

DOCUMENT RESUME

ED 311 324

CG 021 937

TITLE Follow-Up Study of 1988 Graduates.
 INSTITUTION Saginaw Public Schools, Mich. Dept. of Evaluation Services.
 PUB DATE Jun 89
 NOTE 63p.
 PUB TYPE Reports - Research/Technical (143) --
 Tests/Evaluation Instruments (160) -- Statistical Data (110)

EDRS PRICE MF01/PC03 Plus Postage.
 DESCRIPTORS Career Guidance; College Students; Education Work Relationship; Employment Patterns; Followup Studies; *Graduate Surveys; *High School Graduates; High Schools; Postsecondary Education; *Vocational Followup

ABSTRACT

In June 1988, 742 students graduated from Saginaw and Arthur Hill High Schools. To determine what they have been doing since graduation the Department of Evaluation Services in conjunction with the Office of Adult and Continuing Education developed a 10-item telephone survey. In addition to collecting graduate follow-up information the survey was designed to act as a recruitment vehicle for Project Great which serves 19- and 20-year-olds with career guidance and vocational training experiences free of charge to participants. The survey directed respondents to identify their educational and/or employment status, specify the perceived problems they encountered either in the work force or post-high school education, and describe their present occupation or the one they are pursuing through their present education. The results of the study indicated that: (1) over one-half of the graduates were enrolled in some kind of educational program; (2) 10 months after graduation slightly over 10 percent of the students were unemployed; (3) most employed graduates were employed in relatively unskilled jobs; (4) almost one-half of the graduates were employed in personal services industries; (5) approximately 80 percent of the graduates in school were enrolled in 2- or 4-year colleges; and (6) the most common serious educational problems were the lack of basic educational skills, money problems, and lack of study habits. (ABL)

 * Reproductions supplied by EDRS are the best that can be made *
 * from the original document. *

8-16-89

ED311324

EVALUATION REPORT

FOLLOW-UP STUDY OF 1988 GRADUATES

CG021937

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

- This document has been reproduced as received from the person or organization originating it.
- Minor changes have been made to improve reproduction quality.
- Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Richard Norman
Claw

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

DEPARTMENT OF EVALUATION SERVICES

- PROVIDING ASSESSMENT, PROGRAM EVALUATION AND RESEARCH SERVICES -

Saginaw Public Schools

Saginaw, Michigan



FOLLOW-UP STUDY OF 1988 GRADUATES

An Approved Report of the
DIVISION OF ADMINISTRATION AND PERSONNEL
Department of Evaluation, Testing and Research

Richard N. Claus

Richard N. Claus, Ph.D.
Manager, Program Evaluation

Barry E. Quimper

Barry E. Quimper, Director
Evaluation, Testing & Research

Dr. Foster B. Gibbs, Superintendent and
Dr. Jerry R. Baker, Assistant Superintendent
for Administration and Personnel
School District of the City of Saginaw

June, 1989

BEST COPY AVAILABLE

TABLE OF CONTENTS

	Page
INTRODUCTION	1
DEMOGRAPHIC DATA	2
PRIMARY ACTIVITY	5
EMPLOYMENT	10
POST-HIGH SCHOOL EDUCATION	22
A FINAL WORD	36
APPENDICES	38
Appendix A: Project GREAT and Follow-Up Study Phone Survey of 1988 High School Graduates	39
Appendix B: Comparison of the 1986 and 1988 Graduates to the 1986 and 1988 Graduates Answering a Follow-Up Questionnaire by School, Race, and Gender	46
Appendix C: Occupational Categories Used in Saginaw's 1988 and 1986 Follow-Up Studies	47
Appendix D: Major Industrial Groups Used in Saginaw's 1988 and 1986 Follow-Up Studies	48
Appendix E: Post-High School Categories Used in Saginaw's 1988 and 1986 Follow-Up Studies	49
Appendix F: Educational Career Emphasis Categories Used in Saginaw's 1988 and 1986 Follow-Up Studies	50

LIST OF TABLES

Table	Page
1	Comparison of the 1988 Graduate Population with the 1988 Graduates Returning a Follow-Up Questionnaire, by Ethnic Background and Gender 2
2	Major Activity of 1988 Follow-Up Respondents by System, Gender, Ethnic Background, and School 6
3	Occupational Categories of Employed 1988 Graduates by System, Sex, Ethnic Background, and School 11
4	Type of Industry Employing 1988 Graduates After High School Graduation by System, Sex, Ethnic Background, and School 15
5	Most Serious Occupational Problem of 1988 Graduates by System, Gender, Ethnic Background, and School 18
6	Type of School Attended by 1988 Graduates After High School Graduation by System, Gender, Ethnic Background, and School 23
7	Post-High School Educational Career Emphasis of 1988 Graduates by System, Gender, Ethnic Background, and School 28
8	Most Serious Educational Problem of 1988 Graduates by System, Gender, Ethnic Background, and School 32
B.1	Comparison of the 1986 and 1988 Graduates to the 1986 and 1988 Graduates Answering a Follow-Up Questionnaire by School, Race, and Gender 46

INTRODUCTION

In June, 1988, 742 students graduated from Saginaw and Arthur Hill High Schools. To determine what they have been doing since graduation the Department of Evaluation Services in conjunction with the Office of Adult and Continuing Education developed a ten item phone survey (see Appendix A for a copy). The Project Great staff from the Office of Adult and Continuing Education, along with two evaluators, were trained in the use of the survey on April 11, 1989. In addition to collecting graduate follow-up information the survey was designed to act as a recruitment vehicle for Project Great which serves 19-20 year olds with career guidance and vocational training experiences free of charge to participants. The phoning started on April 24, 1989 and concluded on May 31, 1989. The survey directed respondents to identify their educational and/or employment status, specify the perceived problems they encountered either in the work force or post high school education, and describe their present occupation or the one they are pursuing through their present education. Those findings are contained in the balance of this report and represent the phone surveys completed by May 31, 1989.

The results of this study provide administrators, teachers, and counselors with data to further assist them in instructional and curricular planning to meet the needs of Saginaw's students.

DEMOGRAPHIC DATA

The 1988 follow-up phone survey attempted to contact 742 graduates (434 at Arthur Hill and 308 at Saginaw High). Four hundred ninety-three phone surveys (66.4%) were completed. Of those 493, 294 (59.6%) were from Arthur Hill graduates and 199 (40.4%) from Saginaw High graduates. The response rate shows that 67.7% (294 of 434) of Arthur Hill's and 64.6% (199 of 308) of Saginaw High's 1988 graduates responded to the survey.

Table 1 below contains a breakdown by ethnic background and sex of those returning the follow-up questionnaire and the district's 1988 graduating class.

TABLE 1. COMPARISON OF THE 1988 GRADUATE POPULATION WITH THE 1988 GRADUATES RETURNING A FOLLOW-UP QUESTIONNAIRE, BY ETHNIC BACKGROUND AND GENDER.

Ethnic Background and Gender	1988 Graduates Returning Follow-Up Questionnaires			Population of 1988 Graduating Class	
	Number	Percent of Respondents	Percent of Graduates	Number	Percent
TOTAL	493	100.0	66.4	742	100.0
ETHNIC BACKGROUND					
White	193	39.2	69.9	276	37.2
Black	254	51.5	63.8	398	53.6
Spanish-American	39	7.9	66.1	59	8.0
American Indian	7	1.4	87.5	8	1.1
Oriental	0	0.0	0.0	1	0.1
GENDER					
Female	283	57.4	66.7	424	57.1
Male	210	42.6	66.0	318	42.9

A review of the data shows that:

- Of the 493 respondents, 193 (39.2%) were White, 254 (51.5%) Black, 39 (7.9%) Spanish-American, 7 (1.4%) American Indian, and 0 (0.0%) Oriental. The percent of respondents by group approximates the percent each group represented in the graduating class.
- Ethnically speaking, over 50% of each group's graduates were contacted except for the Oriental group - where the single person could not be reached. A total of 87.5%, 69.9%, 66.1%, 63.8% were contacted for the American Indian, White, Spanish-American, and Black ethnic groups, respectively. (Caution should be exercised when attaching significance to groups with comparatively small numbers.) (See Appendix B.)
- Of those responding, 283 (57.4%) were female and 210 (42.6%) were male. The graduating class was made of 424 (57.1%) females and 318 (42.9%) males. As can be seen the percent of males and females in each group was approximately proportional to the response rates.

The intent of the study was to describe the total 1988 Saginaw graduating class. The data presented should be viewed as representative of the survey respondents, and not necessarily reflective of the total graduating class since 66.4% of the graduates completed the follow-up instrument. A second purpose of the study was to provide data upon which to make comparisons with the results of the Follow-Up Study of 1986 Graduates. Appendix B provides a comparison between the graduating classes and respondents in 1986 and 1988 by high school, gender, and ethnic background. Of the 1986 graduates 64.6% (455 of 706) returned the questionnaire compared with 66.4% (493 of 742) of the 1988 graduates. (See Appendix B for further comparisons of the two graduating classes.)

The reader should also bear in mind that the 1986 study was conducted approximately six months after graduation. Thus, the 1986 and 1988 graduates are being compared at approximately the same points in their post-high school

careers (6 months versus 10 months respectively) and thus some similarity may well be expected.

The discussion section that follows will be divided into three major sections. The first section will deal the primary activity which most accurately describes their current employment/educational status. The other two sections, will deal with a fuller description of their employment and post-high school education related to the current primary activities reported.

PRIMARY ACTIVITY

The graduates were asked to indicate the primary activity which most accurately described their current employment/educational status.

Table 2 on the following page contains responses to this question by system, sex, ethnic background, and building.

TABLE 2. MAJOR ACTIVITY OF 1988 FOLLOW-UP RESPONDENTS BY SYSTEM, GENDER, ETHNIC BACKGROUND, AND SCHOOL.

TYPE OF ACTIVITY	SYSTEM								ARTHUR HILL			SAGINAW HIGH			
	Total %	Gender		Am In %	Ethnic Background				Total %	Gender		Total %	Gender		
		Female %	Male %		White %	Sp-Am %	Black %	Oriental %		Female %	Male %		Female %	Male %	
Full-Time Education	47.0	51.1	41.5	57.1	50.0	45.0	45.3	0.0	49.8	53.3	45.4	42.0	47.0	34.2	
Part-Time Employment	11.9	11.4	12.6	14.3	13.3	7.5	11.4	0.0	11.5	11.6	11.4	12.5	11.1	14.5	
Full-Time Employment	11.3	8.6	15.0	0.0	15.8	10.0	8.1	0.0	13.2	11.6	15.1	8.3	4.3	14.5	
Unemployed Seeking Work	10.6	5.7	4.8	0.0	1.0	0.0	9.7	0.0	1.4	1.2	1.5	11.4	11.8	10.5	
Military	7.4	2.8	13.5	14.3	6.1	5.0	8.5	0.0	6.7	2.4	12.1	8.3	3.4	15.8	
Part-Time Education	5.3	11.8	8.7	0.0	9.7	20.0	9.7	0.0	12.1	13.9	9.9	9.3	10.3	7.9	
Unemployed Not Seeking Work	5.1	6.8	2.9	14.3	3.1	7.5	6.1	0.0	4.4	4.8	3.8	6.2	9.4	1.3	
Layed-Off	0.6	0.4	1.0	0.0	0.0	2.5	0.8	0.0	0.3	0.0	0.8	1.0	0.9	1.3	
Homemaker	0.4	0.7	0.0	0.0	0.0	2.5	0.4	0.0	0.3	0.6	0.0	0.5	0.9	0.0	
Other	0.4	0.7	0.0	0.0	1.0	0.0	0.0	0.0	0.3	0.6	0.0	0.5	0.9	0.0	
TOTAL	% N	100.0 487	100.0 280	100.0 207	100.0 7	100.0 196	100.0 40	100.0 244	100.0 0	100.0 294	100.0 163	100.0 131	100.0 193	100.0 117	100.0 76

A review of the data in Table 2 reveals:

- System-wide, the greatest percent of graduates (47.0%) was enrolled in a full-time training program, school or college.
 - A greater percentage of females (51.1%) than males (41.5%) were in school full-time.
 - A greater percentage of White students (57.1%) were enrolled in school than either Spanish-American or Black graduates.
 - The percent of Black and Spanish-American graduates in school full-time was nearly the same (45.3% and 45.0%, respectively).
 - A greater percentage of AHHS graduates (49.8%) than SHS graduates (42.0%) were in school full-time.
- The second most frequently cited activity was part-time employment (11.9%).
 - A greater percentage of males (12.6%) than females (11.4%) fell into this category.
 - The greatest percent of graduates part-time employed were American Indian (14.3%) followed by White (13.3%), Black (11.4%), and Spanish-American (7.5%).
 - The percent of graduates at SHS (12.5%) part-time employed was approximately the same at AHHS (11.5%).
- The third most frequently cited activity was full-time¹ employment (11.3%).
 - A greater percent of males (15.0%) than females (8.6%) was working full-time.
 - A greater percentage of White graduates found full-time employment (15.8%) than Spanish-Americans (10.0%), Blacks, (8.1%), or American Indians (0.0%).
 - A greater percentage of Arthur Hill graduates was employed full-time (13.2%) than Saginaw High graduates (8.3%).

¹Thirty or more hours per week.

- The fourth most frequently cited response was "unemployed seeking work" (10.6%).
 - The percentage of females (5.7%) "seeking work" was only slightly greater than males (4.8%).
 - Blacks (9.7%) topped the list followed by Whites (1.0%), American Indians and Spanish-Americans had no one in this category.
 - The percentage of SHS graduates (11.4%) seeking work was eight times greater than AHHS (1.4%).
- The fifth most frequently cited activity was the military service (7.4%).
 - The percentage of males (13.5%) in the service was almost five times greater than females (2.8%).
 - American Indians (14.3%) topped the list followed by Blacks (8.5%), Whites (6.1%), and Spanish-Americans (5.0%).
 - The percentage of SHS graduates (8.3%) in the military was greater than AHHS graduates (6.7%).

Each of the remaining major activities was mentioned by fewer than 6.0% of the respondents--part-time education (5.3%), unemployed not seeking work (5.1%), laid-off (0.6%), homemaker (0.4%), and other (0.4%).

Some differences can be observed between the 1988 and 1986 graduates. The chart below contains the percent of respondents for both years by primary activity.

<u>Primary Activity</u>	<u>1988</u>	<u>1986</u>
	<u>%</u>	<u>%</u>
Full-Time Education	47.0	41.6
Part-Time Employment	11.9	14.6
Full-Time Employment	11.3	15.7
Unemployed Seeking Work	10.6	10.8
Military	7.4	5.3
Part-Time Education	5.3	8.0
Unemployed Not Seeking Work	5.1	2.4
Laid-Off	0.6	0.9
Homemaker	0.4	0.7
Other	0.4	0.0
TOTAL	% 100.0	100.0
	N 487	452

Full-time education remained the primary activity for both 1988 and 1986 graduates (47.0% and 41.6% respectively). Part- or full-time employment of 1988 graduates (11.9% and 11.3% respectively) was less than for the 1986 graduates (14.6% and 15.7% respectively). A smaller percentage of the 1988 graduates (5.3%) entered part-time education as their primary activity than the 1986 graduates (8.0%). More 1988 graduates were in the military and unemployed not seeking work (7.4% and 5.1% respectively) than the 1986 graduates (5.3% and 2.4% respectively). Overall, the 1988 graduates appear to be involved in educational pursuits slightly more and less into employment than the 1986 graduates. This tends to be the general trend during economic prosperity when employment is less essential because parents or part-time pursuits can more easily fuel the costs related to further education.

EMPLOYMENT

The 224 graduates who indicated "working" as their primary activity since graduation were asked to specify their jobs by occupational category. A complete description of these occupational categories can be found in Appendix C.

A complete tabulation of the occupational categories of the 1988 graduates by system, gender, ethnic background and building is contained in Table 3 below.

TABLE 3. OCCUPATIONAL CATEGORIES OF EMPLOYED 1988 GRADUATES BY SYSTEM, SEX, ETHNIC BACKGROUND, AND SCHOOL.

OCCUPATIONAL CATEGORY	SYSTEM								ARTHUR HILL			SAGINAW HIGH			
	Total %	Gender		Am In %	Ethnic Background				Total %	Gender		Total %	Gender		
		Female %	Male %		White %	Sp-Am %	Black %	Oriental %		Female %	Male %		Female %	Male %	
Serving personal needs of people	29.9	32.1	27.4	50.0	23.5	25.0	36.8	0.0	24.5	27.2	21.2	40.2	43.3	37.5	
Waiting on Customers	18.3	22.0	14.2	0.0	20.6	20.0	16.3	0.0	21.8	25.9	16.7	11.7	13.5	10.0	
Manual Work	13.0	3.4	23.6	0.0	10.8	20.0	14.3	0.0	11.6	3.7	21.2	15.6	2.7	27.5	
Clerical Work	8.9	14.4	2.8	0.0	9.8	15.0	7.2	0.0	8.8	14.8	1.5	9.1	13.5	5.0	
Providing Skilled Services for People	7.2	5.9	8.5	0.0	6.9	0.0	9.2	0.0	6.8	4.9	9.1	7.8	8.1	7.5	
Selling & Merchandising Work	6.3	7.6	4.8	25.0	9.8	5.0	2.0	0.0	8.2	8.7	7.6	2.6	5.4	0.0	
Caring for People or Animals	4.5	7.6	0.9	0.0	4.9	5.0	4.1	0.0	5.4	9.9	0.0	2.6	2.7	2.5	
Communications Work	2.7	2.5	2.8	0.0	3.9	5.0	1.0	0.0	4.1	3.7	4.6	0.0	0.0	0.0	
Managerial Work	2.3	0.9	3.8	0.0	2.9	0.0	2.0	0.0	2.0	0.0	4.6	2.6	2.7	2.5	
Skilled Operation, Repair, or Installation of Precision Equipment	2.2	0.9	3.8	25.0	2.9	0.0	1.0	0.0	2.7	0.0	6.0	1.3	2.7	0.0	
Inspecting & Measuring	1.8	0.9	2.8	0.0	1.0	0.0	3.1	0.0	0.7	0.0	1.5	3.9	2.7	5.0	
Number Work	1.3	0.9	1.9	0.0	2.0	0.0	1.0	0.0	2.0	1.2	3.0	0.0	0.0	0.0	
Musical & Entertainment Activities	0.4	0.0	0.9	0.0	1.0	0.0	0.0	0.0	0.7	0.0	1.5	0.0	0.0	0.0	
Machine Work	0.4	0.0	0.9	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	1.3	0.0	2.5	
Craftsmanship	0.4	0.0	0.9	0.0	0.0	5.0	0.0	0.0	0.7	0.0	1.5	0.0	0.0	0.0	
Promotional Activities	0.4	0.9	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	1.3	2.7	0.0	
TOTAL	% N	100.0 224	100.0 118	100.0 106	100.0 4	100.0 102	100.0 20	100.0 98	— 0	100.0 147	100.0 81	100.0 66	100.0 77	100.0 37	100.0 40

11

Highlights from Table 3 include:

- Two of these occupational categories, serving the personal needs of people and waiting on customers represented almost half (29.9% and 18.3% respectively) of the respondents.
- System-wide, there are marked differences (at least twice as many) between the percentage of males and females working in twelve of the sixteen occupational categories represented. Occupations showing smaller differences included:
 - More females (32.1%) than males (27.4%) were employed in jobs serving the personal needs of people.
 - More females (22.0%) than males (14.2%) had jobs waiting on customers.
 - More males (8.5%) than females (5.9%) were providing skilled services for people.
 - More females (7.6%) than males (4.8%) were employed in jobs involving selling and merchandising.
 - More males (2.8%) than females (2.5%) were in communication work.
- Only Whites (102) and Blacks (98) are represented by large enough numbers to make meaningful statements by ethnic group.
 - The top five occupational categories for White graduates were:
 - Serving personal needs of people (23.5%)
 - Waiting on customers (20.6%)
 - Manual work (10.8%)
 - Clerical work (9.8%)
 - Selling and merchandising work (9.8%)
 - The top five occupational categories for Black graduates were:
 - Serving personal needs of people (36.8%)
 - Waiting on customers (16.3%)
 - Manual work (14.3%)
 - Providing skilled services for people (9.2%)
 - Clerical work (7.2%)
- By school, differences between males and females are in the same direction except for those at SHS in the areas of providing skilled services for people; managerial work; and skilled operation and repair of precision equipment.

- More Arthur Hill graduates (147) have been employed since June than Saginaw High graduates (77). When expressed as a percentage of their graduating classes, the figures (33.8% and 25.0% respectively) show the same trend but greatly reduced in strength.
- No Saginaw High graduates were employed in communication work, number work, musical and entertainment activities, and craftsmanship.
- No Arthur Hill graduates were employed in machine work and promotional activities.

Differences in occupations between the 1988 and 1986 graduates seem noteworthy to review. The chart below contains the percent of respondents for both years by occupational category.

<u>Occupational Category</u>	<u>1988</u> %	<u>1986</u> %
Serving Personal Needs of People	29.9	11.5
Waiting on Customers	18.3	29.8
Manual Work	13.0	18.8
Clerical Work	8.9	16.6
Providing Skilled Services for People	7.2	5.1
Selling and Merchandising Work	6.3	0.8
Caring for People or Animals	4.5	4.7
Communications Work	2.7	0.4
Managerial Work	2.3	1.3
Skilled Operation, Repair, or Installation	2.2	1.7
Inspecting and Measuring	1.8	0.4
Number Work	1.3	0.8
Craftsmanship	0.4	2.6
Musical and Entertainment Activities	0.4	1.3
Machine Work	0.4	1.3
Promotional Activities	0.4	0.0
Artistic Work	0.0	2.1
Not Specified	0.0	0.8
TOTAL	% 100.0	100.0
	N 224	232

The number of occupational categories represented by the 1986 (16 of 17) and 1988 (15 of 17) graduates has decreased by one. The largest percentage of graduates employed in a category decreased 11.5% from 1986 to 1988 in waiting

on customers. Other large decreases occurred in clerical (-7.7%) and manual (-5.8%) work. Substantial increases from 1986 to 1988 were observed in the following categories: serving personal needs of people (+18.4%) and selling and merchandising work (+5.5%).

Respondents were asked to name where they worked. These organizations were then classified by industrial group (see Appendix D). Table 4 on the following page contains information by system, sex, ethnic background, and building for graduates employed in these industrial classifications.

TABLE 4. TYPE OF INDUSTRY EMPLOYING 1988 GRADUATES AFTER HIGH SCHOOL GRADUATION BY SYSTEM, SEX, ETHNIC BACKGROUND, AND SCHOOL.

INDUSTRY OF EMPLOYERS	SYSTEM								ARTHUR HILL			SAGINAW HIGH		
	Total %	Gender		Am In %	Ethnic Background				Total %	Gender		Total %	Gender	
		Female %	Male %		White %	Sp-Am %	Black %	Oriental %		Female %	Male %		Female %	Male %
Personal Services	42.0	44.7	39.1	25.0	39.3	28.6	48.1	0.0	39.6	43.4	35.2	46.4	47.5	45.5
Professional & Related Services	26.9	21.1	33.0	25.0	22.4	23.8	32.1	0.0	24.7	19.3	31.0	30.9	25.0	36.4
Wholesale & Retail Trade	19.8	26.8	12.2	50.0	21.5	38.1	13.2	0.0	20.8	28.9	11.3	17.9	22.5	13.6
Manufacturing	3.4	0.8	6.1	0.0	2.8	9.5	2.8	0.0	3.2	0.0	7.0	3.6	2.5	4.5
Construction	2.5	0.0	5.2	0.0	5.6	0.0	0.0	0.0	3.9	0.0	8.5	0.0	0.0	0.0
Entertainment & Recreational Services	2.5	2.5	2.6	0.0	3.7	0.0	1.9	0.0	3.9	3.6	4.2	0.0	0.0	0.0
Finance, Insurance & Real Estate	2.1	3.3	0.9	0.0	2.8	0.0	1.9	0.0	2.6	3.6	1.4	1.2	2.5	0.0
Transportation, Communication & Other Public Utilities	0.8	0.8	0.9	0.0	1.9	0.0	0.0	0.0	1.3	1.2	1.4	0.0	0.0	0.0
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	% N 100.0 238	100.0 123	100.0 115	100.0 4	100.0 107	100.0 21	100.0 106	— 0	100.0 154	100.0 83	100.0 71	100.0 84	100.0 40	100.0 44

A review of the data in Table 4 indicates that:

- Of the 238 employed graduates 88.7% either worked in personal services, professional and related services, or wholesale/retail trade (42.0%, 26.9%, and 19.8% respectively).
- By system, there are marked differences (at least twice as many) between the percentage of males and females in four of the eight industrial groups categories represented. Industrial groups showing these differences included:
 - More females (26.8%) than males (12.2%) work in the wholesale/retail trade.
 - More males (6.1%) than females (0.8%) work for manufacturing employers.
 - More females (3.3%) than males (0.9%) being hired by finance, insurance, and real estate agencies.
 - Construction employers show only males (5.2%).
- Personal services, professional and related services, and wholesale/retail trade industrial categories were the three most frequently mentioned by the four ethnic groups responding.
- Only White (107) and Black (106) are represented by large enough numbers to make any meaningful statements by ethnic background.
 - The top four employers for White graduates were:
 - Personal services (39.3%)
 - Professional and related services (22.4%)
 - Wholesale/retail trade (21.5%)
 - Construction (5.6%)
 - The top four employers for Black graduates were:
 - Personal services (48.1%)
 - Professional and related services (32.1%)
 - Wholesale/retail trade (13.2%)
 - Manufacturing (2.8%)
- More Arthur Hill graduates (154) were employed in the industries mentioned than Saginaw High graduates (84).

- No Saginaw High graduates were employed in the industries of construction; entertainment and recreational services; and transportation, communication and other public utilities.

Some minor differences are apparent when comparing employer industries of 1988 and 1986 graduates. The order of the top three employers (first, personal services, next professional and related services, and wholesale/retail trade) remains the same between the two graduating classes. The chart below presents the employed 1988 and 1986 graduates by industrial employer.

<u>Industry of Employers</u>	<u>1988</u> %	<u>1986</u> %
Personal Services	42.0	31.7
Professional and Related Services	26.9	24.6
Wholesale and Retail Trade	19.8	21.7
Manufacturing	3.4	5.8
Construction	2.5	4.6
Entertainment and Recreational Services	2.5	5.8
Finance, Insurance and Real Estate	2.1	1.2
Transportation, Communication and Other Public Utilities	0.8	2.5
Other	0.0	2.1
TOTAL	% 100.0	100.0
	N 238	237

The 1988 graduates found employment in eight of the nine industries (exception being other). Saginaw's 1986 graduates were employed in all nine industries. The four largest decreases from 1986 to 1988 occurred in entertainment and recreational services (-3.3%), manufacturing (-2.4%), construction (-2.1%), and other (-2.1%). The two most substantial increases appeared in personal services (10.3%) and professional and related services (2.3%).

The employed 1988 graduates were also asked, "What was the single most serious occupational problem that they had met since graduation?" Those occupational problems faced by graduates are contained in Table 5 on the following page by system, sex, ethnic background and building.

TABLE 5. MOST SERIOUS OCCUPATIONAL PROBLEM OF 1988 GRADUATES BY SYSTEM, GENDER, ETHNIC BACKGROUND, AND SCHOOL.

OCCUPATIONAL PROBLEM	SYSTEM								ARTHUR HILL			SAGINAW HIGH			
	Total %	Gender		Am In %	Ethnic Background				Total %	Gender		Total %	Gender		
		Female %	Male %		White %	Sp-Am %	Black %	Oriental %		Female %	Male %		Female %	Male %	
No Occupational Problem	82.1	81.0	82.1	100.0	86.6	84.0	75.8	0.0	85.9	83.0	89.5	73.8	77.0	69.8	
Unable to Find the Right Job	8.7	9.2	8.2	0.0	3.5	4.0	14.5	0.0	4.7	5.3	4.0	16.0	16.7	14.8	
No Work Available	2.6	2.8	2.5	0.0	0.9	8.0	3.3	0.0	2.9	3.2	2.6	2.2	2.1	2.2	
A Combination of Problems	1.5	1.4	1.6	0.0	2.7	4.0	0.0	0.0	2.3	2.1	2.6	0.0	0.0	0.0	
Lacked Job Experience	1.1	2.1	0.0	0.0	0.9	0.0	1.6	0.0	1.2	2.1	0.0	1.0	2.1	0.0	
Unable to Establish Goals	0.7	1.4	0.0	0.0	1.8	0.0	0.0	0.0	1.2	2.1	0.0	0.0	0.0	0.0	
Prejudice and/or Discrimination	0.7	0.7	0.8	0.0	0.9	0.0	0.8	0.0	0.6	1.1	0.0	1.0	0.0	2.2	
Lack of Funds for College	0.7	0.0	1.6	0.0	1.8	0.0	0.0	0.0	0.6	0.0	1.3	1.0	0.0	2.2	
Other	0.7	0.7	0.8	0.0	0.0	0.0	1.6	0.0	0.6	1.1	0.0	1.0	0.0	2.2	
Lacked Skills and Technical Knowledge	0.3	0.0	0.8	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	2.2	
Unable to Follow Plans to Accomplish goals	0.3	0.7	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	1.0	2.1	0.0	
Attending College Full-Time	0.3	0.0	0.8	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	1.0	0.0	2.2	
Personal Problems	0.3	0.0	0.8	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	1.0	0.0	2.2	
Disappointed with Occupational Choice	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
TOTAL	% N	100.0 265	100.0 142	100.0 123	100.0 4	100.0 112	100.0 25	100.0 124	— 0	100.0 170	100.0 94	100.0 76	100.0 95	100.0 48	100.0 47

A review of the data contained in Table 5 reveals that:

- Of the 265 respondents (82.1%) found no major occupational problems.
- System-wide totals show that the top three occupational problems were:
 - Unable to find the right job 8.7% (4.7%: AHHS and 16.0%: SHS).
 - No work available 2.6% (2.9%: AHHS and 2.2%: SHS).
 - A combination of problems 1.5% (2.3%: AHHS and 0.0%: SHS).
- The most frequent response of both males (82.1%) and females (81.0%) was "no serious occupational problem".
 - A greater percentage of females (9.2%) than males (8.2%) system-wide found an inability to find the right job.
 - A greater percentage of females (2.8%) than males (2.5%) system-wide found "no work available" as the greatest occupational problem.
- Only Whites (112) and Blacks (124) are represented by large enough numbers to make any meaningful statement by ethnic background.
 - The top four occupational problems for White graduates were:
 - Unable to find the right job (3.5%)
 - A combination of problems (2.7%)
 - Unable to establish goals (1.8%)
 - Lack of funds for college (1.8%)
 - The top four occupational problems for Black graduates were:
 - Unable to find the right job (14.5%)
 - No work available (3.3%)
 - Lacked job experience (1.6%)
 - Other (1.6%)

- The top three occupational problems for Arthur Hill female and male graduates were:

- Females

- Unable to find the right job (5.3%)
- No work available (3.2%)
- A combination of problems (2.1%)
- Lacked job experience (2.1%)
- Unable to establish goals (2.1%)

- Males

- Unable to find the right job (4.0%)
- No work available (2.6%)
- A combination of problems (2.6%)

- Top three occupational problems for Saginaw High female and male graduates were:

- Females

- Unable to find the right job (16.7%)
- No work available (2.1%)
- Lacked job experience (2.1%)
- Unable to follow plans to accomplish goals (2.1%)

- Males

- Unable to find the right job (14.8%)
- No work available (2.2%)
- Prejudice and/or discrimination (2.2%)
- Lack of funds for college (2.2%)
- Lacked skills and technical knowledge (2.2%)
- Attending college full-time (2.2%)
- Personal problems (2.2%)
- Other (2.2%)

The chart below presents the occupational problems of the employed 1988 and 1986 graduates.

<u>Occupational Problem</u>	<u>1988</u>	<u>1986</u>
	<u>%</u>	<u>%</u>
No Occupational Problem	82.1	45.9
Unable to Find the Right Job	8.7	17.3
No Work Available	2.6	6.2
A Combination of Problems	1.5	0.7
Lacked Job Experience	1.1	5.9
Prejudice and/or Discrimination	0.7	1.4
Unable to Establish Goals	0.7	1.4
Lack of Funds for College	0.7	0.3
Other	0.7	2.8
Lacked Skills and Technical Knowledge	0.3	6.2
Personal Problems	0.3	4.5
Unable to Follow Plans to Accomplish Goals	0.3	3.4
Attending College Full-Time	0.3	0.3
Disappointed with Occupational Choice	0.0	3.1
Threat of Lay-Off	0.0	0.3
Being Over Qualified	0.0	0.3
TOTAL	% 100.0	100.0
	N 265	282

Overall it appears the employed 1988 graduates have experienced fewer serious occupational problems than 1986 (no occupational problems 82.1% and 45.9% respectively). A substantial decrease of 8.6% in the number reporting the inability to find the right job between 1986 and 1988 graduates.

POST-HIGH SCHOOL EDUCATION

Table 6 below contains data relevant to post high school educational information for 318 graduates. (See Appendix E for a complete list of school categories.)

TABLE 6. TYPE OF SCHOOL ATTENDED BY 1968 GRADUATES AFTER HIGH SCHOOL GRADUATION BY SYSTEM, GENDER, ETHNIC BACKGROUND, AND SCHOOL.

TYPE OF SCHOOL	SYSTEM								ARTHUR HILL			SAGINAW HIGH			
	Total %	Gender		Am In %	Ethnic Background				Total %	Gender		Total %	Gender		
		Female %	Male %		White %	Sp-Am %	Black %	Oriental %		Female %	Male %		Female %	Male %	
Junior or Community College	43.7	48.4	37.3	40.0	42.2	64.3	41.4	0.0	45.5	52.2	37.1	40.5	42.3	37.7	
College or University	34.6	35.9	32.8	40.0	39.8	17.9	33.1	0.0	34.7	34.5	34.8	34.5	38.0	28.9	
Dance School	10.7	3.2	20.9	20.0	10.2	7.1	11.5	0.0	9.4	2.7	18.0	12.9	4.2	26.7	
Apprenticeship, Vocational-Technical School	8.5	8.7	8.2	0.0	7.0	7.1	10.2	0.0	8.9	8.8	9.0	7.7	8.5	6.7	
Business School	1.0	1.1	0.8	0.0	0.8	3.6	0.6	0.0	1.0	0.9	1.1	0.9	1.4	0.0	
Adult Education	0.6	1.1	0.0	0.0	0.0	0.0	1.3	0.0	0.5	0.9	0.0	0.9	1.4	0.0	
Skilled Personal Service School	0.6	1.1	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	1.7	2.8	0.0	
Management Training Program	0.3	0.5	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.9	1.4	0.0	
TOTAL	% N	100.0 318	100.0 184	100.0 134	100.0 5	100.0 128	100.0 28	100.0 157	— 0	100.0 202	100.0 113	100.0 89	100.0 116	100.0 71	100.0 45

A review of the data contained in Table 6 reveals that:

- Of the 318 graduates:
 - 202 (63.5%) were Arthur Hill graduates, 116 (36.5%) Saginaw High graduates.
 - 43.7% were enrolled in two-year programs, 34.6% in four-year programs.
- At least 66% of all respondents across all categories were enrolled in a four-year college/university or two-year junior/community college.
- Of four-year and two-year colleges attendance:
 - The percent of females (48.4%) in two-year colleges/universities exceeded males (37.3%).
 - The percent of females (35.9%) in four-year colleges exceeded males (32.8%).
 - The percent of Arthur Hill graduates (45.5%) in two-year colleges exceeded Saginaw High School graduates (40.5%).
 - The percent of Arthur Hill graduates (34.7%) in four-year colleges exceeded Saginaw High School graduates (34.5%).
- Dance school was the third highest institution attended by:
 - American Indian, Black, White, and Spanish-American graduates (20.0%, 11.5%, 10.2%, and 7.1% respectively).
 - Saginaw High and Arthur Hill students (12.9% and 9.4% respectively)

A review of the types of post secondary schools attended by 1988 and 1986 graduates reveal a large increase in two-year college attendance. The chart on the following page contrasts the percent of 1988 and 1986 graduates attending different types of schools.

<u>Type of School</u>	<u>1988</u> %	<u>1986</u> %
Junior or Community College	43.7	27.9
College or University	34.6	51.1
Other	10.7	2.5
Apprenticeship, Vocational-Technical School	8.5	8.0
Business School	1.0	5.5
Adult Education	0.6	1.3
Skilled Personal Service School	0.6	0.8
Management Training	0.3	0.4
Military School		2.5
TOTAL	% 100.0 N 318	100.0 237

The largest increase in types of schools attended from 1986 to 1988 were in junior or community colleges (+15.8%). The largest decrease appeared in colleges or universities (-16.5%). Thus junior/community college attendance seems to be increasing while four-year college attendance is decreasing.

The chart presented below contains the number and percent of graduates enrolled in post high school education by institution.

<u>Post Secondary School Attended</u>	<u>1988 Graduates</u>	
	<u>#</u>	<u>%</u>
Delta Community College	118	37.1
Army/Navy/Air Force (Armed Services)	34	10.7
Saginaw Valley State University	22	7.0
Great Lakes Junior College	15	4.7
Averill Career Opportunities Center	14	4.4
Michigan State University	14	4.4
Central Michigan University	9	2.9
University of Michigan	7	2.2
ITT Technical Institute	6	1.9
Lansing Community College	6	1.9
Western Michigan University	6	1.9
Northwood Institute	5	1.6
Eastern Michigan University	4	1.3
Michigan Technological University	4	1.3
Oakland University	4	1.3
Alabama State University	3	1.0
Alma College	3	1.0
Ferris State College	3	1.0
Murphy Beauty School	3	1.0
Cheyney University	2	0.6
Devery: Columbus, Ohio	2	0.6
OIC (Opportunities Industrialization Ctr)	2	0.6
Kalamazoo Junior	2	0.6
California Community College	2	0.6
Suomi College	1	0.3
Aquinas College	1	0.3
Baker Junior College	1	0.3
Central State University of Ohio	1	0.3
Davenport College	1	0.3
General Motors Institute	1	0.3
Knoxville College	1	0.3
Purdue University	1	0.3
Siena Heights College	1	0.3
Southern University	1	0.3
Morehouse College	1	0.3
Jackson State University	1	0.3
Clark College: Atlanta, Georgia	1	0.3
Tennessee State	1	0.3
Grand Valley State University	1	0.3
Dienzer Junior College: Colorado	1	0.3
Wiley College: Texas	1	0.3
Henry Ford Community College	1	0.3
Adult Education	1	0.3
Chicago Art Institute	1	0.3
Adrian College	1	0.3
Liberty University: Virginia	1	0.3
Ohio State University	1	0.3
Goshen College	1	0.3
Associated Schools, Inc.: Florida	1	0.3
Beauty School: Finland	1	0.3
Berklee College of Music: Boston	1	0.3
University of Detroit	1	0.3
	<u>318</u>	<u>100.0</u>

As can be seen the five of the six most frequently cited educational institutions are in Michigan with the exception of the armed services. These six post-secondary schools represent 68.3% (217 of 318) of the 1988 graduates seeking further education.

These graduates were training for a variety of careers. Careers were categorized into one of twelve career emphases (see Appendix F). Table 7 below contains career information by system, sex, ethnic background, and building.

TABLE 7. POST-HIGH SCHOOL EDUCATIONAL CAREER EMPHASIS OF 1988 GRADUATES BY SYSTEM, GENDER, ETHNIC BACKGROUND, AND SCHOOL.

EDUCATIONAL CAREER EMPHASIS	SYSTEM									ARTHUR HILL			SAGINAW HIGH		
	Total %	Gender		Am In %	Ethnic Background					Total %	Gender		Total %	Gender	
		Female %	Male %		White %	Sp-Am %	Black %	Oriental %	Female %		Male %	Female %		Male %	
Business	24.4	31.3	15.0	0.0	16.5	35.7	29.7	0.0	21.9	30.1	11.4	29.0	33.3	22.2	
Law & Government	15.5	7.7	26.3	20.0	13.4	14.3	17.4	0.0	13.9	7.1	22.7	18.4	8.7	33.4	
Undecided	12.0	12.6	11.2	0.0	18.9	17.8	5.8	0.0	16.4	17.7	14.8	4.4	4.4	4.4	
Medicine, Health Services	10.5	16.5	2.3	20.0	7.9	10.7	12.3	0.0	8.0	12.4	2.3	14.9	23.1	2.2	
Education & Social Services	8.6	10.4	6.0	20.0	7.9	10.7	8.4	0.0	9.0	12.4	4.5	7.9	7.2	8.9	
Engineering & Architecture	8.3	1.7	17.3	0.0	11.0	0.0	7.7	0.0	9.0	0.9	19.3	7.0	2.9	13.4	
Commercial Arts & Communications	6.0	5.5	6.8	0.0	6.3	0.0	7.1	0.0	4.4	4.4	4.5	8.8	7.2	11.1	
Science & Agriculture	4.8	6.0	3.0	0.0	5.5	3.6	4.5	0.0	5.4	7.1	3.4	3.5	4.4	2.2	
Fine Arts & Letters	3.2	3.3	3.0	0.0	4.7	3.6	1.9	0.0	3.5	2.6	4.5	2.6	4.4	0.0	
Services (food mgmt, cosmetology)	3.2	3.8	2.3	40.0	3.9	0.0	1.9	0.0	3.5	3.5	3.4	2.6	4.4	0.0	
Construction, Industrial, & Skilled Trade	2.5	0.6	5.7	0.0	2.4	3.6	2.6	0.0	4.0	0.9	8.0	0.0	0.0	0.0	
Transportation	1.0	0.6	1.5	0.0	1.6	0.0	0.7	0.0	1.0	0.9	1.2	0.9	0.0	2.2	
TOTAL	% 100.0 315	100.0 182	100.0 133	100.0 5	100.0 127	100.0 28	100.0 155	— 0	100.0 201	100.0 113	100.0 88	100.0 114	100.0 69	100.0 45	

28

38

39

Highlights from Table 7 include:

- System-wide, the most frequently mentioned careers were business (24.4%) and law and government (15.5%).
- A total of 12% of all respondents were undecided in their career choices.
- There are marked differences system-wide between the percentage of males and females pursuing the following careers:
 - Female dominated
 - Business (31.3% females and 15.0% males)
 - Medicine/health services (16.5% females and 2.3% males)
 - Science and agriculture (6.0% females and 3.0% males)
 - Male dominated
 - Law/government (26.3% males and 7.7% females)
 - Engineering/architecture (17.3% males and 1.7% females)
 - Construction, industrial, and skilled trades (5.3% males and 0.6% females)
 - Transportation (1.5% males and 0.6% females)
- The most frequently mentioned career emphasis of all responding sub-population groups (with more than five respondents in a group) was business.
- Only Whites (127), Blacks (155), and Spanish-Americans (28) are represented by large enough numbers to make any meaningful comparisons.
 - Top five career emphases by ethnic group follow:
 - Whites:
 - Undecided (18.9%)
 - Business (16.5%)
 - Law/government (13.4%)
 - Engineering/architecture (11.0%)
 - Medicine/health services (7.9%)
 - Education and social services (7.9%)
 - Blacks:
 - Business (29.7%)
 - Law/government (17.4%)
 - Medicine/health services (12.3%)
 - Education and social services (8.4%)
 - Engineering/architecture (7.7%)

- Spanish-Americans:
 - Business (35.7%)
 - Undecided (17.8%)
 - Law/government (14.3%)
 - Medicine/health services (10.7%)
 - Education and social services (10.7%)
- School totals show the top three career choices to be as follows:
 - Arthur Hill
 - Business (21.9%)
 - Undecided (16.4%)
 - Law/government (13.9%)
 - Saginaw High
 - Business (29.0%)
 - Law/government (18.4%)
 - Medicine/health services (14.9%)
- Building results repeat system findings for males and females.

Differences in careers pursued by graduates between 1988 and 1986 seem worthy of note. The chart below portrays the percent of respondents for both years by career emphasis.

<u>Educational Career Emphases</u>	<u>1988</u> %	<u>1986</u> %
Business	24.4	33.2
Law and Government	15.5	8.5
Undecided	12.0	8.5
Medicine, Health Services	10.5	11.6
Education and Social Services	8.6	7.5
Engineering and Architecture	8.3	12.6
Commercial Arts and Communications	6.0	5.0
Science and Agriculture	4.8	4.0
Fine Arts and Letters	3.2	4.0
Services (food mgmt, cosmetology)	3.2	1.0
Construction, Industrial and Skilled Trade	2.5	3.5
Transportation	1.0	0.5
TOTAL	% 100.0	99.9*
	N 315	199

*Rounding error.

The two largest decreases from 1986 to 1988 occur in business (-8.8%) and engineering/architecture (-4.3%). A substantial increase can be observed in law/government (+7.0%) and those undecided (+3.5%) in their career choices.

The 1988 graduates, who pursued further education, were also asked, what the single most serious educational problem was they had met since graduation. Table 8 on the following page contains data regarding educational problems encountered by graduates in their post-secondary education.

TABLE 8. MOST SERIOUS EDUCATIONAL PROBLEM OF 1988 GRADUATES BY SYSTEM, GENDER, ETHNIC BACKGROUND, AND SCHOOL.

EDUCATIONAL PROBLEM	SYSTEM								ARTHUR HILL			SAGINAW HIGH			
	Total %	Gender		Am In %	Ethnic Background				Total %	Gender		Total %	Gender		
		Female %	Male %		White %	Sp-Am %	Black %	Oriental %		Female %	Male %		Female %	Male %	
No Educational Problem	79.6	75.9	85.6	50.0	79.9	78.6	80.8	0.0	79.7	74.1	87.7	79.4	78.6	80.9	
Lacked Basic Educational Skills	5.5	7.0	3.2	0.0	4.9	7.1	5.9	0.0	4.6	5.2	3.7	7.1	10.0	2.4	
Money Problems	3.3	3.3	3.2	33.3	4.0	0.0	2.0	0.0	3.6	4.3	2.5	2.7	1.4	4.8	
Lack of Study Habits	3.3	3.8	2.4	0.0	4.8	0.0	2.7	0.0	3.1	4.3	1.2	3.6	2.9	4.7	
Problems with School Information	1.9	2.7	0.8	0.0	0.8	7.1	2.0	0.0	1.5	2.5	0.0	2.7	2.8	2.4	
Lack of Higher Math Skills	1.6	1.6	0.8	0.0	0.8	0.0	2.7	0.0	0.5	0.9	0.0	3.6	4.3	2.4	
Unable to Establish Goals	1.3	0.6	2.4	0.0	1.6	0.0	1.3	0.0	2.0	0.9	3.7	0.0	0.0	0.0	
Lack of Motivation	1.3	1.1	1.6	16.7	0.0	0.0	2.0	0.0	1.5	1.7	1.2	0.9	0.0	2.4	
Time	1.0	1.6	0.0	0.0	0.8	3.6	0.6	0.0	1.5	2.5	0.0	0.0	0.0	0.0	
Personal Problems	0.3	0.6	0.0	0.0	0.8	0.0	0.0	0.0	0.5	0.9	0.0	0.0	0.0	0.0	
Transferred from High School to College	0.3	0.6	0.0	0.0	0.8	0.0	0.0	0.0	0.5	0.9	0.0	0.0	0.0	0.0	
Transportation	0.3	0.6	0.0	0.0	0.0	3.6	0.0	0.0	0.5	0.9	0.0	0.0	0.0	0.0	
Combination of Problems	0.3	0.6	0.0	0.0	0.8	0.0	0.0	0.0	0.5	0.9	0.0	0.0	0.0	0.0	
Disappointed with Choice of School or Educational Program	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Prejudice and/or Discrimination (e.g., sex, race, age, etc.)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
TOTAL	% N	100.0 309	100.0 186	100.0 123	100.0 6	100.0 124	100.0 28	100.0 151	— 0	100.0 197	100.0 116	100.0 81	100.0 112	100.0 70	100.0 42

A review of the data contained in Table 8 reveals that:

- Over two-thirds of the respondent graduates (79.6%) faced no major educational problem.
- The three most often mentioned educational problems system-wide were:
 - Lacked basic educational skills (5.5%)
 - Money problems (3.3%)
 - Lack of study habits (3.3%)
- By system, there are marked differences (at least twice as many) between the percentage of males and females stating educational problems encountered.
 - More females (7.0%) experienced deficiencies in their basic educational skills than males (3.2%).
 - More females (2.7%) had problems with obtaining school information than males (0.8%).
 - More females (1.6%) lacked higher math skills than males (0.8%).
 - More males (2.4%) were unable to establish educational goals than females (0.6%).
- Only Whites (124), Blacks (151), and Spanish-Americans (28) are represented by large enough numbers to make any meaningful statement by ethnic background.
 - Having no educational problems was only slightly more characteristic of Blacks (80.8%) than either Whites (79.9%) or Spanish-Americans (78.6%).
 - The top three named educational problems for Whites, Spanish-Americans, and Blacks are:
 - Whites:
 - Lacked basic educational skills (4.9%)
 - Lack of study habits (4.8%)
 - Money problems (4.0%)
 - Spanish-American:
 - Lacked basic educational skills (7.1%)
 - Problems with school information (7.1%)
 - Time (3.6%)
 - Transportation (3.6%)

- Blacks:
 - Lacked basic educational skills (5.9%)
 - Lack of study habits (2.7%)
 - Lack of higher math skills (2.7%)
- The top three educational problems for Arthur Hill female and male graduates were:
 - Females
 - Lacked basic educational skills (5.2%)
 - Money problems (4.3%)
 - Lack of study habits (4.3%)
 - Males
 - Lacked basic educational skills (3.7%)
 - Unable to establish goals (3.7%)
 - Money problems (2.5%)
- The top three educational problems for Saginaw High females and male graduates were:
 - Females
 - Lacked basic educational skills (10.0%)
 - Lack of higher math skills (4.3%)
 - Lack of study habits (2.9%)
 - Males
 - Money problems (4.8%)
 - Lack of study habits (4.7%)
 - Lacked basic educational skills (2.4%)
 - Problems with school information (2.4%)
 - Lack of higher math skills (2.4%)
 - Lack of motivation (2.4%)

Some striking differences are apparent when comparing the educational problems noted by the 1988 and 1986 graduates. The chart below presents the in-school 1988 and 1986 graduates by most serious educational problem encountered.

<u>Educational Problem</u>	<u>1988</u> %	<u>1986</u> %
No educational problem	79.6	46.5
Lacked basic educational skills	5.5	6.4
Money problems	3.3	26.6
Lack of study habits	3.3	4.3
Other	2.8	2.3
Lack of higher math skills	1.6	0.3
Unable to establish goals	1.3	4.7
Lack of motivation	1.3	0.3
Time	1.0	0.3
Personal problems	0.3	4.0
Unable to follow plans to accomplish goals	0.0	1.7
Disappointed with choice of school or educational program	0.0	2.3
Prejudice and/or discrimination (e.g., sex, race, age, etc.)	0.0	0.3
TOTAL	% 100.0	100.0
	N 309	299

The two largest decreases from 1986 to 1988 occur in money problems (-23.3%) and unable to accomplish goals (-3.4%). The largest increase can be observed in no educational problem (+33.1%).

A FINAL WORD

The most significant results of the follow-up study of Saginaw's 1988 high school graduates have been presented. Data relevant to the graduates' employment post-high school education, and perceptions of their problems as they entered employment or further schooling have been reviewed. Comparisons between the responses of 1986 graduates and the 1988 graduates have been made when possible.

From the survey data there emerged some important points to be highlighted. They include:

1. Of the 493 respondents:
 - Approximately fifty-nine percent (58.9%) of the respondents were enrolled in some kind of educational program (full- or part-time)
 - 11.3% were employed full-time
 - 11.9% were employed part-time
2. Ten months after graduation 10.6% of the respondents were unemployed. The percent of unemployed SHS graduates (11.4%) was over eight times that at AHHS (1.4%).
3. Most employed graduates (70.1%) were working in relatively unskilled jobs-- serving personal needs of people; waiting on customers; manual work; and clerical.
4. Almost half of the graduates (42.0%) were employed in personal services industries.
5. The most common serious occupational problems encountered by graduates since graduation were:
 - Unable to find the right job (8.7%)
 - No work available (2.6%)
 - A combination of problems (1.5%)
6. Approximately eighty percent (78.3%) of the graduates who continued their education were attending either two or four year colleges or universities.

7. Of the 318 graduates (64.5% of the respondents who went on to some type of further education), 202 (63.5%) were from Arthur Hill and 116 (36.5%) from Saginaw High.
8. Business (24.4%), law/government (15.5%), undecided (12.0%) were the three most frequent fields of study for these graduates.
9. The three most common serious educational problems encountered by graduates since graduation were:
 - Lacked basic educational skills (5.5%)
 - Money problems (3.3%)
 - Lack of study habits (3.3%)

Attempting to put these facts in perspective at this time is difficult. Young people after graduation are still searching for something to make their lives meaningful so they may enter a college or university, and then drop out, take a part- or a full-time job for a short period of time, move out of state and get married, etc. Thus it is impossible to make a meaningful evaluation of the entire impact of the Saginaw Schools after only 10 months since graduation. Our attempt in conducting this study now was more to get a snapshot of these graduates and compare them to other snapshots gained from past graduate follow-ups.

Our hope is to work with high school counselors this fall in attempting to contact our students just prior to graduation to obtain a means to contact them a number of times (10 months, 30 months, 60 months, and maybe 80 months) after graduation. Hopefully this planning can be accomplished to enable us to do a series of follow-up contacts over a longer period of time. These contacts further removed from the time of graduation will put us in a better position to make a more powerful assessment of the educational offerings and experiences of Saginaw graduates.

APPENDICES

APPENDIX A

PROJECT GREAT AND FOLLOW-UP STUDY PHONE SURVEY OF
1988 HIGH SCHOOL GRADUATES

Demographics of Graduate

Student Name: _____

Student Number: _____

High School Graduated from: _____

1. Did you receive your high school diploma? (Check one)

_____ Yes

_____ No

Comments: _____

2. Have you continued in school since graduating? (Check one)

_____ Yes

_____ No ... If no, go to Question 6.

Comments: _____

3. Are you a full-time or part-time student? (Check one)

_____ Full-time

_____ Part-time

_____ No, I am a former student ... If no, go to Question 6.

Comments: _____

APPENDIX A

4a. What is your planned major course of study at this school? (Check the one that best applies.)

- 01. Business. such as management, data processing, accounting, personnel management, banking.
- 02. Commercial Arts and Communication: such as photography, printing, graphic arts, illustrations, advertising, journalism, television industry, and radio broadcasting.
- 03. Construction, Industrial, and Skilled Trades: such as refrigeration, carpentry, sheet metal, plumber, machinist, and electrician.
- 04. Education and Social Services: such as clergy, counseling, recreation, teaching, and professional youth leadership.
- 05. Engineering and Architecture: such as construction management, drafting, mechanical drawing, engineering--electrical/civil/mechanical, and landscape architecture.
- 06. Fine Arts and Letters: such as music, English, painting, sculpture and dramatics.
- 07. Law and Government: such as law enforcement, lawyer, military science, and city management.
- 08. Medicine and Health Services: such as dentistry, hospital administration, medical services, nursing, pharmacy, psychiatry, and veterinary medicine.
- 09. Science and Agriculture: such as physics, mathematics, forestry, conservation, chemistry, zoology, poultry science, and horticulture.
- 10. Services: such as auto repair, food management, chef, cosmetology, home economist, mortician.
- 11. Transportation: such as aviation careers, airline stewardess, railroad careers, and drivers--truck and bus.
- 12. Other (please specify): _____

APPENDIX A

4b. What is the name of the school(s) you have attended since graduating? (Mark all that apply. Use a one (1) to indicate the school currently attended, a two (2) to indicate the second most recently attended, etc.)

Alpha Order

- _____ 1. A & T University, North Carolina
- _____ 2. Alabama State University
- _____ 3. Alma College
- _____ 4. American Musical & Dramatic Academy, New York
- _____ 5. Aquinas College
- _____ 6. Army/Navy/Air Force (Armed Services)
- _____ 7. Associated Schools, Inc.
- _____ 8. Averill Career Opportunities Center
- _____ 9. Baker Junior College
- _____ 10. Ball State, Muncie Indiana
- _____ 11. Bethune-Cookman College
- _____ 12. Central Michigan University
- _____ 13. Central State University of Ohio
- _____ 14. Davenport College
- _____ 15. Delaware State University
- _____ 16. Delta Community College
- _____ 17. Eastern Michigan University
- _____ 18. Ferris State College
- _____ 19. Florida A & M University
- _____ 20. General Motors Institute
- _____ 21. Grambling University
- _____ 22. Great Lakes Junior College
- _____ 23. Howard University
- _____ 24. ITT Technical Institute
- _____ 25. Johnson C. Smith University
- _____ 26. Kendall School of Design
- _____ 27. Knoxville College
- _____ 28. Lake Michigan University
- _____ 29. Lake Superior State College
- _____ 30. Lansing Community College
- _____ 31. Louisiana Northwestern State University
- _____ 32. McDonalds, Inc.
- _____ 33. Michigan State University
- _____ 34. Michigan Technological University
- _____ 35. Murphy Beauty School
- _____ 36. Norfolk State University
- _____ 37. Northern Michigan University
- _____ 38. Northwestern Michigan College
- _____ 39. Northwood Institute
- _____ 40. Oakland University
- _____ 41. Purdue University
- _____ 42. Rochester Institute of Technology
- _____ 43. Ruben Daniels Lifelong Learning Center
- _____ 44. Saginaw County Community Action Committee Youth Employment Center
- _____ 45. Saginaw Valley Rehabilitation Center
- _____ 46. Saginaw Valley State University
- _____ 47. Siena Heights College
- _____ 48. Southern University
- _____ 49. Tri-City SER
- _____ 50. University of Florida
- _____ 51. University of Michigan
- _____ 52. University of Wisconsin
- _____ 53. Washington D. C. University
- _____ 54. Wayne State University
- _____ 55. Western Michigan University
- _____ 56. Other (please specify): _____

APPENDIX A

4c. [What type of school do you currently attend? (Check one)]*

- 01. Apprenticeship school, vocational-technical, and/or correspondence school
- 02. Management training program
- 03. Nursing school
- 04. Bible school
- 05. Business school
- 06. Adult education
- 07. Skilled personal service schools (such as barber, cosmetology, cooking, tailoring, etc.)
- 08. Junior or community college
- 09. College or university
- 10. Other (please specify): _____

*Do not ask if you can code on the basis of the school name.

4d. What is the single most serious educational problem, if any, that you have had since graduating?

- 01. No educational problem
- 02. Money problems
- 03. Lacked basic educational skills
- 04. Unable to establish goals
- 05. Unable to follow plans to accomplish goals
- 06. Lack of study habits
- 07. Personal problems
- 08. Disappointed with choice of school or educational program
- 09. Lack of higher math skills
- 10. Lack of motivation
- 11. Time
- 12. Prejudice and/or discrimination (e.g., sex, race, age, etc.)
- 13. Other (please specify): _____

5. Are you planning to enroll in any school program for the Fall, 1989 semester?

- Yes
- No ... If no, what are your plans for fall? _____

For either "Yes" or "No" check 05 for Question 6 (except for in Military check 04).

APPENDIX A

6. What have you been doing since you graduated last June? (Indicate primary activity by checking one.)

- 01. Employed, full-time (30 or more hours per week)
 - 02. Employed, part-time (less than 30 hours per week)
 - 03. Layed-off
 - 04. In the military service
 - 05. In a training program, school, or college full-
or part-time
 - 06. Unemployed, seeking work
 - 07. Unemployed, not seeking work
 - 08. Homemaker
 - 09. Other (please specify): _____
- } Go to Q. 7A
- } Go to Q. 9

7a. Who is your current or most recent employer?

(Name of Company/Business/Organization)

[Please categorize employer by the industrial group below. (Check one)]

- 01. Construction
- 02. Manufacturing
- 03. Transportation, communication and other public utilities
- 04. Wholesale and retail trade
- 05. Finance, insurance, and real estate
- 06. Entertainment and recreational services
- 07. Professional and related services (i.e., health services,
schools, legal, engineering, military, government, etc.)
- 08. Personal services (i.e., fast food, barber, hotels, garment
services, shoe repair, etc.)
- 09. Other (please specify): _____

APPENDIX A

7b. What do you do for this employer? (Check one that best applies.)

- 01. Caring for People or Animals: such as a nursing home, nursery, hospital, pet store, or animal laboratory.
- 02. Musical and Entertainment Activities: such as singing, composing, dancing, or dramatics.
- 03. Artistic Work: such as painting, sculpturing, flower arranging, photography, fashion designer, interior decorating.
- 04. Communications Work: as in radio or television announcing, journalism, news information reporting, interviewing, writing, editing or translating.
- 05. Promotional Activities: as in publicity work, recruiting, or advertising.
- 06. Number Work: as in accounting, computer programming, finance, and mathematics.
- 07. Inspecting and Measuring: as in sorting, measuring, and grading products; or checking equipment meters, public places, and surveying land.
- 08. Clerical Work: such as filing, typing, key punching, stenography, or keeping records.
- 09. Manual Work: as a construction laborer, manufacturing laborer, janitor, or furniture mover.
- 10. Machine Work: as in adjusting and operating machines used in the cutting or shaping of metal, cloth, etc. Includes driving tractor-trailer trucks and operating heavy equipment.
- 11. Craftsmanship: as found in the building trades, printing, watch repairing, welding, or tool and die making.
- 12. Skilled Operation, Repair, or Installation of Precision Equipment: includes television technicians, computer operator, auto mechanics; or furnace, air conditioner, and appliance repairman.
- 13. Serving Personal Needs of People: as a waiter, waitress, maid, doorman, messenger, laundry man, or gas station attendant.
- 14. Providing Skilled Services for People: as a restaurant or short order cook, beautician, barber, tailor, dressmaker, policeman, or stewardess.
- 15. Waiting on Customers: in stores, banks, motels, office, or at home, helping telephone customers with business orders, and reservations; tour guides, ticket and toll collectors.
- 16. Selling and Merchandising Work: as a department store buyer, factory sales representative; or wholesaler. Includes the selling of manufactured and commercial products, services, insurance, and real estate.
- 17. Managerial Work: as a shop foreman, supervisor; owning or managing a small store or business.

APPENDIX A

8. What is the single most serious occupational problem, if any, that you have had to deal with since graduating?

- 01. No occupational problem
- 02. Unable to find the right job
- 03. No work available
- 04. Lacked skills and technical knowledge
- 05. Lacked job experience
- 06. Personal problems
- 07. Disappointed with occupational choice
- 08. Unable to follow plans to accomplish goals
- 09. Prejudice and/or discrimination
- 10. Unable to establish goals
- 11. A combination of problems
- 12. Threat of layoff
- 13. Being over qualified
- 14. Attending college full-time
- 15. Lack of funds for college
- 16. Other (please specify): _____

9. Do you know what you want to do for a living? (Check one)

- Yes
- No ... If no, Project GREAT pitch: assessment, training, job search, open house information, address verification. **END SURVEY**

10. Can you presently earn a living doing that now? (Check one)

- Yes ... If yes, would you like to earn more money?
 - Yes ... If yes, Project GREAT pitch/address verification. **END SURVEY**
 - No
- No ... If no, Project GREAT pitch - **END SURVEY**

THANK YOU VERY MUCH FOR YOUR TIME!

APPENDIX B

TABLE B.1. COMPARISON OF THE 1986 AND 1988 GRADUATES TO THE 1986 AND 1988 GRADUATES ANSWERING A FOLLOW-UP QUESTIONNAIRE BY SCHOOL, RACE, AND GENDER.

Race & Sex	ARTHUR HILL				SAGINAW HIGH				SYSTEM			
	Graduates		Follow-Up Respondents		Graduates		Follow-Up Respondents		Graduates		Follow-Up Respondents	
	1986 # %	1988 # %	1986 # %	1988 # %	1986 # %	1988 # %	1986 # %	1988 # %	1986 # %	1988 # %	1986 # %	1988 # %
Black												
Male	35 (35.4)	45 (46.4)	15 (25.4)	28 (46.7)	100 (41.7)	119 (39.5)	46 (35.4)	76 (39.2)	135 (39.8)	164 (41.2)	61 (32.3)	104 (40.9)
Female	64 (64.6)	52 (53.6)	44 (74.6)	32 (53.3)	140 (58.3)	182 (60.5)	84 (64.6)	118 (60.8)	204 (60.2)	234 (58.8)	128 (67.7)	150 (59.1)
Total	99 (100.0)	97 (100.0)	59 (100.0)	60 (100.0)	240 (100.0)	301 (100.0)	130 (100.0)	194 (100.0)	339 (100.0)	398 (100.0)	189 (100.0)	254 (100.0)
Sp.-Am.												
Male	15 (44.1)	21 (36.2)	8 (42.1)	12 (30.8)	2 (28.6)	0 (0.0)	1 (25.0)	0 (0.0)	17 (41.5)	21 (35.6)	9 (39.1)	12 (30.8)
Female	19 (55.9)	37 (63.8)	11 (57.9)	27 (69.2)	5 (71.4)	1 (100.0)	3 (75.0)	0 (0.0)	24 (58.5)	38 (64.4)	14 (60.9)	27 (69.2)
Total	34 (100.0)	58 (100.0)	19 (100.0)	39 (100.0)	7 (100.0)	1 (100.0)	4 (100.0)	0 (0.0)	41 (100.0)	59 (100.0)	23 (100.0)	39 (100.0)
White												
Male	149 (51.2)	126 (46.7)	113 (51.8)	89 (47.3)	7 (70.0)	4 (66.7)	6 (75.0)	3 (60.0)	156 (51.8)	130 (47.1)	119 (52.7)	92 (47.7)
Female	142 (48.8)	144 (53.3)	105 (48.2)	99 (52.7)	3 (30.0)	2 (33.3)	2 (25.0)	2 (40.0)	145 (48.2)	146 (52.9)	107 (47.3)	101 (52.3)
Total	291 (100.0)	270 (100.0)	218 (100.0)	188 (100.0)	10 (100.0)	6 (100.0)	8 (100.0)	5 (100.0)	301 (100.0)	276 (100.0)	226 (100.0)	193 (100.0)
Am. Indian												
Male	8 (57.1)	2 (25.0)	4 (44.4)	2 (28.6)	1 (33.3)	0 (0.0)	1 (50.0)	0 (0.0)	9 (50.0)	2 (25.0)	5 (45.5)	2 (28.6)
Female	6 (42.9)	6 (75.0)	5 (55.6)	5 (71.4)	3 (66.7)	0 (0.0)	1 (50.0)	0 (0.0)	9 (50.0)	6 (75.0)	6 (54.5)	5 (71.4)
Total	14 (100.0)	8 (100.0)	9 (100.0)	7 (100.0)	4 (100.0)	0 (0.0)	2 (100.0)	0 (0.0)	18 (100.0)	8 (100.0)	11 (100.0)	7 (100.0)
Oriental												
Male	5 (71.4)	1 (100.0)	4 (80.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	5 (71.4)	1 (100.0)	4 (80.0)	0 (0.0)
Female	2 (28.6)	0 (0.0)	1 (20.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	2 (28.6)	0 (0.0)	1 (20.0)	0 (0.0)
Total	7 (100.0)	1 (100.0)	5 (100.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	7 (100.0)	1 (100.0)	5 (100.0)	0 (0.0)
Grand Total												
Male	212 (47.6)	195 (44.9)	144 (46.5)	131 (44.6)	110 (42.1)	123 (39.9)	54 (37.5)	79 (39.7)	322 (45.6)	318 (42.9)	198 (43.6)	210 (42.6)
Female	233 (52.4)	239 (55.1)	166 (53.5)	163 (55.4)	151 (57.9)	185 (60.1)	90 (62.5)	120 (60.3)	384 (54.4)	424 (57.1)	256 (56.4)	283 (57.4)
Total	445 (100.0)	434 (100.0)	311* (100.0)	294 (100.0)	261 (100.0)	308 (100.0)	144 (100.0)	199 (100.0)	706 (100.0)	742 (100.0)	455* (100.0)	493 (100.0)

*Sex and race data unavailable for one (1) respondent.

APPENDIX C

OCCUPATIONAL CATEGORIES USED IN SAGINAW'S 1988 AND 1986
FOLLOW-UP STUDIES

01. Caring for People or Animals, such as a nursing home, nursery, hospital, pet store, or animal laboratory.
02. Musical and Entertainment Activities, such as singing, composing, dancing, or dramatics.
03. Artistic Work, such as painting, sculpturing, flower arranging, photography, fashion designer, interior decorating.
04. Communications Work, as in radio or television announcing, journalism, news information reporting, interviewing, writing, editing or translating.
05. Promotional Activities, as in publicity work, recruiting, or advertising.
06. Number Work, as in accounting, computer programming, finance, and mathematics.
07. Inspecting and Measuring, as in sorting, measuring, and grading products; or checking equipment meters, public places, and surveying land.
08. Clerical Work, such as filing, typing, key punching, stenography, or keeping records.
09. Manual Work, as a construction laborer, manufacturing laborer, janitor, or furniture mover.
10. Machine Work, as in adjusting and operating machines used in the cutting or shaping of metal, cloth, etc. Includes driving tractor-trailer trucks and operating heavy equipment.
11. Craftsmanship, as found in the building trades, printing, watch repairing, welding, or tool and die making.
12. Skilled Operation, Repair, or Installation of Precision Equipment, includes television technicians, computer operators, auto mechanics; or furnace, air conditioner, and appliance repairman.
13. Serving Personal Needs of People, as a waiter, waitress, maid, doorman, messenger, laundry man, or gas station attendant.
14. Providing Skilled Services for People, as a restaurant or short order cook, beautician, barber, tailor, dressmaker, policeman, or stewardess.
15. Waiting on Customers, in stores, banks, motels, offices, or at home, helping telephone customers with business orders, and reservations; tour guides, ticket and toll collectors.
16. Selling and Merchandising Work, as a department store buyer, factory sales representative, or wholesaler. Includes the selling of manufactured and commercial products, services, insurance, and real estate.
17. Managerial Work, as a shop foreman, supervisor; owning or managing a small store or business.

APPENDIX D

MAJOR INDUSTRIAL GROUPS USED IN SAGINAW'S
1988 AND 1986 FOLLOW-UP STUDIES

1. Construction
2. Manufacturing
3. Transportation, communication and other public utilities
4. Wholesale and retail trade
5. Finance, insurance, and real estate
6. Entertainment and recreational services
7. Professional and related services (i.e., health services, schools, legal, engineering, etc.)
8. Personal services (i.e., barber, hotels, garment services, shoe repair, etc.)
9. Other

APPENDIX E

POST-HIGH SCHOOL CATEGORIES USED IN SAGINAW'S 1988 AND 1986
FOLLOW-UP STUDIES

01. Apprenticeship school, vocational-technical, and/or correspondence school
02. Management training program
03. Nursing school
04. Bible school
05. Business school
06. Adult education
07. Skilled personal service schools (such as barber, cosmetology, cooking, tailoring, etc.)
08. Junior or community college
09. College or university

APPENDIX F

**EDUCATIONAL CAREER EMPHASIS CATEGORIES USED IN SAGINAW'S
1988 AND 1986 FOLLOW-UP STUDIES**

01. Business: such as management, data processing, accounting, personnel management, banking.
02. Commercial Arts and Communication: such as photography, printing, graphic arts, illustrations, advertising, journalism, television industry, and radio broadcasting.
03. Construction, Industrial, and Skilled Trades: such as refrigeration, carpentry, sheet metal, plumber, machinist, and electrician.
04. Education and Social Services: such as clergy, counseling, recreation, teaching, and professional youth leadership.
05. Engineering and Architecture: such as construction management, drafting, mechanical drawing, engineering--electrical/civil/mechanical, and landscape architecture.
06. Fine Arts and Letters: such as music, English, painting, sculpture, and dramatics.
07. Law and Government: such as law enforcement, lawyer, military science, and city management.
08. Medicine and Health Services: such as dentistry, hospital administration, medical services, nursing, pharmacy, psychiatry, and veterinary medicine.
09. Science and Agriculture: such as physics, mathematics, forestry, conservation, chemistry, zoology, poultry science, and horticulture.
10. Services: such as auto repair, food management, chef, cosmetology, home economist, mortician.
11. Transportation: such as aviation careers, airline stewardess, railroad careers, and drivers--truck and bus.