DOCUMENT RESULE

ED 174 274

JC 790 384

AUTHOR TITLE Stankovich, Mary Jo Spring 1977 Survey of the Goals and Achievements of Students Enrolled in Spring 1973.

INSTITUTION PUB DATE

Macomb County Community Coll., Warren, Mich. Oct 78

'61p.

EDPS PRICE DESCRIPTORS

MP01/PC03 Plus Postage.

*Academic Achievement; Academic Aspiration; Age; College Majors; Community Colleges; Employment Patterns; Females; Followup Studies; *Graduate Surveys; Income; *Junior Colleges; Males; Marital Status; Cocupational Aspiration; *Participant

Satisfaction: Questionnaires: *Student Characteristics: Vocational Followup

IDENTIFIERS

*Student Objectives

ABSTRACT

A student follow-up study was conducted to determine the educational and career goals of students who were enrolled at Maccob County Community College (MCCC) and the degree to which they felt their goals had been met. A random sample of 2,066 students errolled in Spring 1973 were surveyed by questionnaire in June 1977; 983 (55.9%) responded. The questionnaire sought information on age, sex, marital status, current employment, educational attainment, income, goals while enrolled at MCCC, and respondents' estimation of how well the college had met their needs. Responses were coded and tabulated with the Michigan Interactive Data Analysis Sytem (MIDAS) and one-way...analysis of variance and multiple regression formulas were used where applicable. Results indicated: (1) the average age of males, females, and the total sample was 27; (2) 54% of the respondents were married; (3) 34% had incomes ever \$20,000 a year; (4) a large percentage of respondents either were still enrolled at MCCC or had graduated; (5) 89% of the respondents indicated they had met or surpassed their educational goals; (6) those who graduated from occupational programs and a much lower unemployment rate than the county average; and (7) of registration procedures, class scheduling, program offerings, instruction, and counseling and placement services, program offerings were rated highest and placement rated lowest. The survey instrument is appended. (CR)



MACOMB COUNTY COMMUNITY COLLEGE DEPARTMENT OF RESEARCH

SPRING 1977 SURVEY

OF THE GOALS AND ACHIEVEMENTS

OF STUDENTS ENROLLED IN SPRING 1973

"PERMISSION TO REPRODUCE HIS STATERIAL HAS BEEN GRANTED BY

Mary Jo Stankovich

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF NEATTH, EDUCATION & WELFARE NATIONAL INSTITUTE OF EDUCATION

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

MACOMB COUNTY COMMUNITY COLLEGE

Frank Blackford

President

BOARD OF TRUSTEES

Joseph DeSantis
Paul W. Cousino
A. Thomas Winterfield
Ronald L. Bonkowski
Sadie Bialock
Harvey R. Dean
Steven DeLuca

Chairman
Vice Chairman
Secretary
Treasurer
Trustee
Trustee
Trustee
Trustee



ABSTRACT

In order to determine what the goals were of the students enrolled at Macomb County Community College and how all these goals were met, a series of studies was begun in 1975.

In this current study a random sample of all students enrolled in Spring, 1973 was polled by means of a questionnaire mailed in June, 1977.

Responses were coded and tabulated via the Michigan Interactive Data Analysis System (MIDAS) at Wayne State University. Formulas for oneway analysis of variance (ANOVA) and multiple regression were applied where feasible.

Some facts that were revealed in analysis were:

- Goals of the respondents were met to a measurable extent: 89 percent indicated that they had met or surpassed their goals.
- 2. Those who graduated from occupational programs enjoyed a much lower unemployment rate than that for Macomb County at the time of the survey.
- An impressive percentage of respondents either were still enrolled at Macomb or had graduated.

Research Department Director: J. D. Trubey

Prepared by:
Mary Jo Stankovich
Project No. 78098
October, 1978

TABLE OF CONTENTS

	Page
ABSTRACT	iï
TABLE OF CONTENTS	ii
LIST OF TABLES	V ,
Chapter	
I INTRODUCTION	1 -
Background and Purpose of the Study	1
Student Population at MCCC, Spring 1973	, 3 .
Limitation of the Study	4
II METHODOLOGY	,5
The Sample	5
The Instrument	5
Procedure	6
Analysis of the Data	6
III RESULTS	8
Response Rate	8
Statistical Tests	8
Demographic Information	8
Information Regarding Educational Pursuits	<u> </u>
Employment	20
Goal Achievement	24
Respondents' Ratings of Some Services at Macomb	<u>?</u> 6
Comparison of Fesults with Previous Follow-Up Studies	34



Chapter	Pag
IV SUMMARY AND CONCLUSIONS	36
APPENDIX	. 38
BIBLIOGRAPHY	44



LIST OF TABLES

Table	en e	Page
1.	Sex	9
2.	Sex by Age	10
3.	Marital Status in Spring 1973	11
4.	Family Income in Spring 1973	11
5.	Age in Spring 1973	12 4
6.	Age by Sex	13
7.	Current Educational Activities	16
8.	Macomb Graduation Status: Certificate Information	17.
9.	Macomb Graduation Status: Associate Degree Information	18
10.	Educational Pursuits at Selected Senior Institutions	19
11.	Age of Transfer Students	20 ·
1.2.	Information About Employment for Students Who Earned Certificates in Occupational Program Areas	22
13.	Information About Employment for Students Who Earned Associate Degrees in Occupational Program Areas	23
14.	Achievement of Specific Goals	24
15.	Achievement of General Goals	25
16.	Student Ratings of Registration Procedures: Percentage Distribution	28
17.	Student Ratings of Counseling Services: Percentage Distribution	29
18.	Student Ratings of Scheduling of Classes: Percentage Distribution	30
19.	Student Ratings of Program Offerings: Percentage Distribution	31 :
20.	Student Ratings of Instruction: Percentage Distribution	3 2



: :	.			•	vi
	. Tab	l le		y	Page
	21	. Student Ra Distrib	–	t Services: Percen	• • • • • • • • • • • • • • • • • • • •
	22			Comparable Items fro	
					10
	•	4		$C_{ij} = \frac{1}{C_{ij}}$	• •



CHAPTER _I

INTRODUCTION

Background and Purpose of the Study

In 1974, a nationwide survey of follow-up studies of former occupational-technical studer+s at community colleges was conducted by the Virginia Department of Community Colleges. The population chosen for study "consisted of all 720 public comprehensive two-year colleges.in the United States which began offering occupational-technical programs prior to September, 1970." Macomb County Community College (MCCC) is one of these colleges.

Of the 522 colleges that responded to the survey, 87 percent reported having conducted follow-up studies, but about half of these indicated that their studies were of an informal nature that did not result in written reports.

Of the written follow-up reports which contained a description of subjects, 77 percent concerned only graduates and three-fourths "pertained only to recent students (6 to 18 months after college)."²

In all, Williams and Snyder identified twelve procedures that they considered most apt to remedy existing deficiencies in follow-up studies:

- 1. Seek advice from outside consultants who are proficient in follow-up techniques. . . .
- Utilize published texts on planning, conducting and reporting studies. . . .



William G. Williams and Fred A. Snyder. "Follow-Up Studies of Former Occupational-Technical Students at Community Colleges," (Richmond, Va.: Virginia Department of Community Colleges, 1974), p. 7.

²0p. cit. p. 39.

- 3. Include non-graduates in research population or samples.
- 4. Employ representative sampling techniques.
- 5. Set an acceptable student response rate and implement means to achieve it. . . .
- 6. Limit student questionnaires to information not obtainable from college records. . . .
- .7. Test for non-response bias. . .
- 8. Distinguish between experienced workers and career-entry workers. . .
- 9. Conduct longitudinal studies to measure career advancement and to obtain experience-based information. . . .
- 10. Obtain employer evaluation of former occupational-technical students. . .
- 11. Provide interpretive material and descriptions of populations and procedures. . . .
- 12. Relate follow-up study results and interpretations to educational goals. . . . 3

Nine of these recommendations have been implemented in this study. The remaining three (7, 8 and 10) will be implemented as soon as resources permit.

Furthermore, unlike its predecessors, this report included a review of the current literature and employs some sophisticated statistical techniques. Both of these improvements are in accord with suggestions made by a former member of the Research Department in a pamphlet published recently.4

This study is the fourth in a series of follow-up studies. The series was begun in September 1974. At that time the Research Department began its long-range plan to develop a model for conducting student

³0p. cit. pp. 32-39.

Alan G. Gross. Community College Research Today-Topical Paper
No. 62 (Los Angeles: ERIC Clearinghouse for Junior Colleges, [1977],
n. 22.

follow-up studies. With each study in the series, more of the recommendations listed earlier were implemented.

The purpose of each of these studies was to assess the current employment and educational activities of those who had been enrolled and to determine any relationships between their college experience and their current activities.

Student Population at MCCC, Spring 1973

During the Spring 1973 term, 16,736 students were enrolled at MCCC. They took a total of 132,993 credit hours for an average of eight credit hours per student.

The greatest percentage of students was, enrolled at South Campus (70 percent). Center Campus accounted for 22 percent of the College's enrollment and the Applied Tech Campus for eight percent.

Most of the students attended on 2 part-time basis. (A part-time student is defined as one who is enrolled for less than twelve credit hours during a term). Part-timers accounted for 97 percent of the enrollment at the Applied Tech Campus, 70 percent at South Campus and 65 percent at Center Campus.

Most students (78 percent) were county residents. The preponderance of non-residents (88 percent) was to be found at the South and Applied Tech Campuses.

At a time when, nationwide, males accounted for 55 percent of the enrollment in two-year colleges, two-thirds of Macomb's students were male. The population at the Applied Tech Campus was almost entirely male (98% pe it). The greatest percentage of females was to be found



⁵W. Vance Grant and C. George Lind. <u>Digest of Education Statistics</u> 1977-78 (Washington, D.C.: U.S. Government Printing Office, 1978), p. 95.

at Center Campus (51%).

A majority of the students were enrolled in general academic programs (54%). These are primarily transfer programs.

The most popular occupational programs in descending order of popularity were:

- 1. Accounting
- 2. Law Enforcement -
- 3. Business Data Processing
- 4. Climate Control Technology.
- 5. Electro Technology
- Graphic and Commercial Art.

These six programs accounted for 38 percent of the total occupational education enrollment at MCCC in Spring 1973.

Limitation of the Study

All of the data analyzed in the study was obtained directly from student questionnaires.

CHAPTER II

METHODOLOGY

The Sample

The sample of 2,066 students was drawn randomly from the class rosters of Spring 1973. The sample included students enrolled at South,

Center and Tech Campuses. The subjects selected to receive questionnaires represented 12.3 percent of the total college enrollment.

The Instrument

The questionnaire used to poll the students in the sample was designed using several strategies. The strategy which contributed most to the design of the current instrument was the use of information gleaned from the previous study. This study surveyed students enrolled in Spring, 1972. The questionnaire used in that study allowed for an open-ended response to the last item: "How could Macomb County Community College be improved?" Some responses to this item were frequent enough to allow them to be categorized, coded and analyzed. These responses were incorporated into the present instrument in the form of questions that furnished an evaluation of some services provided by the college.

Other responses to the Spring 1972 questionnaire indicated that the extent to which Macomb benefited its students could only be measured in terms of its students' goals. Accordingly, the new instrument attempted to measure their goals.

Another strategy employed was to draw on the experience and knowledge of the administrators at MCCC. A copy of the 1972 questionnaire was sent to all administrators at MCCC along with a memo asking for suggestions for

improving the questionnaire design and also for extending the questionnaire to include items that would yield information of interest or value to these administrators.

The final strategy was the examination of questionnaires used by other institutions in order to improve the wording of the questionnaire.

Copies of the final questionnaire and accompanying letters are found in the Appendix.

Procedure

The questionnaire was first mailed to the entire sample on June 1, 1977. On July 6, 1977 a second questionnaire was sent to all who did not respond to the first questionnaire. The returned questionnaires were then coded and sent for key-punching. Key-punch directions resulted in data adaptable to the Michigan Interactive Data Analysis System (MIDAS) at Wayne State University. The analysis os the data was then carried out on the MIDAS system.

Analysis of the Data

The following kinds of analyses were performed where appropriate using the MIDAS package:

- 1. Frequency counts and percentage distributions are shown for all of the data presented.
- 2. Formulas for analysis of variance (ANOVA) were applied to measures of goal achievement and to ratings of some of the services rendered students at Macomb. These services are registration, counseling, scheduling of classes program offerings, instruction and placement services.
- 3. The multiple regression formula was applied to the same measures as the ANOVA for the sub-categories of sex, age and marital status in the following combinations:



- a. sex
- b. age
- c. marital status
- d. sex and age
- e. sex and marital status
- f. age and marital status
- g. sex, age and marital status

CHAPTER III

RESULTS

Response Rate

Questionnaires for 308 of the 2,066 students in the sample were returned as non-deliverable. The resultant net sample size was 1,758, 10.5 percent of the total college enrollment.⁶

There were 983 questionnaires returned in varying degrees of completion. This return represents a response rate of 55.9 percent of the net sample. A response rate of at least 50 percent is considered to be adequate for analysis and reporting.⁷

Statistical Tests

Results of the analysis of variance appear in the appropriate tables. Sex, age and marital status, either singly or in combinations, were not significant factors in predicting students' evaluations of the services offered by the college.

Demographic Information

Respondents to the questionnaire were reasonably willing to provide this kind of information. Ninety-nine percent provided their sex, 89.8 percent provided their marital status, 97 percent their family income levels, and 99 percent revealed their birth dates.

7 Noid.

ERIC

Full Text Provided by ERIC

. 8

^{6&}quot;... the accepted practice is to omit all those questionnaires that could not be delivered." (Earl R. Babbie. Survey Research Methods. [Belmont, California: Wadsworth Publishing Company, Inc., 1973] p. 165).

Tables 1-6 show the frequency counts and percentage distributions for sex (Tables 1 and 2), marital status (Table 3), family income (Table 4), and age (Tables 5 and 6). Table 2 shows that while the average age for males, for females and for the total sample was 27 years, only 4 percent of the students were actually 27 years old. In fact, only 17 percent of the males and 9 percent of the females were in the 26-30 age bracket.

With an average age of 27, it might seem reasonable to expect the majority or at least half of Macomb's students to be over 26 years of age. However, 55 percent of the males and 60 percent of the females in the sample were under 26 years of age.

Table 6 shows that males tended to predominate in the 26-30 age bracket (77 percent) and females the 46-50 age bracket (67 percent).

Analysis of this data also revealed that married students to be older. In the case of married males, 74 percent were over 25 and 60 percent of the married females were over 25 years of age. However, only 11 percent of the unmarried males and 24 percent of the unmarried females were over 25.

TABLE 1

SEX

	Number Responding	Percentage Responding
Total Sample	829	100.00
Male	477	57.5
Female	352	42.5



TABLE 2 SEX BY AGE

Age Bracket	Males N = 473	Females N = 349
	<u>%</u>	. <u>%</u>
Total Sample	100	100
16 - 20	24,	38
21 - 25	27	22
26 - 30	23	9
27 ⁸	4	3
31 - 35	13	11 -
36 - 40	6	8
41 - 45	4	5
46 - 50	2	5
over 50	2	3
		

⁸Average age for males, for females and for the total sample.

		<u>A</u>
	Number Responding	Percentage Responding
Total Sample	748" :	100.00
Married	406	54.3
Single	301	40.2
Divorced	35	4.7
Widowed	4	0.5
Other	2	0.3

TABLE 4
FAMILY INCOME IN SPRING 1973

	Number Responding	Percentage Responding
Total Sample	808	100.00
\$ 0 - 3,999	36	4.5
\$ 4,000 - 7,999	62	7.7
\$ 8,000 - 11,999	113	14.0
\$12,000 - 15,999	164	20.3
\$16,000 - 19,999	158	19.6
\$20,000 +	275	34.0

TABLE 5
AGE IN SPRING 1973

	<u></u>	
	Number Responding	Percentage Responding
Total Sample	825	100
16 - 20	246	30
21 - 25	205	25
26 - 30	140	17
31 - 35	97	12
36 - 40	5,7	7 ·
41 - 45	., 35	. 4
46 - 50	24	3
over 50	78	2



TABLE 6

AGE BY SEX

	16 - 20	21 - 25	26 - 30	31 - 35	36 - 40	41 - 45	46 - 50	Over 50
	N = 246	N = 205	N = 140	Ñ = 97	N = 57	N = 35	N = 24	N = 18
Males	47	62	77	62	49	51	33	50
Females	53	· 38	23	, 38	51	49	67	50

Information Regarding Educational Pursuits

Table 7 shows the current educational pursuits of the students in the sample. Only 21 percent of the students in the sample reported that they had not graduated from some post-secondary institution and also that they had not been enrolled anywhere since Spring 19.3.

Tables 8 and 9 show the graduation status achieved at Macomb. While less than half of those respondents who said that they wanted to earn a certificate or degree actually did earn one, many more respondents actually did earn certificates or degrees than said thay they had intended to do so. In fact, 49 percent more students (18) earned certificates than indicated an intention to do so and 103 percent more students (87) earned associate degrees than indicated an intention to do so. The highest percentage of students who indicated the desire to earn a certificate and also that they did earn certificates were in Applied Technology (65 percent). The highest percentage of students who indicated a desire to earn an associate degree and also that they did earn associate degrees were in the Nursing Program (92 percent).



Table 10 gives the educational pursuits of students at selected senior institutions. The institutions were selected because at least six students identified themselves with each particular institution. It can be seen that 67 percent of those students who indicated transfer as a goal also indicated that they were either currently enrolled at a senior institution or had graduated from a senior institution within four years after their enrollment at Macomb. These students represent 16 percent of the total sample.

The percentage of these students in various age brackets is shown in Table 11.

However, more students than indicated transfer as a goal actually enrolled at or graduated from senior institutions. In fact, 28 percent of the total sample indicated that they were either currently enrolled or had graduated form senior institutions. This represents a 70 percent increase in the number of Macomb students achieving this status over the number who indicated it as a goal.

The following is a list of the 33 senior institutions, with which the students in the sample identified:

Baylor University

Central Michigan University

Center for Creative Studies

Columbia University

Detroit College of Business

Eastern Michigan University

Indiana University

Lawrence Institute of Technology

Madonna College

Marygrove College Mercy College Michigan State University Michigan Technological University Minot State College New York University Northern Michigan University Nova University Oakland University Saginaw Valley State College Southern Baptist Theological Seminary Southern Methodist University Spartanburg College of Chiropractic Sterling College Thiel College University of Buffalo University of Chicago University of Detroit University of Florida University of Michigan University of Nevada at Las Vegas Walsh College Wayne State University Western Michigan University

CURRENT EDUCATIONAL ACTIVITIES

			1	
	Students Who Hold at Least One Certificate from Macomb N=55	Students Who Hold at Least One Associate Degree from Macomb N=279	Students Who Hold Both Certificates and Associate Degrees from Macomb N=11	Students Who Hold No Degrees or Certificates at all N=408
Response Given	Percent	Percent	Percent	Percent
I Am Now Enrolled:				
At Macomb	7	4	18	13
At a Four-year Institution	9	25	27	
Elsewhere	2	1.	0	2
I Have Been Enrolled Some of the Time Since Spring, 1973:				
At Macomb	35	20	27	21
At a Four-year Institution	^2	13	0	5
Elsewhere	0	2	0	1
I Have Not Been Enrolled Anywhere Since Spring, 1973	-31	18	27 °	. 42 6
-	•	······································	,	9 .

TABLE 8

MACOMB GRADUATION STATUS

·Certificate Information

		ndent Indicate ning a Certific Was			Percent Increase in Total		
Program Area	A Goal	An Achievement (B)	A Goal and an Achievement (C)	Percent Achieving Goal (C+A)	Achievers over Goal Achievers (B-C)÷C	Percent of Total Achievers B+55	
Total Sample	98	55	37	389	49	100	
General Education	7	4,	3	43	33	 7	•
Occupational Education	91	49	35	38	40	89	
Public Service	19	16	9	47	78	29	
Allied Health	13	7	5	38	40	13	
Business	26	* 6	6	25	NA-		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Design Technology	3 .	0	0	0	NA:	NÁ	
Mechanical Technology	13	6	4	31	50	11	
Applied Technology	17	14	, 11	65	27	25	

 $^{^{9}}$ It should be noted that 4 of the respondents in Column A, who are not in Column C are still attending Macomb.

TABLE 9

MACOMB GRADUATION STATUS

Associate Degree Information

		Respondent Ind That Earning an Degree W	Associate	Percent	Percent Increase In Total Achievers	Percent of
Program Area	A Goal Achievement Achievement (C		Achieving Goal (C÷A)	Over Goal Achievers [(B-c)÷C]	Total Achievers (B : 278)	
, Total Sample	287	278	137	4810	103	100
General Education	72	97	48	67	102	35
Occupational Education	214	172	127	59	35	62
Public Service Fire Science ¹¹ Law Enforcement ¹¹	35 13 16	31 12 13	21 10 12	60 - 77 75	48 20 8	11 4 5
Allied Health Nursing (RN)11	34 25	31 25	28 23	82 92	11 9	11 .9
Business Accounting ¹¹ Business Data Processing ¹¹ General Business ¹¹	83 20 14 21	57 10 14 6	40 8 11 4	48 40 79 19	43 25 27 50	21 4 5 2
Design Technology	21	17	12	57	42	6
Mechanical Technology	37	34	2 5	68	36	12
Applied Technology	4	3 ,	1	25	200	· 1

lolt should be noted that 18 of the respondents in Column A, who are not in Column C, are still attending Macomb. $\vec{\infty}$

ERIChere were at least 12 responses in these particular programs, but in no others were there enough responses to war ant listing.

TABLE 10

EDUCATIONAL PURSUITS AT SELECTED SENIOR INSTITUTIONS¹²

	a		Indicated Trans s A Goal	fer	All Students In The Sample				
Institution	Total	Currently Enrolled	Enrolled At Some Time	Graduated	Currently Enrolled	Enrolled At Some Time	Graduated		
Total Sample	203	70	53	66	131	88	100		
Wayne State University	70	25	16	22	49	23	31		
Oakland University	39	12	9	13	22	16	21		
Walsh College	24	7	6	8	10	10	10		
Michigan State University	15	2	6	9	5	9	12		
University of Detroit	12	4	1	2	11	2	. 3		
University of Michigan	11	4	2	4	8	2	8		
Eastern Michigan University	7	3	2	4	4	4	8		
Western Michigan University	.	0	3	4	0	3	5		

¹²Selected on the basis that at least six students gave that response.

TABLE 11

AGE OF TRANSFER STUDENTS¹³

N = 202

Age	Percent
16 - 20	36
21 - 25	26
26 - 30	19
31 - 35	0
36 - 40	10
4] - 45	4
46 - 50	1
Over 50	1
Total	100

13A transfer student is defined here as one who intended to transfer to a senior institution.

Employment

Tables 12 and 13 show percentages of responses to the employment-related questions in the instrument. These results have meaning only when compared with the unemployment rate for Macomb County at the time these questionnaires were completed by the respondents. The average unemployment rate for Macomb County for June 1977 and July 1977 was 6.95 percent.

These percentages also have meaning only if the respondents' reasons for attending Macomb were identified with obtaining or upgrading their jobs. For this reason, certain respondents were



eliminated from this part of the analysis. Those 227 respondents who said that their reasons for attending Macomb had nothing to do with their employment were eliminated, resulting in a net sample size of 606.

Also, since it is not possible to determine the significance of emplo ment related information for students in general education programs, only students in occupational programs are considered here.

Among the certificate holders only the Public Service and Applied Technology program areas contained enough respondents to warrent discussion. Overall, certificate holders in occupational programs have unemployment rates well below that for the county.

Among the associate degree holders only the area of Applied Technology did not contain enough respondents to warrent discussion. Certain specific programs contained sufficient numbers to include them in this discussion. These programs are: Fire Science, Law Enforcement, Nursing, and Business Data Processing. Zero unemployment rates were reported by respondents in two program areas, namely, Allied Health and Mechanical Technology. The highest percentage of respondents who reported that they could not have gotten their jobs without the courses they took at Macomb was in the Allied Health area (90 percent). The highest percentage of respondents who reported that their course work at Macomb helped them to perform their jobs better was in Public Service programs (75 percent). The highest percentage of respondents who indicated that their coursework at Macomb helped them obtain better jobs were in Mechanical Technology programs (50 percent). The highest percentage of respondents in these programs also reported that their course work at Macomb led to higher salaries (40 percent).



TABLE 12

INFORMATION ABOUT EMPLOYMENT FOR STUDENTS WHO EARNED CERTIFICATES IN OCCUPATIONAL PROGRAM AREAS

N = 43

	•				·
	Response Given	Public Service N = 15	Applied Technology N = 11	All Occupational Programs N = 43	Net Sample ¹⁴ N = 606
	I Am Employed Full-Time	93.3%	90.9%	86.0%	77.2%
	I Am Employed Part-Time	0.0%	0.0%	7.0%	9.4%
t ₂	I Am Unemployed and Seeking Work	0.0%	0.0%	2.3%	5.1%
	I Am Unemployed and Not Seeking Work	6.7%	0.0%	2.3%	6.1%
,	I Could Not Have Gotten My Job Without the Courses I Took at Macomb	6.7%	36.4%	20.9%	16.3%
ં છે	The Courses I Took at Macomb Have Helped Me Perform My Job Better	66.7%	81.8%	67.4%	53.5%
	The Courses I Took at Macomb Helped Me Get a Better Job	26.7%	54.5%	34.9%	22.8%
	The Courses I Took at Macomb Helped Me Get a Higher Salary	46.7%	72.7%	39.5%	20.1%
	The Courses I Took at Macomb Did Not Help Me at My Job	6.7%	0.0%	2.3%	10.4%
	,	r,	1		+

¹⁴The net sample is made up of all respondents except for those who said that their reasons for attending Macomb had nothing to do with their employment.



TABLE 13
INFORMATION ABOUT EMPLOYMENT FOR STUDENTS WHO EARNED ASSOCIATE DEGREES
IN OCCUPATIONAL PROGRAM AREAS N = 153

			IN OCC	CUPATIONAL	PROGRAM Mechan-	AREAS N	= 153		•	All	
Response Given	Public Service N = 28	Allied Health N = 30	Busi- ness N = 50	Design Techno- logy N = 30	ical Techno- logy, N = 30	Fire Sci- ence N = 11	Law Enforce- ment N = 13	Nurs- ing (RN) N = 24	Business Data Pro- cessing N = 14 %	Occupa-	Net Sample 15 N = 606
I am Employed Full-time	96.4	60.0	80.0	92.3	96.7	100.0	100.0	54.2	85.7	82.4	77.2
I am Employed Part-time	0.0	.33.3	6.0	0.0	6.7	0.0	0.0	37.5	7.1	9.8	9.4
I am Unemployed and Seeking Work	3.6	0.0	8.0	· · 7.7	0.0	0.0	0.0	0.0	0.0	4.6	5.1
I am Unemployed and Not Seeking Work	0.0	0.0 ,	4.0	0.0	0.0	0.0	0.0	0.0	7.1	1.3	6.1
I Could Not Have Gotten My Job Without the Course, I Took at Macomb	10.7	90.0	18.0	7.7	20.0	0.0	7.,7	87.5	14.3	30.1	16.3
The Courses I Took at Macomb Helped Me Perform My Job Better	75.0	16.7	56.0	69.2	70.0	81.8	69.2	16.7	50.0	54.9	53.5
The Courses I Took at Macomb Helped Me Get a Retter Jeb	10.7	20.0	28.0	23.1	50.0	0.0	15.4	25.0	14.3	28.1	22.8
The Courses I Tood at Macomb Helped Me Get a Higher Salary	28.6	10.0	30.0	23.1	40.0	18.2	38.5	12.5	21.4	26.8	20.1
The Courses I Took at Macomb Did Not Help Me at My Job	7.1	0.0	4.0	0.0	10.0	9.1	7.7	0.0	7.1	5.2	10.4

The net sample is made up of all respondents except for those who said that their reasons for attending Macomb had nothing to do with their employment.

ปแ

23

35

Goal Achievement

Table 14 shows the achievement of specific goals by respondents. The highest success rate was realized by students who intended to transfer to senior institutions and the lowest by students who wanted to earn certificates in particular programs. It must be remembered that while a respondent may not have achieved the specific goal he indicated, he may have realized achievements beyond his specified goal. Table 15 probably gives a more accurate picture of the accomplishments of respondents in terms of their goals. It can be seen from this table that 89 percent of the respondents reported that they had realized or surpassed their expectations. In fact, in the case of those respondents in the 36 - 40 age bracket, 98 percent had done so.

TABLE 14
ACHIEVEMENT OF SPECIFIC GOALS

Goal	Chose Goal	Achieved Goal		
	Number	Number	Percent	
Wanted a Certificate in a Particular Program	98	4416	. 45	
Wanted an Associate Degree in a Particular Program	286	171	60	
Wanted to Transfer to a Particular b Four-Year Institution	205	184	90	
Hoped That Taking Courses at Macomb Would Lead to a Better Job	185	147	79	
Hoped That Taking Courses at Macomb Would Lead to a Higher Salary	178	131	74	

¹⁶Eight of these persons said that they wanted a certificate in a particular program and did not earn one, but did earn an associate degree in that program.

ERIC Full Text Provided by ERIC

TABLE 15 ACHIEVEMENT OF GENERAL GOALS - PERCENTAGE DISTRIBUTION

Category	Number Responding	I Gained More Than I Expected	I Gained About What I Expected	I Gained Less Than I Expected	I Gained Little Or Nothing	Significance Level (ANOVA)	Eta- Squared
Sex Male	457	28%	61%	. 7 %	4%	p .05	
Female	337	29%	61%	7%	2%	-	- 7
Marital Status Married	389	200	59%	8%	3%	p .05	•
Not Married	328	30% 28%	61%	0% 7% '	3 <i>%</i> 4%		
Age Intervals	JEO .	2070	U1 10	7 70	T 10	p .05	2.02
0 - 20	234	24%	61%	9%	· 6%		, 2102
21 - 25	197	25%	62%	9%	3%	•	,
26 - 30	135	29% .	60%	7%	4%		٧
31 - 35	94	26%	68%	4%	2%	V	
36 - 40	54 34	37%	61%	2.%	0% 0%		
41 - 45 46 - 50	34 23	41% 43%	50% 48% · ''	9% 9%	0% 0%	•	
0ver 50	19	42%	47%	5%	5%		•
Macomb Graduation Status		1 110	-	U 10		\ <i>i</i>	Ç
Certificate Holder	54	28%	61%	4%	7%	p \ 05	•
Associate Degree Holder	269	31%	60%	8%	1%	p / .05	0.69
Particular Response			•)	
My Reasons for Attending Macomb in the			,	:		. -	
Spring of 1973 Had Nothing to Do.With My Employment	216	25%	60%	9%	6%	p .01	0.97
riy Liiptoyiicite	210	LJ/0	0070	J 10	, y 10	, р, тот	
I Intended to Transfer to	200	33%	60%	4 6%	1%	p .05	0.79
				1			: • • • • • • • • • • • • • • • • • • •
I Did Not Intend to Earn a Degree at			·		- 5		•
Macomb.	79.	28%	53%	14%	5%	p .05	
I Named to Take Courses to Develor			Ŷ	•		·	•
I Wanted to Take Courses to Develop	163	29%	62%	5%	5% ·	p .05	
Skills in the Area of	103	43 /0	02/0	J /0	J /0	p .05	N '
I Wanted to Take Courses for Personal							
Enrichment Only.	121	40%	54%	6%	1%	p :01	1.27
	1			•		•	
I Hoped to Improve or Learn Skills I						· · · · · · · · · · · · · · · · · · ·	
Needed for My Job As A	122	32%	58%	8%.	2%_	p .05	•
Total Sample	700	200/	£10'	8%	3%		
Total Sample	798	28%	61%	0%	3%		
ERIC			i				33

Respondents' Ratings of Some Services at Macomb

Tables 16 to 21 show the percentage distribution of student ratings of registration procedures, counseling services, scheduling of classes, program offerings, instruction and placement services. The ratings for selected subgroups were analyzed.

Of these six services, program offerings were given the highest rating. The percentage of satisfied respondents ranged from 96 to 100 percent. It is perhaps very telling that one of the sub-groups exhibiting 100 percent satisfaction was comprised of students who had attended other two-year institutions. This group also indicated the highest percentage of satisfaction with instruction at Macomb.

The least favorable ratings overall, were given for placement services. However, 72 percent of the respondents rated these services as "fair" or "good."

The largest percentage of respondents who indicated dissatisfaction with the placement service were those who had attended senior institutions. It would seem that a student who had attended a senior institution would not have much occasion to use the placement service at Macomb unless for part-time placement.

The subgroup which tended overall to give the most favorable ratings for services at Macomb were older and the subgroup which seemed to give less favorable responses were those in the 16 to 20 age bracket.

In rating registration procedures, students over 40 years of age gave the most favorable response and those between 26 and 30 years of age the least favorable. In rating counseling services older students tended togive the most favorable responses, while those who had attended four-year institutions, the least favorable. In rating the scheduling of classes at Macomb, students over 40 years of age gave the most favorable responses



and those in the 36 to 40 age bracket, the least favorable.

TABLE 16 STUDENT RATINGS OF REGISTRATION PROCEDURES
PERCENTAGE DISTRIBUTION

		11 blan	Resp	oonse Giv	en	Significance	.
Ca	Category	Number Responding	Good	Fair	Poor	Level (ANOVA)	Eta- Squared
	Sex Male Female	448. 330	57% 67%	34%, 25%	/ 9% 7%	P < .01	1.00
·	Marital Status Married Not Married	378 323	61%	29% 31%	10% 6%	P > .05	
•	Age Intervals 0 - 20 21 - 25 26 - 30 31 - 35 36 - 40 41 - 45 46 - 50 Over 50	231 198 128 94 54 34 20	53% 59% 58% 64% 72% 85% 85%	38% 34% 31% 28% 19% 9% 10% 20%	9% 7% 12% 9% 6% 5%	P < .01	2.40
	Attendance at Other Postsecondary Institutions Two-year or Less Four-year Total Sample	33 254 781	64% 57% 61%	27% 35%	9% 8% 8%	P > .05 P > .05	ı
			<i>i</i>	1			

TABLE 17

STUDENT RATINGS OF COUNSELING SERVICES
PERCENTAGE DISTRIBUTION

	Number	Response Given			Significance	•
Category	Responding	Good	Fair	Poor	Level (ANOVA)	Eta- Squared
Sex Male Female	385 264	42% 42%	34% 39%	24% 19%	P > .05	
Marital Status Married Not Married	308 279	41% 42%	35% 36%	24% 23%	P > .05	
Age Intervals 0 - 20 21 - 25 26 - 30 31 - 35 36 - 40 41 - 45 46 - 50 over 50	202 167 107 78 45 26 12	35% 46% 37% 46% 42% 50% 56%	39% 36% 34% 36% 44% 31% 33% 33%	26% 18% 29% 18% 13% 19% 17%	P > .05	
Attendance at Other Postsecondary Institutions Two-year or Less Four-year	26 232	42% 36%	46% 35%	12% 28%	P > .05 P < .01	1.31
Total Sample	652 .	42%	37%	22%	•	

TABLE 18

STUDENT RATINGS OF SCHEDULING OF CLASSES PERCENTAGE DISTRIBUTION

	Category	Number Responding	Response Given			Significance Level	Eta-
:			Good	Fair	Poor	(ANOVA)	Squared
	Sex Male Female	453 327	58% 66%	33% 29%	9% 5%	P < .01	0.95
	Marital Status Married Not Married	387 323	62% 62%	31%	7% 6%	P > .05	•
	Age Intervals 0 - 20 21 - 25 26 - 30 31 - 35 36 - 40 41 - 45 46 - 50 Over 50	236 196 131 91 51 32 22 17	63% 58% 66% 56% 49% 69% 86% 71%	30% 36% 24% 37% 39% 28% 14% 29%	7% 7% 9% 7% 12% 3% 0%	P > .05	
	Macomb Graduation Status Graduates Non-Graduates	326 458	59% 64%	33% 30%	8%	P > .Ó5	
	Attendance at Other Postsecondary Institutions Two-year or Less Four-year Total Sample	34 257 784	65% 68% 62%	32% 25% 31%	3% 7% · 7%	P > .05 P < .05	0.57

TABLE 19

STUDENT RATINGS OF PROGRAM OFFERINGS PERCENTAGE DISTRIBUTION

	· · · · · · · · · · · · · · · · · · ·		* ,			
	Number	Response Given			Significance Level	Eta-
Category	Responding	Good	Fair	Poor	(ANOVA)	Squared
Sex Male Female	460 337	75% 81%	.21%	4% 1%	P < .05	0.74
Marital Status Married Not Married	392 331	80% 76%	17%	3% 2%	P > .05	
Age Intervals 0 - 20 21 - 25 26 - 30 31 - 35 36 - 40 41 - 45 46 - 50 Over 50	242 196 133 93 55 34 23	71% 76% 80% 79% 80% 94% 94% 100%	25% 22% 19% 19% 18% 3% 9% 0%	4% 2% 2% 2% 2% 3% 4% 0%	P < .05	2.04
Macomb Graduation Status Graduates Non-Graduates	330 471	81% 75%	17%	2% 3%	P > .05	
Attendance at Other Postsecondary Institutions Two-year or Less Four-year	34 262	85% 78%	14%	0% 3%	P > .05 P > .05	
Total Sample	801	77%	20%	3%	·	

TABLE 20

STUDENT RATINGS OF INSTRUCTION PERCENTAGE DISTRIBUTION

			,			N. **	
. :	ilumbos	Response Given			Significance,	F4-	
Category	Number Responding	Good	Fair	Poor	Level (ANOVA)	Eta- Squared	
Sex .Male Female	461 329	68% 76%	28% 2 2%	3% 2%	P < .05	0.64	
Marital Status Married Not Married	388 330	73% 71%	24% 27%	4% 2%	P > .05	1	
Age Intervals 0 - 20 21 - 25 26 - 30 31 - 35 36 - 40 41 - 45 46 - 50 Over 50	240 195 133 - 96 53 34 22 13	71% 68% 69% 74% 81% 73% 77%	24% 30% 27% 24% 17% 24% 23% 23%	5% 2% 4% 2% 2% 3% 0%	P > .05		
Macomb Graduation Status Graduates Non-Graduates	324 469	74% 70%	25% 26%	1% 4%	P > .05	, ,	
Attendance at Other Postsecondary Institutions				:			
Two-year or Less Four-year	33 262	82% 74%	12% 2 2%	6% 4%	P > .05 P > .05	s	
Total Sample	793	71%	26%	- 3%			
			<u> </u>	<u> </u>	<u> </u>	<u> </u>	

TABLE 21

STUDENT RATINGS OF PLACEMENT SERVICES PERCENTAGE DISTRIBUTION

; 	N 1	Rest	ponse Giv	ven	Significance		
Category	Number Responding	Good	Fair	Poor	Level (ANOVA)	Eta- Squared	
Sex Male Female	134 124	33% 40%	37%	30% 25%	P > .05		
Marital Status Married Not Married	93 132	39% 36%	31% 40%	30% 24%	P > .05		
Macomb Graduation Status Graduates General Education Occupational Education Non-Graduates	116 31 80 144	32% 23% 38% 40%	42% 55% 37% 31%	26% - 22% - 25% - 29%	P > .05		
Attendance at Other Postsecondary Institutions Two-year or Less Four-year	10 91	20% 30%	60%	20%	P > .05 P < .05	1.66	
Total Sample		36%	36%	28%		i	

Comparison of Results with Previous Follow-Up Studies

Table 22 shows the percentage of responses to comparable items in the series of follow-up studies begun in the Fall of 1974.

The differences in percentage of students who had graduated from Macomb at the time of the survey varies by as much as 20 percent. One possible explanation for this might be the fact that students were surveyed at varying times after their enrollment. For example, students enrolled in the Spring and Fall of 1971 were polled three and one-half years after their enrollment and the students enrolled in the Spring of 1972 were not polled until four and on-half years after their enrollment.

This fact may also serve to explain the difference in the percentage of students still enrolled at Macomb at the time of each survey.

TABLE 22

PERCENTAGE OF RESPONSES TO COMPARABLE ITEMS FROM THE SERIES.

OF FOLLOW-UP STUDIES

			,
——Ba te	Students	Were Enrolled	d
Spring 1971	Fall 1971	Spring 1972	Spring 1973
Date	Survey Wa	s Conducted	
November 1974 ∿	March 1975	November 1976	June '
38%	36%	56%	40%-
NA `	23%	17%	8%
· NA	NA	34%	32%
12%	6%	6%	12%
NÄ	67%	79%	75%
7% .	16%	6%	5%
6.7%	13.8%	6.8%	7.0%
-	Spring 1971 Date November 1974 38% NA NA 12% NA 7%	Spring Fall 1971 1971 Date Survey Water November March 1974 1975 38% 36% NA 23% NA NA 12% 6% NA 67% 7% 16%	Date Survey Was Conducted November March November 1974 1975 1976 38% 36% 56% NA 23% 17% NA NA 34% 12% 6% 6% NA 67% 79% 7% 16% 6%.

¹⁷ Michigan Employment Security Commission, Department of Research and Statistics

CHAPTER IV

Summary and Conclusions

The results of the study indicate a high degree of success for the college. Further assurance of this fact was to be found in the comments from respondents. Remarks that advised the college to "keep up the good work" appeared frequently in the questionnaires.

It can be seen that the college is effective in helping the community to achieve its educational grals. While this knowledge is certainly useful to the college itself, it may also be helpful to others.

In a recent talk given to the Michigan Community College Association for Development and Research (MCCADAR), Dr. James Weber, Director of Higher Education Management Services for the Michigan Department of Education, recommended the distribution of studies of this type at the state level. It was his belief that this kind of information is useful in policy-making by state agencies.

The follow-up study of students enrolled in the Spring of 1974 is currently in the data processing stage. Some information not sought in the 1973 study was sought here. Students were asked to provide the following additional items:

- Program enrollment.
- Whether the student who is working part-time does so by choice or because he cannot find full-time employment.
- 3. Whether the student who is unemployed and seeking work does so because he cannot find any job or because he cannot find one at a time or place suitable to him.

- 4. Individual yearly salary (instead of family income).
- 5. Evaluation of library services.
- Specific indications that the student was not able to achieve his goals at Macomb,

In addition to this, the wording of the instrument tied items that specified the students' goals more directly to goal achievement.

The study of students enrolled in the Spring of 1975 is currently in the design stage. In designing the questionnaire for this study every effort will be made to include an item asking respondents which campus they attended. The evaluations of services will, thereby, become more useful information to the administrative units involved?

Any comments or suggestions for use in the design of the 1975 study would be appreciated.

APPENDIX



PLE	ASE CHECK ALL 1	TEMS THAT	APPLY TO YOU		•
	Status (I	SPRING, 19	97 <u>3)</u>		
Male		•			
Female	•				
Married			· ·	•	
Single				•	
Divorced		f			
Widowed	.				
Other	·		· · ·		
	Yearly Fami	ly Income (NOW)		
\$0 3,999		·			
\$4,000 - 7,999	,				
\$8,000 - 11,999	•	•			
\$12,000 - 15,999			•		
_ \$16,000 - 19,999					:
\$20,000 +					
	Edu	<u>Ication</u>	*		
_ I have NOT been enr	olled anywhere	since Aprir	ng 1973.	•	,
I am now enrolled a	t			College.	
I have been enrolle	d some of the t	ime since S	pring 1973 at		
Other	Co			· · · · · · · · · · · · · · · · · · ·	
_ I have earned that				•	I .
College .	Degr	ee	Fie	eld.	



Employment

What is your employment status NOW?	,
I am employed fulltime at	
I am employed part-time atas a	
I am unemployed and seeking work.	
I am unemployed, but not seeking work.	
Other	
Course-Job-Relatedness	
How well does your coursework at Macomb relate to your present job?	. '
My reasons for attending Macomb in the Spring of 1973 had not my employment.	hing to do with
The courses I took at Macomb did NOT help me at my job.	
I could not have gotten my job without the courses I took at	Macomb.
The courses I took at Macomb have helped me perform my job be	tter.
The course I took at Macomb helped me get a better job.	
The courses I took at Macomb helped me get a higher salary.	`
Other	
<u>Goals</u>	
What were your reasons for attending Macomb in Spring, 1973?	d.
I wanted a certificate in the	Program.
I wanted an associate degree in the	Program.
I intended to transfer to Co	ollege.
I did NOT intend to earn a degree at Macomb.	
I wanted to take courses to develop skills in the area of	
I wanted to take courses for personal enrichment ONLY.	
I hoped to improve or learn skills I needed for my job as a _	
I hoped that by taking courses at Macomb I would earn a higher	salary.
I hoped to get a better job.	
Other	



Rating

How well did Macomb help you to ac	hieve your go	als?			
I gained <u>more</u> than I expected	d to.	·			
I gained <u>about</u> what I expecte	ed to.	•			
I gained <u>les</u> than I expected	to.				
I gained little or <u>nothing</u> .		•			
How would you rate Macomb on the fo	ollowing:				
•	No Opinion	Good	Fair	Poor	
Registration			·		,
Counseling Services	••			-	
Scheduling of classes		:			,
Program offerings				:	÷
Instruction					
Placement services					
Other				,	`
How can Macomb serve you now?	,				
Please send me a current sched	lule of classe	?S.			
Please send me information abo				•	
Please make the following chan	ges in my mai	ling label	:		<u> </u>
Name	Addres	s			
		·		*-	
Other	·				

ADDITIONAL COMMENTS



16500 HALL ROAD

MT CLEMENS, MICHIGAN 48043

286-8000 Ext. 333

June 1, 1977

Dear Former Student:

Your help is really needed. The research Department is conducting a follow-up study of all students enrolled at Macomb in the Spring of 1973.

Macomb College is searching for ways to improve its service to the community. Please help us by filling out the forms provided and returning them to us in the stamped, self-addressed envelope enclosed. In order to persuade you to do so, we are offering you a chance to win a prize.

If your name is drawn at random from those forms returned, you will have your choice of one of the three prizes listed below:

- 1. A 12-inch traditional globe with the old-world look. Parchment-like finish in ocean areas, decorative cartouches, antiqued meridian and a fruitwood finish base.
- 2. A Sedgefield wall weather instrument: a combination barometer temperature, and humidity instrument in wood-tone with charcoal and spun aluminum accents.
- 3. A Panasonic auto-stop electric pencil sharpener. The cutter mechanism and the heavy duty motor are built to provide years of trouble-free sharpening. Your choice of walnut with black trim or black with silver trim.

We urge you to fill out the forms and send them in as soon as possible. Yours may be the lucky form.

Thank you for your help.

Sincerely,

Mary Jo Stankovich Research Department

enclosures



CENTER CAMPUS
16500 Hall Road
MT CLEMENS, MICHIGAN 48043
286-8000 Ext. 332

July 6, 1977

Dear Former Student:

Please help us! On June 1, 1977 we sent you a letter asking you to complete a form and return it to us.

Your opinion is essential if we are to find ways to improve Macomb's service to the community.

You may be helping your children, one of your friends, a neighbor, or perhaps, yourself, if you attend Macomb in the future.

Our offer of a prize to a randomly chosen respondent still stands.

If you win, you may choose from these three gifts:

- 1. A 12-inch traditional globe with the old-world look.

 Parchment-like finish in ocean areas, decorative
 cartouches, antiqued meridian and a fruitwood finish
 base.
- 2. A Sedgefield wall weather instrument: a combination barometer temperature, and humidity instrument in wood-tone with charcoal and spun aluminum accents.
- 3. A Panasonic auto-stop electric pencil sharpener. The cutter mechanism and the heavy duty motor are built to provide years of trouble-free sharpening. Your choice of walnut with black trim or black with silver trim.

Please help us to help others. Send in your completed form in the self-addressed envelope as soon as possible.

Gratefully,

Mary Jo Stankovich Research Department

Trope when

das

Enclosure

BIBLIOGRAPHY'

- Babbie, Earl R., <u>Survey Research Methods</u>. Belmont, California: Wadsworth Publishing Company, Inc., 1973.
- Berdie, Douglas R., and Anderson, John F., <u>Questionnaires:</u> <u>Design</u> <u>and Use</u>. Metuchen, N.J.: The Scarecrow Press, Inc., 1974.
- Eckland, Bruce Kent. "A Source of Error in College Attrition Studies" Sociology of Education 38 (Fall 1964): 60-77.
- . "College Dropouts Who Came Back." Harvard Educational Review 34 (Summer 1964): 402-420.
- "Social Class and College Graduation: Some Misconceptions Corrected." The American Journal of Sociology 70 (July 1964): 36-50.
- Gross, Alan G. <u>Community College Institutional Research Today Topical Paper No.</u> 62. Los Angeles: <u>ERIC Clearinghouse for Junior Colleges</u>, (1977).
- Jex, Frank B. and Merill, Reed M. "A Study in Persistence: Withdrawal and Graduation Rates at the University of Utah" The Personnel and Guidance Journal 40 (May 1962): 762-769.
- Kohen, Andrew I., Nestel, Gilbert, Karmas, Constantine. "Factors
 Affecting Individual Persistence Rates in Undergraduate College
 Programs," American Educational Research Journal 15 (Spring 1978):
 233-252.
- Linton, Marigold and Gallo, Phillip S., Jr. <u>The Practical Statistician</u>. Belmont, California: Wadsworth Publishing Company, Inc., 1975.
- Nickens, John. "Community College Dropout Redefined." <u>College and</u> University 51 (Spring 1976): 322-329.
- Pantages, Timothy J., and Creedon, Carol F. "Studies of College Attrition: 1950-1975." Review of Educational Research 48 (Winter 1978): 49-102.
- Research and Development Department, MCCC. "Student Enrollment Report Spring, 1973." Warren, Michigan, March, 1973.
- Sudman. Seymour. Applied Sampling. New York: Academic Press, Inc., 1976.
- Williams, William G. and Snyder, Fred A. "Follow-up Studies of Former Occupational-Technical Students at Community Colleges." Richmond, Va.: Virginia Department of Community Colleges, 1974.

UNIVERSITY OF CALLEY

AU63 1070 -

44

CLEARINGHOUSE FOR () JUNIOR COLLEGES

