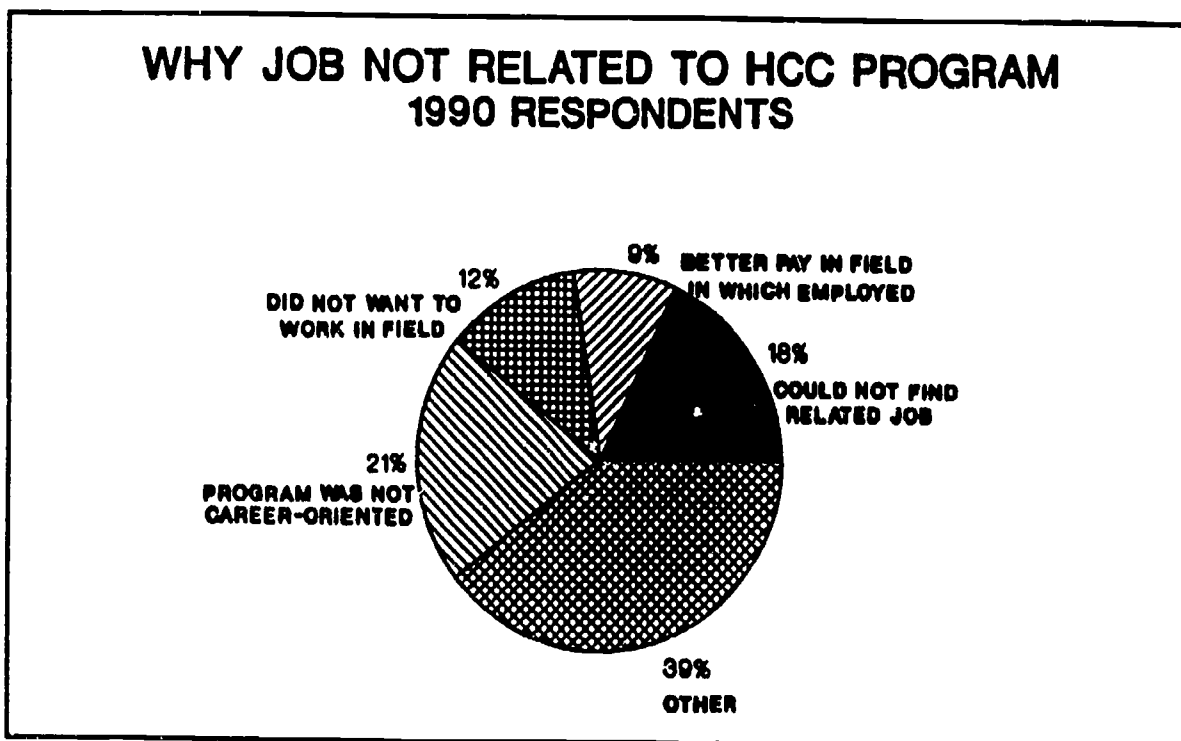


Chart 24

In looking at graduates' gross annual income from full-time employment, Chart 25 summarizes reported salaries of 1990 graduates. Gross annual reported income from full-time employment ranged from \$11,000 to over \$50,000. Chart 26 shows 1986 - 1990 graduates' mean annual income, reported one year after graduation. With the exception of that of 1988 graduates, mean annual income has steadily increased from \$20,740 for 1986 graduates to \$26,064 for 1990 graduates.

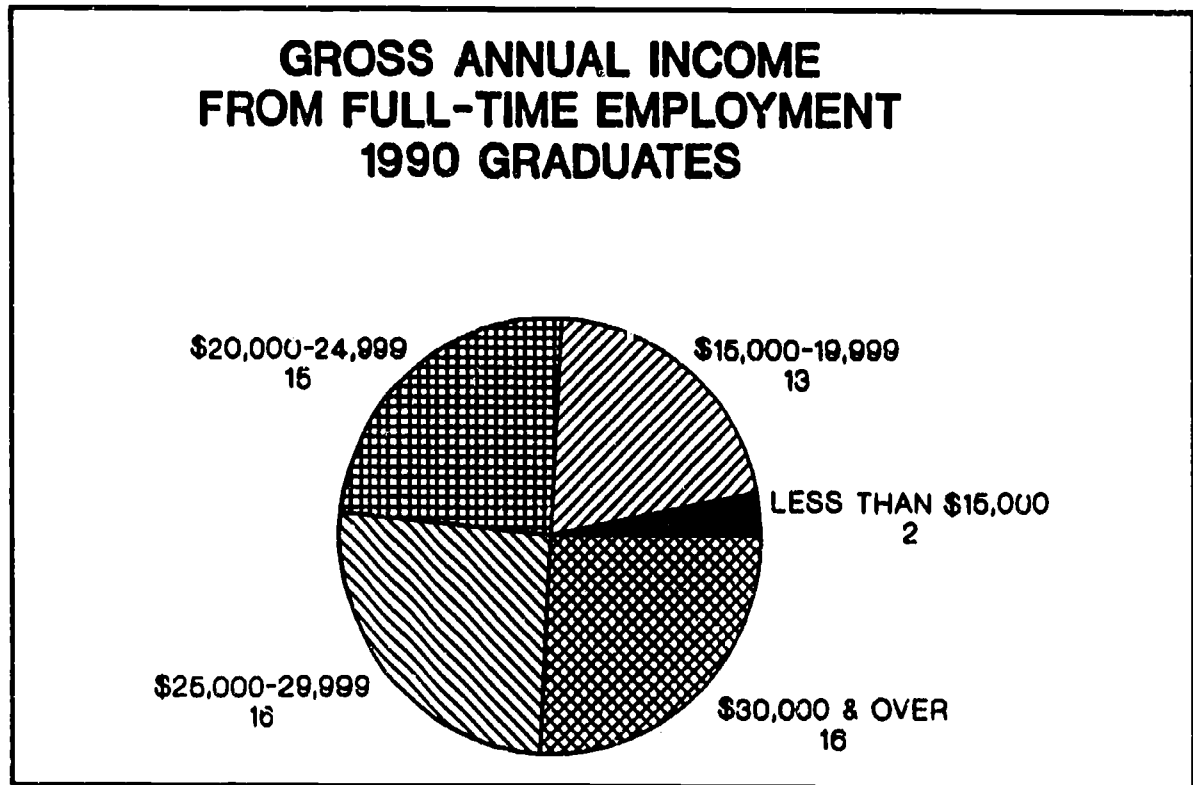


Chart 25

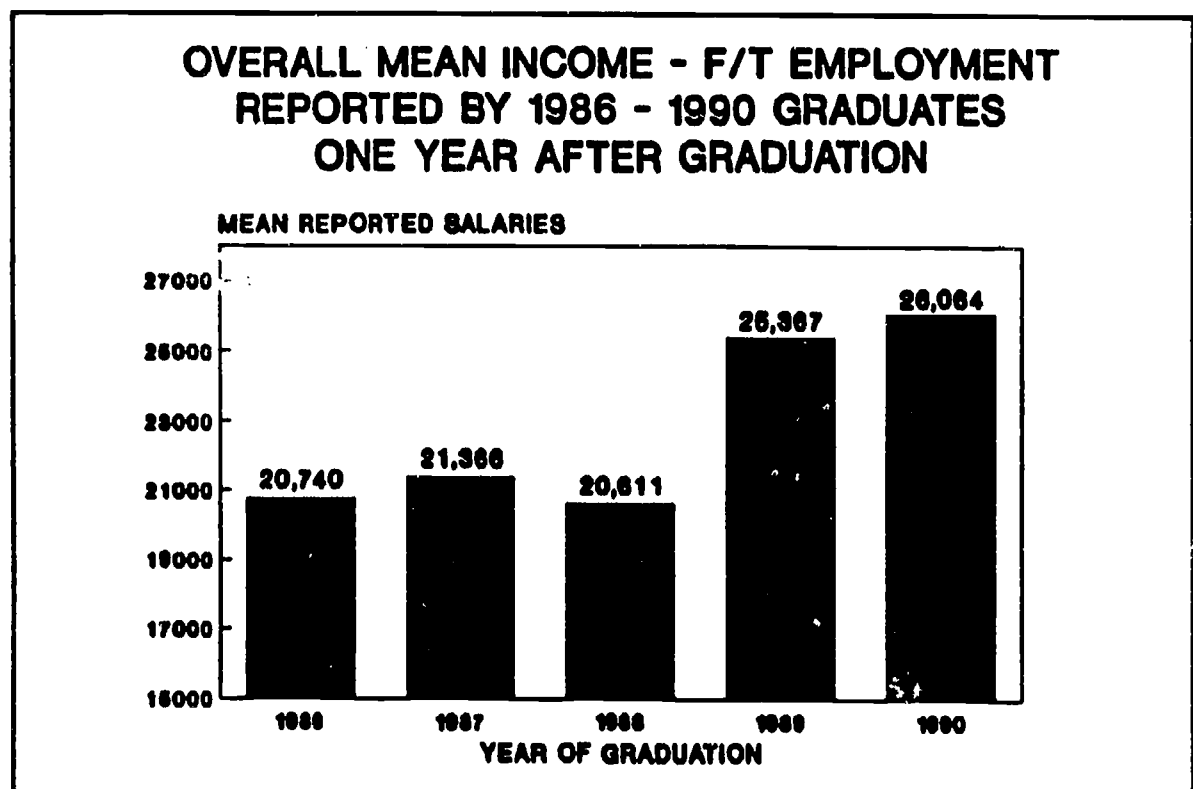


Chart 26

4.1 EMPLOYER RATINGS

Graduates were asked if their current employer may be contacted to report how well HCC prepared students for their jobs. Responses from employers of those graduates that gave their permission included perceptions of the match between education and job requirements. As shown in Chart 27, 82% of these employers assessed this match as close, which is the highest rate of the five years compared in this study. No employer of an 1989 or 1990 graduate assessed the job requirements as being in a different field from their HCC education. Sixty-two percent of employers of 1990 graduates reported that the graduate's program of study was an important factor in their decision to hire, while 38% rated it of some or little importance.

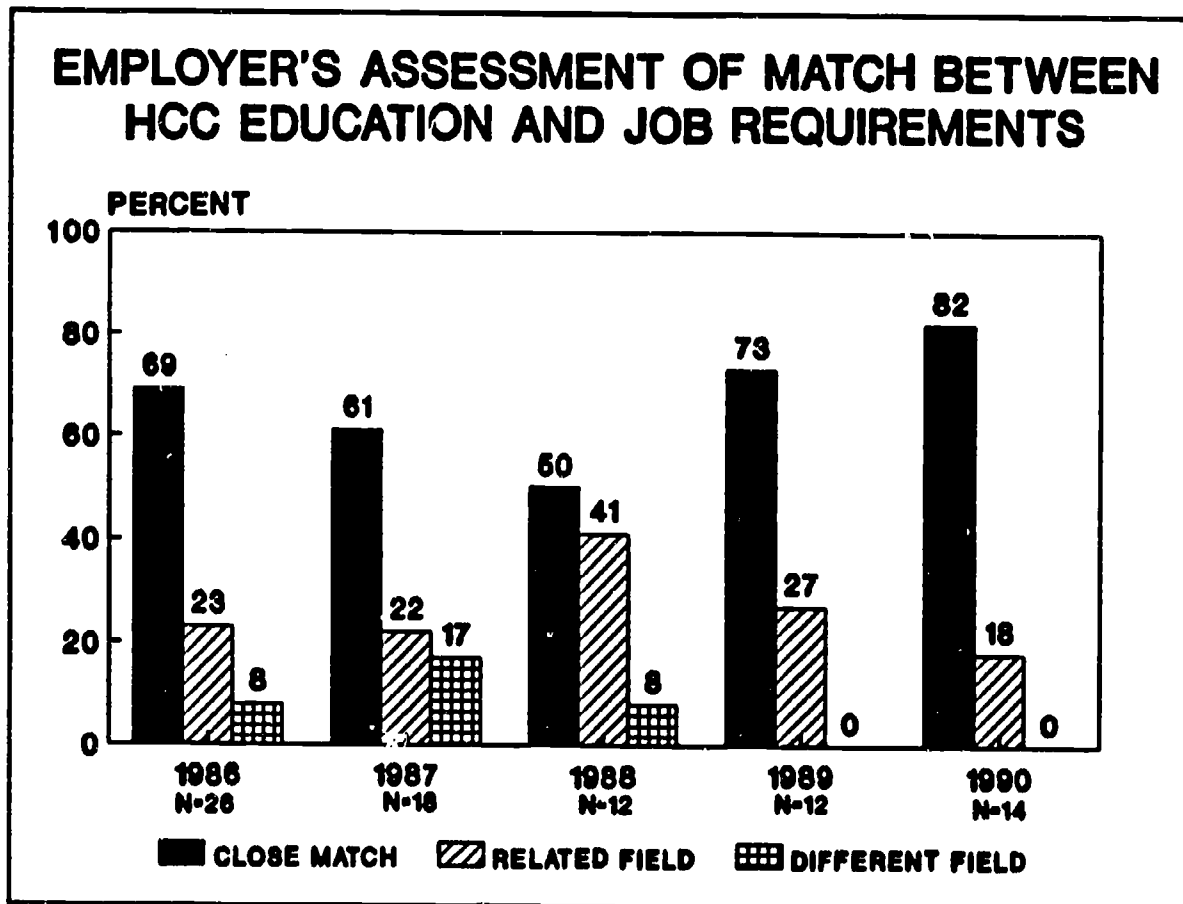


Chart 27

Employers were also asked to evaluate graduates' employment preparation in several areas. Table 8, following, specifies these areas and employers' ratings of graduates in each area. All employer respondents rated 1990 HCC graduates as good or very good in writing skills. Ability to learn and oral communication skills followed in order, each with 93% of the responding employers rating preparation as good or very good. These ratings were somewhat lower than last year's in all areas except writing skills and oral communication. Employers consistently rated HCC's 1986 - 1990 graduates highest in ability to learn.

**Table 8
EMPLOYER RATINGS OF PREPARATION**

PREPARATION ASPECTS	1986	1988	1989	1990
ABILITY TO LEARN ON THE JOB	100	100	100	93
ABILITY TO SOLVE PROBLEMS	81	93	100	77
KNOWLEDGE OF TECHNICAL JOB SKILLS	84	92	100	79
FAMILIARITY WITH EQUIPMENT	72	79	100	64
WRITING SKILLS	79	73	92	100
ORAL COMMUNICATION SKILLS	88	67	92	93
OVERALL EMPLOYMENT PREPARATION	88	80	100	86

When asked how likely they would be to hire another graduate from the same program, 79% of employers of 1990 graduates indicated that they would be likely or highly likely to do so, and 86% said that they would recommend that other employers do so as well. Chart 28 details employers' responses to these questions over the past five years.

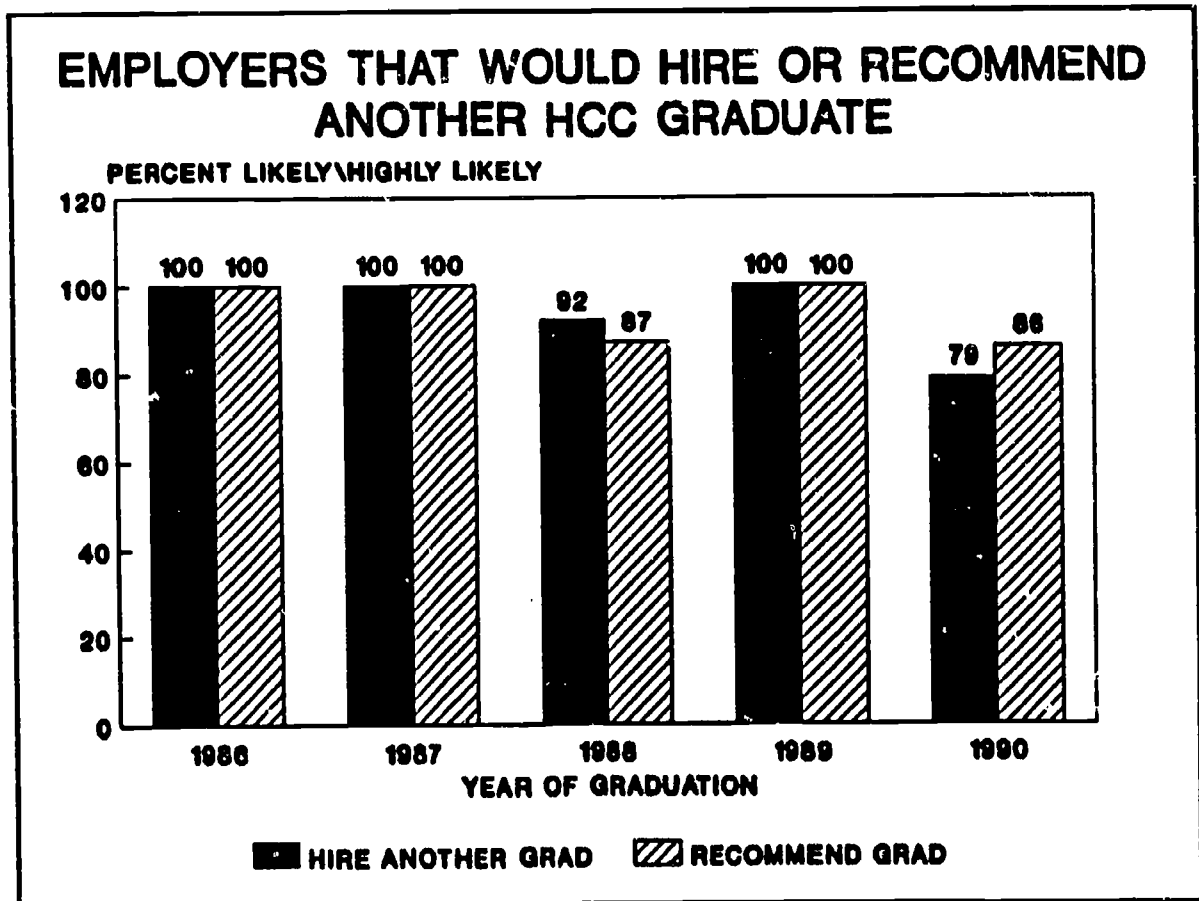


Chart 28

APPENDIX A:
RESPONDENTS' COMMENTS

3.1 RESPONDENT COMMENTS

Each year the survey questionnaire included an opportunity for graduates to comment about what they liked best about HCC and what changes could be made to improve services and help students achieve their goal or improve their employment and/or transfer performance. Respondents' comments to the specific questions are summarized below.

What did you like best about this community college?

There has been general agreement among FY86-FY90 graduates about the positive aspects of HCC's location, cost and convenience when asked what they liked best about HCC. In addition, many graduates, 70% in 1990, commended HCC's dedication to student success and friendly concern for students by faculty and staff:

- ◆ The instructors! They took the time to listen, assist and provide guidance; professional and personal. (1990)
- ◆ The sense of genuine caring and support on behalf of the faculty (1990)
- ◆ I thought the teaching was excellent because it was on a one-to-one basis a lot of the time. They always had time for you. (1990)
- ◆ Dedication of talented teaching staff (1990)
- ◆ The quality of the teachers was excellent. They were very knowledgeable, helpful and caring. (1990)
- ◆ I liked the teachers -- almost all were competent, accessible and caring. (1990)
- ◆ The instructors always had time to fully answer questions and offer extra support when students wanted more. (1990)
- ◆ The faculty, almost without exception, was totally supportive and encouraging. (1989)
- ◆ Basically, HCC is the place that cares. You are important and you are treated that way. (1989)
- ◆ Faculty was very dedicated to each student's success at the college. (1988)
- ◆ The helpfulness of all the people I encountered prior to registration; the instructor seemed to be committed to excellence. (1988)
- ◆ Efficiency/helpfulness of the administration (1987)
- ◆ I felt the staff genuinely tried to help me in my efforts at gaining education. (1987)
- ◆ "Personability" of the faculty; I wasn't just a number. (1986)
- ◆ The high caliber of the instructors (1986)

What changes could be made to improve services and to help students achieve their goal? (1988-1990)

Eighteen percent of 1990 responses to this question related to the need for safer and more adequate parking on campus. Other comments referred to the need for better academic and career advising, especially in relation to transferring to another institution, for students from the outset:

- ◆ Make sure advisement helps students plan for future academic requirements. (1990)
- ◆ More advising in early stages; need more advising regarding what subjects transfer to 4-year schools (1990)
- ◆ I would like to see more activities directed toward transfer students - what courses to take, what other state colleges offer, etc. (1989)
- ◆ More intense advising for transfer - more information about what transfers and what doesn't; better all-around academic advising (1988)

What changes could be made to your community college program to improve a graduate's employment and/or transfer performance? (1986-1987)

Most of the comments were program-specific, often referring to features of a particular course. Other comments related to the need for a more extensive co-op program, and like in 1988-90, more transfer advising from the outset:

- ◆ More occupation-related, hands-on field experience, real world experience (1986)
- ◆ I wish I would have been better-advised on undergraduate study requirement courses. (1987)
- ◆ Make information on transferability very easily accessible or readily available. (1986)

APPENDIX B:
GRADUATE SURVEY QUESTIONNAIRE
EMPLOYER SURVEY QUESTIONNAIRE

**GRADUATE FOLLOW-UP SURVEY
MARYLAND COMMUNITY COLLEGES**

The purpose of this questionnaire is to help your community college and the State Board for Community Colleges assess and improve programs. Please complete the survey and return it in the stamped envelope provided. Additional comments are welcome. All answers will be strictly confidential. Thank you for your assistance in helping us evaluate our programs and services.

(Please make corrections if necessary)

Name _____

Address _____

A. What is your current work/education status? (Check all that apply.)

- 1. Employed full-time (35 or more hours per week)
- 2. Employed part-time
- 3. Full-time student (12 or more credit hours)
- 4. Part-time student
- 5. Active military service
- 6. Full-time homemaker
- 7. Unemployed and seeking a job
- 8. Unemployed and not seeking a job
- 9. Retired

B. Below are a number of reasons for attending a community college. Please rate how important each was to you. For each item, circle the number that most clearly reflects your opinion.

	Reason		
	Very Important	Somewhat Important	Not Important
1. Prepare for entry into first career	3	2	1
2. Prepare for entry into different career	3	2	1
3. Update skills for current job	3	2	1
4. Prepare for transfer to four-year institution	3	2	1
5. Self-enrichment/courses of interest only	3	2	1
6. Explore new occupational area	3	2	1
7. Explore new academic area	3	2	1
8. Obtain salary increase and/or job promotion	3	2	1
9. Earn an associate in arts degree	3	2	1
10. Other (specify) _____	3	2	1

C. Please give the number (from question B) of the single most important reason for deciding to attend this community college. _____

D. Was your most important goal (indicated in question C) achieved by the time you graduated from this community college?

3. Achieved completely 2. Achieved partly 1. Not achieved

E. Did your attendance at this community college contribute to your personal development in the following areas? (For each item, circle the number that most closely reflects your experience.) My experience at this community college:

	<u>A Great Deal</u>		<u>A Fair Amount</u>		<u>Not at All</u>
1. Improved my writing skills	5	4	3	2	1
2. Enhanced my appreciation of art, music, or literature	5	4	3	2	1
3. Increased my ability to use mathematics	5	4	3	2	1
4. Improved my understanding of science and technology	5	4	3	2	1
5. Increased my attentiveness to news and world events	5	4	3	2	1
6. Clarified my educational or career goals	5	4	3	2	1
7. Enhanced my self-confidence	5	4	3	2	1
8. Improved my reading comprehension	5	4	3	2	1
9. Increased my knowledge of other cultures & periods of history	5	4	3	2	1
10. Increased my enjoyment of learning	5	4	3	2	1

F. During the semester(s) you attended this community college, did you work:

- 1. Primarily full-time (35 or more hours per week)
- 2. Primarily part-time
- 3. No, most of the time I did not work

G. During the semester(s) you attended this community college, did you attend primarily full-time or part time?

- 1. Primarily as a full-time student (12 or more credit hours per term)
- 2. Primarily as a part-time student

H. Please rate each of the following aspects of this community college. (Circle the answer that most closely reflects your opinion.)

	<u>Very Good</u>	<u>Good</u>	<u>Fair</u>	<u>Poor</u>	<u>Very Poor</u>	<u>No basis to Judge</u>
1. Quality of classroom instruction	5	4	3	2	1	0
2. Quality of laboratory equipment	5	4	3	2	1	0
3. Faculty availability/helpfulness	5	4	3	2	1	0
4. Class scheduling	5	4	3	2	1	0
5. Academic advising	5	4	3	2	1	0
6. Developmental Reading courses	5	4	3	2	1	0
7. Developmental English courses	5	4	3	2	1	0
8. Developmental Math courses	5	4	3	2	1	0
9. Library	5	4	3	2	1	0
10. Tutorial services	5	4	3	2	1	0
11. Student activities	5	4	3	2	1	0
12. Job placement services	5	4	3	2	1	0
13. Overall quality of college	5	4	3	2	1	0

I. Have you taken courses at a four-year college/university since graduating from this college? (Check only one.)

- 1. Yes, primarily as a full-time student (12 or more credit hours per term)
- 2. Yes, primarily as a part-time student
- 3. No, I have not taken courses at a four year college/university (skip to question T)

J. What is the name of the four- year college/university to which you have transferred?

College/University _____ Location/Campus _____ Major _____

K. Do you intend to earn a bachelor's degree at the above named institution?

1. Yes
 2. No
 3. Not sure

L. Is your current major in the same academic field as the program from which you graduated at this community college? Academic program is in:

1. Same academic field
 2. Somewhat related academic field
 3. Different academic field

M. How many credit hours have you completed at your transfer college/university? _____ credit hours completed

N. What is your overall grade point average (GPA) for credits earned at your transfer college/university (based on a 4-point scale)? ____ . ____ GPA

O. How well did the community college prepare you for transfer? Preparation was:

5. Very good 4. Good 3. Fair 2. Poor 1. Very poor

P. Were any credits for courses with a "C" or better from this community college NOT accepted at your transfer college/university?

1. Yes
 2. No (skip to question T)

Q. How many credit hours with a "C" or better were NOT accepted? _____ credit hours

R. Why were the courses with a "C" or better NOT accepted? (Check all that apply.)

1. Changed major
 2. Earned over 60 credits
 3. No comparable course offered at the transfer college
 4. Other (please specify) _____

S. What community college courses were not accepted that you expected to transfer?

(Please specify course(s)) _____

**IF YOU ARE NOT CURRENTLY EMPLOYED, GO TO QUESTION AB.
IF YOU ARE CURRENTLY EMPLOYED, PLEASE CONTINUE.**

T. What is your current job title? _____

U. Where is your job located? Company/Employer's name: _____

City _____ County _____ State _____

V. How is your job related to your community college program?

- 1. Same field
- 2. Somewhat related field
- 3. Different field

W. If you are employed and your job is NOT RELATED to your program of study, check the major reason below. (Check one)

- 1. Could not find a job related to my program/major
- 2. Better pay in field in which employed
- 3. Better opportunity for advancement in field in which employed
- 4. Did not want to work in the field of preparation
- 5. Program of study at this college was not career-oriented
- 6. Other (please explain) _____

X. When did you begin your present job?

- 1. Before attending this community college
- 2. While attending this community college
- 3. After graduating from this community college

Y. If you are employed full-time, what is your current gross annual salary (before overtime, deductions, and taxes)? All responses are confidential. \$ _____ per year.

Z. How well did your community college prepare you for employment? Preparation was:

- 5. Very good
- 4. Good
- 3. Fair
- 2. Poor
- 1. Very poor

AA. For some programs we would like to contact employers to ask how well they think the community college prepared students for their job. May we contact your supervisor for this purpose?

- 1. Yes. Supervisor's name and title _____

Address _____ City _____ County _____ State _____ Zip _____

- 2. No

AB. If you had to do it over again, would you attend this community college?

- 5. Definitely yes
- 4. Probably yes
- 3. Not sure
- 2. Probably not
- 1. Definitely not

AC. If you had to do it over again, would you enroll in the same program?

- 5. Definitely yes
- 4. Probably yes
- 3. Not sure
- 2. Probably not
- 1. Definitely not

AD. What did you like best about this community college?

AE. What changes could this community college make to improve its services and to help students achieve their goals?

**Thank you for completing this questionnaire.
Please return it in the enclosed prepaid envelope.**

EMPLOYER SURVEY
MARYLAND COMMUNITY COLLEGES

This graduate has given the community college permission to contact you. The purpose of this survey is to help improve community college instructional programs. Survey data are used by the colleges and the Maryland State Board for Community Colleges to strengthen these programs. We need you, as an employer of one of our recent graduates, to tell us how well the graduate is performing on the job. Please evaluate how well this graduate was prepared by the community college for your job. All responses will be confidential.

Name of Graduate: _____

Graduate's Job Title : _____

Program of Study at Community College _____

A. Community college graduates enter a variety of careers. Based upon your knowledge, is the employee's community college program related to the employee's current job?

- 1 - Yes, education closely matched job requirements
- 2 - In somewhat related field; education covered most job requirements
- 3 - No, in different field; education did not cover most entry job requirements
- 4 - I don't know

B. In the areas listed below, please rate the preparation of this graduate as compared to other entering employees. Circle the number that most clearly reflects your opinion.

	Very Good	Good	Fair	Poor	Very Poor	Not Applicable
1. Knowledge of specific technical job skills	5	4	3	2	1	0
2. Familiarity with equipment required by job	5	4	3	2	1	0
3. Ability to learn on the job	5	4	3	2	1	0
4. Writing skills	5	4	3	2	1	0
5. Oral communication skills	5	4	3	2	1	0
6. Ability to solve problems related to job	5	4	3	2	1	0
7. Overall preparation for employment	5	5	3	2	1	0

Comments: _____

C. Was the graduate's specific program of study an important factor in your employment decision?

- 4 - Very important
- 3 - Important
- 2 - Of some importance
- 1 - Of little importance

Comments: _____

D. In the appropriate circumstances, how likely would you be to hire another graduate from this particular program?

- 4 - Highly likely
- 3 - Likely
- 2 - Perhaps
- 1 - Unlikely

Comments: _____

E. For a similar job opening, would you recommend that other employers hire a graduate of this program?

- 4 - Strongly recommend
- 3 - Recommend
- 2 - Neutral
- 1 - Unlikely to recommend

Comments: _____

F. Please specify any additional skills or areas of knowledge that you feel a community college graduate should have in order to qualify for your jobs.

G. Please describe how this community college can better help you with the training of future employees.

Supervisor completing this survey:

Company/Organization: _____

Address: _____ City _____ State _____ Zip Code _____

Name: (Optional) _____

Title: (Optional) _____

THANK YOU!