A Five-Year Study of Community College Business Graduates with Implications for Curriculum Improvement

Mary Elizabeth Foster
Western Michigan University

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A FIVE-YEAR STUDY OF COMMUNITY COLLEGE BUSINESS GRADUATES
WITH IMPLICATIONS FOR CURRICULUM IMPROVEMENT

by

Mary Elizabeth Foster

A Project Report
Submitted to the
Faculty of The Graduate College
in partial fulfillment
of the
Specialist in Arts Degree

Western Michigan University
Kalamazoo, Michigan
April 1974
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In writing this project report, I have benefited from the encouragement, advice, and constructive criticism of Dr. Kimon Bournazos, my chairman, and committee members Dr. L. Michael Moskovic, and Dr. Jess Walker.

My thanks also go to Mr. G. E. Packwood and Mrs. Evelyn Pfundt, as to others at Delta College, who provided advice and constructive criticism while writing this project report.

Mary Elizabeth Foster
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CHAPTER I
INTRODUCTION

Statement of the problem

The major purpose of this study was to determine the influence of education on the career patterns of Associate Degree graduates of the Business Studies curriculum at Delta College. In addition, certain important aspects of labor market activity were studied. Some of these aspects were:

1. To learn the types of job choices.
2. To learn the reason for change of a job or occupation.
3. To learn what changes in occupational levels there have been and where people are located at present.
4. To learn wages and salaries.
5. To learn who has been continuing their education either through available community facilities or through facilities outside their community.

Significance of study

If the business curriculum is to keep in step with the needs of business, then the various programs of study within the business curriculum must constantly undergo careful evaluation.
Deeds believes that, . . . "in order to maintain pace with the constantly changing business world, a continuous evaluation must be made of the programs being offered."¹

Follow-up studies of graduates are important for determining the quality and relevancy of instruction they received. As White states:

The key word in the future of all education is relevancy. Business education is no exception and consequently must assess its relevancy to student needs and its relevancy to the vocational education movement.²

Kaisershot believes that . . . "the well-developed, information-seeking follow-up study has come of age and that it is a reliable basis for improving a business curriculum."³

Follow-up studies provide information concerning the types of courses that should continue to be taught, the need for new courses, and the need for eliminating out-dated courses from the business curriculum.


Wanous found that:

Seventy-nine percent of the nationally recognized business education leaders believed that the offerings of the business department should be based on community surveys and on follow-up studies of graduates and dropouts.\(^4\)

In essence, follow-up studies are necessary to obtain program input and evaluation information.

According to Hoyt, "The follow-up study of former students is an important means of evaluating the effectiveness of the business education curriculum and thereby improving the program."\(^5\)

Need for study

In its eleven years of operation, Delta College has not had a comprehensive study conducted to determine the job placement and job needs of its students.

Although advisory committees are utilized extensively in designing and updating programs of study, it is additionally important to obtain feedback from the consumers of the business curriculum as well.

It is intended that the results of this project will suggest areas of study that need revision or should be added to the business curriculum to assure relevant instruction.


Population

To determine the status of the graduates, questionnaires were sent to 343 business graduates from Delta College. A total of 182 graduates returned them.

The total of 343 business graduates from Delta College consists of 212 men and 131 women from the April 1968-1972 graduating classes.

The general population, social, and economic characteristics for the cities of Bay City, Saginaw, and Midland are presented in Appendix A.

Assumptions

This study was based on the following assumptions:

1. The questionnaire was a valid survey instrument for conducting this follow-up study.
2. The computerized list of Associate Degree graduates was accurate.
3. The proper community college student records were made available to conduct the study.
4. The respondents accurately reported information requested of them.

Limitations

This study was limited in the following ways:

1. It was confined to graduates who have been on the labor market for five years from April 1968 to April 1972.
2. It was confined to Associate Degree graduates of the Business Studies Curriculum from Delta College; this was the only sampling technique considered.
3. It excluded Associate Degree graduates whose names did not appear on the April graduation programs for the years 1968 to 1972.

**Definition of terms**

*Delta College* refers to a community college located in an area to serve the counties of Saginaw, Bay, and Midland in the State of Michigan.

*Business graduates* refers to students who have earned Associate Degrees after having successfully completed 62 credit hours in one of the Business Studies curriculums.

*Business studies curriculum* refers to programs of study in the following areas: Accounting, Air Line Hostess, Air Line Hostess--Clerical, Management, Data Processing, Finance and Banking, Marketing, Medical Assistant, Real Estate, Retail Mid-Management, Secretarial (general), Chemical Secretarial, and Legal Secretarial.

*Career patterns* refers to one's advancement or achievement in a particular vocation; hence, a lifework; profession; or occupation.

*Occupational levels* refers to the various job classifications within a vocation.

*Very related* refers to the relationship of education (major area of study) compared to the present employment status of the graduates. For example, graduates who were trained in marketing and who were directly employed in marketing work were considered to be very related.
Somewhat related refers to the relationship of education (major area of study) compared to the present employment status of the graduates. For example, graduates who were trained in marketing and who were indirectly employed in marketing work were considered somewhat related.

Organization of the study

The organization of the study was as follows:

Chapter II reviewed the literature pertinent to this type of study.

Chapter III presented the sources of data, instrumentation, and methodology.

Chapter IV presented and analyzed data. It was divided into two sections. Section I presented an analysis of data by the total population without regard to sex. Section II presented a statistical analysis of data by sex.

Chapter V presented the summary, findings, and recommendations.
CHAPTER II

REVIEW OF RELATED LITERATURE

Introduction

A follow-up study is a procedure for accumulating data from or about individuals who have had similar experiences. Generally the follow-up study of graduates of certain institutions should obtain information which assists in determining which objectives of the institution have been met. It may serve a useful purpose in gathering data from former students reflecting the success of the vocational education program in preparing them for employment.

Important information is found in answers to such questions as:

1. What training received was important to them?
2. What training was unimportant?
3. What suggestions for improving the job preparation programs do they have?

These questions have been discussed in a variety of research in the educational field. Not only will this study build upon past research, but it will also replicate some of this research in pursuing the significance of these variables in the Bay City, Midland, and Saginaw labor market areas.

The review of literature discusses the results others have found concerning the present status of former students and program evaluation. Due to the diversity of material, the review is classified in the following categories:
1. Field information
2. Program evaluation
3. Problems of follow-up studies

Field information

Gorden and Howell\(^6\) observed that professional schools collect little meaningful information about the activities of their graduates. They noted: "Relatively few business schools know very much about the careers their graduates follow, and they lose contact with students very quickly after graduation."\(^7\)

In a study involving 100 liberal arts institutions which awarded degrees to men in liberal arts fields, a sixteen-page survey form was mailed to the 18,000 graduates of the classes 1948, 1953, and 1958 in November, 1963. Eleven thousand graduates responded (61 percent). In response to the question, . . . "what work patterns are liberal arts graduates following today?" Calvert found that:

The largest single occupational group, with 16.9 percent of the total employment, was in the area of fiscal, office, and management work. This included some persons, of course, who performed this role in a school, college, or agency as well as a private industry.\(^8\)


\(^7\)Ibid.

Benson's study of 300 freshmen (220 men; 80 women) gathered two kinds of data:

1. The vocational, personal and educational experiences of 300 freshmen.

2. Their evaluation of the effects of college on their lives.

During an eight-year period from 1958-1966, a series of yearly personal interviews and the completion of a follow-up questionnaire revealed that:

Most of the men saw college as an essential step to a vocation, status, and income. The women were less ambitious. Although many of the men had changed their career objectives, 72 percent were satisfied with their current jobs.9

In 1968, 1,225 students graduated from Los Angeles City College with an Associate in Arts Degree. Gold's study reports on a follow-up questionnaire survey of 578 of these graduates who had responded to an earlier questionnaire. The results of the survey are based on the responses of 281 graduates (49 percent return to the questionnaire and 23 percent of the total graduating class). With regard to field information, the results showed:

About two thirds of the respondents are currently working, and one third are in college. About 30 percent were identified as working either in their field or one closely related to their Los Angeles City College major.10

---


To determine the effectiveness of the business teacher education program at the Southern Illinois University, Carbondale, Illinois, a follow-up study of 272 graduates from 1963-1968 was conducted with an 82 percent response from the graduates. Jacobson\textsuperscript{11} found that three fourths of the graduates surveyed indicated agreement with the proposal that office or sales work experience should be obtained by business education graduates before full-time teaching. They believed work experience should be valuable to graduates in all business education areas—not just for those graduates in the distributive education and office occupation fields.

The University Research Institute of Connecticut, Inc.,\textsuperscript{12} conducted a five- and ten-year follow-up study of vocational-technical school graduates. Data concerning school and employment were collected by questionnaire from 974 graduates, 364 from the class of 1958 and 610 from the class of 1963. The analysis was based on the first 400 responses. Of the 1963 graduates who responded to the questionnaires: 78 percent were in related employment, 1.3 percent were unemployed, $3.53 was the average salary, 40 had received advance degrees, and 129 were in apprenticeship programs.

\begin{footnotes}
\end{footnotes}
The Florida Community Junior College Inter-Institutional Research Council surveyed by questionnaire a random-stratified sample of 499 students drawn according to each college's enrollment and sex ratio from the 28,396 students enrolled in 26 colleges. They found that 30.35 percent transferred to a four-year institution and were still in attendance. The majority of these students, 80.54 percent, transferred to Florida institutions. Of the students who did transfer, 58.90 percent chose majors in Arts and Sciences or Education.

Santa Fe Junior College surveyed 1,202 1968-1970 graduates. Of the 1,202 who were mailed a questionnaire, 666, or 55 percent, responded. The survey showed that 65 percent of the graduates are currently attending school as full-time students; 86 percent found themselves adequately prepared for their present course work. Of the remaining 35 percent of the graduates, those not enrolled as full-time students, 65 percent were working full time. Of those students who were employed full time, 46 percent were working at a job unrelated to their Santa Fe course work, but which provided opportunity for advancement (61 percent). Of the 78 percent of

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13 The Florida Community Junior College Inter-Institutional Research Council, "Where are they now? A Follow-up of First-Time-In-College Freshmen in Florida's Community Junior Colleges in Fall 1966." (November 1969), pp. 1-56.

those students who were not in school part time, 72 percent planned to continue their education once financial problems and family responsibilities were alleviated (53 percent).

To determine the activities of Associate Degree graduates from career curricula at Harrisburg Area Community College, data were obtained from questionnaires sent to 405 career students graduating between 1966 and 1970. Based upon a 78.5 percent graduate response rate, the findings include: 70 percent of the graduates were employed full time, 90 percent found employment in their area of specialization, over half continued their education after graduation, and the average salary was over $6,900 yearly.

To indicate general occupational trends, a questionnaire was sent to 764 graduates of the 1968-1971 Hawaii Community College vocational-technical graduates. Based upon a 55 percent response certain findings indicated: 82 percent of the respondents were employed; mid-management merchandising respondents consistently maintained a 100 percent employment status, with carpentry, welding, accounting, secretarial science, and practical nursing also remaining consistently high; the drafting and apparel trades programs had low cumulative employment totals of less than 75 percent.

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Program evaluation

Barr believes that while there has been considerable planning in teacher education programs, there has been little evaluation.

According to Beaty, most of the evaluation has been concerned with particular aspects of teacher education programs rather than the teacher training program as a whole. Also, a few criticisms of follow-up studies suggest that such studies do not follow students long enough.

Therefore, three years after the 1964 graduates left Middle Tennessee State University, all of the graduates of the undergraduate teacher education program for the class of 1964 were mailed a questionnaire in January 1967. With a response of 64.3 percent of the graduates (206), these graduates were asked to react to the required phases of their training program which included general education, professional education, academic specialty for secondary trainees, and professionalized subject matter courses for elementary trainees. Since the objective was to determine how adequate the graduates considered their course work in light of their teaching experience, only those who had entered teaching were asked to provide evaluations.

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1. In the area of general education, the respondents indicated the importance of these courses in helping them gain a well-rounded education. Also, some of these courses would not have been taken had they not been required.

2. In the area of professional education, 24 percent recommended course additions in professional education, seven percent recommended deletions, and 21 percent suggested course revisions. Fifty-four percent of the elementary trainees and 63 percent of the secondary trainees considered student teaching as their most valuable professional course. The teachers valued the courses in psychological foundations over sociological foundations.

3. The area of academic specialty for secondary trainees was another one where graduates recommended more course additions than deletions. The graduates suggested the reduction of courses in the major to allow for more course work in general education.

4. In the area of professionalized subject matter courses for elementary trainees, respondents suggested more course deletions than additions and noted more course duplications than was true for other aspects of the training program.

To determine the effectiveness of the business teacher education program at the Southern Illinois University, Carbondale, Illinois,
Jacobson conducted a follow-up study of 272 graduates from the classes of 1963-1968. Based upon an 82 percent response, some of the findings are as follows:

1. Business teachers could profit from methods courses in teaching of distributive education, electronic data processing, and consumer economics.

2. Office or sales work experience should be obtained by business education graduates before they begin full-time teaching.

3. A minimum of two specialized business education methods courses should be completed by all future business teachers.

4. Greater emphasis should be placed in methods courses on how to motivate students, on how to meet individual differences, and on testing and grading—particularly in the area of business skill courses.

5. Business education majors should prepare themselves to teach in four of eight areas.

6. The curriculum should be frequently evaluated with a view of maintaining an appropriate balance between general studies and specialized courses in business education.

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Calvert\textsuperscript{20} asked the graduates how they felt about their liberal arts education. The findings suggested that the alumni were generally sold on the value of a liberal arts education. Over 80 percent would advise a high school graduate to take a liberal arts program. Given a second opportunity, all but 14 percent of the graduates would major again in a liberal arts field. The most useful courses in their careers were English and mathematics, and the least useful was social science.

Dole\textsuperscript{21} examined the accuracy of recalled vocational choices in comparison with variant and invariant data (attitudes, motivations, plans, and personal characteristics) to determine how much self-respect over the span of the college years could be relied upon and that they might suggest reasons for variations in accuracy. In essence, hard facts tended to be recalled better than attitudes. Shifts tended to be consistent with changes in social desirability.

Therefore, of 1792 entering freshmen at the University of Hawaii who completed a questionnaire in Fall 1960, 520 again participated in a similar survey as seniors. The present sample comprised only those who had remained four years in a state university without interruption, failure, or transfer to another institution.

\textsuperscript{20}Calvert, op. cit., p. 56.

Benson\textsuperscript{22} found that 54 percent valued their courses most highly; 35 percent valued their counseling; 4 percent found no experience outstanding; most looked back with favor. Sixty-one percent said college had helped them reach their goal; 36 percent said not; 34 percent said they would change course if they started over again; 66 percent said they would not change. The principal conclusion is instruction and counseling though good must become even better. This includes stimulating student motivation, constant evaluation and revision of courses and continual feedback from current and former students.

Gold\textsuperscript{23} found that 80 percent of the Associate of Arts Degree graduates pursued additional college work, with 50 percent completing a bachelor's degree. In rating various aspects of Los Angeles City College, respondents rated LACC in "general" highest and LACC's counseling staff lowest.

Kingsley\textsuperscript{24} conducted an eight-year follow-up study of 300 randomly selected new students at the University of Minnesota. To determine the worth to student and taxpayer of extending higher education to those of lower-than-average college abilities, he suggested that motivation is a prime factor in the success or failure of the students and called for the continual reevaluation of the curriculum.

\textsuperscript{22} Benson, \emph{op. cit.}, pp. 1-21.

\textsuperscript{23} Gold, \emph{op. cit.}, pp. 1-23.

and instructional methods to meet student needs and interests. Students in the survey were almost equally divided among those who might be considered academic and vocational successes and those whose goals apparently were initially too high for possible success.

Lack\textsuperscript{25} conducted a follow-up study of Lake Land College transfer students at Eastern Illinois University. The study indicates that while ACT scores and high school rank are significant predictors of success in a college transfer program at a junior college, the junior college grade point average is the only significant predictor of success in the upper-level universities.

A study conducted at the Santa Fe Junior College\textsuperscript{26} found that the majority of the graduates attended the college because it was inexpensive and close to home. The most popular reasons for recommending Santa Fe were its informal atmosphere and student-interested faculty. Most graduates felt that student services in the areas of counseling, parking, housing and the library could be improved. Also, 71 percent of the graduates found themselves adequately prepared for their upper division course work.

Snyder's\textsuperscript{27} study indicated that graduates evaluated their cooperative work experience positively and that the large majority of

\begin{itemize}
  \item \textsuperscript{26}Santa Fe Junior College, \textit{op. cit.}, pp. 1-60.
  \item \textsuperscript{27}Snyder, \textit{op. cit.}, pp. 1-100.
\end{itemize}
graduates rated their education at Harrisburg Area Community College as superior or good with 90 percent stating that they would recommend the college to a person with interest in their field.

**Problems of follow-up studies**

Messick,²⁸ Vice President for Research of the Educational Testing Service in Princeton, New Jersey, suggests possible dangers in over-emphasis of the words *action* and *accountability* in the initiation and execution of programs. He suggests that educators could pause to inquire WHY or even how a program works or to obtain systematic information about its day-to-day operation that could be used to improve the program or modify it if conditions change. In addition to a descriptive phase of evaluation, methods of social science research apply also to a judgment phase. This phase involves an examination of the criteria used for gauging student excellence and to an appraisal of the rules followed in making decisions. Also, it could involve an evaluation of educational goals themselves, particularly by investigating the validity of assumptions underlying the goals.

Peck²⁹ suggests that young people still in school are not the gifted visionaries that some people who have never taught them assume. Evaluation needs immediacy and attention when interest is at its peak.

---


In his opinion, after-the-fact evaluations are particularly ineffective from students, who, when a course is over, tend toward either instant nostalgia or indifference. He suggests that young people want leadership, direction, and some preparation for the unknown to come.

We must ask students to evaluate both themselves and the system, but we must play our parts as authorities. We must make very clear that we are responsible for their learning while they are learning to be responsible.

Summary

The review of the literature has discussed the results others have found concerning the present status of former students and program evaluation. It has also suggested caution with regard to the design of survey questions that are used to gather data and the degree of validity with regard to student responses.

Chapter III will present the sources of data, instrumentation, and methodology.

---

Ibid.
CHAPTER III
THE SOURCES OF DATA, INSTRUMENTATION AND METHODOLOGY

Sources of Data

Socio-economic and educational data of the graduates were obtained through the use of mail questionnaires and student personnel records available at Delta College.

Procedure

The basic data included 343 Associate Degree graduates of the Business Studies curriculum in the 1968-1972 graduating classes of Delta College. Table 1 shows a breakdown by sex and year of graduation.

TABLE 1
DELTA COLLEGE ASSOCIATE DEGREE GRADUATES OF THE BUSINESS STUDIES CURRICULUM 1968-1972

<table>
<thead>
<tr>
<th></th>
<th>Year 1968</th>
<th>Year 1969</th>
<th>Year 1970</th>
<th>Year 1971</th>
<th>Year 1972</th>
<th>Total Population</th>
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<td>Males</td>
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<td>44</td>
<td>28</td>
<td>49</td>
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<td>212</td>
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<tr>
<td>Females</td>
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<td>18</td>
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<td>48</td>
<td>131</td>
</tr>
<tr>
<td>Total</td>
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<td>62</td>
<td>49</td>
<td>89</td>
<td>115</td>
<td>343</td>
</tr>
</tbody>
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The Questionnaire

A questionnaire was developed and a pre-test conducted. The major uses of the questionnaire in this study were to obtain data concerning:

1. personal data covering the former students' name, address, curriculum, and related information
2. information pertaining to the individuals' current occupational and educational status
3. information concerning program evaluation
4. students' advanced study since graduating from Delta
5. student services
6. attitudes of graduates regarding their personal vocational plans and whether they would have done things differently had they the chance to begin their college experience again. This section also provided the graduates with the chance to make suggestions as to how Delta could be better for them and for future students.

Students from a report writing class at Delta College (General Business 152) and several faculty from the Business Division of Delta College were chosen to pre-test the questionnaire.

A total of 343 questionnaires were sent to the April 1968-1972 Associate Degree graduates of the Business Studies curriculum from Delta College. During the period from June 25, 1973 to July 17, 1973,
a follow-up program was conducted. (See Appendix B) A total of 182 graduates, or 53 percent, responded to the questionnaire. The results are presented in Table 2.

### TABLE 2
RETURNS OF MAIL QUESTIONNAIRES OF DELTA COLLEGE ASSOCIATE DEGREE GRADUATES OF THE BUSINESS STUDIES CURRICULUM 1968-1972

<table>
<thead>
<tr>
<th></th>
<th>Sent</th>
<th>Returned</th>
<th>Percent Return</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>212</td>
<td>102</td>
<td>48.1</td>
</tr>
<tr>
<td>Females</td>
<td>131</td>
<td>80</td>
<td>61.0</td>
</tr>
<tr>
<td>Total</td>
<td>343</td>
<td>182</td>
<td>53.0</td>
</tr>
</tbody>
</table>

Methodology

The questions were coded and responses punched on IBM cards. The computer provided an item analysis and percentage of the total population for those questions that could be coded and punched on IBM cards. The remaining questions were tallied by hand.

The investigator was also interested in subjecting three specific questions to statistical analysis. No attempt was made to match samples or to eliminate intervening variables or variables that might influence why and how these graduates fared as they did on the labor market.
The specific questions were:

1. Was there any significant difference between the number of men and women who are employed in work related to their major area of study?

2. Was there a significant difference between the number of men and women who are employed full time?

3. Was there a significant difference between the salaries of men and women who are employed full time?

The main statistical method employed in testing these questions was the chi-square test of significance.\textsuperscript{31}

This method was chosen because the data were qualitative and non-parametric. The question was rejected if the Table of Percentiles of the Chi-square\textsuperscript{32} showed that the value of chi-square was significant at the .05 level of significance.

The second statistical method employed in testing the questions was the $t$-test.\textsuperscript{33} This method was chosen because one of the questions was quantitative and parametric. The question was rejected if the Table of Percentiles of the $t$-Test\textsuperscript{34} showed that the value of $t$-test was significant at the .05 level of significance.


\textsuperscript{32}loc. cit., p. 221.


\textsuperscript{34}loc. cit., p. 219.
Since the number of nonrespondents (161 or 47 percent) can influence the conclusions that could be drawn from the findings, comparisons were made between grade point averages and major areas of study for the respondents and the nonrespondents.

Summary

The procedures, instrumentation and methodology employed to select and analyze the data were described in this chapter.

The data for this study were obtained from mail questionnaires. The questionnaire was pre-tested and necessary changes were made. Questionnaires were mailed to 343 Associate Degree graduates of the Business Studies curriculum from the 1968-1972 graduating classes of Delta College. A total of 182, or 53 percent, responded. The statistical tests employed were the chi-square test of significance and t-test. Comparisons were made between grade point averages and major areas of study for the respondents and the nonrespondents.

Chapter IV will present and analyze data.

Chapter IV is divided into two sections. Section I presents an analysis of data by the total population without regard to sex. It also represents an analysis of data pertinent to the nonrespondents without regard to sex. Section II presents a statistical analysis of data by sex.
CHAPTER IV
PRESENTATION OF DATA

Section I
Analysis of Data by Total Population Without Regard to Sex

In this section, each question on the questionnaire was analyzed by total population without regard to sex.

Question 1
What is your major activity this year? Please check one only.

This question revealed that the majority of respondents were currently working, 130 (71.4 percent).

Twenty-eight respondents (15.4 percent) were attending a four-year college or university. (See Table 3)

TABLE 3
GRADUATES' CURRENT MAJOR ACTIVITY

<table>
<thead>
<tr>
<th>Activity</th>
<th>Graduates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
</tr>
<tr>
<td>Four-year college or university</td>
<td>28</td>
</tr>
<tr>
<td>Private college or university</td>
<td>1</td>
</tr>
<tr>
<td>Business college</td>
<td>1</td>
</tr>
<tr>
<td>Specialized technical or trade school</td>
<td>1</td>
</tr>
<tr>
<td>Currently working</td>
<td>130</td>
</tr>
<tr>
<td>Military</td>
<td>2</td>
</tr>
<tr>
<td>Housewife</td>
<td>8</td>
</tr>
<tr>
<td>Unemployed, want work</td>
<td>7</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
</tr>
<tr>
<td>No response</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>182</td>
</tr>
</tbody>
</table>
**Question 2**

Are you presently a student?

This question revealed that 35 respondents (19.2 percent) are presently students, 145 respondents (79.7 percent) were not presently students, and two respondents (1.1 percent) left this question blank. (See Table 4)

**TABLE 4**

EMPLOYMENT STATUS OF STUDENTS

<table>
<thead>
<tr>
<th>Response</th>
<th>Graduates</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td></td>
<td>35</td>
<td>19.2</td>
</tr>
<tr>
<td>No</td>
<td></td>
<td>145</td>
<td>79.7</td>
</tr>
<tr>
<td>No response</td>
<td></td>
<td>2</td>
<td>1.1</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>182</td>
<td>100.0</td>
</tr>
</tbody>
</table>

**Question 3**

If you are presently a student, are you part time or full time?

Of the 35 respondents who said they were presently students, this question revealed that 17 (9 percent) were part-time students, 18 (9.9 percent) were full-time students, while 147 (81.1 percent) left this question blank. (See Table 5)
### TABLE 5
PART-TIME AND FULL-TIME STUDENTS

<table>
<thead>
<tr>
<th>Response</th>
<th>Graduates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
</tr>
<tr>
<td>Part time</td>
<td>17</td>
</tr>
<tr>
<td>Full time</td>
<td>18</td>
</tr>
<tr>
<td>Total</td>
<td>35</td>
</tr>
</tbody>
</table>

**Question 4**

Are you presently working?

One hundred fifty-six respondents (85.7 percent) said they were working while 26 respondents (14.3 percent) said they were not working. (See Table 6)

### TABLE 6
EMPLOYMENT STATUS

<table>
<thead>
<tr>
<th>Response</th>
<th>Graduates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
</tr>
<tr>
<td>Yes</td>
<td>156</td>
</tr>
<tr>
<td>No</td>
<td>26</td>
</tr>
<tr>
<td>Total</td>
<td>182</td>
</tr>
</tbody>
</table>
Question 5

If you are presently working, are you working part time or full time?

Of the 156 respondents who said they were presently working, eight respondents (4.9 percent) are working part time while 148 respondents (81.3 percent) are working full time.

Twenty-six (14.3 percent) left this question blank. (See Table 7)

<table>
<thead>
<tr>
<th>TABLE 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>TYPE OF EMPLOYMENT STATUS</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Response</th>
<th>Graduates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
</tr>
<tr>
<td>Part time</td>
<td>8</td>
</tr>
<tr>
<td>Full time</td>
<td>148</td>
</tr>
<tr>
<td>Total</td>
<td>156</td>
</tr>
</tbody>
</table>

Question 6

What is your job title? Yearly Salary? What is your location?

This question revealed that 26 respondents (14.3 percent) were employed in secretarial work. The average annual salary for those respondents employed in secretarial work was $7,013. Most of those respondents were employed in the Tri-City area, with some in Lansing, Grand Rapids, and East Tawas, Michigan. One respondent was located in Mesa, Arizona.
Twenty-two of the respondents (12.1 percent) said they were employed in accounting work. The average annual salary for those respondents employed in accounting work was $8,963. Most of those respondents were employed in the Tri-City area, with some in Battle Creek, Jackson, Frankenmuth, and Lansing, Michigan. Two respondents were located in Willoughby, Ohio, and Kansas City, Missouri.

Nineteen respondents (10.4 percent) said they were employed in management positions. The average annual salary for those respondents employed in management was $8,729. Most of those respondents were employed in the Tri-City area, with some in Gaylord, and Haslett, Michigan. Two respondents were located in Portland, Oregon, and Monaca, Pennsylvania.

Fifteen respondents (8.2 percent) said they were employed in data processing work. The average annual salary for those respondents employed in data processing work was $8,763. Most of those respondents were employed in the Tri-City area, with some in Lansing, Michigan. One respondent was located in Chicago, Illinois.

Eight respondents (4.4 percent) said they were employed in sales work. The average annual salary for those employed in sales work was $5,325. These respondents were employed in the Tri-City area as well as in Flint, Byron Center, and Essexville, Michigan.

Eight respondents (4.4 percent) said they were employed as clerk typists. The average annual salary for clerk typists was $6,266. These respondents were employed in the Tri-City area as well as in East Lansing, Michigan.
Five respondents (2.7 percent) are employed in teaching. The average annual salary for teachers was $9,556. These respondents were employed in the Tri-City area, and Madison Heights, Michigan.

Forty-four respondents (24.2 percent) fell into the miscellaneous classification. This area involved positions such as: bartender, shop worker, travel consultant, stock boy, cook, purchasing agent, engineer, campus advisor, electrician, traffic analyst, farming, laboratory technician, federal narcotics agent, quality control, production control, material control, service representative, receiving clerk, head stockman, and an international product coordinator.

Thirty-five respondents (19.2 percent) left this question blank. (See Table 8)

TABLE 8
GRADUATES' JOB TITLE AND ANNUAL SALARY

<table>
<thead>
<tr>
<th>Job Title</th>
<th>No. of Graduates</th>
<th>Annual Salary</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secretary</td>
<td>26</td>
<td>$7,013</td>
<td>14.3</td>
</tr>
<tr>
<td>Accountant</td>
<td>22</td>
<td>8,963</td>
<td>12.1</td>
</tr>
<tr>
<td>Manager</td>
<td>19</td>
<td>8,729</td>
<td>10.4</td>
</tr>
<tr>
<td>Data Processing</td>
<td>15</td>
<td>8,763</td>
<td>8.2</td>
</tr>
<tr>
<td>Sales</td>
<td>8</td>
<td>5,325</td>
<td>4.4</td>
</tr>
<tr>
<td>Clerk-Typist</td>
<td>8</td>
<td>6,266</td>
<td>4.4</td>
</tr>
<tr>
<td>Teacher</td>
<td>5</td>
<td>9,556</td>
<td>2.7</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>44</td>
<td>-</td>
<td>24.2</td>
</tr>
<tr>
<td>No response</td>
<td>35</td>
<td>-</td>
<td>19.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>182</strong></td>
<td></td>
<td><strong>99.9</strong></td>
</tr>
</tbody>
</table>
Question 7

Is your work related to your major area of study? Very Related? Somewhat Related? Not Related?

This question revealed that 93 respondents (51.1 percent) were engaged in work that was very related to their major area of study, 45 respondents (24.7 percent) felt they were employed in work that was somewhat related to their major area of study, while 23 respondents (12.6 percent) indicated their work was not related to their major area of study. Twenty-one respondents (11.5 percent) left this question blank. (See Table 9)

<table>
<thead>
<tr>
<th>Response</th>
<th>Graduates</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percentage</td>
</tr>
<tr>
<td>Very Related</td>
<td>93</td>
<td>58.0</td>
</tr>
<tr>
<td>Somewhat Related</td>
<td>45</td>
<td>28.0</td>
</tr>
<tr>
<td>Not Related</td>
<td>23</td>
<td>14.0</td>
</tr>
<tr>
<td>Total</td>
<td>161</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Question 8

What other jobs, in addition to the one you have now, have you had since graduation?

This question revealed that 50 respondents (27.5 percent) had held one position prior to their current position. Twenty-nine respondents (15.9 percent) had held two positions prior to their current position,
while nine respondents (4.9 percent) had held three positions prior to their current position. Ninety-four respondents (51.6 percent) indicated they had had no previous work experience prior to their present position.

**Question 9**

Which required courses in your major area of study (curriculum) were helpful to you in your work?

*Accounting* was thought to be the most helpful required course according to 47 (25.8 percent) of the respondents.

*Typewriting* was considered to be the second most helpful of the required courses according to 30 (16.5 percent) of the respondents.

*Business Communications* was ranked third in value according to 19 (10.4 percent) of the respondents.

*Data Processing* was also considered to be helpful according to 14 (7.7 percent) of the respondents.

Thirty-seven (20.3 percent) of the respondents rated numerous courses as helpful; however, those courses received less than six votes each. Consequently, they were classified as miscellaneous.

Thirty-five (19.2 percent) of the respondents left this question blank. (See Table 10)
### TABLE 10
**REQUIRED COURSES RANKED AS MOST HELPFUL**

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Graduates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
</tr>
<tr>
<td>Accounting</td>
<td>47</td>
</tr>
<tr>
<td>Typewriting</td>
<td>30</td>
</tr>
<tr>
<td>Business Communications</td>
<td>19</td>
</tr>
<tr>
<td>Data Processing</td>
<td>14</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>37</td>
</tr>
<tr>
<td>No response</td>
<td>35</td>
</tr>
<tr>
<td>Total</td>
<td>182</td>
</tr>
</tbody>
</table>

**Question 10**

Why were these **required** courses helpful? Please explain:

In every case, the respondents considered the above **required** courses helpful because the skills that were needed for their jobs were acquired from those courses.

**Question 11**

List **other** courses which may have helped you directly in your work.

**Speech** was thought to be the most helpful by 13 (7.1 percent) of the respondents.

**Business Law** was favored as the **second most helpful** course by 11 (6 percent) of the respondents.
Business Communications tied with Business Law as the second most helpful course by 11 (6 percent) of the respondents.

Business Machines was also viewed as being helpful by 9 (4.9 percent) of the respondents. Accounting tied with business machines as being helpful by 9 (4.9 percent) of the respondents.

One hundred twelve (61.5 percent) of the respondents rated numerous courses as being helpful; however, those courses received less than eight votes. Consequently, they were classified as miscellaneous.

Seventeen (9.3 percent) of the respondents left this question blank. (See Table 11)

**TABLE 11**
OTHER COURSES RANKED AS MOST HELPFUL

<table>
<thead>
<tr>
<th>Other Courses</th>
<th>Graduates Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speech</td>
<td>13</td>
<td>7.1</td>
</tr>
<tr>
<td>Business Law</td>
<td>11</td>
<td>6.0</td>
</tr>
<tr>
<td>Business Communications</td>
<td>11</td>
<td>6.0</td>
</tr>
<tr>
<td>Business Machines</td>
<td>9</td>
<td>4.9</td>
</tr>
<tr>
<td>Accounting</td>
<td>9</td>
<td>4.9</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>112</td>
<td>61.5</td>
</tr>
<tr>
<td>No response</td>
<td>17</td>
<td>9.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>182</td>
<td><strong>99.7</strong></td>
</tr>
</tbody>
</table>
Question 12

Which required courses in your major area of study (curriculum) have not been helpful?

Accounting was ranked as least helpful by 15 (8.2 percent) of the respondents.

Economics was second as being least helpful by 10 (5.5 percent) of the respondents.

Government ranked third as being least helpful by 8 (4.4 percent) of the respondents.

One hundred seven (58.8 percent) of the respondents rated numerous courses as being least helpful; however, those courses received less than six votes. Consequently, they were classified as miscellaneous.

Thirty-four (19.7 percent) of the respondents left this question blank. (See Table 12)

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Graduates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
</tr>
<tr>
<td>Accounting</td>
<td>15</td>
</tr>
<tr>
<td>Economics</td>
<td>10</td>
</tr>
<tr>
<td>Government</td>
<td>8</td>
</tr>
<tr>
<td>Data Processing</td>
<td>8</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>107</td>
</tr>
<tr>
<td>No response</td>
<td>34</td>
</tr>
<tr>
<td>Total</td>
<td>182</td>
</tr>
</tbody>
</table>
Question 13

What abilities and skills have you found to be most necessary on the job? Examples: ability to get along with people, report writing, etc.

This question revealed that 115 (63.1 percent) of the respondents felt the most necessary ability to possess for succeeding on the job is the ability to get along with people.

Thirteen (7 percent) of the respondents felt good typewriting skills were the most important.

Twenty-three (12.9 percent) of the respondents rated such skills as: accuracy, accounting, efficiency, math, good knowledge, thinking ahead, confidence and report writing as the abilities and skills most necessary to have on the job. However, these abilities and skills received less than six votes so they were classified as miscellaneous.

Thirty-one (17 percent) of the respondents left this question blank. (See Table 13)

<table>
<thead>
<tr>
<th>Ability/Skill</th>
<th>Graduates</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percentage</td>
</tr>
<tr>
<td>Getting along with people</td>
<td>115</td>
<td>76.2</td>
</tr>
<tr>
<td>Typewriting</td>
<td>13</td>
<td>8.6</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>23</td>
<td>15.2</td>
</tr>
<tr>
<td>Total</td>
<td>151</td>
<td>100.0</td>
</tr>
</tbody>
</table>

*Note the example given on the questionnaire. (See Appendix B) This example may have influenced the response.
Question 14

What abilities and skills were needed that were not included in your curriculum?

This question revealed that 90 (49.5 percent) of the respondents felt that the necessary abilities and skills needed for their job were included in their curriculum.

However, 53 (29.1 percent) of the respondents felt such abilities and skills as: on-the-spot decision making, operation of a bookkeeping machine, more medical terminology course work, dictaphone, purchasing of supplies, telephone courtesy, duplicating, leadership, decision making, switchboard operation, displaying merchandise, getting along with people, and data processing were not included in their curriculum. Since these abilities and skills received less than five votes, they were classified as miscellaneous.

Thirty-nine (21.4 percent) left this question blank. (See Table 14)

TABLE 14
ABILITIES AND SKILLS NOT INCLUDED IN CURRICULUM

<table>
<thead>
<tr>
<th>Ability/Skill</th>
<th>Graduates Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>90</td>
<td>63.0</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>53</td>
<td>37.0</td>
</tr>
<tr>
<td>Total</td>
<td>143</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Question 15

Are you presently working toward an advanced degree from a four-year college or university?

This question revealed that 59 (32.4 percent) of the respondents are currently working toward an advanced degree; while 123 (67.6 percent) of the respondents said they were not working toward an advanced degree. (See Table 15)

<table>
<thead>
<tr>
<th>Graduate Working Toward an Advanced Degree</th>
<th>Graduates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
</tr>
<tr>
<td>Yes</td>
<td>59</td>
</tr>
<tr>
<td>No</td>
<td>123</td>
</tr>
<tr>
<td>Total</td>
<td>182</td>
</tr>
</tbody>
</table>

Question 16

If your answer to question 15 is yes, what type of degree are you working toward? Bachelor's Degree, Master's Degree, Specialist Degree, or Doctorate Degree?

Fifty (27.5 percent) of the respondents said they had or were working toward a Bachelor's Degree.

Seven (3.8 percent) of the respondents were working toward a Master's Degree.
Two (1.1 percent) of the respondents were working toward a Doctorate Degree.

One hundred twenty-three (67.6 percent) of the respondents left this question blank. (See Table 16)

TABLE 16
GRADUATES WORKING TOWARD AN ADVANCED DEGREE

<table>
<thead>
<tr>
<th>Degree</th>
<th>Graduates</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor's Degree</td>
<td>50</td>
<td>85.0</td>
</tr>
<tr>
<td>Master's Degree</td>
<td>7</td>
<td>12.0</td>
</tr>
<tr>
<td>Doctorate Degree</td>
<td>2</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>59</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Question 17

What college or university are you attending? Where?

The highest percentage of the respondents 24 (13.2 percent) said they transferred to Saginaw Valley College, University Center, Michigan.

Fifteen (8.2 percent) of the respondents said they transferred to Central Michigan University in Mount Pleasant, Michigan.

Eleven (6 percent) of the respondents said they transferred to Michigan State University in East Lansing, Michigan.

Seven (3.8 percent) of the respondents said they transferred to Western Michigan University in Kalamazoo, Michigan.

Two (1.1 percent) of the respondents said they transferred to Wayne State University in Detroit, Michigan. (See Table 17)
TABLE 17
TRANSFER INSTITUTIONS

<table>
<thead>
<tr>
<th>Institution</th>
<th>Graduates</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saginaw Valley College</td>
<td>24</td>
<td>13.2</td>
</tr>
<tr>
<td>Central Michigan University</td>
<td>15</td>
<td>8.2</td>
</tr>
<tr>
<td>Michigan State University</td>
<td>11</td>
<td>6.0</td>
</tr>
<tr>
<td>Western Michigan University</td>
<td>7</td>
<td>3.8</td>
</tr>
<tr>
<td>Wayne State University</td>
<td>2</td>
<td>1.1</td>
</tr>
<tr>
<td>Not attending college</td>
<td>123</td>
<td>67.6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>182</strong></td>
<td><strong>99.9</strong></td>
</tr>
</tbody>
</table>

**Question 18**

While here at Delta, did you use such services as: career counseling, financial aid, job placement, housing, other, none?

If you checked "other," please explain.

The largest percentage of the respondents indicated they had utilized career counseling 59 (32.4 percent).

Twenty-two (12.1 percent) of the respondents said they had utilized financial aid, 31 (17 percent) had utilized job placement, 1 (.5 percent) had utilized housing, 8 (4.4 percent) checked "other" for such purposes as: Cooperative education, individual counseling, and faculty advising.

Fifty-four (29.7 percent) indicated they had not utilized student services in any way.

Seven (3.8 percent) left this question blank. (See Table 18)
### TABLE 18
**UTILIZATION OF STUDENT SERVICES**

<table>
<thead>
<tr>
<th>Student Services</th>
<th>Graduates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
</tr>
<tr>
<td>Career Counseling</td>
<td>59</td>
</tr>
<tr>
<td>Financial Aid</td>
<td>22</td>
</tr>
<tr>
<td>Job Placement</td>
<td>31</td>
</tr>
<tr>
<td>Housing</td>
<td>1</td>
</tr>
<tr>
<td>Other</td>
<td>8</td>
</tr>
<tr>
<td>None</td>
<td>54</td>
</tr>
<tr>
<td>No response</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>182</td>
</tr>
</tbody>
</table>

**Question 19**

Did you find these services helpful? Yes? No? Why do you say this?

The majority of the respondents 102 (56 percent) said they found student services to be helpful, while 20 (11 percent) of the respondents said student services had not been helpful.

Sixty (33 percent) of the respondents left this question blank.

(See Table 19)
TABLE 19
EVALUATION OF STUDENT SERVICES

<table>
<thead>
<tr>
<th>Response/Helpful</th>
<th>Graduates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
</tr>
<tr>
<td>Yes</td>
<td>102</td>
</tr>
<tr>
<td>No</td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td>122</td>
</tr>
</tbody>
</table>

Career counseling was termed beneficial because the respondents felt it helped them to decide upon a career.

On the other hand, some of the respondents said that extensive career counseling should be available during either orientation prior to their first semester on campus or during their first semester. Some of the respondents said they felt "lost" as to which career to choose, where they had talents, and where they lacked talents.

The respondents who utilized financial aid said they would have been unable to stay in school without such funds.

Job placement was viewed favorably because it provided income as well as vocational experience.

The one respondent who utilized housing said that he would have been unable to go to school had it not been for him being able to live on campus.
Cooperative education was viewed favorably because the respondents could earn money for school in addition to gaining vocational experience. Some of the respondents said their salaries upon graduation were higher due to this work experience.

**Question 20**

If you had a chance to start all over again, would you do things differently?

Over two-fifths of the respondents, 80 (44 percent) said they would **not** do things differently. Comments suggested Delta was doing a good job of preparing its students for the world of work.

Eighty-two (45 percent) of the respondents said they would **do** things differently. Comments suggested: would have studied harder, enrolled as a transfer student as opposed to a terminal degree student, taken more general education courses, changed curriculum, work part time to gain experience, not work so many hours while going to school, or start right out as a freshman at a four-year college or university.

Twenty (11 percent) of the respondents left this question blank. (See Table 20)

### TABLE 20
GRADUATES' VIEWS ON DOING THINGS DIFFERENTLY

<table>
<thead>
<tr>
<th>Response</th>
<th>Graduates Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>80</td>
<td>49.0</td>
</tr>
<tr>
<td>Yes</td>
<td>82</td>
<td>51.0</td>
</tr>
<tr>
<td>Total</td>
<td>162</td>
<td>100.0</td>
</tr>
</tbody>
</table>

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Question 21

Please tell us how Delta can serve you better in the future or how we can help other students in a more meaningful way.

A high percentage (63 or 35 percent) of the respondents left this question blank.

Of the remaining 119 (65 percent) of the respondents, comments suggested that Delta could be more helpful in the following ways:

1. Provide career counseling early in the freshman year.
2. Have more financial aid available.
3. Provide students with better transfer information.
4. Permit students to evaluate the faculty.
5. Offer more evening courses.
6. Provide more housing.
7. Put more emphasis on cooperative education and job placement.
8. Make counseling more available to the students.
10. Become a four-year school.
11. Allow more freedom of class selection.

Additionally, some of the respondents suggested:

1. Delta was one of the best experiences of their lives.
2. Continue to do the excellent job you are doing.
3. Delta is a great college.

In an attempt to learn more about the nonrespondents, a comparison of grade point averages between the respondents and the non-respondents showed that: 72 (21 percent) of the nonrespondents had
grade point averages ranging from 2.0 - 2.4; 51 (14.9 percent) ranging from 2.5 - 2.9; 29 (8.5 percent) ranging from 3.0 - 3.4; and 9 (2.6 percent) from 3.5 - 4.0. (See Table 21)

<table>
<thead>
<tr>
<th>Grade Point Averages</th>
<th>Respondents</th>
<th>Percentage</th>
<th>Nonrespondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.0 - 2.4</td>
<td>67</td>
<td>19.5</td>
<td>72</td>
<td>21.0</td>
</tr>
<tr>
<td>2.5 - 2.9</td>
<td>62</td>
<td>18.1</td>
<td>51</td>
<td>14.9</td>
</tr>
<tr>
<td>3.0 - 3.4</td>
<td>37</td>
<td>10.8</td>
<td>29</td>
<td>8.5</td>
</tr>
<tr>
<td>3.5 - 4.0</td>
<td>16</td>
<td>4.6</td>
<td>9</td>
<td>2.6</td>
</tr>
<tr>
<td>Total</td>
<td>182</td>
<td>53.0</td>
<td>161</td>
<td>47.0</td>
</tr>
</tbody>
</table>

The difference in grade point averages between the respondents and the nonrespondents was not significant.

A comparison of major areas of study between the respondents and nonrespondents showed that: 12 (3.5 percent) of the nonrespondents were accounting majors; 10 (2.9 percent), data processing; 22 (6.4 percent), English; 11 (3.2 percent), general business; 3 (.9 percent), industrial supervision; 44 (12.8 percent), secretarial science; and 59 (17.3 percent), miscellaneous.

The miscellaneous group consisted of declared majors in: art, French, Russian, dental assisting, automotive technology, speech, etc. (See Table 22)
### TABLE 22
MAJOR AREAS OF STUDY
RESPONDENTS V. NONRESPONDENTS

<table>
<thead>
<tr>
<th>Major Areas of Study</th>
<th>Respondents</th>
<th>Percentage</th>
<th>Nonrespondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting</td>
<td>5</td>
<td>1.5</td>
<td>12</td>
<td>3.5</td>
</tr>
<tr>
<td>Data Processing</td>
<td>6</td>
<td>1.7</td>
<td>10</td>
<td>2.9</td>
</tr>
<tr>
<td>English</td>
<td>14</td>
<td>4.1</td>
<td>22</td>
<td>6.4</td>
</tr>
<tr>
<td>General Business</td>
<td>6</td>
<td>1.7</td>
<td>11</td>
<td>3.2</td>
</tr>
<tr>
<td>Industrial Supervision</td>
<td>5</td>
<td>1.5</td>
<td>3</td>
<td>.9</td>
</tr>
<tr>
<td>Secretarial Science</td>
<td>53</td>
<td>15.5</td>
<td>44</td>
<td>12.8</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>93</td>
<td>27.0</td>
<td>59</td>
<td>17.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>182</strong></td>
<td><strong>53.0</strong></td>
<td><strong>161</strong></td>
<td><strong>47.0</strong></td>
</tr>
</tbody>
</table>

It could be suggested that the code numbers for curriculums were not always changed when the respondents and nonrespondents changed their major areas of study.

**Summary - Section I**

In this section, the data were analyzed to learn the influence of education on the career patterns of Associate Degree graduates of the Business Studies curriculum.
However, some important aspects of labor market activity were also studied. Some of these aspects were:

1. To learn the types of job choice.
2. To learn the reason for change of a job or occupation.
3. To learn what changes in occupational levels there have been and where people are located at present.
4. To learn wages and salaries.
5. To learn who has been continuing their education either through available community facilities or through facilities outside their community.

The summary, findings, and recommendations are presented in the next chapter.
Section II
Analysis of Data by Sex

This section was concerned with the statistical analysis of data pertaining to the following questions:

1. Was there a larger proportion of men employed in work related to their major area of study than women?
2. Was there a larger proportion of men employed full time than women?
3. Was there a larger proportion of men earning higher salaries for full-time employment than women?

The results are presented in the following pages.

**Question 1--Rejected**

For a one-tailed chi-square test with one degree of freedom, the analysis between men and women who were employed in work related to their major area of study was not significant at the .05 level. 
(P > .05) (See Table 23)

**Question 2--Rejected**

For a one-tailed chi-square test with one degree of freedom, the analysis between the number of men and women who were employed full time was not significant at the .05 level. (P > .05) 
(See Table 24)
**TABLE 23**  
**CHI-SQUARE TEST OF SIGNIFICANCE**  
**COMPARISON BY SEX FOR WORK RELATED TO MAJOR AREA OF STUDY**

<table>
<thead>
<tr>
<th>Work</th>
<th>Men</th>
<th>Women</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Related</td>
<td>75</td>
<td>63</td>
<td>138</td>
</tr>
<tr>
<td>Not Related</td>
<td>19</td>
<td>4</td>
<td>23</td>
</tr>
<tr>
<td>Total</td>
<td>94</td>
<td>67</td>
<td>161</td>
</tr>
</tbody>
</table>

Using one df $X^2 = 6.4804$. This is not significant at the .05 level. ($P > .05$)

**TABLE 24**  
**CHI-SQUARE TEST OF SIGNIFICANCE**  
**COMPARISON BY SEX FOR FULL-TIME EMPLOYMENT**

<table>
<thead>
<tr>
<th>Employment</th>
<th>Men</th>
<th>Women</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Time</td>
<td>84</td>
<td>61</td>
<td>145</td>
</tr>
<tr>
<td>Part Time</td>
<td>7</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>Total</td>
<td>91</td>
<td>66</td>
<td>157</td>
</tr>
</tbody>
</table>

Using one df $X^2 = .0008$. This is not significant at the .05 level. ($P > .05$)
Question 3--Not Rejected

For a one-tailed $t$-test with greater than 120 degrees of freedom ($\infty$), the analysis between the salaries of men and women who were employed full time indicated that $t$ was significant at the .05 level. ($P < .05$) (See Table 25)

<table>
<thead>
<tr>
<th>TABLE 25</th>
</tr>
</thead>
<tbody>
<tr>
<td>t-TEST OF SIGNIFICANCE</td>
</tr>
<tr>
<td>Men</td>
</tr>
<tr>
<td>N=67</td>
</tr>
<tr>
<td>Salary $X$</td>
</tr>
<tr>
<td>$10,801$</td>
</tr>
</tbody>
</table>

For 120 df ($\infty$), $t$ is significant at the .05 level. ($P < .05$)

Summary - Section II

In this section, three questions were statistically analyzed by sex in terms of work related to major area of study, full-time employment and salaries earned for full-time employment.

The summary, conclusions, and recommendations are presented in the next chapter.
CHAPTER V

SUMMARY, FINDINGS, AND RECOMMENDATIONS

Summary

This was a five-year follow-up study of 343 Associate Degree graduates of the Business Studies Curriculum from Delta College who have been on the labor market from April 1968 to April 1972, a 48-month work period.

The major purpose of this study was to learn the influence of education on the career patterns of Associate Degree graduates of the Business Studies curriculum.

However, some important aspects of labor market activity were also studied. Some of these aspects were:

1. To learn the types of job choice.
2. To learn the reason for change of a job or occupation.
3. To learn what changes in occupational levels there have been and where people are located at present.
4. To learn wages and salaries.
5. To learn who has been continuing their education either through available community facilities or through facilities outside their community.

The data were gathered from mail questionnaires and student personnel records available at Delta College. The data were presented and discussed.
The statistical methods employed for the three research questions were the chi-square test and t-test. The .05 level of significance was chosen.

Because of the limited samples, the conclusions should be considered with caution.

Findings

On the basis of the analysis of data from the 182 (53 percent) graduates who responded to the questionnaire, the following findings were presented:

1. The majority of respondents (123 or 67.6 percent) enter the labor market upon graduation and do not continue formal education toward an advanced degree. This is not to conclude that some of these respondents do not take additional course work to upgrade their vocational skills.

2. Of the 59 respondents (32.4 percent) who indicated they were working toward an advanced degree, 50 respondents were working toward a Bachelor's degree, seven respondents were working toward a Master's degree, and two respondents were working toward a Doctorate degree.

3. Saginaw Valley College, located in University Center, Michigan, attracts the highest percentage of Delta graduates, (24 or 13.2 percent).
4. The highest percentage of the respondents, (26 or 14.3 percent), are employed in secretarial work. The average annual salary for those employed in secretarial work was $7,013. The majority of respondents were employed in the Tri-City area.

5. The majority of the respondents, (93 or 51.1 percent), were employed in work that is very related to their major area of study.

6. The majority of the respondents, (94 or 51.6 percent), said they had had no previous work experience prior to entering the labor market upon graduation.

7. Of the required courses in their major area of study, Accounting was thought to be the most helpful by 47 (25.8 percent) of the respondents. This course was considered to be the most helpful because it was most closely associated with the skills necessary for their jobs. On the other hand, accounting was ranked also as least helpful by 15 or 8.2 percent of the respondents.

8. Of the other courses, according to the data, which may have helped the respondents directly in their work, Speech was valued the most by 13 or 7.1 percent of the respondents.

9. The majority of the respondents, (115 or 63.1 percent), felt the most necessary skill to possess for succeeding on the job was the ability to get along with people.
10. Nearly one half of the respondents, (90 or 49.5 percent), felt the necessary abilities and skills needed for the job were included in their curriculum.

11. The highest percentage of the respondents, (59 or 32.4 percent), said they had utilized career counseling more than any other student service. They valued this service because it helped them to decide upon a career.

12. The majority of the respondents, (102 or 56 percent), said they found student services to be helpful. However, it was emphasized that more career counseling should take place early in the freshman year.

13. A high percentage of the respondents, (82 or 45 percent), said if they had a chance to start over again, they would do things differently. Some of the comments suggested they would: study harder, enroll as a transfer student as opposed to a terminal degree student, take more general education courses, change curriculums, work part time to gain experience, not work so many hours while going to school, and start right out as a freshman at a four-year college or university.

14. The majority of the respondents, (119 or 65 percent), suggested that Delta could serve students better in the following ways:

- Provide career counseling early in the freshman year.
- Have more financial aid available.
- Provide students with better transfer information.
· Permit students to evaluate the faculty.
· Offer more evening courses.
· Provide more housing.
· Put more emphasis on cooperative education and job placement.
· Make counseling more available to the students.
· Base grades upon test performance rather than attendance.
· Become a four-year school.
· Allow more freedom of class selection.

Recommendations

The proposed recommendations come from the findings revealed by the data:

1. Since two thirds of the respondents enter the labor market upon graduation, incoming freshmen should be counseled concerning possible career choices and their objectives for a program of study.

2. Since the respondents complained about the loss of credits upon transferring to a four-year school, incoming freshmen should be counseled as to the difference between a terminal degree program and a transfer program.

3. Since nearly three fourths of the respondents were employed locally and were not working toward an advanced degree, an effort should be made to expand the evening job-related course offerings.
4. Since one half of the respondents indicated no previous work experience prior to graduation, the value of the cooperative education program should be emphasized in that education and work experience could be a valuable combination. Also, cooperative education work experience could suggest higher initial job-entry-level salaries for having had previous work experience.

5. Since one half the respondents indicated no previous work experience prior to graduation, provide more opportunities for office simulation. Office simulation would be especially important to the students who were unable to take advantage of cooperative education work experience.

6. Since follow-up studies are valuable, more follow-up studies should be conducted throughout the college. For example, a follow-up study of business dropouts should be conducted.
# APPENDIX A

## POPULATION OF BAY CITY, MIDLAND, AND SAGINAW - 1970

<table>
<thead>
<tr>
<th>Cities</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bay City</td>
<td>49,449</td>
</tr>
<tr>
<td>Midland</td>
<td>35,166</td>
</tr>
<tr>
<td>Saginaw</td>
<td>91,828</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>176,443</strong></td>
</tr>
</tbody>
</table>

There are a variety of governmental, business, and manufacturing enterprises from which Delta College graduates can seek employment.

**OCCUPATION OF EMPLOYED PERSONS FOR AREAS AND PLACES: 1970**

**OCCUPATION AND EARNINGS FOR PLACES OF 10,000 TO 50,000: 1970**

*(Occupational Group of Employed Males in Bay City, Midland, and Saginaw)*

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Bay City</th>
<th>Midland</th>
<th>Saginaw</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional, technical, and kindred workers</td>
<td>2,195</td>
<td>4,760</td>
<td>3,717</td>
</tr>
<tr>
<td>Engineers</td>
<td>167</td>
<td>867</td>
<td>380</td>
</tr>
<tr>
<td>Physicians, dentists, and practitioners</td>
<td>180</td>
<td>161</td>
<td>116</td>
</tr>
<tr>
<td>Health workers, except practitioners</td>
<td>299</td>
<td>263</td>
<td>567</td>
</tr>
<tr>
<td>Teachers, elementary and secondary schools</td>
<td>618</td>
<td>660</td>
<td>1,013</td>
</tr>
<tr>
<td>Technicians, except health</td>
<td>205</td>
<td>345</td>
<td>314</td>
</tr>
<tr>
<td>Managers and administrators, except farm</td>
<td>1,009</td>
<td>1,271</td>
<td>1,800</td>
</tr>
<tr>
<td>Sales Workers</td>
<td>1,416</td>
<td>811</td>
<td>2,385</td>
</tr>
<tr>
<td>Clerical and kindred workers</td>
<td>2,602</td>
<td>2,191</td>
<td>5,503</td>
</tr>
<tr>
<td>Craftsmen, foremen, and kindred workers</td>
<td>2,928</td>
<td>1,435</td>
<td>4,605</td>
</tr>
<tr>
<td>Operatives, except transport</td>
<td>3,377</td>
<td>866</td>
<td>6,362</td>
</tr>
<tr>
<td>Transport equipment operatives</td>
<td>571</td>
<td>258</td>
<td>1,120</td>
</tr>
<tr>
<td>Laborers, except farm</td>
<td>663</td>
<td>256</td>
<td>1,676</td>
</tr>
<tr>
<td>Farm laborers and farm foremen</td>
<td>20</td>
<td>6</td>
<td>28</td>
</tr>
<tr>
<td>Service workers, except private household</td>
<td>2,531</td>
<td>1,252</td>
<td>4,600</td>
</tr>
<tr>
<td>Private household workers</td>
<td>149</td>
<td>146</td>
<td>341</td>
</tr>
</tbody>
</table>

**OCCUPATION OF EMPLOYED PERSONS FOR AREAS AND PLACES: 1970**

**OCCUPATION AND EARNINGS FOR PLACES OF 10,000 TO 50,000: 1970**

(Occupational Group of Employed Females in Bay City, Midland, and Saginaw)

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Bay City</th>
<th>Midland</th>
<th>Saginaw</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional, technical, and kindred workers</td>
<td>964</td>
<td>1,324</td>
<td>1,753</td>
</tr>
<tr>
<td>Nurses</td>
<td>199</td>
<td>180</td>
<td>402</td>
</tr>
<tr>
<td>Health workers, except nurses</td>
<td>73</td>
<td>65</td>
<td>128</td>
</tr>
<tr>
<td>Teachers, elementary and secondary schools</td>
<td>433</td>
<td>512</td>
<td>724</td>
</tr>
<tr>
<td>Technicians, except health</td>
<td>5</td>
<td>29</td>
<td>39</td>
</tr>
<tr>
<td>Managers and administrators, except farm</td>
<td>220</td>
<td>146</td>
<td>410</td>
</tr>
<tr>
<td>Sales Workers</td>
<td>788</td>
<td>321</td>
<td>1,144</td>
</tr>
<tr>
<td>Clerical and kindred workers</td>
<td>1,843</td>
<td>1,659</td>
<td>4,164</td>
</tr>
<tr>
<td>Craftsmen, foremen, and kindred workers</td>
<td>60</td>
<td>64</td>
<td>219</td>
</tr>
<tr>
<td>Operatives, except transport</td>
<td>616</td>
<td>82</td>
<td>1,137</td>
</tr>
<tr>
<td>Transport equipment operatives</td>
<td>25</td>
<td>30</td>
<td>35</td>
</tr>
<tr>
<td>Laborers, except farm</td>
<td>90</td>
<td>5</td>
<td>150</td>
</tr>
<tr>
<td>Farm laborers and farm foremen</td>
<td>5</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>Service workers, except private house</td>
<td>1,494</td>
<td>694</td>
<td>2,678</td>
</tr>
<tr>
<td>Private household workers</td>
<td>146</td>
<td>146</td>
<td>334</td>
</tr>
</tbody>
</table>


The local labor market employment situation is a crucial variable in whether or not people can find work in the occupational area for which they are prepared. The 1968-1972 Delta College graduates faced a serious unemployment situation which certainly may have had an impact upon the type of job they initially entered and upon their subsequent work history. (See the following table)
### SUMMARY OF ECONOMIC CHARACTERISTICS: 1970
(Civilian labor force percent unemployed and percent employed in Bay City, Midland, and Saginaw)

<table>
<thead>
<tr>
<th>Cities</th>
<th>Labor Force Unemployed</th>
<th>Manufacturing Industries Employed</th>
<th>White Collar Workers Employed</th>
<th>Gov. Workers Employed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bay City</td>
<td>7.1</td>
<td>37.2</td>
<td>41.3</td>
<td>10.6</td>
</tr>
<tr>
<td>Midland</td>
<td>2.9</td>
<td>46.9</td>
<td>68.1</td>
<td>12.1</td>
</tr>
<tr>
<td>Saginaw</td>
<td>5.8</td>
<td>38.3</td>
<td>41.7</td>
<td>11.7</td>
</tr>
</tbody>
</table>

Schedule of Questionnaire Mailings and Follow-up

1st mailing - Delta College Associate Degree Graduates  
   questionnaire - graduates       June 15, 1973

2nd mailing - Letter sent to all who had not yet  
   responded                     June 25, 1973

3rd mailing - Questionnaire and letter sent second  
   time to all who had not yet responded  July 2, 1973

4th mailing - Letter sent to all who had not yet  
   responded                     July 17, 1973
June 15, 1973

Since your graduation from Delta College, what have you been doing that is new and different?

As a business graduate from Delta, we want to know how well you have been prepared for the world of work. Consequently, your opinions are important concerning the quality of instruction that you received while you were with us.

That is why I am conducting this five-year follow-up study. Please take a few minutes from your busy schedule to answer the enclosed questionnaire. Your answers will be kept confidential; they are for research purposes only. Help us improve Delta College for you and future students.

The return of your completed questionnaire in the enclosed postage-paid envelope by June 29, 1973, would be appreciated.

Sincerely yours,

Mary E. Smith
Business Division

Enclosures
A FIVE-YEAR STUDY OF COMMUNITY COLLEGE BUSINESS GRADUATES
WITH IMPLICATIONS FOR CURRICULUM IMPROVEMENT

DIRECTIONS: Please answer the following questions by either checking the appropriate response or by filling in the blanks.

Male _____ Female _____ Month and Year of Graduation from Delta: Month _____ Year ____

Name ___________________________________________________________ Student Number________

Temporary Address _______________________________________________ Phone________
Street City State Zip

Permanent Address _______________________________________________ Phone________
Street City State Zip

While you were at Delta, what was your major area of study? ________

Curriculum

1. What is your major activity this year: Please check one only.

   ____(1) Four-year college or university
   ____(2) Private college or university
   ____ (3) Junior college - special no-degree
   ____ (4) Junior college - two year AA degree
   ____ (5) Business college
   ____ (6) Other specialized technical or trade school
   ____ (7) Work
   ____ (8) Military Service
   ____ (9) Housewife
   ____ (10) Volunteer organization
   ____ (11) Unemployed, want work
   ____ (12) Other activities (explain)

2. Are you presently a student? ___(1) Yes ___(2) No

3. If you are presently a student, are you: ____ (1) part time? ___(2) full time?

4. Are you presently working? ____ (1) Yes ____ (2) No

5. If you are presently working, are you working: ____ (1) part time? ____ (2) full time?

6. What is your job title? ________________________________________
   Yearly Salary? __________
   What is your location? ________________________________________
   City State Zip

7. Is your work related to your major area of study?

   ____ (1) Very related
   ____ (2) Somewhat related
   ____ (3) Not related

8. What other jobs, in addition to the one you have now, have you had since graduation?
   Type of job: (1) ____________________________
   (2) ____________________________
   (3) ____________________________

9. Which required courses in your major area of study (curriculum) were helpful to you in your work?

   (1) ____________________________ (2) ____________________________ (3) ____________________________

10. Why were these required courses helpful? Please explain: ____________________________
11. List **other** courses which may have helped you directly in your work.

   (1) _____________________________ (2) _____________________________ (3) ____________________________

12. Which **required** courses in your major area of study (curriculum) have not been helpful to you in your work?

   (1) _____________________________ (2) _____________________________ (3) ____________________________

13. What abilities and skills have you found to be most necessary on the job? **Examples:** ability to get along with people, report writing, etc.

   (1) _____________________________ (2) _____________________________ (3) ____________________________

14. What abilities and skills were needed that were not included in your curriculum?

   (1) _____________________________ (2) _____________________________ (3) ____________________________

15. Are you presently working toward an advanced degree from a four-year college or university?  ____ (1) Yes  ____ (2) No

16. If your answer to question 15 is yes, what type of degree are you working toward?

   ____ (1) Bachelor's Degree  ____ (2) Master's Degree  ____ (3) Specialist Degree  ____ (4) Doctorate Degree

17. What college or university are you attending?_______________________ Where?________

18. While here at Delta, did you use such student services as: (please check)

   ____ (1) Career counseling  ____ (2) Financial aid  ____ (3) Job placement

   ____ (4) Housing  ____ (5) Other  ____ (6) None

If you checked "other," please explain:__________________________________________

19. Did you find these services helpful?  ____ (1) Yes  ____ (2) No

Why do you say this:__________________________________________________________

20. If you had a chance to start all over again, would you do things differently?  

Please explain:_____________________________________________________________

21. Please tell us how Delta can serve you better in the future or how we can help other students in a more meaningful way:

__________________________________________________________

__________________________________________________________

__________________________________________________________

__________________________________________________________

__________________________________________________________

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June 25, 1973

As a business graduate from Delta, do you consider your opinions to be important? We think they are!

Therefore, will you please take just a few minutes from your busy schedule to complete the Delta College graduate questionnaire that you received last week.

Help us improve Delta College for you and future students. We need you!

Sincerely yours,

Mary E. Smith
Business Division

Sometimes our letters cross in the mails. If you have already returned your questionnaire, thank you for doing so.
Together we can determine the quality of instruction that you received while you were with us.

That is why I am enclosing another questionnaire.... just in case the first one became misplaced.

Please help us improve Delta College for you and for future students by returning your completed questionnaire in the enclosed postage-paid envelope by July 13, 1973.

We believe your opinions are important!

Sincerely yours,

Mary E. Smith
Business Division

Enclosures
July 17, 1973

You have probably completed filling out your graduate questionnaire. Therefore, won't you please share your comments with us?

Your opinions--your concern--our concern--the computer--will all contribute toward making Delta just a little bit better. However, we need your input!

So without delay, please mail your completed questionnaire in the enclosed postage-paid envelope by July 23, 1973.

Remember, we believe your opinions are important!

Sincerely yours

Mary E. Smith
Business Division

Enclosure
BIBLIOGRAPHY

Books


Articles and Periodicals


Reports

Florida Community Junior College Inter-Institutional Research Council, "Where are they now? A Follow-up of First-Time-In-College Freshmen in Florida's Community Junior Colleges in Fall 1966." (November 1969), pp. 1-56.


Public Documents