

DOCUMENT RESUME

ED 140 921

JC 770 366

AUTHOR Gell, Robert.L.; Armstrong, David F.  
 TITLE Montgomery College Student Follow-up Study: First-Time Students, Fall 1972.  
 INSTITUTION Montgomery Coll., Rockville, Md. Office of Institutional Research..  
 PUB DATE May 77  
 NOTE 60p.; Some parts may be marginally legible due to small print of the original document  
 EDRS PRICE MF-\$0.83 HC-\$3.50 Plus Postage.  
 DESCRIPTORS Associate Degrees; Cohort Analysis; Community Colleges; \*Employment Patterns; \*Followup Studies; Institutional Research; Job Placement; \*Junior Colleges; Junior College Students; Program Attitudes; \*Program Evaluation; Questionnaires; State Surveys; \*Student Needs; Surveys; \*Transfer Students

ABSTRACT

As part of a state-wide longitudinal study of student goal attainment, Montgomery College surveyed 3,975 students in 1976 who had initially enrolled in fall of 1972. Sixty percent responded. Interviews with non-respondents showed that the academically able were more likely to respond, but that questionnaire item responses varied little. Data included demographic information, goals upon entry to the college, and current goal outcomes. Major goals were (1) graduating with an A. A. degree, (2) career training and employment, and (3) transfer to a four-year institution. Of the 53% who originally planned to graduate, 42% had earned degrees or certificates. Among career-goal students, 79% held full-time jobs, and of these, 73% reported jobs related to their college programs. These students felt preparation was good, but college placement efforts poor. Of those intending to transfer, 76% did so, with most continuing in majors related to their community college studies. The research did not assess outcomes of the college beyond initial student aims, but factors contributing to student success, or ask if the unemployed were seeking work. Entrance goals reported after three and one-half years may have been subject to change. The data are presented with comparative statistics to the larger state-wide study, the methodology is detailed, and the questionnaire is appended. (RT)

\*\*\*\*\*  
 \* Documents acquired by ERIC include many informal unpublished \*  
 \* materials not available from other sources. ERIC makes every effort \*  
 \* to obtain the best copy available. Nevertheless, items of marginal \*  
 \* reproducibility are often encountered and this affects the quality \*  
 \* of the microfiche and hardcopy reproductions ERIC makes available \*  
 \* via the ERIC Document Reproduction Service (EDRS). EDRS is not \*  
 \* responsible for the quality of the original document. Reproductions \*  
 \* supplied by EDRS are the best that can be made from the original. \*  
 \*\*\*\*\*

ED140921

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

MONTGOMERY COLLEGE STUDENT FOLLOW-UP STUDY:

FIRST-TIME STUDENTS

FALL 1972

**BEST COPY AVAILABLE**

by

Robert L. Gell, Dean

David F. Armstrong, Research Analyst

Office of Institutional Research and Analysis

MONTGOMERY COLLEGE

Montgomery County, Maryland

May 1977

JC 770 366

## ACKNOWLEDGMENT

The authors wish to recognize the excellent work (upon which they drew heavily) of Dr. James P. Tschechtelin of the State Board for Community Colleges in analyzing and describing the data from the Statewide Follow-Up of Community College Students.

## TABLE OF CONTENTS

CHAPTER	PAGE
ACKNOWLEDGEMENT . . . . .	vii
THE PROBLEM . . . . .	1
Research Questions . . . . .	2
Definitions of Terms Used in the Study . . . . .	4
Limitations of the Study . . . . .	5
THE METHODOLOGY . . . . .	6
Study Population . . . . .	6
Data Collection . . . . .	6
Procedure . . . . .	6
Return Rate . . . . .	7
Non-respondent Bias . . . . .	7
THE FINDINGS . . . . .	10
Demographic and Academic Characteristics . . . . .	10
Educational Goals . . . . .	13
Career Development . . . . .	22
Transfer . . . . .	29
Student Satisfaction . . . . .	36
SUMMARY AND RECOMMENDATIONS . . . . .	39
REFERENCES . . . . .	41
APPENDIX	
Maryland Public Community Colleges Student Follow-Up Questionnaire (1972 Version) . . . . .	45
Maryland Public Community Colleges Student Follow-Up Questionnaire (1971 Version) . . . . .	47

LIST OF TABLES

TABLE	PAGE
I. Differences in the Primary Purpose for Attending Montgomery College Non-Respondent Telephone Survey and Returned Questionnaires First Time Entrants - Fall 1972. . . . .	9
II-A. Demographic and Academic Characteristics of the State and Local Respondents . . . . .	10
II-B. Demographic and Academic Characteristics of New Entrants at Montgomery College 1970 Through 1972. . . . .	11
III. Credit Hours Earned by Three Classes of New Entrants in Four Years at Montgomery College 1970 Through 1972. . . . .	12
IV. Ages of First Time Entrants 1970 Through 1972 . . . . .	12
V-A. Educational Goals of Students who Entered Maryland Community Colleges and Montgomery College in the Fall of 1972 . . . . .	14
V-B. Educational Goals of Entering Students at Montgomery College 1970 Through 1972 . . . . .	14
VI. Educational Goal Achievement of Students who Entered Montgomery College in 1972. . . . .	16
VII. Goal Achievement by Primary Purpose for Attending Montgomery College . . . . .	16
VIII. Degree Achievement Among Respondents Whose Goal Was an A.A. Degree . . . . .	18
IX. Reasons for Leaving Montgomery College 1972 First Time Students. . . . .	21
X. Full-Time Employment of Students Whose Unchanged Goal Was Career Development. . . . .	23
XI. Relationship of the Respondents' Programs to Their Full-Time Employment . . . . .	26

LIST OF TABLES (cont.)

TABLE	PAGE
XII. Geographic Location of Full-Time Career Employees Through Time. . . . .	26
XIII. Mean Salaries of Students Employed Full-Time in Their Fields of Training. . . . .	26
XIV-A. Employment Assistance Provided by Career Programs Statewide 1972 Results. . . . .	28
XIV-B. Employment Assistance Through Time. . . . .	28
XV-A. Transfer Among Respondents Whose Goal was Transfer Statewide 1972 Results. . . . .	30
XV-B. Transfer Among Montgomery Respondents Whose Goal was Transfer Through Time. . . . .	30
XVI-A. Transfer Institutions of the Respondents Statewide 1972 Results. . . . .	32
XVI-B. Transfer Institutions of the Montgomery Respondents Through Time. . . . .	32
XVII-A. Relationship of the Respondents' Community College Programs to Their Transfer Programs Statewide 1972 Results. . . . .	33
XVII-B. Relationship of the Respondents' Montgomery College Programs to Their Transfer Programs-Through Time . . . . .	34
XVIII-A. Success of Respondents in Transfer Institutions Statewide 1972 Results. . . . .	35
XVIII-B. Success of Montgomery Respondents in Transfer Institutions Through Time. . . . .	35
XIX. Respondents' Evaluations of Montgomery College 1972 Results	37

LIST OF FIGURES

FIGURE	PAGE
I. Degree Aspirations and Achievement Among Respondents . . . . .	19
II. Career Development Aspirations and Achievement Among Respondents . . . . .	24
III. Educational Aspirations and Achievement Among Respondents . . .	31

MONTGOMERY COLLEGE STUDENT FOLLOW-UP STUDY;  
FIRST-TIME STUDENTS  
FALL 1972

1. THE PROBLEM

This study of students who entered Montgomery College for the first time in the Fall of 1972 represents a continuation of the series of state-wide follow-up studies of community college students begun in 1974.<sup>1</sup> That study concerned first-time entrants in the Fall of 1970, and a similar study of 1971 first-time entrants followed in 1975.

The primary purpose of this study is to help Montgomery College evaluate the extent to which it is:

1. Assisting students in achieving their educational goals
2. Assisting students in their immediate personal development
3. Assisting students in their preparation for transfer to senior colleges or universities

The secondary purpose of the study is to augment data used in the Level 1 monitoring of career programs, as described in the System for the Evaluation of Career Programs in the Community Colleges of Maryland (1974).

The central problem addressed in this study was that Maryland community colleges and the State Board for Community Colleges had insufficient information about the outcomes of community college education. While certain Maryland community colleges had conducted local studies, there was a statewide need to develop a standardized procedure for gathering data for planning and evaluation.

---

<sup>1</sup>The report of the statewide study is contained in Maryland Community Colleges Student Follow-Up Study: First-Time Students Fall 1972, by James P. Tschechtelin, Maryland State Board for Community Colleges.



## Research Questions

The study was designed to provide answers to the following research questions:

### 1. Educational Objectives

- 1.1 What were the primary educational goals of students who entered Montgomery College in Fall 1972?
- 1.2 What proportion of the students achieved their educational goals?
- 1.3 What was the graduation rate among those whose goal was an Associate in Arts degree?
- 1.4 What proportion of the entering class had graduated within seven semesters?
- 1.5 How many of the students were still enrolled at Montgomery College?
- 1.6 What were the reasons for discontinuing attendance at the College?

### 2. Career Development

- 2.1 How many of the respondents were employed full-time where career development was their goal?
- 2.2 How many of the respondents were employed full-or part-time regardless of their stated goal?
- 2.3 What proportion of those employed full-time held jobs in their field of training?
- 2.4 Where were the full-time career respondents employed?
- 2.5 Among career students employed full-time in their field of training what was the average initial salary of those who had obtained their first job after leaving the College?

Of those who held the same full-time job while attending the College; what was the average salary at the time of the survey? Do graduates earn more than nongraduates?

- 2.6 Was there a significant relationship, between salary and job location? Between salary and age?
- 2.7 Did the Montgomery College program increase theoretical understanding? Increase job skills? Help to get a job? Help to get a promotion or salary increase?

### 3. Transfer to a College or University

- 3.1 What proportion of the students transferred when transfer was their goal?
- 3.2 What proportion of all the students transferred?
- 3.3 To what colleges and universities did the respondents transfer?
- 3.4 What proportion of the transferring students selected majors that were related to their curriculum at Montgomery College?
- 3.5 How many credits did respondents lose in the transfer process?
- 3.6 What was the grade-point average of the students at their transfer institutions?
- 3.7 How satisfied were the transferring students with their academic preparation at Montgomery College?

### 4. Student Satisfaction

- 4.1 What proportion of the respondents were satisfied with the quality of instruction at Montgomery? With the quality of student support services? (counseling, student activities, registration, etc.)
- 4.2 What proportion of the respondents would recommend their program of study to a friend?

4.3 What proportion of the respondents would recommend the College to a friend?

#### Definitions of Terms Used in the Study

The following definitions were used in this study:

Educational goal: the original, primary aim for attending the community college, as reported by the student in the follow-up questionnaire.

Career development: growth in the capacity for satisfying and successful employment among persons seeking new jobs and persons currently employed.

Special student: a student who is not formally matriculated in a specific program of study.

Program: a series of courses leading to a certificate or associate degree and the basis for reporting student data at the State level.

Level I monitoring of career programs: a quantitative program evaluation system that compares program projections with results on criteria such as enrollment, completions, employment in field of training, etc. The Level I procedure is a trigger device to signal the need for qualitative local program evaluation, Level II (A System for the Evaluation of Career Programs in the Community College of Maryland, 1974).

## Limitations of the Study

The study was goal-oriented and did not assess the outcomes of the college beyond the initial aims of the student. For example, a student may not have achieved the goal of transfer but may have developed a satisfying career in photography through a course taken as an elective. Such a student may consider college as a successful experience but the study would not record the student as a "success."

The study did not assess the factors which helped or hindered student success, a crucial element if the results are to be used by colleges to improve their service to students. The questionnaire also failed to ask if unemployed persons were seeking work.

Educational goals upon entrance to college were reported by students three and one-half years later. Some students may have forgotten their initial educational goals and some may have unconsciously altered their original goals.

The study made no attempt to compare college outcomes with the outcomes of other educational experiences in society. For example, students in the study reported the extent to which their community college helped them develop job skills, while, perhaps industrial and military training programs may also provide skill development similar to the community colleges.

## 2. THE METHODOLOGY

### Study Population

The study population comprised all first-time students at Montgomery College during Fall 1972. The population of 3,975 students included transfer, career, and special students, part-time and full-time students, as well as high school graduates and nongraduates.

### Data Collection

The questionnaire was developed by the Maryland Community College Research Group and sought data in five areas: demographic information, goals upon entry to the community college, employment, transfer, and satisfaction with selected aspects of the community college (Appendix). The questionnaire used in the 1971 study is also included in the Appendix. The questionnaire was shortened considerably in the 1972 study in an attempt to increase the response rate.

The following demographic information came directly from College records: program at exit from the College, credit hours earned, highest degree earned, overall grade-point average, current enrollment status, sex, and year of birth.

### Procedure

The State Board for Community Colleges contracted for commercial printing of the questionnaires which were distributed to the colleges for mailing. Montgomery College used student records to develop a master list of the study population. The master list was used to keep track of the respondents, non-respondents, and packets returned as undeliverable by the Postal Service. The first packets were mailed in March 1976 and consisted of a cover letter from the Dean of Institutional Research and Analysis, the questionnaire, and a preaddressed, prepaid return envelope.

At three-week intervals, second and third mailings were made to all non-respondents. As completed questionnaires were received by the College, demographic data were added to each questionnaire.

#### Return Rate

Of the 4,055 persons in the population, 90 were deceased or had unknown addresses; additionally, questionnaires of 893 were returned by the Postal Service as undeliverable leaving a net population of 3,072. From this group, 1,845 usable questionnaires were received for a response rate of 60 percent. In terms of the total population, the response rate was 46 percent which was higher than the rate achieved in the 1971 study (41%). The improved rate may be a result of the shortened questionnaire as well as the use of more accurate student address files. The statewide response rate for the 1972 study was 7,648 of 19,634 or 39 percent, a considerably lower response rate than that attained at Montgomery College.

#### Non-respondent Bias

Given the response rate obtained in the study, it was necessary to test for non-respondent bias in order to see if the results given by the respondents were different than those that might have been given by non-respondents. A sequential sampling technique was used to determine if such a bias could be inferred (Wilks, 1962). Briefly, the sequential sampling technique involved selecting non-respondents at random and interviewing them by telephone on selected items from the questionnaire. With one exception, all items were "yes/no" questions, and charts were maintained of the cumulative percent "yes" to each question. Non-respondents were selected and interviewed until the graph of cumulative percent "yes" clearly leveled off. Then a line was drawn on the chart representing the

percent "yes" reported by the respondents. A 10 percent tolerance limit was arbitrarily accepted as an estimate of similarity between respondents and non-respondents. Respondents were compared with non-respondents concerning initial purpose for entering the College (Table I). No difference was found between the two groups on a chi-square test. Non-respondents were found, however, to recommend their program more highly and to be less likely to have transferred. No other differences were found in the non-respondent survey.

In a further attempt to explore non-respondent bias, tests were conducted to compare respondents and non-respondents on demographic characteristics. The College records of the 2,130 (54 percent of the study population) Montgomery College non-respondents were compared with those of 1,845 respondents on the following variables: program type, credits earned, cumulative G.P.A., current enrollment, and sex. Respondents were found to differ from non-respondents on all dimensions except age. Respondents tended to be the more academically successful students, gathering more credit hours, earning a higher grade point average, and more inclined to graduate.

In summary, it appears that students who transfer and/or achieve well in college are more likely to return survey questionnaires than any other students. However, responses to specific items on the questionnaire appear to vary little between the respondents and non-respondents. Thus, generalizations are possible in terms of the entire population regarding the attitudinal sections of the survey, but the fact that the more academically successful student is over-represented must be kept in mind.

TABLE I.

DIFFERENCES IN THE PRIMARY PURPOSE FOR ATTENDING MONTGOMERY COLLEGE  
 NON-RESPONDENT TELEPHONE SURVEY AND RETURNED QUESTIONNAIRES  
 FIRST TIME ENTRANTS - FALL 1972

PURPOSE	SURVEY	
	NONRESPONDENT	RETURNED QUESTIONNAIRES
		RESPONDENTS
Obtain AA, plans to transfer	36%	34%
Obtain AA, plans for immediate employment	20%	13%
Obtain certificate to upgrade or improve skills	2%	6%
Obtain training in a special program	10%	7%
Take college-level courses before transferring	22%	26%
Take one or several courses of special interest	10%	14%
TOTAL	100%	100%

$$\chi^2 = 4.052, .15 > p > .10$$



### 3. THE FINDINGS

#### Demographic and Academic Characteristics

Table II-A displays, for purposes of comparison, general demographic and academic characteristics of the survey respondents from the entire State, the State less those from Montgomery College, and Montgomery College itself. There are several interesting differences between Montgomery College and the rest of the State. Observe for example, that Montgomery College has a disproportionately high proportion of the special students in the statewide sample, and that the local students had earned more credits and were younger than those in the statewide sample. Also, the Montgomery College sample contains fewer part-time and black students than that from the rest of the State.

TABLE II-A  
DEMOGRAPHIC AND ACADEMIC CHARACTERISTICS  
OF THE STATE AND LOCAL RESPONDENTS

CHARACTERISTIC	STATEWIDE 1972		STATEWIDE LESS MONTGOMERY COLLEGE 1972		MONTGOMERY COLLEGE 1972	
	AVERAGE	PERCENT	AVERAGE	PERCENT	AVERAGE	PERCENT
Program Type at Exit						
Transfer		68%		69%		67%
Career		34%		37%		25%
Special		10%		14%		28%
Mean Credits Earned	33.2		32.5		35.7	
Highest Degree Earned						
Associate		21%		21%		17%
Certificate		1%		1%		1%
None		98%		76%		82%
Cumulative Grade Point Average	2.5		2.5		2.5	
Mean Age in 1971/1972	24.0		24.7		22.0	
Sex						
Male		57%		57%		66%
Female		53%		53%		54%
Race						
Black		10%		13%		2%
White		88%		86%		92%
Other		2%		1%		6%
Primary Attendance Status						
Part-time		54%		46%		36%
Full-time		56%		54%		64%
N = 2658                                  N = 2801                                  N = 1865						

TABLE II-B

DEMOGRAPHIC AND ACADEMIC CHARACTERISTICS  
OF NEW ENTRANTS AT MONTGOMERY COLLEGE 1970 THROUGH 1972

CHARACTERISTIC	1970 ENTRANTS	1971 ENTRANTS	1972 ENTRANTS
	PERCENT	PERCENT	PERCENT
Program Type at Exit*			
Transfer		51%	47%
Career		24%	25%
Special		25%	28%
Mean Credits Earned**		34.5	35.7
Highest Degree Earned			
Associate	20%	16%	17%
Certificate	1%	1%	1%
None	79%	83%	82%
Cumulative Grade Point Average		2.5	2.5
Mean Age**		21.7	22.0
Sex			
Male	48%	52%	46%
Female	52%	48%	54%
Race			
Black	1%	1%	2%
White	92%	94%	92%
Other	5%	1%	6%
Primary Attendance Status			
Part-time	32%	34%	36%
Full-time	68%	66%	64%

\*In the 1970 report, special students were combined with transfer students.

\*\*Not available in 1970 report.

Table II-B contains comparative figures from the 1970, 1971 and 1972 surveys. Very little change is evident in these data, which supports the contention that the respondent sample has been relatively constant across the three years that the study has been conducted.

A closer look at the distribution of credit hours in the respondent samples through time is contained in Table III. There are not many trends apparent in this table either, except that the proportion of students with large numbers of credit hours appears to be decreasing while those with low numbers are increasing. The median range of credit hours, however, has been 31-45 all three years. Table IV presents a similar comparison for age ranges of respondents, and there are no clear trends apparent in these data either.

TABLE III  
CREDIT HOURS EARNED BY THREE CLASSES OF NEW ENTRANTS  
IN FOUR YEARS AT MONTGOMERY COLLEGE  
1970 THROUGH 1972\*

CREDIT HOURS EARNED	ENTERING CLASS OF	ENTERING CLASS OF	ENTERING CLASS OF
	1970	1971	1972
	PERCENT	PERCENT	PERCENT
0	1%	4%	6%
1-3	5%	7%	7%
4-6	6%	7%	7%
7-11	8%	8%	8%
12-15	6%	6%	6%
16-30	16%	18%	16%
31-45	16%	13%	11%
46-59	13%	14%	15%
60-75	27%	21%	22%
76-90	1%	1%	2%
90(+)	1%	1%	0%
	N=1084	N=1516	N=1845

\*Includes only those students responding to survey

TABLE IV  
AGES OF FIRST TIME ENTRANTS  
1970 THROUGH 1972\*

AGE RANGE IN YEARS	1970	1971	1972
	PERCENT	PERCENT	PERCENT
16-22	79%	82%	76%
23-27	7%	6%	7%
28-32	4%	3%	5%
33-37	3%	2%	4%
38-42	3%	3%	3%
43-60	4%	4%	5%
61 and over	0%	0%	0%
Unreported			

\*Includes only those students responding to survey.

## Educational Goals

### 1.1 What were the primary educational goals of students who entered

#### Montgomery College in Fall 1972?

There were several differences in educational goals upon entry to the college between Montgomery respondents and those from the rest of the state. (Table V-A). The Montgomery students tended to be less interested in earning A.A. degrees or certificates and more interested in transferring without degrees. Less than half of the Montgomery respondents gave an A.A. degree as their primary goal upon entry to the college.

When the goal statements are depicted over time as in Table V-B, it appears that interest in achievement of a degree or certificate was increasing among survey respondents during the three years that the study was conducted. However, the change in proportions is not great. It remains the case, as was pointed out above, that only about 50 percent of those responding expressed an initial goal involving a degree or certificate.

Men were more inclined to list transfer as a goal, women were more inclined toward career goals, and blacks tended to be more interested than whites in earning A.A. degrees.

Analysis of educational goals and program types indicates that the program type is not always a good indication of original purpose for attending Montgomery College. For example, 17 percent of those who eventually entered transfer programs did not have transfer as their initial goal, and 45 percent of those in career programs gave transfer as their primary educational goal. The original goals of special students were well distributed among transfer, career, and courses of interest.

TABLE V-A

EDUCATIONAL GOALS OF STUDENTS  
WHO ENTERED MARYLAND COMMUNITY COLLEGES  
AND MONTGOMERY COLLEGE IN THE FALL OF 1972

EDUCATIONAL GOAL	STATEWIDE PERCENT	STATEWIDE LESS MONTGOMERY COLLEGE PERCENT	MONTGOMERY COLLEGE PERCENT
A. A. then Transfer	36%	37%	34%
A. A. then Employment	16%	17%	13%
Certificate to Improve Skills	8%	8%	6%
Training in Special Program	10%	11%	7%
Courses-Transfer	16%	13%	26%
Courses of Interest	14%	14%	14%
	N=7648	N=5803	N=1845

TABLE V-B

EDUCATIONAL GOALS OF ENTERING STUDENTS  
AT MONTGOMERY COLLEGE  
1970 THROUGH 1972

EDUCATIONAL GOAL	ENTERING CLASS OF 1970 PERCENT	ENTERING CLASS OF 1971 PERCENT	ENTERING CLASS OF 1972 PERCENT
A. A. then Transfer	30%	35%	34%
A. A. then Employment	14%	12%	13%
Certificate to Improve Skills	8%	7%	6%
Training in Special Program	10%	8%	7%
Courses-Transfer	33%	25%	26%
Courses of Interest	12%	13%	14%
	N=1062	N=1516	N=1845

1.2 What proportion of the students achieved their educational goals?

More than 60 percent of the Montgomery College students felt that they had achieved their stated goals, a proportion which compares favorably with that from the rest of the State (Table VI). This proportion of successful students is 12 points higher than that for the 1971 sample (49%) and corresponds to the 1970 rate of 60 percent.

Educational goal achievement was analyzed by sex and race. While there were no differences in goal achievement between the sexes either statewide or at Montgomery College, statewide black students tended to achieve their goals less often than white or other groups. While this difference exists at Montgomery College, it could be due to a sampling error.<sup>2</sup> (Table VI).

There were differences in the rate of reported goal achievement by the students' educational goals. (Table VII). Students with transfer and special interest goals were more likely to succeed than the vocationally oriented students.

1.3 What was the graduation rate among those whose goal was an Associate in Arts degree?

Forty-two percent of the respondents with an A.A. goal had received the degree within three and one-half years from the time of entry at Montgomery College, as compared to forty-five percent statewide. Not included in this analysis were students who changed their goals or students who were currently enrolled. Thirty-five percent of the degree seekers achieved their goals in the 1971 study.

Achievement of the Associate in Arts degree was analyzed by sex, race, and program types, and significant differences were found only among the

<sup>2</sup>Note that the  $\chi^2$  statistic is sensitive to sample size (since  $\chi^2 = \frac{(o-e)^2}{e}$ ), and the statewide sample is considerably larger than the Montgomery sample.

TABLE VI

EDUCATIONAL GOAL ACHIEVEMENT OF STUDENTS WHO ENTERED  
MONTGOMERY COLLEGE IN 1972

GROUP	STATEWIDE	STATEWIDE LESS MONTGOMERY COLLEGE	MONTGOMERY COLLEGE
	PERCENT	PERCENT	PERCENT
Total	60%	58%	61%
Sex			
Male	58%	57%	61%
Female	60%	59%	61%
Race			
Black	44%*	44%*	47%
White	60%*	60%*	61%
Other	62%*	57%*	67%
	N=7648	N=5803	N=1845

\*Differences significant at  $p < .05$

TABLE VII

GOAL ACHIEVEMENT BY PRIMARY PURPOSE FOR ATTENDING  
MONTGOMERY COLLEGE

INITIAL PURPOSE FOR ATTENDING M.C.	GOAL ACHIEVEMENT	
	YES PERCENT	NO PERCENT
A.A., then Transfer	53%	47%
A.A., then Employment	45%	55%
Certificate to Improve Skills	33%	67%
Training in Special Program	59%	41%
Courses-Transfer	85%	15%
Courses of Interest	56%	44%
	N=809	N=503

program types. (Table VIII). This is the converse of the situation found at the state level where the differences were significant by race and sex but not program type.<sup>2</sup>

#### 1.4 What proportion of the respondents graduated?

By the time of the survey, 16 percent (303) of the responding students had received associate degrees and 2 percent (22) certificates, somewhat less than the statewide total for degrees and certificates of 21 percent. The corresponding figure for the 1971 Montgomery College sample was 16 percent. As was mentioned above, there was a non-respondent bias and an over-sample of graduates, thus the actual number of graduates among all the 1972 first-time students at the time of the survey was just over 11 percent.

Why does such a small proportion of entering students graduate? Reference is made here to the goals of the entering students. Recall that only 47 percent (831) of the sample had an A.A. degree as their initial goal and only 6 percent (111) were pursuing a certificate--a total of 53 percent (942). Of the 831 who originally wanted A.A. degrees, 257 changed their minds while attending the College, leaving a total of 574 who did not change their minds. Of these 574, 242 or 42 percent ultimately graduated. The success rate was, therefore, more than twice as great as it may have seemed on the surface. (Figure I).

There are likely to be several reasons why so many Montgomery College students do not enter the College with the intention of graduating. The point is made in the statewide follow-up report (Tschechtelin, 1976:16) that: "Attending college to develop certain knowledge and skills apart from a degree can be viewed as a legitimate educational pursuit, and its success can be evaluated."



TABLE VIII

DEGREE ACHIEVEMENT AMONG RESPONDENTS  
WHOSE GOAL WAS AN A.A. DEGREE

GROUP	STATEWIDE	STATEWIDE LESS MONTGOMERY COLLEGE	MONTGOMERY COLLEGE
	PERCENT	PERCENT	PERCENT
Total	45%	46%	42%
Sex			
Male	41%*	42%	38%
Female	49%*	49%	46%
Race			
Black	32%*	32%*	25%
White	47%*	48%*	42%
Other	38%*	26%*	47%
Program Type			
Transfer	45%	46%*	42%*
Career	48%	47%*	52%*
Special	22%	20%*	2%*

N=1270

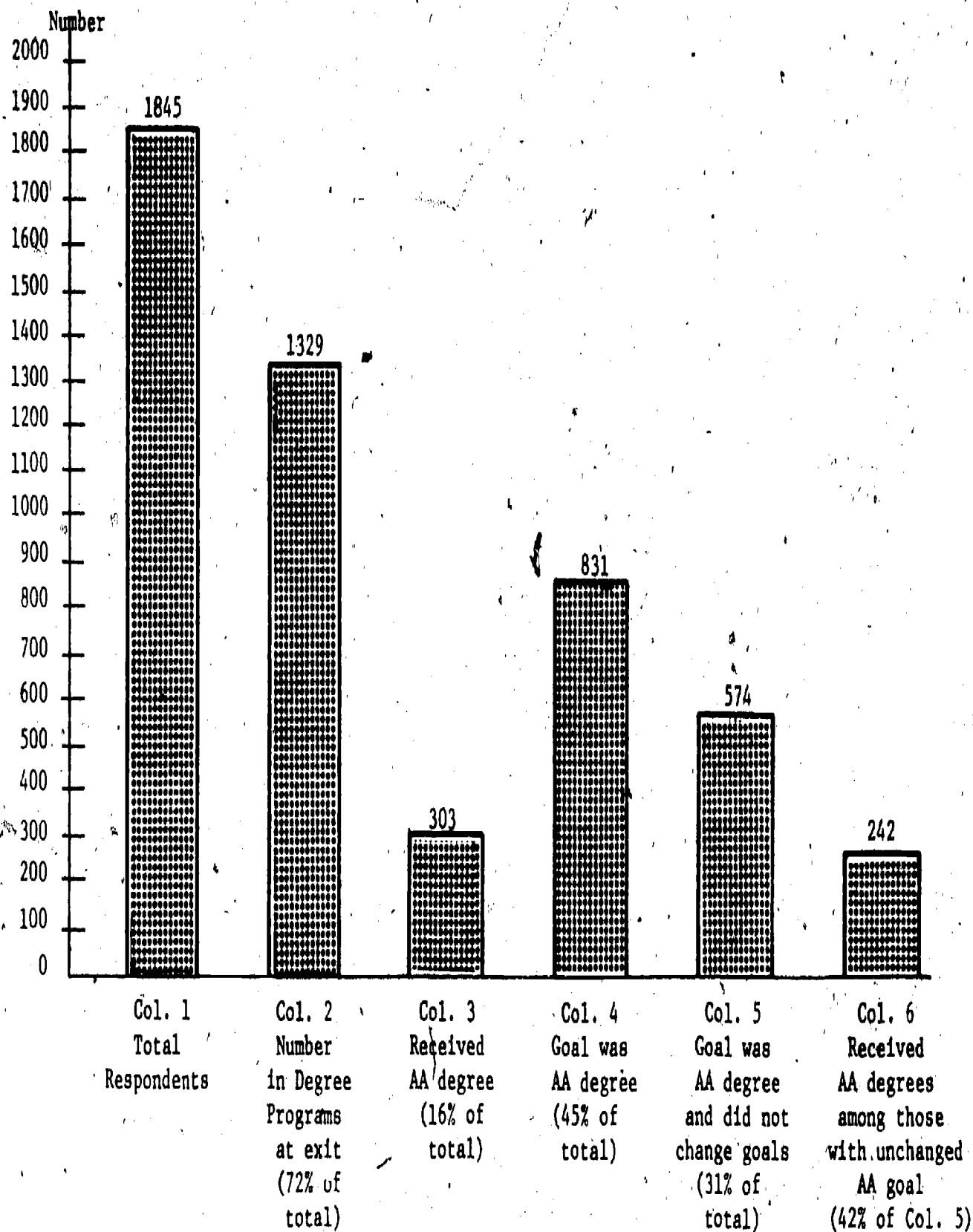
N=1028

N=242

\*Differences significant at  $p < .05$

FIGURE I

DEGREE ASPIRATIONS AND ACHIEVEMENT AMONG RESPONDENTS



19

1.5 How many of the respondents were still enrolled?

Fifteen percent (285) of the respondents were still enrolled at Montgomery College in the spring semester of 1976, as compared with 14 percent statewide.<sup>3</sup> The comparable figure for the 1971 study (16%) was almost identical to the 1972 figure. Among the 1972 sample, career and special students were significantly more likely to be enrolled in Spring 1976 than transfer students.

1.6 What were the reasons for discontinuing attendance at Montgomery College?

The 1972 first-time students were asked to indicate their primary, secondary and tertiary reasons for discontinuing attendance at Montgomery College. In Table IX these reasons are ranked in descending order of importance as primary reasons. The rightmost columns of Table IX contain the total numbers of times each reason was checked as well as the percentage that each of these totals represent of the grand total (N=1243). Note that "dissatisfaction with the College" (an item which was not included in last year's survey instrument) ranks fourth among primary reasons (105) and sixth overall. "Employment" easily ranks first as a primary reason and first overall. These results are in general agreement with the results of the statewide study.

In the 1971 study, "transferred to another school" was the most frequently chosen reason for leaving Montgomery College. However, it is important to point out that these 1971 data are not comparable to the 1972 study since "dissatisfaction with the College" was not an option on the 1971 questionnaire.

---

<sup>3</sup> Again there was an oversample of the students who were still enrolled. The actual number was 410 or 10 percent of the total class. This does not include 28 students who had graduated and were still enrolled.)

TABLE IX  
 REASONS FOR LEAVING MONTGOMERY COLLEGE  
 1972 FIRST-TIME STUDENTS

REASON	PRIMARY REASON	SECONDARY REASON	TERTIARY REASON	TOTAL NUMBER	TOTAL PERCENT
Employment	139	116	27	282	23%
Lack of Financial Support	126	20	0	146	12%
Change in Educational Goal	112	45	8	165	13%
Dissatisfaction with the College	105	3	0	108	9%
Personal/Marriage	62	90	30	182	14%
Transferred	60	33	5	98	8%
Moved	45	13	2	60	5%
Lack of Interest	38	73	66	177	14%
Military	25	0	0	25	2%
<b>TOTAL RESPONDENTS</b>				<b>1243</b>	<b>100%</b>

## Career Development

### 2.1 How many of the respondents having career development as their goal were employed full-time?

Seventy-nine of the respondents having career development as their unchanged goal were employed full-time at the time of the survey, a figure which compares favorably with that for the statewide sample. (Table X). The analysis excluded students who were still enrolled at the College at the time of the survey. Males were slightly but not statistically significantly more successful than females, while the numbers of minority students are too small to draw a comparison. These figures suggest a slightly greater overall success rate for the 1972 respondents over those from the 1971 study (71% success rate in 1971, 79% success rate in 1972).

### 2.2 How many of the respondents were employed full-time? Part-time?

Sixty-seven percent of all the 1845 respondents to the 1972 survey were employed either part-time or full-time, a proportion identical with that found in the 1971 study and four points lower than the 71 percent found statewide. Among those employed, 41 percent were holding jobs which they had held while attending Montgomery College. The employment patterns of degree recipients were compared with those of non-graduates. Respondents who had received certificates and non-graduates were significantly more likely to be employed and to be employed full-time than recipients of A.A. degrees, results consonant with those from the 1971 Montgomery and the 1972 statewide studies. Graduates tend to continue their education.

Figure II displays graphically the success rate, in finding employment, of various segments of the sample of respondents. Note especially columns 3 and 6 which present the data on employment.

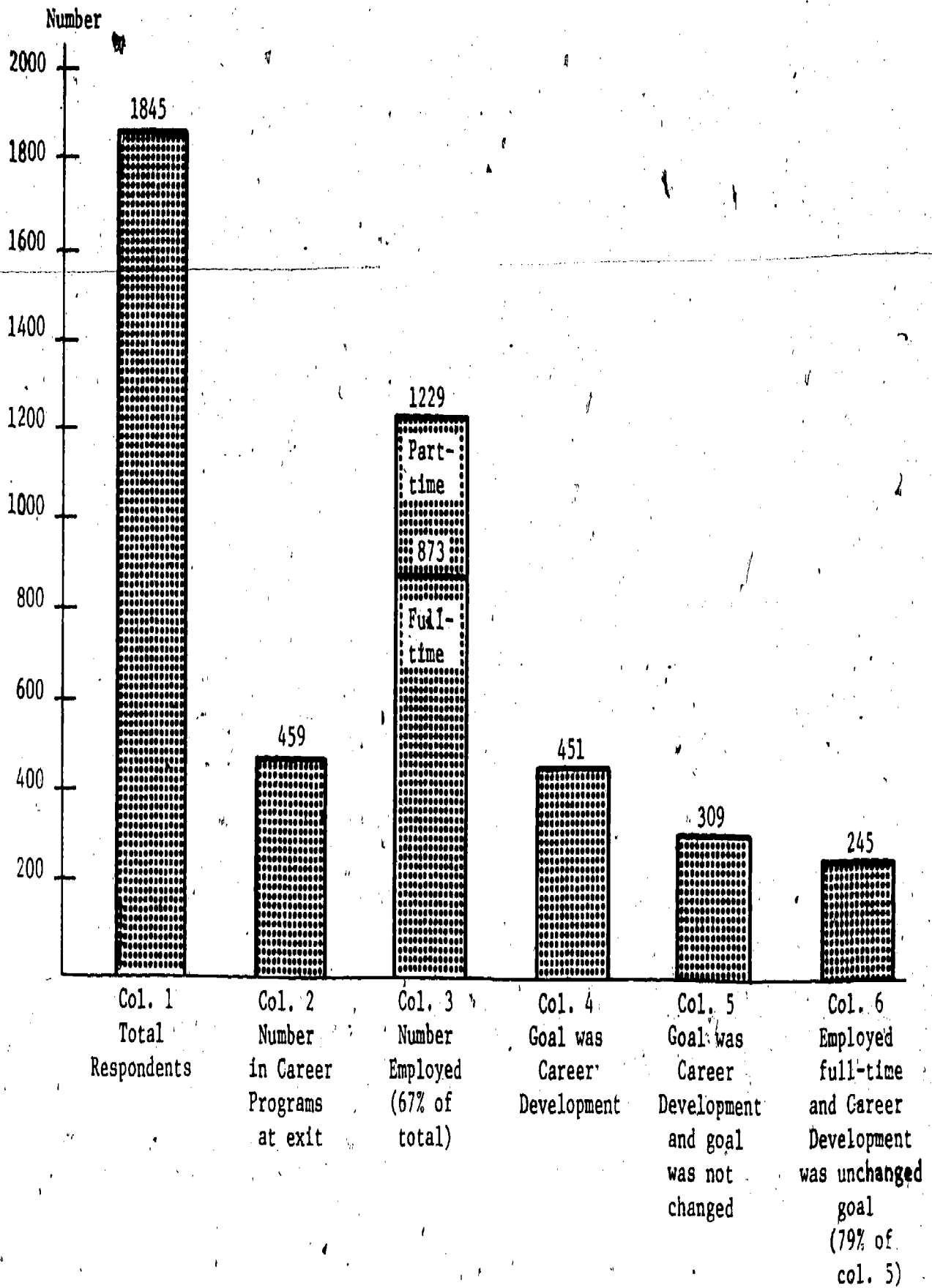
TABLE X

FULL-TIME EMPLOYMENT OF STUDENTS WHOSE UNCHANGED GOAL  
WAS CAREER DEVELOPMENT

GROUP	STATEWIDE	STATEWIDE LESS MONTGOMERY COLLEGE	MONTGOMERY COLLEGE
	PERCENT	PERCENT	PERCENT
Total	74%	73%	79%
Enrolled in career programs only	75%	74%	82%
Sex			
Male	81%	81%	84%
Female	70%	68%	78%
Race			
Black	71%	71%	57%
White	74%	73%	82%
Other	71%	81%	40%
	N=1416	N=1171	N=245

FIGURE II

CAREER DEVELOPMENT ASPIRATIONS AND ACHIEVEMENT AMONG RESPONDENTS .



24

32

2.3 What proportion of the full-time employees held jobs in their fields of training?

Table XI displays information regarding the types of jobs held by full-time employees who had been enrolled in career programs. Montgomery respondents were slightly, but not statistically significantly, more likely to be employed in fields related to their programs than respondents from the other community colleges. These results are very similar to those of the 1971 study.

2.4 Where were the full-time career respondents employed?

Sixty-three percent of the full-time employed career program respondents were employed in Montgomery County, a figure identical with that found in the 1971 study. (Table XII). Eighty-seven percent were employed in the Baltimore-Washington area.

2.5 Among career students employed in their fields of training, what was the average initial salary of respondents who obtained their first full-time jobs after leaving the College?

Of those who held the same full-time jobs while attending the College?

For the same two groups, what was the average current salary?

Table XIII presents data in response to the above research questions. Comparable data were not available from the 1971 study, and while an increase in salary is shown for each category of respondents, the data must be interpreted with caution. The time that has elapsed between the salary upon leaving and the salary in Spring 1976 may be different in each category. For example, a person who received an A.A. degree in two years would have one and one-half years to increase his or her salary, while another person may have taken three years to achieve an A.A. degree and would have worked less than one year; yet this person would be included in the same category as the person who graduated in two years. The average salary of nongraduates appears to



TABLE XI  
RELATIONSHIP OF THE RESPONDENTS' PROGRAMS TO THEIR FULL-TIME EMPLOYMENT

RELATIONSHIP	STATEWIDE	STATEWIDE LESS	MONTGOMERY COLLEGE
	1972 PERCENT	1972 PERCENT	1972 PERCENT
Directly Related	47%	46%	51%
Somewhat Related	26%	26%	22%
Not Related	27%	28%	27%
	N = 1710	N = 1448	N = 262

$\chi^2_2 = 2.96 \quad .25 > p > .1$

TABLE XII  
GEOGRAPHIC LOCATION OF FULL-TIME CAREER EMPLOYEES THROUGH TIME\*

LOCATION	1971	1972
	PERCENT	PERCENT
Montgomery County	63%	63%
Other Maryland County	8%	10%
Baltimore City	1%	1%
Washington, D.C.	16%	16%
Virginia	2%	5%
Other State	10%	5%

\* Information not available from 1970 study.

TABLE XIII  
MEAN SALARIES OF STUDENTS EMPLOYED FULL-TIME IN THEIR FIELDS OF TRAINING

GROUP	INITIAL SALARY	CURRENT SALARY (Spring 1976)
New Job		
A.A. Graduates	\$7695	\$9441
Nongraduates	6176	8917
Average	6936	9172
Same Job as While Attending		
A.A. Graduates	\$8580	\$10367
Nongraduates	9960	12534
Average	9559	12034

have grown faster than that of A.A. graduates. However, the A.A. graduates have been working for a shorter time, and therefore a direct comparison is not possible. In any event, it is clear that the respondent who entered a new job received a higher initial salary if he or she held an A.A. degree. (Tschechtelin, 1976:23).

2.6 Was there a significant relationship between salary and job location among full-time career respondents? Between salary and age?

There is apparently no relationship between either initial or current salary and location of employment, although some of the localities had rather few representatives.

Coefficients of correlation were computed to examine the relationship between age and initial salary and between age and present salary. The coefficients were .36 and .38 respectively. However, since age accounted for only 13-14 percent of the variance in initial and present salaries, it must be assumed that there many factors other than age which accounted for the differences in salaries, such as tenure on the job. (see above).

2.7 Did the Montgomery College career programs increase the students' theoretical understanding of their jobs? Increase their job skills? Help them get jobs? Help them get promotions or salary increases?

The majority of students reported that their experience at the College had increased their theoretical understanding and had increased their job-related skills. Further, slightly over half said their education had helped them to obtain a job. Keep in mind that some students were employed at the time they attended the College. The students did not report that their community college education had been a factor in obtaining salary increases or promotions. This fact is consistent with the statements of employers who say they do not always recognize the associate degree as an important criterion in the employment and promotion of employees. (Table XIV-A-B).

TABLE XIV-A  
 EMPLOYMENT ASSISTANCE PROVIDED BY CAREER PROGRAMS  
 STATEWIDE  
 1972 RESULTS

TYPE OF ASSISTANCE	STATEWIDE LESS MONTGOMERY COLLEGE		MONTGOMERY COLLEGE
	STATEWIDE PERCENT	PERCENT	PERCENT
Increased theoretical understanding	88%	89%	87%
Increased job skills	83%	84%	81%
Helped to Obtain a Job	49%	48%	54%
Helped to obtain salary increases or promotions	41%	42%	39%
	N=2940	N=2480	N=460

TABLE XIV-B  
 EMPLOYMENT ASSISTANCE THROUGH TIME\*

TYPE OF ASSISTANCE	1971	1972
	PERCENT	PERCENT
Increased theoretical understanding	90%	87%
Increased job skills	83%	81%
Helped to obtain job	40%	54%
Helped to obtain salary increases or promotions	51%	39%

\*Data not available for 1970

N=390

N=460

## Transfer

### 3.1 What proportion of the respondents transferred when transfer was their goal?

Seventy-six percent of the Montgomery College respondents had transferred among those whose goal was to transfer. This represents a small increase over the rate found in the 1971 study (69% - Table XV-B) and is 11 percentage points higher than the 65 percent rate found in the rest of the State. (Table XV-A). The rate is somewhat higher when only those enrolled in transfer programs were considered. Statewide there were effects of race upon rate of transfer, but no significant differences by race or sex were found within the Montgomery sample. There were increases in nearly all transfer categories from 1971 to 1972, however, it is important to remember that the latter sample is slightly biased toward those who transferred. (Table XV-B).

### 3.2 What proportion of all the respondents transferred?

Among all respondents, 46 percent took some courses at another institution of higher education, somewhat higher than the 38 percent who reported transferring statewide. Eighty-five percent of these transfer students attended full-time. In this study, transfer refers to any work at another college or university since leaving Montgomery College. It does not necessarily indicate transfer work at the time the questionnaire was administered.

Figure III summarizes the general information concerning student transfers for the 1972 study.

### 3.3 To what colleges and universities did the respondents transfer?

Fifty-nine percent of those who transferred, transferred to Maryland institutions (Table XVI-A), including 43 percent who transferred to the

TABLE XV-A  
TRANSFER AMONG RESPONDENTS WHOSE GOAL WAS TRANSFER  
STATEWIDE  
1972 RESULTS

GROUP	STATEWIDE LESS MONTGOMERY COLLEGE		
	STATEWIDE PERCENT	PERCENT	MONTGOMERY COLLEGE PERCENT
Total	68%	65%	76%
Transfer Programs Only	71%	69%	78%
Sex			
Male	69%	66%	77%
Female	67%	64%	74%
Race			
Black	54%*	53%*	67%
White	69%*	66%*	75%
Other	74%*	53%*	83%
	N=2055	N=1415	N=640

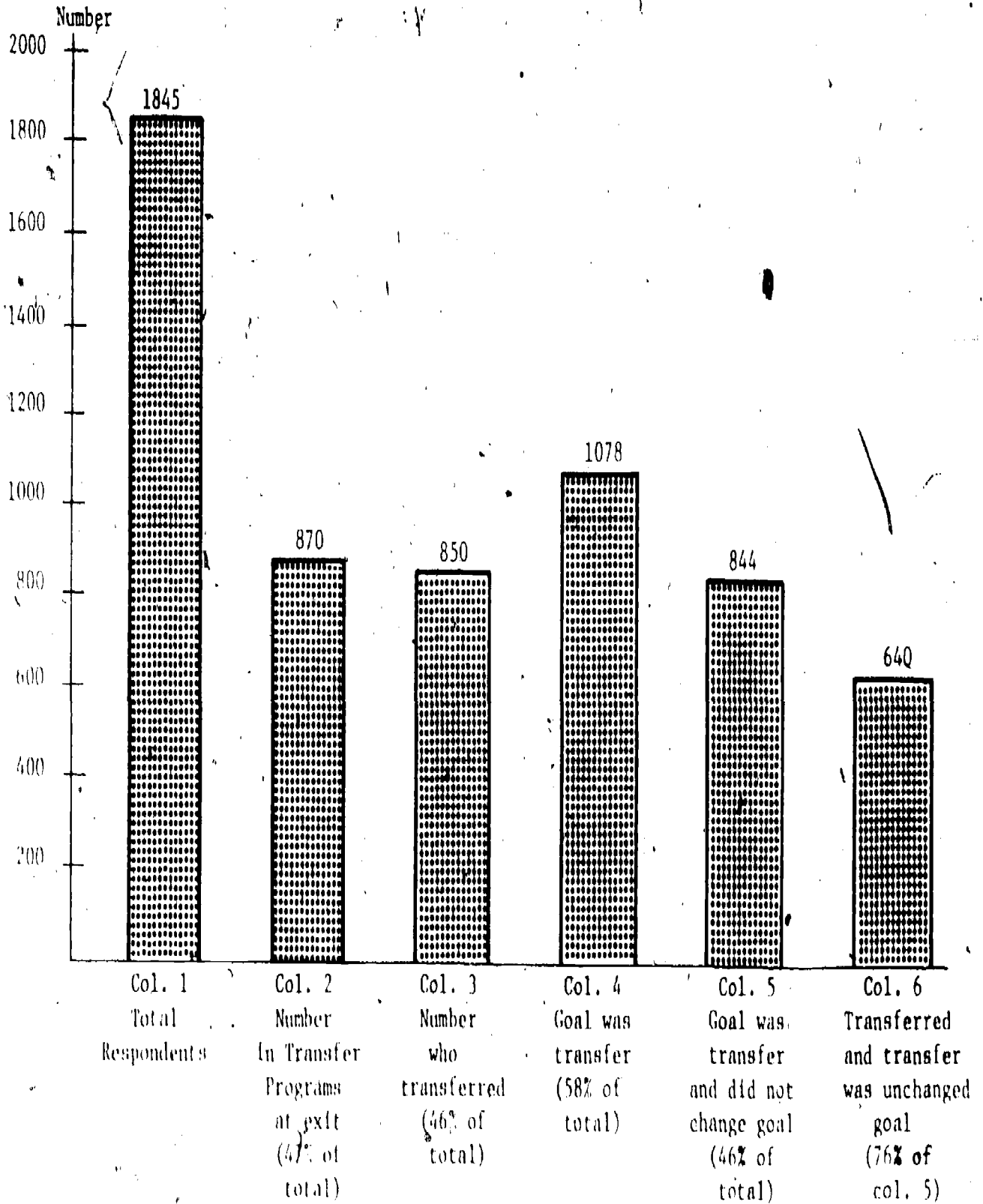
\*Differences significant at  $p < .01$

TABLE XV-B  
TRANSFER AMONG MONTGOMERY RESPONDENTS  
WHOSE GOAL WAS TRANSFER THROUGH TIME

GROUP	1971	1972
	PERCENT	PERCENT
Total	69%	76%
Transfer Programs Only	NA	78%
Sex		
Male	68%	77%
Female	70%	74%
Race		
Black	57%	67%
White	69%	75%
Other	83%	83%
	N=465	N=640

FIGURE III

EDUCATIONAL ASPIRATIONS AND ACHIEVEMENT AMONG RESPONDENTS



31

TABLE XVI-A

TRANSFER INSTITUTIONS OF THE RESPONDENTS  
STATEWIDE  
1972 RESULTS

INSTITUTION	STATEWIDE LESS MONTGOMERY COLLEGE		
	STATEWIDE PERCENT	PERCENT	MONTGOMERY COLLEGE PERCENT
<b>Maryland</b>			
University of Maryland	31%	25%	43%
Public State College	26%	34%	9%
Private Four-Year	8%	9%	3%
Community College	1%	9%	2%
Technical-Commercial	2%	2%	2%
Private Two-Year	-	-	0%
<b>Non-Maryland</b>			
Public Four-Year	13%	11%	19%
Private Four-Year	10%	7%	17%
Public Two-Year	2%	2%	3%
Private Two-Year	-	-	1%
Technical-Commercial	1%	1%	1%
	N=2792	N=1942	N=850

TABLE XVI-B

TRANSFER INSTITUTIONS OF THE MONTGOMERY  
RESPONDENTS THROUGH TIME

INSTITUTION	1971 PERCENT	1972 PERCENT
<b>Maryland</b>		
University of Maryland	42%	53%
Public State College	9%	9%
Private Four-Year	2%	3%
Community College	1%	2%
Technical-Commercial	2%	2%
Private Two-Year	-	0%
<b>Non-Maryland</b>		
Public Four-Year	13%	19%
Private Four-Year	19%	17%
Public Two-Year	5%	3%
Private Two-Year	2%	1%
Technical-Commercial	-	1%
	N=660	N=850

University of Maryland. The distribution of transfers is virtually identical between the 1971 and 1972 samples. (Table XVI-B). Montgomery students are much more likely to go either to the University of Maryland or out-of-state than students from the other community colleges.

3.4 What proportion of the respondents transferred to programs that were related to their Montgomery College programs?

More than 80 percent of the Montgomery College respondents reported that their transfer programs were somewhat or directly related to their community college programs. The distribution of responses from the 1972 Montgomery sample was almost identical to the statewide and 1971 Montgomery distributions. (Tables XVII-A and B).

TABLE XVII-A

RELATIONSHIP OF THE RESPONDENTS' MONTGOMERY COLLEGE PROGRAMS  
TO THEIR TRANSFER PROGRAMS  
STATEWIDE  
1972 RESULTS

RELATIONSHIP	STATEWIDE PERCENT	STATEWIDE LESS MONTGOMERY COLLEGE PERCENT	MONTGOMERY COLLEGE PERCENT
Directly Related	49%	48%	49%
Somewhat Related	35%	36%	34%
Not Related	16%	16%	18%
	N=2792	N=1942	N=850



TABLE XVII-B

RELATIONSHIP OF THE RESPONDENTS' MONTGOMERY COLLEGE PROGRAMS  
TO THEIR TRANSFER PROGRAMS--THROUGH TIME

RELATIONSHIP	1971	1972
	PERCENT	PERCENT
Directly Related	48%	49%
Somewhat Related	37%	33%
Not Related	15%	18%
	N=660	N=850

- 3.5 How many credits did respondents lose in the transfer process?
- 3.6 What were the grade point averages of the respondents at the transfer institutions?
- 3.7 How satisfied were the respondents with their preparation for transfer work?

Tables XVIII-A and B display information in response to the questions above. Compared to students from the rest of the state, Montgomery College transfer students lose a larger number of credit hours. This is related to the fact that Montgomery College students are more likely to attend the University of Maryland. The other two distributions in Table XVIII A are fairly comparable between Montgomery and the other community colleges, although the Montgomery students gave the response "extremely satisfied" somewhat more frequently.

Little change through time is evident in these distributions (Table XVIII-B), although the transferrability of Montgomery College credit hours seems to be increasing.

TABLE XVIII-A  
 SUCCESS OF RESPONDENTS IN TRANSFER INSTITUTIONS  
 STATEWIDE  
 1972 RESULTS

VARIABLE	STATEWIDE LESS MONTGOMERY COLLEGE		
	STATEWIDE PERCENT	MONTGOMERY COLLEGE PERCENT	MONTGOMERY COLLEGE PERCENT
<b>Credit Hours Lost in Transfer</b>			
None	53%	58%	41%
1-3	20%	17%	29%
4-6	12%	11%	13%
7-12	8%	8%	9%
13-20	4%	3%	5%
21 or more	3%	3%	3%
<b>Grade Point Average</b>			
Below 2.0	3%	3%	3%
2.0-2.4	14%	14%	14%
2.5-2.9	10%	10%	10%
3.0-3.4	35%	35%	34%
Above 3.5	18%	18%	19%
<b>Satisfaction with Preparation</b>			
Unsatisfied	9%	9%	7%
Satisfied	61%	64%	55%
Extremely Satisfied	30%	27%	38%
	N=2792	N=1942	N=850

TABLE XVIII-B  
 SUCCESS OF MONTGOMERY RESPONDENTS IN TRANSFER INSTITUTIONS  
 THROUGH TIME

VARIABLE	1970	1971	1972
	PERCENT	PERCENT	PERCENT
<b>Credit Hours Lost in Transfer</b>			
None	33%	33%	41%
1-3	28%	31%	29%
4-6	16%	16%	13%
7-12	14%	11%	9%
13-20	7%	6%	5%
21 or more	2%	5%	3%
<b>Grade Point Average</b>			
Below 2.0	NA	3%	3%
2.0-2.4	NA	15%	14%
2.5-2.9	NA	14%	10%
3.0-3.4	NA	32%	34%
Above 3.5	NA	16%	19%
<b>Satisfaction with Preparation</b>			
Unsatisfied	NA	7%	7%
Satisfied	NA	55%	55%
Extremely Satisfied	NA	38%	38%
		N=660	N=850

## Student Satisfaction

### 4.1 What proportion of the respondents were satisfied with the quality of instruction? With the quality of student support services?

More than 80 percent of the Montgomery College respondents expressed satisfaction with the quality of instruction at the College, while 60 percent expressed satisfaction with student support services. (Table XIX). The distributions of responses for Montgomery College are virtually identical with those for the other community colleges.

### 4.2 What proportion of the respondents would recommend their programs of study to their friends?

Seventy-eight percent of the respondents indicated that they would recommend their program of study to a friend (Table XIX), an improvement over the 1971 rate of 74 percent. An examination of non-respondent bias (see above) in the 1972 study suggests that the actual rate of recommendations is somewhat higher.

Recommendation of Montgomery College programs was analyzed by the type of program in which the respondent was enrolled. No significant differences were found, indicating that transfer, career, and special students all recommend their community college programs at the same rate. Since special students tend to take courses in line with their personal needs, it is particularly interesting to find that special students would recommend their educational "program" as often as students in a transfer or career program. It is possible that special students consider themselves to be in programs, regardless of how the college may officially classify them. (Tachechtel, 1976:30; Armstrong, 1977).

TABLE XIX

RESPONDENTS' EVALUATIONS OF MONTGOMERY COLLEGE  
1972 RESULTS

QUESTION	STATEWIDE LESS MONTGOMERY COLLEGE		
	STATEWIDE PERCENT	MONTGOMERY COLLEGE PERCENT	MONTGOMERY COLLEGE PERCENT
Were you satisfied with the quality of instruction?			
Yes	83%	82%	84%
No	7%	7%	8%
Uncertain	10%	11%	8%
Were you satisfied with student support services?			
Yes	63%	64%	60%
No	15%	14%	17%
Uncertain	22%	22%	23%
Would you recommend to a friend your program of study at the community college?			
Yes	79%	79%	78%
No	9%	9%	9%
Uncertain	12%	12%	13%
Would you recommend the College to a friend?			
Yes	87%	87%	87%
No	4%	4%	5%
Uncertain	9%	9%	8%
	N=7648	N=5803	N=1845

4.3 What proportion of the respondents would recommend Montgomery College to their friends?

Eighty-seven percent of the respondents would recommend the College to their friends, also an improvement over the 84 percent registered in the 1971 study.

#### 4. SUMMARY AND RECOMMENDATIONS

The survey of 1972 first-time entrants to Montgomery College attained a good response rate considering the scope of the project -- 46 percent of all first-time students from that year responded. A consistent finding of the statewide follow-up surveys has been that relatively small proportions of community college students plan to earn degrees; for instance, only 53 percent of the 1972 first-time Montgomery students planned to graduate. Of these, 42 percent actually did graduate among those who did not change their plans. There was a high success rate among students who maintained career development as their goal -- 79 percent of these held full-time jobs at the time of the survey. Among the employed career development students, 73 percent held jobs related to their Montgomery College programs. Eighty percent of the career development students felt they had received good job preparation, but only about half felt that their Montgomery College programs had helped them find jobs or get promotions. There was also a high success rate among students who maintained an interest in transferring to four-year institutions, 76 percent of these did so. The University of Maryland was by far the greatest receiver of these students. Eighty-two percent of the transfer students were in programs related to their Montgomery programs. Among all the respondents, 84 percent were satisfied with the quality of instruction, 60 percent were satisfied with student services, 78 percent would recommend their Montgomery programs to friends and 87 percent would recommend the College to friends.

The findings of the study have led the authors to submit the following recommendations:

1. Student educational goals should be routinely recorded at the time of entry to the College and used in the assessment of programs in terms of the degree to which student needs are met.
2. The mission of the College regarding employment placement should be more clearly enunciated in terms of the Federal law under which the College receives vocational educational funds. If career programs are designed to prepare students for specific employment opportunities then whether or not students are placed in these positions is of vital concern to faculty and administrators. The College should, therefore, allocate sufficient resources to:
  - (a) provide effective job counseling and placement.
  - (b) continuously monitor changes in the structure and content of the job market so that current programs can be modified and new programs developed to meet these changes.
  - (c) communicate to employers the skill level represented by the certificate and associate in arts degree and encourage them to include these as criteria in job descriptions.
3. Continue articulation efforts with the University of Maryland at the level where transcripts are actually evaluated, in an effort to further reduce the proportion of students who report that they lose credits when they transfer.

## 5. REFERENCES

Armstrong, David F.

1977, A Study of the Educational Goals of Non-Matriculated Students at Montgomery College, Montgomery College, Office of Institutional Research and Analysis.

Maryland State Board for Community Colleges

1974, A System for the Evaluation of Career Programs in the Community Colleges of Maryland, Annapolis.

Tschechteln, James P.

1976, Maryland Community Colleges Student Follow-Up Study: First-Time Students Fall 1972, Maryland State Board for Community Colleges.

Wilks, S. S.

1962, Mathematical Statistics, New York: Wiley.



A P P E N D I X

# MARYLAND PUBLIC COMMUNITY COLLEGES STUDENT FOLLOW-UP QUESTIONNAIRE

41271

The purpose of this questionnaire is to help your community college and the State Board for Community Colleges assess how well their programs are serving the Maryland public. Please complete it promptly, even if you only took one or two courses, and return it in the envelope provided. All answers will be strictly confidential. Thank you for your assistance.

**PART ONE: Circle the appropriate answers.**

A. Please indicate your year of high school graduation or the year you acquired the high school equivalency diploma.  
\_\_\_\_\_ (year)

B. Please circle the type of program you pursued in high school.

1. College parallel
2. Agriculture
3. Distributive Education
4. Health Occupations
5. Home Economics
6. Business & Office Education
7. Industrial Arts
8. Technical Education
9. Trade & Industrial Occupations

C. Please circle the geographic location of your high school.

1. Same county/city as this community college
2. Other Maryland county
3. Out of Maryland

D. Please circle one of the following groups you consider yourself belonging.

1. American Indian
2. Asian
3. Black
4. Hispanic
5. White

E. Please circle your one primary purpose for first attending this community college

1. To obtain an A. A. degree with plans to transfer
2. To obtain an A. A. degree with plans for immediate employment
3. To obtain a certificate to upgrade or improve skills
4. To obtain training in a special program
5. To take some college level courses before transferring
6. To take one or several courses of special interest

F. Was your primary purpose, indicated in Item E, achieved by the time you left this community college?

1. Yes SKIP TO ITEM I.
2. No GO TO ITEM G.

G. Please circle your intentions toward accomplishing your purpose stated in Item E.

1. No further plans
2. Still pursuing
3. Hope to continue pursuit at a later date

H. What primary reasons(s) made you decide to discontinue attendance at this community college? (If more than one reason applies, circle the two or three most important reasons.)

1. Entered military service
2. Dissatisfaction with this college
3. Lack of financial support
4. Moved to another area
5. Change in educational goal
6. Transferred
7. Employment
8. Personal/marriage
9. Lack of interest

I. Did you attend this community college primarily on a part-time or full-time basis? (Part-time less than 12 credit hours per term; full-time 12 or more credit hours per term)

1. Part-time
2. Full-time

J. Were you satisfied with the quality of instruction?

1. Yes
2. No
3. Uncertain

K. Were you satisfied with the student support services? (counseling, student activities, registration, etc.)

1. Yes
2. No
3. Uncertain

L. Would you recommend to a friend your program of study at this community college?

1. Yes
2. No
3. Uncertain

M. Would you recommend this college to a friend?

1. Yes
2. No
3. Uncertain

NOW GO TO OTHER SIDE.

PART TWO

CURRENTLY EMPLOYED (All students who are now employed should respond to these questions.)

N. Circle the geographic location in which you are presently employed.

- 1. Same county/city as this community college
- 2. Other county in Maryland
- 3. Baltimore City
- (54) 4. Washington, D.C.
- 5. Delaware
- 6. Pennsylvania
- 7. Virginia
- 8. West Virginia
- 9. Other State

O. Circle your current employment status.

- 1. Part-time
- 2. Full-time

P. Did you hold this same job while attending the community college?

- 1. Yes
- 2. No

Q. Please indicate both your initial employment yearly salary upon leaving this community college and your present employment yearly salary.

\$ \_\_\_\_\_ Initial Yearly Salary  
 \$ \_\_\_\_\_ Present Yearly Salary

R. Circle the relationship between your program at this community college and your job.

- (67) 1. Program directly related to job
- 2. Program somewhat related to job
- 3. Program not at all related to job

S. Did your educational program at this community college assist you in:

Increasing your theoretical understanding of skills required for your job?

- 1. Yes
- 2. No
- 3. Not applicable

Increasing your abilities to perform skills required by your job?

- 1. Yes
- 2. No
- 3. Not applicable

Obtaining your job?

- 1. Yes
- 2. No
- 3. Not applicable

Obtaining salary increases and/or promotions?

- 1. Yes
- 2. No
- 3. Not applicable

PART THREE.

TRANSFERRED TO ANOTHER INSTITUTION (Please use the first institution to which you transferred since leaving this community college as your reference in responding to these items.)

T. Immediately after leaving this community college, please indicate the type of institution to which you transferred.

- 1. Another Maryland public community college
- 2. A public State college in Maryland
- 3. The University of Maryland
- 4. Maryland private four-year college or university
- 5. A private two-year Maryland college
- 6. Maryland technical or commercial school
- 7. Out-of-state four-year public college or university
- 8. Out-of-state four-year private college or university
- 9. Out-of-state two-year public college
- 10. Out-of-state two-year private college
- 11. Out-of-state technical or commercial school

U. When you enrolled in the institution indicated in T. above, what was your enrollment status?

- (74) 1. Part-time
- 2. Full-time

V. Circle your overall grade point average at the institution in T. above based on a 4-point scale.

- 1. Less than 2.0
- 2. 2.0 - 2.4
- 3. 2.5 - 2.9
- 4. 3.0 - 3.4
- 5. 3.5 and over

W. To what extent was your curriculum program at this community college related to your major at the institution indicated in T. above?

- 1. Directly related
- 2. Somewhat related
- 3. Not related

X. Please circle the degree of satisfaction to which you feel this community college prepared you for additional academic work?

- 1. Extremely satisfied
- 2. Satisfied
- 3. Unsatisfied

Y. How many credit hours earned at this community college were not accepted at the institution indicated in T. above?

- 1. All credit hours accepted
- 2. Lost 1-3 credit hours
- 3. Lost 4-6 credit hours
- 4. Lost 7-12 credit hours
- 5. Lost 13-20 credit hours
- 6. Lost more than 21 credit hours

THANK YOU FOR YOUR ASSISTANCE

(1971 VERSION)  
**MARYLAND PUBLIC COMMUNITY COLLEGES  
STUDENT FOLLOW-UP STUDY  
QUESTIONNAIRE**

Maryland's Public Community Colleges  
Maryland State Board for Community Colleges

**Nº 39856**

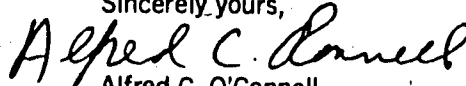
Dear Student:

Originally the purpose of Community Colleges in Maryland, as in other states, was to provide the first two years of a baccalaureate program. Over the years, however, they have become more comprehensive in the scope of their curricular offerings. Therefore, in order that we may assess how well these programs are serving the Maryland public, we ask you to complete this questionnaire.

For your convenience a preaddressed and stamped return envelope is enclosed.

Thank you for your assistance and cooperation.

Sincerely yours,



Alfred C. O'Connell  
Executive Director  
Maryland State Board for Community Colleges

**PART I. GENERAL INFORMATION**

A. Indicate to which one of the following groups you consider yourself belonging.

- |             |                              |
|-------------|------------------------------|
| 1. White    | 4. Spanish Surnamed American |
| 2. Black    | 5. American Indian           |
| 3. Oriental | 6. Other (specify) _____     |

B. Please indicate your year of high school graduation \_\_\_\_\_ (year) or the year you acquired the high school equivalency diploma \_\_\_\_\_ (year of GED).

C. Please indicate the type of program you pursued in high school.

- |                           |                                |                                   |
|---------------------------|--------------------------------|-----------------------------------|
| 1. College parallel       | 4. Health Occupations          | 7. Industrial Arts                |
| 2. Agriculture            | 5. Home Economics              | 8. Technical Education            |
| 3. Distributive Education | 6. Business & Office Education | 9. Trade & Industrial Occupations |

D. Please indicate the geographic location of your high school.

1. Same county/city as this community college
2. Other Maryland county
3. An out-of-state county

**PART II. EDUCATIONAL GOALS UPON ENTRY TO THIS COMMUNITY COLLEGE (All students please respond to these items.)**

E. Please circle your one primary purpose for first attending this community college.

1. To obtain an A.A. degree with plans to transfer
2. To obtain an A.A. degree with plans for immediate employment
3. To obtain a certificate or diploma to upgrade or improve skills
4. To obtain training in a special program
5. To take some college level courses before transferring
6. To take one or several courses of special interest

F. Was your primary purpose, indicated above, achieved by the time you left this community college?

1. Yes 2. No (If you respond No, please answer G and H otherwise proceed to I.)

G. Please indicate your intentions toward accomplishing your purpose stated in (E) above.

1. No further plans
2. Still pursuing
3. Hope to continue pursuit at a later date

H. What primary reason(s) made you decide to discontinue attendance at this community college? (If more than one reason applies circle the two or three most important reasons.)

- |                     |                                       |
|---------------------|---------------------------------------|
| 1. Transferred      | 6. Entered military service           |
| 2. Employment       | 7. Lack of financial support          |
| 3. Personal         | 8. Moved to another area              |
| 4. Marriage         | 9. Change in educational goal         |
| 5. Lack of Interest | 10. Dissatisfaction with this college |

I. Did you attend this community college primarily on a part-time or full-time basis (Part-time — less than 12 credit hours per term; full-time — 12 or more credit hours per term.)

1. Part-time 2. Full-time

J. The following items describe aspects and services of this community college. In the appropriate space to the right of each statement would you please check the degree to which you were satisfied?

	No Experience With Item					
	1	2	3	4	5	6
Overall quality of instruction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Faculty availability after class	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Faculty interest in students	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Freshman orientation program	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Availability of cultural programs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Assistance finding employment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Counseling for course selection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Counseling for personal problem(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Overall college facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Facilities in my college program	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Student-faculty relationships	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Student relationships	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Student influence in college decisions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Variety of student extracurricular activities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Variety of student organizations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Academic atmosphere	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Overall college atmosphere	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

K. Would you recommend to a friend your program of study at this community college?

1. Yes 2. No 3. Uncertain

L. Would you recommend this college to a friend?

1. Yes 2. No 3. Uncertain

**PART III.**

**CURRENTLY EMPLOYED FORMER STUDENTS (All students who are now employed, even if you transferred to another institution, should respond to these questions.)**

M. Indicate the geographic location in which you are presently employed.

- |   |                               |
|---|-------------------------------|
| 1. The same county/city as this community college | 5. Delaware                   |
| 2. Other county in Maryland                       | 6. Pennsylvania               |
| 3. Baltimore City                                 | 7. Virginia                   |
| 4. Washington, D.C.                               | 8. West Virginia              |
|   | 9. Other out-of-town location |

N. What is your current employment status?

1. Part-time 2. Full-time

O. Have you changed jobs between the time you left this community college and March, 1975?

1. Yes 2. No

P. How long have you been employed in your present job?

1. Less than 1 year      4. 6-10 years  
2. 1-2 years              5. 11 years or more  
3. 3-5 years

Q. Please indicate both your initial employment yearly salary upon leaving this community college and your present employment yearly salary.

Initial Salary: \$ \_\_\_\_\_

Present Salary: \$ \_\_\_\_\_

R. How did you locate your first job after leaving this community college?

1. Faculty at this college
2. This community college's placement office
3. Employment agency
4. Family or friend
5. Newspaper
6. Held same job while attending this college
7. Other

S. Indicate the most accurate relationship between your program at this community college and your job.

1. Program directly related to job
2. Program somewhat related to job
3. Program not at all related to job

Please rate your satisfaction with your present job.

	Highly Dissatisfied			Highly Satisfied	
	1	2	3	4	5
Salary	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Opportunities for salary increases	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Opportunities for advancement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Job enjoyment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fringe benefits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Job importance to you	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Communication with superiors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

T. Did your educational program at this community college assist you in:

	Yes	No	Not Applicable
	1	2	3
Increasing your theoretical understanding of skills required for your job	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Increasing your abilities to perform skills required by your job	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Obtaining your job	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Obtaining salary increases and/or promotions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

U. Would you please list the following information about your current employment.

1. Job title \_\_\_\_\_

2. Name and address of employer (Voluntary) \_\_\_\_\_

3. Can employer be contacted?

- YES     NO

PART IV.

FOR FORMER STUDENTS WHO HAVE SINCE TRANSFERRED TO ANOTHER EDUCATIONAL INSTITUTION (Please use the first institution to which you transferred since leaving this community college as your reference in responding to these items.)

V. Immediately after leaving this community college, please indicate the type of institution to which you transferred.

1. Another Maryland public community college
2. A public State college in Maryland
3. The University of Maryland
4. Maryland private four-year college or university
5. A private two-year Maryland college
6. Maryland technical or commercial school
7. Out-of-state four-year public college or university
8. Out-of-state four-year private college or university
9. Out-of-state two-year public college
10. Out-of-state two-year private college
11. Out-of-state technical or commercial school

W. When you enrolled in the institution indicated in (V) above, circle your present enrollment status.

1. Part-time
2. Full-time

X. Please indicate your enrollment classification when you enrolled in the institution indicated in (V) above.

1. Freshman                      4. Senior
2. Sophomore                  5. Graduate student
3. Junior

Y. Check your overall grade point average at the institution in (V) above based on a 4-point scale.

- (1.) less than 2.0      (4.) 3.0 - 3.4  
(2.) 2.0 - 2.4      (5.) 3.5 and over  
(3.) 2.5 - 2.9

Z. To what extent was your curriculum program at this community college related to your major at the institution indicated in (V) above?

1. Directly related
2. Somewhat related
3. Not related

AA. Please check the degree of satisfaction to which you feel this community college prepared you for additional academic work?

1. Extremely satisfactorily
2. Satisfactorily
3. Unsatisfactorily

BB. How many credit hours earned at this community college were not accepted at the institution indicated in (V) above?

1. All credit hours accepted
2. Lost 1-3 credit hours
3. Lost 4-6 credit hours
4. Lost 7-12 credit hours
5. Lost 13-20 credit hours
6. Lost more than 21 credit hours

THANK YOU FOR YOUR CONTINUED INTEREST IN MARYLAND'S COMMUNITY COLLEGES.

PARTIAL LIST OF  
INSTITUTIONAL RESEARCH REPORTS

Office of Institutional Research and Analysis

Career Patterns 1972-1973: A Descriptive Analysis of Career Programs at Montgomery Community College, Joan F. Faber, September 1973, pp. 45.  
ERIC Number ED-082-748 (also 1970 and 1971)

Citizen Advisory Committees, An Evaluation of the Effectiveness of Citizen Advisory Committees in the Improvement of Career Curricula at Montgomery College, Robert L. Gell and Suzanne C. Harkness, 1974, pp. 41.

The Dental Hygienist, A Study of the Need for a Program of Dental Hygiene Education in Montgomery County, Robert L. Gell, Robert F. Jones and Ann R. Munson, 1975, pp. 37.

The Dental Hygienist II, A Study of the Employment Patterns of Registered Dental Hygienists in Southern Maryland, David F. Armstrong, 1977, pp. 19.

The Employers III, A Survey of Employers Who Have Hired Career Program Graduates of Montgomery Community College, Robert L. Gell, and Robert F. Jones, 1976, pp. 37. (also 1974 and 1975) ERIC Number ED 128-050

A Follow-Up Study of Freshmen Who Left Montgomery College After Just One Semester of Attendance, Robert L. Gell, Suzanne C. Harkness, and David F. Bleil, 1974, pp. 43. ERIC Number ED 097-054

Follow-Up Study of Secretarial Students, (Conducted by Virginia G. Pinney, Chairperson, Secretarial Studies Department, Rockville, and Catherine P. Scott, Chairperson, Secretarial Studies Department, Takoma Park), Robert L. Gell and David F. Bleil, September 1973, pp. 31. ERIC Number ED 082-749

Follow-Up of Students Who Entered Montgomery College Fall 1970, A Preliminary Analysis of Student Goals, Robert L. Gell, July 1974, pp. 11.  
ERIC Number ED 097-053

A Follow-Up of Students Who Entered Montgomery College Fall 1971, The Montgomery College Segment of the Maryland Statewide Community College Student Follow-Up Study Conducted by the Maryland Community College Research Group in Cooperation with the State Board for Community Colleges, Robert L. Gell, Roslyn Korb, and David F. Armstrong, 1976, pp. 36.

A Four Year Follow-Up of Non-Returning Students at Montgomery College, Robert L. Gell, David F. Bleil and Robert F. Jones, 1975, pp. 55.  
ERIC Number ED 115-358

Grades, Scores, Predictions, A Study of the Efficiency of High School Grades and College Test Scores in Predicting Academic Achievement, Robert L. Gell and David F. Bleil, June 1971, pp. 43. ERIC Number ED 052-782



The Graduates 1975: A Follow-Up Study of the Students Who Graduated from Montgomery College in 1975, Robert L. Gell, David F. Armstrong and Robert F. Jones, 1976; pp. 38. (also 1970 and 1974)

The Legal Assistant: A Study of the Need for a Program of Legal Assistant Education in Montgomery County, (Conducted by The Department of Office Education, Takoma Park Campus, Catherine Scott, Chairperson, and The Montgomery County Legal Secretaries Association, Patricia A. Costello, President); analysis by David F. Armstrong, 1976, pp. 21. ED 132-985

Medical Office Assistant Need Survey, (A study to determine the interest and need for developing a Medical Office Assistant Program at Montgomery Community College.) Catherine Scott and Ann Munson, January 1972, pp. 16.

The Montgomery College Student, A Profile of the Students Enrolled at Montgomery College During the Fall Semester of 1975, Robert L. Gell, Sheila R. Dalmat, Robert F. Jones and Ann R. Munson, March 1976, pp. 50. ERIC Number ED 125-678

The Montgomery College Student, A Profile of the Students Enrolled at Montgomery College During the Fall Semester of 1976, Robert L. Gell, David F. Armstrong and Ann R. Munson, 1977, pp. 180.

Non-Returning Special Students, A Follow-Up Study, Robert L. Gell, Suzanne C. Harkness and David F. Bleil, 1974, pp. 34.

A Profile of the Continuing Education Student at Montgomery College, Howard S. Geer, May 1976, pp. 10. ERIC Number ED 125-717

Program Evaluation Report, Medical Assistant Program, Takoma Park Campus, University of Calif. Los Angeles, Christine M. Licata, June 1976, pp. 31. (also 1974 and 1975)

Prospective Graduate Survey, David F. Bleil, June 1970, pp. 30. 26 1977

Released Time for Faculty: Practices and Procedures in Selected Colleges, Ann Munson, March 1973, pp. 52. ERIC Number ED 086-802

Report on Reports, A Study of the Cost of Completing Reports for External Agencies, Fiscal Year 1975-1976, Robert L. Gell and Ann R. Munson, April 1976, pp. 25. ERIC Number ED 131-887

A Study of the Audio-Tutorial Method of Teaching History on the Rockville Campus of Montgomery Community College, David F. Bleil, October 1971, pp. 23.

A Study of the Educational Goals of Non-Matriculated Students at Montgomery College, David F. Armstrong, May 1977, pp. 50.

A Study of the Impact of Cancelling Classes, Robert F. Jones, December 1976, pp. 12.

Tentative Ten-Year Enrollment Projections, Fiscal Years 1977-1986, A Supplement to the FY 1978 Capital and Operating Budgets of Montgomery Community College, Robert L. Gell and David F. Armstrong, October 1976, pp. 45.

Where Have All the Freshmen Gone? A Follow-Up Study of Students Who Left Montgomery Community College Prior to Graduation, Robert L. Gell and David F. Bleil, 1973, pp. 89. ERIC Number ED 091-025