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An Analysis of Business Administration Graduates from Utah State University 1956 to 1965

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AN ANALYSIS OF BUSINESS ADMINISTRATION GRADUATES FROM UTAH STATE UNIVERSITY 1956 TO 1965

by

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Rees C. Tribett

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER I

INTRODUCTION

Historical Background

In 1891, Utah State University began offering a two-year business course to its students. With this early beginning, Utah State claims the second oldest business school west of the Mississippi River. In 1900, the School of Commerce was organized. It was not until 1956, the beginning year for this study, that the College of Business and Social Sciences came into being.

Prior to 1956, the only majors available to business students were Business Administration and Business Management. In 1957, Accounting, Industrial Management, and Merchandising majors were offered. The department began to expand and diversify the curriculum. Changes were made to modernize the department and bring it closer to the structure of leading business schools throughout the nation. The major of Business Administration was dropped in 1960, since it was felt that this course of study was too general for today's business student. The year 1960 also saw the course offerings in Merchandising become streamlined. Some courses were dropped and new courses added, and the name of this major was changed to Marketing. In 1961, the majors of Business Management and Industrial Management were dropped from the curriculum and the new major of Production Management replaced them in 1962. In 1962, Finance and Personnel majors were also added to bring the department to its present form.

In an interview with Dr. Robert P. Collier, who became Dean in 1959, succeeding Dr. M. R. Merrill, he pointed out that the changes which were made were designed to modernize the department. The present curriculum is designed to provide students with a broad background in business along with a specialty in a particular area. According to Dean Collier, many course titles and numbers remain the same as they were years ago, however, the structure and content of these courses have been revamped to bring them in line with current thinking.

Since 1956, the Department of Business Administration has produced 765 graduates. Accounting has been the leading field with 162 students graduating during this period. The number drops to 39 in the newly created field of Finance. Table 1 shows a breakdown of the graduates, according to major, for the ten-year period, 1956 to 1965.

Reason for Study

In the past no attempt was made to check the progress of the graduates in their chosen careers once they left the University. During the decade 1956-65 many changes took place in our nation and in our own University. This survey was conducted to enable the Department of Business Administration to have a first-hand report on the success of the graduates of the past 10 years in their particular work situations.

In 1959, as a result of their study at Columbia University, Robert A. Gordon and James Howell made the following statement:

> Relatively very few business schools know very much about the careers their graduates follow, and they lose contact with students very quickly after graduation. Frequently even information about the initial placement is unavailable in any detail. Since most business schools have not made a careful analysis of the careers their students follow, they have been handicapped in

Table 1. Number of graduates by major field in the Department of Business Administration for the years 1956 to 1965

	Year of graduation										
	'56	'57	'58	'59	'60	'61	'62	'63	'64	'65	Total
Accounting		19	14	21	19	15	18	15	23	18	162
Business Administration	35	40	31	20	20						146
Business Management	4	8	14	14	14	31					85
Finance							13	7	14	5	39
Industrial Management		7	10	28	18	24					87
Marketing		7	3	6	4	8	18	26	25	25	122
Personnel							29	24	12	13	78
Production Management							9	9	15	13	46
Total	39	81	72	89	75	78	87	81	89	74	765

determining the kinds of qualifications they should follow.[1]

Since a study of this type has not been previously conducted by the Department of Business Administration, it was felt that the research would prove valuable in evaluating the curriculum and for counseling future students. If some of the graduates feel that they were inadequately prepared, they may have suggestions as to how the educational process at Utah State may be improved.

Objectives

The basic objective of this is to provide the Department of Business Administration with information which can be used to analyze the current and future needs of Business Administration students.

To provide this information, graduates were asked for information concerning their first job, the starting salary, and how the job was obtained. They were also asked about the size of company of their first employer and how long they remained on their first job. Similar information was requested concerning their present job. Also, information regarding classes most and least helpful in their present job. Other types of information desired were number of job changes, education beyond the bachelor level, and geographical location of the graduates.

All of the above information has a direct bearing on the type of education our graduates in future years will need. If the Department of Business Administration is educating graduates in special areas and their usage is general, then changes in the curriculum may be needed. If the majority is working for large corporations, the type of education

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[1]Gordon, Robert A. and James Howell, Higher Education for Business, (Columbia University Press, New York City, New York, 1959), p. 44.

which should be offered may be different than if the majority is working for small companies.

Since 1956 the curriculum has been changed to provide students with a higher degree of specialization. Will the next ten years require still more specialization, or will the needs of future graduates become more general?

The best way to obtain such information is to ask past graduates who are working today in the business world. The type of training business students receive has a direct bearing on the economy of the nation. The Committee for Economic Development in its publication, Educating Tomorrows Managers, reported: "Rapid social and technological changes of today are making new demands on business management. In order to keep pace with these demands, the educators of today should strive to improve business education."[2]

To offer solutions to problems in the educational process requires knowledge beyond the scope of this study. Recommendations are made based on the opinions of the graduates as to areas needing improvement. No attempt is made to evaluate the present curriculum.

One major area of interest in this study is whether graduates are working in their major area of study. For example, are Personnel majors working in Personnel? With this point in mind, the following hypotheses are offered:

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[2]Committee for Economic Development, Educating Tomorrows Managers, (New York, Oct. 1964), p. 26.

1. The majority of the graduates is working in areas the same as their major.
2. The percentage working in their major areas will be higher in Accounting and Marketing. It is felt that these two fields are easier to enter since a wide variety of jobs are included in these two categories.
3. The largest percentage working in areas other than their graduate major will be from Finance, Personnel, and Production Management. These three areas appear to offer less jobs, in total number, than the other two fields. Graduates with these majors will take a job in a related area and later move into their chosen field.

In a similar study conducted at the University of Toledo, it was found that seventy percent of the Marketing and Accounting majors were working in their major areas. In one other major area studied, it was found that only thirty percent of the Finance majors were working in the area of Finance.[3]

Methodology

Method of obtaining data

The starting point for the study was to obtain the names of all the graduates of the past ten years in the department of Business Administration. These names were obtained from the Office of Records and Admissions at the University.

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[3]Robert D. Mason, Alumni Study, (University of Toledo Press, Toledo, Ohio, 1964), p. 25.

The names of the graduates were listed according to alphabet, year of graduation, and college major. During the period 1956 to 1965, the Department of Business Administration awarded bachelor's degrees to 765 students. This study did not include those students graduating with Masters Degrees.

After obtaining the names, the addresses were available from the Utah State University Alumni Association who keep a listing, as accurate as possible, of all university graduates. A search of these records provided addresses for 695 of the 765 graduates. No addresses were obtained for the other 70 graduates.

The information desired was obtained by the use of a direct-mail questionnaire. The questionnaire and a cover letter explaining the study was signed by Dr. Donald Dobler, Department Head, was mailed to each of the graduates for whom there was an address. It was hoped that a letter signed by the department head would help to increase the number of responses. A stamped, self-addressed envelope was included to aid the graduates in returning the questionnaires.

Questionnaire

The questionnaire consisted of three pages which were designed to allow the respondent to answer the questionnaire as quickly and easily as possible. Most of the questions could be answered by checking the applicable space, or writing in the age, date of graduation, or location of his first and present employer.

The section on curriculum required the respondent to write in the names of various business classes depending on the question.

A portion of the last page was left blank so that the graduates could express their opinions in any manner they so desired. Comments

considered representative are used in the conclusion and illustrate various points of importance.

The multiple answer questions were numbered consecutively to allow for easy transference of the information to punch-cards.

The questionnaire is composed of three main sections. The first deals with educational background of the graduate, the second with his opinions on business classes in reference to his present job, and the third section deals mainly with information regarding employment since graduation.

Preliminary test of questionnaire

Once the questionnaire was constructed, a pretest was necessary to insure that there were no flaws in the basic construction, and to identify areas of possible misunderstanding.

A random sample of twenty-five names was selected by using a table of random numbers. Any number selected between 1 and 695 was included in the sample.

The questionnaires were mailed and when they were returned, they were edited to see if any errors could be detected in the construction of the questionnaire. Only a few minor errors could be detected and the necessary changes were made. The layout of some questions, such as initial job placement and income, was altered to allow for easier reading. The number zero had not been entered for the question on job changes. The year of graduation had not been requested and had to be added to the final draft of the questionnaire.

Of the twenty-five questionnaires mailed, thirteen were returned, a 52 percent response.

In Appendix A the results of the preliminary survey are compared to the results of the final mailing to see how they compare. If the results are similar, it may be possible in future projects of this type to use a random sample and eliminate much time and expense involved in dealing with the complete population.

Processing of returned questionnaires

Five days after the questionnaires were mailed the first returns came in. These first returns were mostly from the surrounding areas of Utah and Idaho. Within fifteen days after mailing about 80 percent of the returned questionnaires were received. After this period the returns dwindled until they finally ceased after about seven weeks. After the returns ceased the processing of the returned questionnaires began. The data was coded in numeric mode to facilitate the analysis of the data by the computer. The fifty states, District of Columbia, and Canada, were assigned consecutive numbers from 1 to 52. Each return was marked with the appropriate code number.

The sections on curriculum required that all business classes be given a number. Any answer such as "Case Studies" or "Seminars" was also assigned a number. Each return was then coded accordingly.

On question 9, the answer "yes" was numbered 1 and "no" numbered 2.

Job titles were numbered 1 or 2 if they were in the same or a different area than the college major. The assignment of the appropriate number was based on the job description given in the next question.

This coding enabled all of the questionnaire information to be contained on a single punch card.

All of the returned questionnaires were considered to be usable. A few were incomplete in that one or two questions were left unanswered. However, it was felt that since the remainder of the questionnaire was properly filled in, the questionnaire should not be discarded. There was no particular pattern to the few unanswered questions so that it appears that these may have been the result of an oversight on the part of the respondent.

Limitations

Two major limitations are associated with this study. First, the survey was conducted by direct mail. Since it was a direct-mail survey, a one hundred percent response was not likely. With a return of 303 out of 765, this means that only 40 percent of the graduates are represented. Each graduate is an individual and it cannot be determined how much different the responses of the other 400 graduates would have been, especially in the areas asking for personal opinions. The second major limitation is that there is no way to verify the answers received in the return questionnaires. The only answers which can be checked are year of graduation and major. This was done in the preliminary survey and no errors could be detected. It must be assumed that the respondents answered the questions honestly and accurately.

Other limitations are as follows: (1) the omission of foreign students who returned to their native country. Except for Canadians, no foreign students were included. It was felt that in the interest of time, it would be best to omit these graduates since their answers regarding income and employment would not be directly comparable to figures for the United States; (2) the judgmental decisions required

in deciding if the graduate was working in the same or a different area than his college major. A brief description of job duties was requested to decrease the possibility of error which could be presented if only a job title was given. With the description of job duties it is felt that the chance for error is quite small; (3) the fact that in many of the tables the totals do not always equal 303, the number of replies received. In a few cases the respondent, either through neglect or on purpose, failed to complete the entire questionnaire. In other cases a graduate began work and then returned to school or entered the military service. Thus, they would not be included in the figures relative to questions about their present job.

CHAPTER II

PRESENTATION AND INTERPRETATION OF DATA

In this section of the study the questionnaire responses are presented. All of the questions have been tabulated and are presented in tabular form.

Table 2 is a breakdown of the replies received in comparison with the number of graduates in each class from 1956 to 1965.

It appears that the earliest and the most recent graduates showed the most interest in the study. The responses for graduates of the years 1956-1958, are all above the survey average of 40 percent. From

Table 2. Number and percentage of replies by year of graduation

Graduation	Number of graduates	Number of replies	Percent of each year's graduates replying
1956	39	19	48
1957	81	34	42
1958	72	31	43
1959	89	35	39
1960	75	27	36
1961	78	27	35
1962	87	21	24
1963	81	35	43
1964	89	37	41
1965	74	36	49
Totals	765	303	40

1959, the returns drop to a low of 24 percent in 1962. After 1962, they again rise to a high response of 49 percent in 1965. It is interesting to note that the two highest responses came from 1956 and 1965, the beginning and ending years for the study.

Questionnaire Replies by College Major

Response to the questionnaire was considered to be quite good in view of the fact that it was a direct-mail survey, and no follow-up was attempted. Since the graduates were told that their names would not be used a follow-up letter would have indicated a violation of this pledge of anonymity.

Some 303 graduates took the time to fill out and return the questionnaire. This is 40 percent of the total of 765 graduates for the ten-year period. If the number of questionnaires mailed (695) is used, the responses improve to 44 percent.

Which groups were the highest respondents? Table 3 provides the breakdown by major.

The replies vary from a high of 49 percent for Industrial Management majors down to a low of 19 percent for Finance majors. The majority of majors fall in the 30-40 percent range.

The column for expected replies was arrived at after the questionnaires had been returned. Since the total return was 303, the figure for the percentage of what each major was of the total graduates was multiplied times the number of replies to get the expected reply figure. For example, the Business Administration total expected replies of 58 was derived by multiplying 19 percent times 303.

Table 3. Number and percentage of responses by college major

Major	Total graduates	Percent of graduates	Expected replies	Total replies	Percent of graduates responding
Accounting	162	21	65	75	46
Business Administration	146	19	58	70	48
Business Management	85	11	33	16	19
Finance	39	5	15	12	31
Industrial Management	87	11	35	43	49
Marketing	122	16	48	48	39
Personnel	78	10	31	23	29
Production Management	46	6	18	16	35
Totals	765	100	303	303	40

A comparison of total and expected replies shows that the number of replies from marketing graduates is exactly 16 percent of 303. Thus, Marketing majors replies in the exact amount as their percentage is of the total graduates. Accounting and Business Administration replied in excess of the amount expected. Business Management, Finance, Personnel, and Product Management replied less than would be expected. The only serious failure to reply appears to be from the Business Management majors, where less than half (16 of 33) of the expected replies were received. If the Business Administration and Business Management majors were grouped, the expected reply would be 91 and the actual 86. The same type of grouping in Production and Industrial Management gives an expected total of 53 and an actual of 59. In examining the tables and various replies, the total for Business Management majors should be kept in mind since the number of replies is less than half of the number expected.

These comparisons are made as a check on how representative the sample is of the distribution of majors in the population surveys. These comparisons show if the return of any major is relatively large or small in view of its relative frequency in the total population, and thus may have some tendency to bias the results of the survey.

Sources of Business Students

Utah and Idaho provide the largest number of business students at USU with nearly 70 percent coming from Utah and 18 percent from Idaho.

Fifteen other states were listed as the home state of business graduates with some coming from as far as Virginia, New York, and New Jersey.

A breakdown of the native states of the graduates is given in Table 4.

Table 4. Native state of graduates who matriculated at Utah State University, 1956-1965

State	Number of students	State	Number of students
California	8	New Jersey	4
Colorado	2	New York	3
Idaho	52	Ohio	1
Illinois	1	Oregon	2
Indiana	7	Utah	209
Iowa	3	Virginia	1
Minnesota	1	West Virginia	1
Montana	1	Wyoming	5
Nevada	5	Canada	3

Advanced education and degrees

In an effort to find out how many graduates obtained advanced degrees, the question was asked, "Have you received any formal education beyond the bachelor's degree?"

Of the 303 replies, 203 or 68 percent answered "No," 70 or 23 percent answered "Yes," and 27 or 9 percent answered that they were currently enrolled in a graduate program.

Table 5 indicates a breakdown of the types of degrees obtained.

Nearly 10 percent of the graduates have gone on to receive a Master's degree in Business Administration. Only two graduates have received a Doctor's degree.

Table 5. Number and percent of advanced degrees by college major

Type of degree	Number	Percent of graduates
M. A.	2	1
M. S.	17	6
M. B. A.	28	9
D. B. A.	2	1
Ph. D.	0	0
Other[a]	48	16

[a]Includes 27 graduates who are currently enrolled in advanced degree programs.

Of the students checking "other," four received law degrees. The majority added that they had not completed all of the requirements for a degree, i.e., had not completed classroom or thesis requirements.

The fact that 100 students have received additional education seems to indicate that our graduates have a continuing thirst for knowledge or feel the necessity for further education.

States in Which Advanced Degrees Were Obtained

Utah State business graduates listed 18 states and Canada in which they obtained advanced degrees or further education.

The majority stayed in Utah with 59 giving Utah as the name of the state in which their advanced education was obtained. Another 12 listed California and 4 more said New York. The rest of the states totaled either 1 or 2. A complete listing follows in Table 6.

Table 6. States in which advanced education and degrees were obtained

State	Number	State	Number
Arizona	2	Massachusetts	2
California	12	Mississippi	1
Colorado	1	Missouri	1
Connecticut	1	New York	4
District of Columbia	1	North Dakota	1
Florida	1	Oklahoma	1
Idaho	2	Utah	59
Illinois	1	Washington	1
Indiana	1	Canada	1
Maryland	1		

As the table shows, all areas of the nation are represented. Utah and California account for 71 of the 97 graduates who have received advanced education. The difference between Table 5 and Table 6 is explained in that some person can or has received degrees in the same state.

Advanced Degrees by College Major

In order to make the data on advanced degree acquirement more meaningful, Table 7 indicates the degrees broken down according to the major of the graduate.

Accounting majors lead in the number of advanced degrees with 13. Two Business Administration majors have obtained the only Doctor's degrees. There are currently nine Marketing majors enrolled in advanced degree programs. An interesting note is that business majors have not obtained any Ph. D. degrees.

Table 7. Advanced degrees obtained according to college major

Major	M.A.	M.S.	M.B.A.	Ph. D.	D.B.A.	Other	Currently enrolled
Accounting	1	4	8			6	5
Business Administration	1	4	2		2		3
Business Management			2			1	1
Finance		2	3			2	2
Industrial Management		2	1			5	3
Marketing		2	7			3	9
Personnel		3	3			2	3
Production Management			2			2	1
Totals	2	17	28	0	2	21	27

Family Employment

The following question is included in the questionnaire. "Was your first employer a member of your immediate family or a relative?" It is interesting that relatively few graduates went to work in family businesses after graduation. Of the 284 answers to this question, only 19 or 6 percent indicates a "Yes" answer. Nearly 94 percent went to work for someone else. Table 8 shows a breakdown by major.

Of interest is the large number of Production Management majors who accepted family employment. In this breakdown the overall percentage of 6 is quite small. However, nearly 20 percent of the Production Management

Table 8. Family employment according to college major

Major	"No"	"Yes"	Percent "Yes"
Accounting	71	4	5
Business Administration	63	2	3
Business Management	14	1	7
Finance	10	1	9
Industrial Management	41	2	5
Marketing	40	4	9
Personnel	21	2	4
Production Management	13	3	19
Total	273	19	
Percent of total	94	6	

graduates accepted family employment.

How Graduates Obtained Their First Job

Once the degree has been obtained and the graduate is ready to enter the business world, what method does he use to obtain his first job? With the University Placement Center so near, this would appear to be the logical choice. Throughout the school year business firms visit the campus almost daily in search of talent. From the figures in Table 9, one can see that only one student in five obtained his job through the University Placement Office.

Table 9 also shows, one out of every two jobs was obtained by personal contacts initiated by the graduates. Although a complete breakdown for the category "other" is not available, the majority of the students who checked this category added that they obtained their job from a newspaper advertisement.

To make the placement information more meaningful the categories are broken down by major in Table 10 to show how the graduates of each

Table 9. Sources of initial jobs after graduation

Source	Jobs obtained	Percent of jobs obtained
University placement	61	21
Family or friends	32	11
Personal contacts	151	51
Employment agency	19	6
Other	33	11

Table 10. College major and job placement

Major	University placement	Family or friends	Personal contacts	Employment agency	Other
Accounting	33	5	25	4	8
Business Administration	7	12	39	6	5
Business Management	1	2	12		1
Finance		3	7		2
Industrial Management	6	3	29	2	3
Marketing	8	5	17	6	9
Personnel	3	1	14		4
Production Management	3	1	8	1	1

major obtained their jobs.

This breakdown shows that Accounting majors appear to be the biggest users of the University Placement Service. None of the replying Finance majors obtained their jobs in this manner. Marketing and Business Administration graduates are the highest users of employment agencies. Business Administration graduates relied more on family and friends to obtain their first job.

First employer

In what types of industries do the business graduates begin to work? Nearly 29 percent began work with a manufacturing facility and nearly 26 percent begin with service organizations. Nearly all of the Accounting graduates are working for service organizations. Table 11 gives the number and percentage in each area.

Table 11. Type of company first employing graduates

	Manufacturing	Retailing	Wholsaling	Government	Service	Other
Accounting	14	1	2	13	34	7
Business Administration	19	11	5	7	13	13
Business Management	3	2	2	1	3	3
Finance	1	-	1	3	2	3
Industrial Management	23	1	1	5	5	6
Marketing	14	14	1	2	8	5
Personnel	2	2	-	8	5	4
Production Management	6	2	-	1	3	2
Totals	82	33	12	40	73	43
Percent of total	29	12	4	14	26	15

Accounting majors, by far, work more in service organizations than any other major. Business Administration majors are fairly well divided among the different areas. The Industrial Management majors are strong in manufacturing. Marketing is divided between manufacturing and retailing. Of the 14 who went into manufacturing, eight began in various facets of sales. Personnel majors are strongest in government, and are holding many administrative positions. Production majors are strong in manufacturing. Most of the Production majors began in industrial engineering type jobs.

The large number of Business Administration majors who are listed in the "other" category are working in the various types of utilities, such as Utah Power and Light Company.

Size of company of first employer

Do the majority of our graduates begin working with large or small firms? Table 12 shows that over 50 percent begin working for companies with over 1,000 employees, and that nearly 70 percent in companies with more than 100 employees.

Table 12. Number of graduates hired by firms classified according to number of employees working in the company

Number of employees	Number of graduates	Percent of total graduates	Number of employees	Number of graduates	Percent of total graduates
1-25	56	20	100-500	38	13
25-50	16	6	500-1000	11	4
50-100	18	6	1000-over	144	51

Accounting graduates tend to work in either of the two extremes of organization size. Many work for either national concerns such as Arthur Anderson and Ernst & Ernst, or in small local public accounting offices. Marketing graduates were found predominantly in large national concerns.

Major and first job

One of the main purposes of this study was to find out if the graduates started their careers working in the same area as their major.

To classify starting jobs as being the same or different than the major required a judgmental decision. To avoid errors due to ambiguous job titles a brief description of job duties was requested in the questionnaire. Classification of each was then made according to the functions performed. Although job titles of some graduates were different they were grouped together if their job functions were the same. For example, if an Accounting major went to work as an auditor, he was classified as working in the "same" area. If a Production Management major went to work as a salesman, this was classified as working in a "different" occupation. Table 13 shows the number and percentage of students who began working in areas that are the "same" or "different" area than the major. The overall percentage for all graduates who began working in the same area as the major is 56 percent, and the percent of graduates working in different fields is 44.

Accountants by far tend to accept initial employment in the same area as their major with Marketing graduates showing the same tendency. Finance and Personnel majors appear to have the most difficulty in obtaining their first jobs in their major fields. Only 19 percent of the Personnel majors and 27 percent of the Finance majors began working in their

Table 13. Major and first job, same or different area than college major

Major	"Same area as graduates' major	Percent	"Different" area than graduates' major	Percent
Accounting	61	86	10	14
Business Administration	26	38	42	62
Business Management	7	54	6	46
Finance	3	27	8	73
Industrial Management	22	51	19	50
Marketing	30	68	14	32
Personnel	4	19	17	81
Production Management	5	38	8	62
Totals	158	56	124	44

major areas. The three Finance majors working in their major field started as banking trainees.

Geographical location of first job

Where do Utah State University graduates go for their first job in a geographic sense? Do a majority pick any one section of the country? Does a particular section of the country attract certain types of graduates? Table 14 shows a breakdown by state and by major of the location of the first job upon graduation.

The graduates listed 24 states and Canada as the sites for their first jobs. The greatest number, 49 percent, stayed in Utah with 18 percent starting in California and 11 percent starting in Idaho. Nearly 50 percent of the graduates who began in California were Accountants. Excluding Utah, no other major's graduates tended to cluster in any given

Table 14. Breakdown of state of first job by college major

State	Total	Account-ing	Business Adminis-tration	Business Manage-ment	Finance	Industrial Management	Market-ing	Person-nel	Production Management
Arizona	6	3	1	1				1	
California	49	24	10	1	1	5	5	1	2
Colorado	3	1					2		
Delaware	1	1							
District of Columbia	3	1	1					1	
Georgia	1		1						
Hawaii	2						1		1
Idaho	30	10	4	3	2	3	4	3	1
Illinois	3		1				2		
Iowa	1						1		
Louisiana	1	1							
Massachusetts	1							1	
Minnesota	1						1		
Missouri	2	1					1		
Nevada	8	2	2			3			1
New Jersey	1		1						
New York	8	1	1	1			3	2	
Ohio	2					1	1		
Oklahoma	1				1				
Oregon	3	1					1		1
Pennsylvania	2					1	1		
Utah	136	25	40	8	7	23	18	8	7
Washington	10	1	4			3	2		
Wyoming	2					1	1		
Canada	2		1					1	

area, but rather they appeared to be randomly distributed. Marketing graduates began working in fifteen different states while the Finance majors were all contained in four states. Of the graduates, 89 percent began their working careers in nine Western states. Although most of the nation received a sprinkling of graduates, the tendency appears to be to begin working in the West.

Starting Salaries

How much do employers pay Utah State business graduates? Tables 15, 16 and 17 show analysis of starting salaries for the ten-year period. During this period the general wage level has increased and starting salaries for USU graduates have also gone up.

Table 15 gives a breakdown, by major, of the various salary ranges. The majority of graduates had starting salaries in the $4,000-6,000 bracket with nearly 65 percent falling into these two categories. Only three graduates started at $8,000 or more during this ten-year period.

Production Management majors have the highest average beginning salary at $6,158 per year. This is about $516 per month. The average starting salary for all business majors during the period under study was $5,364.

During the ten-year period starting salaries have risen from about $4,000 in 1956 to $6,000 in 1965. Salaries paid to accountants seem to portray the trend for all graduates during the period.

Yearly averages for all majors increased in each year except for 1961 when the average dropped $300 from the previous year.

Table 15. College major and starting salary

Major	Under $4,000	$4,000 to $4,999	$5,000 to $5,999	$6,000 to $6,999	$7,000 to $7,999	$8,000 over
Accounting	9	23	17	18	3	0
Business Administration	14	29	16	6	1	1
Business Management	4	5	4	1	0	0
Finance	1	2	4	0	0	0
Industrial Management	1	12	17	10	2	0
Marketing	2	11	18	10	0	2
Personnel	0	7	9	5	0	0
Production Management	0	2	4	3	4	0
Total	31	91	89	53	10	3
Percent of total	11	33	32	19	5	1

Table 16. Average starting salary by college major for 1956 to 1965

Major	Average starting salary
Accounting	$5,321
Business Administration	4,917
Business Management	4,780
Finance	5,000
Industrial Management	5,512
Marketing	5,546
Personnel	5,674
Production Management	6,158

Table 17. Average yearly starting salaries by college major, 1956 to 1965

Year	Accounting	Business Administration	Business Management	Finance	Industrial Management	Marketing	Personnel	Production Management	Average
1956	$4,000	$4,250	$4,000		$3,500	$3,500			$3,850
1957	4,400	4,750	3,500		4,500	4,000			4,230
1958	4,500	4,300	3,833		5,000				4,408
1959	4,500	5,136	5,000		5,300	5,000			4,987
1960	5,000	4,955	5,500		5,625	4,500			5,116
1961	5,250	4,500	4,750	$3,800	5,722	5,000			4,837
1962	5,750	5,500		7,500	4,950	5,300	$5,450	$5,500	5,707
1963	5,864	5,500		4,500	6,500	5,625	5,388		5,563
1964	5,611	6,800		4,780	6,500	6,070	5,278	6,166	5,886
1965	6,722	5,600		5,900	5,500	7,380	5,250	6,833	6,169

Present employer

In the section dealing with the first employer it was shown that manufacturing and service organizations had the most employees with 29 percent and 26 percent respectively. Do these percentages change over the years? Do the same industries maintain, increase, or decrease their percentages?

From the first job some changes have been made. Manufacturing, retailers, and wholesalers lost employees. The largest gain was made in government employment where government employment increased from 14 to 19 percent. Industrial Management graduates in government work doubled from 5 to 10 in comparison with the number accepting initial employment with the government.

Every major except Accounting had an increase in the number of job holders accepting government employment. Manufacturing and Retailing business namely, 15 percent in Manufacturing and 33 percent in Retailing.

Size of company of present employer

When graduates accepted their first job, nearly 51 percent began with companies of over 1,000 employees. The next largest grouping was the 1 to 25 category with 20 percent. The percentages have remained relatively stable but a few changes have been made. The proportion of graduates working for the largest employers have increased from 50 percent to 56 percent while the proportion working for the smallest employers decreased from 20 percent to 17 percent. Changes in the other categories were smaller.

Table 18. Present type of employer of business graduates

	Manufacturing	Retailing	Government	Wholsaling	Service	Other
Accounting	12	3	10	1	33	9
Business Administration	17	6	12	3	17	13
Business Management	4	1	4	-	2	2
Finance	1	-	4	-	2	2
Industrial Management	17	-	10	1	6	5
Marketing	11	8	3	5	7	5
Personnel	2	1	8	-	6	4
Production Management	6	3	1	-	3	2
Total	70	22	52	10	76	42
Percentage	26	8	19	4	28	15

Table 19. Number of employees of present employer of graduates of Business Administration 1956 to 1965

Number of employees	Number indicated	Percent
1-25	47	17
25-50	17	6
50-100	12	4
100-500	32	12
500-1000	13	5
1000-Over	151	56

State of present job

Previously, it was shown that in the ten years past, graduates began working in 24 different states and Canada. Nearly 90 percent began working in the 9 western states. As they change jobs do the graduates remain in the West or do they move to other areas of the nation?

Table 20 gives a breakdown of major and state. It shows that Utah, Idaho, and California still have the largest share of the graduates. The total number of states represented increased from 24 to 30, but the majority of the graduates have remained in the 9 western states, even though they have made one or more job changes.

Major and present job

If the graduates began work in the same or a different area than their college major, did they remain at work in this same area or change?

A comparison of Table 13 with Table 21 shows that number of graduates currently working in the same area as their college major has dropped

Table 20. Present state of residence of business graduates

State	Total	Account-ing	Business Adminis-tration	Business Manage-ment	Finance	Industrial Management	Market-ing	Person-nel	Production Management
Alabama	2		1					1	
Arizona	6	2	2		1			1	
California	50	23	6	1	2	5	6	5	2
Colorado	7	1				2	4		
Connecticut	1			1					
District of Columbia	2	1						1	
Florida	1							1	
Hawaii	1					1			
Idaho	30	12	3		2	3	6	2	2
Illinois	5		2			1	2		
Iowa	2		1				1		
Kansas	1						1		
Massachusetts	1	1							
Michigan	1		1						
Missouri	2	1	1						
Nebraska	1					1			
Nevada	13	3	3	1		2	3		1
New Jersey	2		1			1			
New Mexico	1								1
New York	7		1	2	1		1	2	
North Dakota	1	1							
Ohio	2					1	1		
Oregon	3	1				1	1		
Tennessee	1						1		
Texas	1					1			
Utah	127	24	39	8	4	17	11	7	7
Virginia	1		1						
Washington	6		3			2	1		
Wyoming	1		1						
Canada	2		1					1	

Table 21. Number and percentage of graduates currently working in same or different field than college major

Major	Number working in the same field	Percent in same field	Number working in a different field	Percent in different field
Accounting	53	76	17	24
Business Administration	18	26	50	74
Business Management	9	64	5	36
Finance	2	20	8	80
Industrial Management	16	42	22	58
Marketing	22	58	16	42
Personnel	3	15	17	85
Production Management	5	38	8	62
Totals	129	47	143	53

nearly 10 percent from the 56 percent who began work in their major area.

The overall totals show that only 47 percent of the graduates are working in jobs which are the same as their major field of study.

Business Management is the only major which increased the number presently working in the major field from the number working in this field on their first job. Production Management totals remained the same and the rest of the percentages dropped. A significant drop (10 percent) appeared in Accounting.

The positive approach to this information would be to make some comment regarding the mobility among jobs of the business major. The negative approach would be that perhaps the general business degree might

be the correct method of education. However, the majority of the General Business Administration respondents made reference to a need for more specialization within the Business Department. It would appear that the graduate with a well-rounded education in all aspects of business need not limit himself to one narrow phase of the business spectrum.

Major and present salary

How well do graduates do once they become established? What prices do their services command? Since the years of employment vary from one to ten, the peak earning years are seemingly still ahead. According to Table 22, it appears that USU graduates are doing very well.

The figures in Table 23 show that 45 percent of the graduates are now earning between $7,000-$10,000. Only one percent are making less than $5,000. The above are average totals however. A table by major

Table 22. Average present salary of business graduates according to major, 1956 to 1965

Major	Present average salary
Accounting	$ 9,632
Business Administration	9,882
Business Management	9,700
Finance	8,550
Industrial Management	10,000
Marketing	8,282
Personnel	7,825
Production Management	11,384

Table 23. College major and present salary

Major	Under $5,000	$5,000 6,999	$7,000 9,999	$10,000 11,999	$12,000 13,999	$14,000 Over
Accounting	2	8	32	13	6	7
Business Administration	1	12	23	22	3	7
Business Management	-	-	9	3	3	-
Finance	-	5	3	-	-	2
Industrial Management	-	3	20	8	3	5
Marketing	-	13	18	6	2	-
Personnel	-	8	11	-	-	1
Production Management	-	2	7	4	-	-
Totals	3	51	123	56	17	22
Percent of total	1	19	45	21	6	8

shows that Production Management majors have the highest average present income. The average income for all graduates at the present time is $9,214.

Income and age

As might be expected there appears to be a direct relationship between income and age. The older the graduate the larger is his income.

From the youngest graduate of ages 22-23 the annual income figures rises from nearly $7000 per year to $13,000 for those graduates near 40 years of age.

Those graduates 30 years of age are making nearly the exact amount, $9,241, of the average income for all graduates.

Tables 24 and 25 present the information by 1 and 3 year groupings. The trend in both cases seems to be a continual upward slope of the income curve.

Income and state of residence

In viewing the income figures for the states listed on page 42, it is difficult to make any conclusive statements. No state with five or more graduates has an income figure in excess of $10,000 with the exception of Nevada which has thirteen graduates who responded to the questionnaire and giving an average income figure of $10,115.

Graduates living in California report an average income figure of approximately $500 per year more than graduates living in Utah. Utah residents report an average income of less than $400 per year more than graduates living in Idaho.

Table 24. Present average income by age groupings

Age	Number in group	Average income	Age	Number in group	Average income
22-24	24	$7,854	31-33	59	$10,407
25-27	52	7,933	34-36	43	10,384
28-30	80	9,056	37-39	12	12,541
			40-Over	4	10,750

Table 25. Present average income by age of the graduate

Age	Number in group	Average income	Age	Number in group	Average income
22	3	$6,833	32	24	$10,480
23	7	6,857	33	14	10,821
24	14	8,282	34	10	10,800
25	18	8,306	35	16	10,281
26	18	8,028	36	17	10,235
27	16	7,406	37	5	11,700
28	26	9,192	38	7	13,142
29	25	8,680	41	2	8,500
30	29	9,258	44	2	13,000
31	21	10,048			

Table 26. Present average income by state of residence

State of residence	Number of residents	Average income
Alabama	2	$ 9,750
Arizona	6	9,250
California	50	9,720
Colorado	7	8,857
Connecticut	1	11,000[a]
District of Columbia	2	10,750
Florida	1	8,500[a]
Hawaii	1	11,000[a]
Idaho	30	8,675
Illinois	5	8,917
Iowa	2	8,500
Kansas	1	8,500[a]
Massachusetts	1	14,000[a]
Michigan	1	11,000[a]
Missouri	2	9,750
Nebraska	1	11,000[a]
Nevada	13	10,115
New Jersey	2	13,000
New Mexico	1	8,500[a]
New York	7	9,714
North Dakota	1	13,000[a]
Ohio	2	11,750
Oregon	3	13,750
Tennessee	1	11,000[a]
Texas	1	11,000[a]
Utah	116	9,060
Virginia	1	8,500[a]
Washington	6	7,870
Wyoming	1	11,000[a]
Canada	2	8,500

[a]States with only one graduate residing in them.

Major and job changes

How many times does the Utah State business graduate change jobs during his career? Does any particular group or major have a greater tendency to change jobs? The last question of the questionnaire asked the respondent to check the number of times he had changed employers since graduation. This question was phrased this way to eliminate answers which would include relocation or perhaps changes to different departments or divisions within the same company. Table 27 gives a breakdown, by major, of the number of job changes since graduation.

The figures show that there is a relatively high degree of job stability of all graduates with 46 percent indicating they have never changed jobs. However, a total of 105 respondents indicated that they had changed jobs two or more times, and since the survey included only a ten-year period, there is still the possibility for many more changes in future years. The average graduate who replied changed jobs only once in his career thus far.

The data on job changes was broken down further in Table 28 in order to show how long the people who changed jobs stayed with their first employer. Those people who did not change jobs at least once were excluded. In Table 28 the job changes were then grouped by major and according to the number of years they remained on their first job.

Job changes are peculiar things. Table 28 shows that eight graduates changed jobs before they had worked six months, while another waited seven years to change jobs. The average job change first occurred after two years. The average moves from a high of two years for Industrial Management majors down to one year for the Finance majors who changed jobs.

Table 29 shows that the average employee has been working at his present job for 3.0 years. Eight have been on their job less than six

Table 27. College major and number of job changes

Major	None	One	Two	Three	Four	Five	More	Average number of change
Accounting	32	11	11	9	5	1	1	1.0
Business Administration	23	13	16	7	6	1	1	2.0
Business Management	5	1	3	4	1	0	1	2.0
Finance	5	3	1	1	0	1	0	1.0
Industrial Management	15	5	10	5	3	0	0	2.0
Marketing	20	7	8	3	1	0	0	0.9
Personnel	14	4	1	1	0	0	0	0.5
Production Management	12	0	2	0	0	0	0	0.2
Totals	126	44	52	30	16	3	3	1.0
Percent of total	46	16	19	11	6	1	1	

Table 28. Number of years with first employer of graduates who eventually made a job change

Major	0[a] years	1 years	2 years	3 years	4 years	5 years	6 years	7 years	Average number of years on first job
Accounting	4	12	6	6	2	3	4	-	2.0
Business Administration	3	17	11	3	3	4	3	1	2.0
Business Management	-	5	1	2	1	1	-	-	2.0
Finance	-	4	1	-	-	-	-	-	1.0
Industrial Management	1	5	7	6	2	2	1	-	3.0
Marketing	-	4	9	4	1	-	-	-	2.0
Personnel	-	3	1	2	-	-	-	-	2.0
Production Management	-	1	-	-	-	-	-	-	1.0
Totals	8	51	36	23	9	10	7	1	2.0

[a]Less than six months was handled as zero. Six months or over is moved to the next highest year.

Table 29. Number of years with present employer for all graduates from 1956 to 1965

	0	1	2	3	4	5	6	7	8	9	10	
Accounting	-	17	19	11	9	5	2	5	-	1	1	3.0
Business Administration	3	8	7	12	6	9	6	7	4	4	2	4.0
Business Management	-	1	4	3	-	2	-	1	1	2	1	5.0
Finance	1	6	-	1	-	1	-	-	-	-	-	4.0
Industrial Management	2	5	9	3	4	3	4	6	1	1	1	4.0
Marketing	2	15	10	3	4	1	-	2	-	1	1	3.0
Personnel	-	8	7	4	1	-	-	-	-	-	-	2.0
Production Management	-	5	4	-	4	-	-	-	1	-	-	3.0
Total	8	65	60	37	28	21	12	21	7	9	6	3.0

months. Six have been with their present employer ten or more years. One respondent said that he had been with his present employer only four days.

Typical Jobs Presently Held by Business Graduates

Rather than present a complete listing of the jobs held by each of the graduates, the typical jobs held by each major and the numbers working in these jobs is presented on page 48.

Each major seems to have a few jobs that its graduates appear more apt to fill, and graduates of each major seem to fill a few unique jobs, even for that particular major.

Companies employing Utah State business graduates

Utah State business graduates are employed by many of the major firms in the country. Some firms employ more Utah State graduates than others. Table 30 is a listing of the major users of Utah State business graduates.

Thiokol Chemical Corporation and Hill A.F.B., two local employers, are the largest users of Utah State business graduates.

None of the larger employers have hired any of the recent Finance graduates. Arthur Anderson and Ernst & Ernst employ 16 percent of the Accounting graduates. Four of the largest employers are government operated organizations.

Dozens of large companies employ at least one Utah State business graduate. Page 50 lists some of the major companies who employ at least one graduate.

Title	Number in occupation
Accounting	
Auditor	16
Controller	3
Accountant	14
C.P.A.	5
Bookkeeper	1
Cost Analyst	3
Treasurer	1
Finance	
Salesman	3
Teacher	2
Loan Interpreter	1
Statistician	1
Sales Broker	1
Professional Athlete	1
Industrial Management	
Industrial Engineer	6
Production Assistant	4
Production Manager	3
Purchasing Agent	2
Traffic Manager	2
Test Engineer	1
Quality Control Analyst	1
Plant Engineer	1
Budget Analyst	1
Business Administration	
Salesmen	5
University Professor	4
High School Principal	2
Credit Supervisor	2
Retirement Fund Director	1
Bank Manager	1
Cost Estimator	1
Tax Examiner	1
Vocational Counselor	1

Title	Number in occupation
Production Management	
Industrial Engineer	5
Standards Engineer	2
Management Trainee	3
Quality Control Analyst	1
Bank Teller	1
Business Management	
Sales Manager	4
Insurance Agent	3
Distributor	2
Salesman	2
Tax Examiner	2
Production Control Manager	1
Border Patrol	1
Internal Revenue Manager	1
Marketing	
Salesmen	13
Sales Manager	3
Department Manager	4
Marketing Manager	2
Administrative Assistant	2
Insurance Adjuster	2
Bank Vice President	1
Industrial Relations Representative	1
Military Chaplin	1
Sales Vice-President	1
Personnel	
Employment Assistant	4
Insurance Claims Adjuster	2
Highway Administrator	2
Forest Administrator	1
Bank Examiner	1
Industrial Relations Representative	1
Contract Specialist	1

Table 30. Largest employers of USU business graduates

Company	Total	Accounting	Business Administration	Business Management	Finance	Industrial Management	Marketing	Personnel	Production Management
Thiokol	17	3	5	3		4			2
Arthur Anderson	8	8							
Ernst & Ernst	4	4							
Defense Audit Agency	3	3							
Hill Field	9	1	4			3	1		
Internal Revenue Service	3		1	1				1	
Boeing	5		2			2		1	
U. S. Steel	3						2		1
U. S. Forest Service	6					1	1	4	
Hercules	4	1		1		1	1		
Phillips Petroleum	3		1			1	1		
Kennecott	3						1		2
I. B. M.	3	1		1		1			
Sears-Roebuck	2		1				1		
Litton	2	1	1						
Mountain States Telephone	2					1			1

Insurance

1. Beneficial Life Insurance Company
2. Standard Insurance Company
3. New York Life Insurance Company
4. Pacific National Life Insurance Company
5. All State Insurance Company
6. Travelers Insurance Group
7. Connecticut Mutual

Oil

1. Phillips Petroleum
2. Standard Oil Company of California
3. Sinclair Oil Company
4. Shell Oil Company
5. Tidewater Oil Company
6. Mobil Oil Company
7. Union Oil Company
8. Humble Oil Company
9. American Oil Company
10. Socony Mobile of Canada

Utilities

1. Pacific Telephone & Telegraph
2. Southwestern Gas of Nevada
3. Mountain States Telephone & Telegraph
4. Utah Power & Light

Banks

1. Commercial Security
2. United California
3. Idaho Tri-State National
4. 1st Security of Utah
5. Idaho 1st National
6. Bank of Utah
7. Security 1st National
8. Utah 1st National
9. Walker Bank & Trust

Retailers

1. J. C. Penney
2. Sears-Roebuck
3. W. T. Grant
4. Montgomery Ward
5. F. W. Woolworth
6. Frederick & Nelson
7. Sav-On Drugs

Universities

1. Utah State
2. Utah
3. Washington
4. Iowa State
5. Long Beach State
6. Idaho State
7. Ricks College
8. College of Southern Utah

Auto Industry

1. General Motors
2. Ford
3. Chrysler

Defense

1. Thiokol
2. Marquardt
3. Hercules
4. Boeing
5. Sperry Rand
6. Hewlett-Packard

Industrials

1. U. S. Steel
2. Kaiser Steel
3. Kennecott
4. Olin Matheson
5. Litton
6. Titanium Metals
7. Firestone
8. Westinghouse

Manufacturers

1. Burroughs
2. Coleman Company
3. Amalgamated Sugar
9. L. D. S. College of Hawaii

Consumer Goods

1. Philco
2. White Stag
3. Ralston Purina
4. R. T. French
5. Pepsi-Cola
6. Motorola

Government Agencies

1. Defense Audit Agency
2. Utah Employment Office
3. General Adjustment Bureau
4. F. D. I. C.
5. U. S. Bureau of Reclamation
6. Internal Revenue Service
7. U. S. Forest Service

Publishers

1. MacMillan
2. Harper & Row
3. Butler

Comparison of advanced education graduates and bachelors degree holders

A comparison of graduates receiving advanced education with those holding bachelor's degrees shows some interesting facts. For example, only three respondents indicated that they received a starting annual salary of over $8,000, and all three were in the advanced education group.

In 1965, nine of the twenty-two graduates earning in excess of $14,000 had received advanced education.

In the area of job changes, the rate is higher for this group. The job change rate per person is slightly larger (1.1 x $) than the overall rate of 1.0 for all graduates.

Tables 31, 32, and 33 display the information for starting salary, present salary, and job changes.

The average starting income for this group is $5,270. This is slightly lower than average income for bachelors degree holders of $5,364. These figures may be misleading in some respects.

The income figure shown here was for the first job taken after receipt of the bachelor's degree or departure from Utah State University. No request was made for salaries received after completion of additional education.

The average current income for the above group is $9,904. This is over $700 more a year than the current income of bachelor degree holders who received $9,214.

The job change average figure for the advanced education group is 1.6 times per person. The overall average for all business graduates is 1.0. In figures of this small size, however, this is an increase in

Table 31. Starting salaries on the first job after receipt of the bachelor's degree by graduates currently holding advanced degrees

	Under $4,000	$4,000 4,999	$5,000 5,999	$6,000 6,999	$7,000 7,999	$8,000 Over	Average starting salaries
M. A.		1	1				$5,000
M. S.		6	4	5	1	1	5,765
M. B. A.	3	6	9	6	3	1	5,607
D. B. A.		1	1				5,000
Other	8	16	14	2	1	1	4,881
Totals	11	30	29	13	5	3	$5,270

Table 32. Present salary of graduates currently holding advanced degrees

	Under $5,000	$5,000 6,999	$7,000 9,999	$10,000 11,999	$12,000 13,999	$14,000 Over	Present average income
M. A.			1			1	$11,750
M. S.		2	9	4	2		9,324
M. B. A.		4	8	7	6	2	10,260
D. B. A.			1	1			9,750
Other		9	14	8	4	6	9,595
		15	33	20	12	9	$ 9,904

Table 33. Number of job changes by graduates currently holding advanced degrees

	0	1	2	3	4	5	More	Average number of changes
M. A.	1	1	-	-	-	-	-	0.5
M. S.	5	1	5	1	1	1	-	1.6
M. B. A.	11	2	2	4	2	1	-	1.5
D. B. A.	-	-	1	1	-	-	-	2.5
Other	11	7	10	9	3	1	-	1.7
Total	28	11	18	15	6	3	0	1.6

the frequency of job changes of 62 percent.

Curriculum Evaluation

In this section of the questionnaire, the graduates were to list the classes most helpful and least helpful in reference to their present job. A third part asked the graduates which area(s) of business they would emphasize if they were to begin school again.

One should recognize that a structural bias may exist when such questions are asked. The major interest of the graduate may tend to sway his selections. For example, Accounting graduates may list accounting classes as most important and other classes less important. A second factor can be bias introduced by the instructor. A class may have been rated high when taught by one instructor and low when taught by another. A third factor could be the grades received in the various classes. For example, when reflecting on the subject of helpful classes the graduates

may tend to remember only those classes in which good grades were received. Other such factorsmay be present and should be taken into account when reading the following three tables.

Classes most helpful in present job

The responses given to this question on the questionnaire have been tabulated by major and ranked according to the number of times indicated.

Table 34 shows that the five highest ranked classes were all introductory classes in their particular area. The basic accounting classes were ranked higher by three majors other than Accounting. Accountants, however, gave the Management Concepts class their highest total.

Classes least helpful in present job

In Table 35, four of the classes which were rated as most helpful by some graduates were rated as least helpful by other graduates.

Accounting majors rated marketing as their least helpful class 22 times, with statistics and general economics 15 times each. None of the other majors seemed to concentrate their rankings in any particular area.

Areas to be emphasized if graduates were to begin school again

Accounting was rated highest as the area that would be emphasized if school were begun again. Corporate Finance, Personnel, and Management Concepts were the next highest rated.

Data Processing which seldom was mentioned as being most or least helpful was ranked fifth.

One of the interesting facts observed in these responses was the number of quantitative areas indicated. Data Processing, Programming, Math,

Table 34. Number of times classes indicated most helpful by graduates in present job

Class	Total	Accounting	Business Administration	Business Management	Finance	Industrial Management	Marketing	Personnel	Production Management
Basic Accounting	132	14	50	10	8	21	7	16	6
Mgt. Concepts	57	37	3	3	-	3	9	-	2
Marketing Principles	46	6	8	-	-	1	26	3	2
General Economics	45	14	9	2	1	1	11	6	1
Statistics	38	8	-	7	-	8	3	6	6
Corporate Finance	37	9	4	1	4	3	10	3	3
Personnel	35	3	5	2	1	10	1	8	5
Bus. Communications	33	11	4	1	-	3	5	6	3
Ind. Mgt. Problems	33	3	4	-	2	19	3	1	1
Business Law	30	13	4	1	-	3	5	3	1
Income Tax Acct.	20	13	2	1	1	-	1	1	1
Salesmanship	19	3	7	2	1	1	5	-	-
Managerial Acct.	18	2	7	1	2	1	3	-	2
Report Writing	17	3	2	1	1	3	-	6	1
Business Machines	17	5	4	3	1	2	2	-	1
Cost Accounting	17	14	1	-	-	-	1	1	-
Audit Theory	17	15	1	-	-	-	-	1	-
Business Policies	16	7	1	1	2	1	3	1	-
Real Estate	14	7	3	-	-	-	4	-	-
Business Math	14	3	3	1	-	3	1	3	-
Intermediate Acct.	13	12	-	-	-	1	-	-	-
Production Mgt.	13	1	1	-	-	-	1	5	4
Sales Management	11	-	2	1	1	-	3	1	3
Data Processing	10	2	4	1	-	-	1	1	1
Collective Bargaining	10	2	-	1	-	6	1	-	-
Job Evaluation	9	2	2	-	-	3	-	1	1
Administration	9	-	3	1	-	4	1	-	-
Indust. Psychology	8	2	1	-	-	4	1	-	-

Table 34. Continued

Class	Total	Accounting	Business Administration	Business Management	Finance	Industrial Management	Marketing	Personnel	Production Management
Prin. of Retailing	8	-	4	-	-	-	4	-	-
Small Business Mgt.	7	6	1	-	-	-	-	-	-
Public Speaking	6	2	2	-	-	-	-	1	1
Foremanship	6	-	1	-	-	3	-	1	1
Business Cycles	6	1	-	-	2	-	2	1	-
Investments	5	1	-	1	2	-	1	-	-
Employee Relations	5	1	-	-	1	2	-	1	-
Money & Banking	5	-	2	-	-	-	1	2	-
Contract Administration	4	4	-	-	-	-	-	-	-
Math (Non-Business)	4	-	3	-	-	-	1	-	-
Advertising	4	-	-	-	-	-	3	-	1
Industrial Technology	4	-	2	-	-	2	-	-	-
Personal Finance	3	-	2	-	-	-	1	-	-
Time & Motion Study	3	-	-	-	-	3	-	-	-
Social Security	2	1	-	-	-	1	-	-	-
Commercial Law	2	-	-	2	-	-	-	-	-
Typing	2	1	1	-	-	-	-	-	-
Purchasing	2	-	-	-	-	-	1	-	1
Government Accounting	2	-	-	2	-	-	-	-	-
Insurance	2	-	-	-	-	-	1	-	1
C.P.A. Review	1	1	-	-	-	-	-	-	-
Programming	1	-	-	-	1	-	-	-	-
Operations Research	1	1	-	-	-	-	-	-	-

Table 35. Number of times classes indicated least helpful in graduate's present job

Class	Total	Accounting	Business Administration	Business Management	Finance	Industrial Management	Marketing	Personnel	Production Management
Marketing	59	22	7	1	5	7	3	9	5
Statistics	49	15	11	3	1	5	10	2	2
General Economics	43	15	12	-	1	5	6	2	2
Basic Accounting	33	1	4	2	4	7	10	3	2
Production Mgt.	20	1	-	-	2	1	4	9	3
Corporate Finance	20	5	5	-	-	1	6	1	2
Business Policies	18	9	1	1	-	-	4	2	1
Ind. Mgt. Probs.	18	4	7	1	1	1	2	2	-
Industrial Psych.	16	2	2	-	-	1	6	4	1
Insurance	16	2	7	-	-	2	4	-	1
Personnel	14	3	-	1	-	3	3	2	2
Business Law	12	4	-	1	-	3	-	2	2
Management Concepts	11	3	1	-	2	1	1	3	-
Prin. of Retailing	11	-	4	-	-	-	7	-	-
Administration	9	4	2	2	-	-	1	-	-
Advertising	9	2	7	-	-	-	-	-	-
Managerial Acct.	9	1	-	2	-	1	2	1	2
Small Business Mgt.	9	3	4	-	-	2	-	-	-
Business Cycles	9	2	3	1	1	1	1	-	-
Purchasing	7	-	3	-	-	-	3	-	1
Money & Banking	7	1	2	2	-	2	-	-	-
Salesmanship	6	1	5	1	1	1	1	1	1
Real Estate	6	1	1	-	1	2	1	-	-
Income Tax Acct.	6	3	3	-	-	-	-	-	-
Commercial Law	5	-	2	-	-	3	-	-	-
Business Machines	5	3	-	-	-	2	-	-	-
Bus. Communications	5	1	-	-	1	2	1	-	-
Audit Theory	5	4	-	-	-	1	-	-	-

Table 35. Continued

Class	Total	Accounting	Business Administration	Business Management	Finance	Industrial Management	Marketing	Personnel	Production Management
Social Security	5	1	1	1	-	1	-	1	-
Job Evaluation	4	3	-	-	-	-	-	-	1
Business Math	4	1	-	-	-	2	-	-	1
Cost Accounting	3	-	1	1	-	-	1	-	-
Government Acct.	3	2	-	-	-	1	-	-	-
Intermed. Acct.	2	1	-	-	-	-	1	-	-
Sales Management	2	-	-	-	-	-	1	1	-
Data Processing	1	-	-	-	1	-	-	-	-
Report Writing	1	-	-	1	-	-	-	-	-
Foremanship	1	-	-	-	-	1	-	-	-
Industrial Safety	1	-	-	-	-	1	-	-	-

Table 36. Number of times classes indicated as major area of emphasis if graduates started school again

Class	Total	Accounting	Business Administration	Business Management	Finance	Industrial Management	Marketing	Personnel	Production Management
Accounting	110	33	30	7	7	9	15	7	2
Corporate Finance	47	10	12	2	2	4	7	8	2
Personnel	41	4	13	2	-	6	9	6	1
Mgt. Concepts	36	11	7	2	2	5	5	3	1
Data Processing	34	7	8	2	1	2	7	3	4
Bus. Communications	33	10	5	2	-	5	7	1	3
Marketing	29	2	4	4	1	1	14	3	-
General Economics	28	4	5	2	2	1	5	7	2
Report Writing	24	9	2	2	-	6	3	-	2
Business Law	22	4	5	4	1	2	3	2	1
Statistics	22	3	5	3	2	5	2	-	2
Ind. Mgt. Probs.	19	1	2	1	-	11	2	1	1
Production Mgt.	15	-	4	-	1	5	2	1	2
Cost Accounting	14	7	1	-	-	4	-	1	1
Business Machines	13	4	3	3	-	-	2	-	1
Administration	12	-	6	1	2	-	1	2	-
Programming	11	1	5	1	1	-	2	-	1
Math (non-bus.)	10	1	3	-	-	3	2	-	2
Business Math	10	1	3	2	-	2	1	1	-
Speech	10	-	3	1	-	2	1	-	3
Salesmanship	8	-	4	-	-	2	1	-	1
Audit Theory	8	8	-	-	-	-	-	-	-
Business Policy	8	1	-	1	-	2	2	1	1
Managerial Acct.	5	-	3	1	-	-	1	-	-
Purchasing	5	-	1	-	-	2	2	-	-
Advertising	5	-	1	-	1	-	2	-	1
Sales Management	5	-	-	1	1	-	2	-	1

Table 36. Continued

Class	Total	Accounting	Business Administration	Business Management	Finance	Industrial Management	Marketing	Personnel	Production Management
Industrial Psych.	5	1	1	-	-	2	-	1	-
Practical Experience	4	1	1	1	-	1	-	-	-
Investments	4	1	-	-	1	-	2	-	-
Money & Banking	4	2	1	-	-	-	-	1	-
Credit Administration	4	-	-	-	1	-	2	-	1
Intermed. Acct.	4	3	1	-	-	-	-	-	-
Personal Finances	3	1	1	-	-	-	-	1	-
Insurance	3	-	-	-	-	1	1	1	-
Operations Research	3	-	-	-	-	1	-	2	-
Seminars	2	1	-	-	-	-	-	1	-
Plant Layout	2	1	-	-	-	1	-	-	-
Commercial Law	2	1	-	-	-	1	-	-	-
Typing	2	-	1	-	-	-	1	-	-
Industrial Technology	2	-	-	-	-	2	-	-	-
Retailing	1	-	-	-	-	-	1	-	-
Time & Motion Study	1	-	-	1	-	-	-	-	-
Labor Unions	1	-	-	1	-	-	-	-	-

Statistics, and Business Machines were all given high ratings. The high rating received by classes such as these seems to indicate an interest in more quantitative material by the graduates. A survey of undergraduates could be taken to see if their interests may be in more quantitative areas.

SUMMARY

The findings in this survey in many cases are similar to the findings of two similar surveys conducted recently at the University of Toledo, Ohio and at North Texas State University. In those areas where these findings are similar, comparisons will be made.

A response of 44 percent was received in answer to 685 questionnaires mailed. This return appears to be very good since no follow-up was used. The returns at North Texas and Toledo were 41 and 49 percent respectively with the use of follow-up letters.

The returned questionnaires showed that nearly 70 percent of the graduates are residents of Utah upon entering Utah State. Another 18 percent are from Idaho.

Nineteen graduates indicated they obtained their first job from a member of their immediate family or a relative. This means that 6 percent went to work in some type of family employment and 94 percent went to work for someone outside of their family.

The first job was obtained by personal contacts on the part of the graduates 51 percent of the time. University placement facilities were utilized 21 percent of the time. Family or friends were listed 11 percent of the time.

Accounting graduates obtained 54 percent of the jobs received through the University Placement Office.

In the study at North Texas State nearly 60 percent of the graduates obtained jobs by means of personal contacts.

The largest initial employers of USU are manufacturing firms which hire 29 percent of the graduates. Service organizations are second with 26 percent. Fourteen percent began working for the government. Retailing and wholesaling hired 12 and 4 percent respectively. The majority of the other 15 percent were employed by public utilities.

This picture changes after the graduates are in the field working. These changes are pointed out in the present types of employers. Service organizations are now the largest employers of these business graduates with 28 percent of the total. Manufacturing is second with 26 percent, and the government is third with 19 percent. Government employment increased nearly 5 percent from the initial employment figure. Retail and wholesale employment both dropped. At Toledo, 39 percent were employed by service organizations, 45 percent in manufacturing, and only 9 percent were working for the government.

One out of every two Utah State business graduates goes to work for companies with over 1,000 employees. One out of five begin with small firms of 25 or less employees. The other graduates fall in between these two extremes.

On their present jobs the large employers have 56 percent of the graduates working for them. Only 17 percent are now working for firms with less than 25 employees. The firms with 100-500 employees are using 12 percent of the graduates at the present time.

More Accounting and Marketing majors begin work in jobs related to their major field than do the other majors. Nearly 86 percent of the Accounting majors and 68 percent of the Marketing majors began work in their "same" field. The three lowest totals were in Production Management

with 38 percent, Finance with 27 percent, and Personnel with 19 percent beginning work in their major field.

The overall percentage for all majors is 56 percent in the "same" field as the college major, and 44 percent in a field "different" than the college major.

Slightly over 56 percent of the graduates began work in the same field as their college major. This percentage tends to decrease in the long-run. Only 47 percent of the graduates have jobs at the present time in the same field as their major. Production Management remained the same with 38 percent in the same field. Every other major decreased except Business Management. At Toledo, only 54 percent were working in the same field as their college major. Accounting and Marketing had the highest percentages with about 70 percent working in their major. Finance was the lowest with only 24 percent working in financial areas.

Since only 47 percent are working in the same field as their major, the hypothesis that, "The majority of the graduates will be working in the same area as their major," must be rejected.

If all majors, past or present, are considered, the hypothesis that, "The percentage working in their major will be higher in Accounting and Marketing," must be rejected. At the present time, Accounting with 75 percent and Business Management with 64 percent have the highest number working in their major field. Marketing is third with 58 percent.

If only the present majors are considered, this hypothesis can be accepted, since Business Management is no longer offered as a major.

"The largest percentage working in other areas will be from Finance, Personnel, and Production Management." This hypothesis can be accepted

since these three majors have the smallest amounts working in their major field. Only 38 percent of the Production majors, 20 percent of the Finance majors, and 15 percent of the Personnel majors are working in the same field as their college major.

A total of twenty-four states and Canada were given as answers to the question of the state in which the first job was begun. Nearly 50 percent of the graduates began work in Utah, 18 percent in California, and another 12 percent in Idaho.

For their present job location the number of states represented increased from 24 to 30 states and Canada. Utah's share of the graduates decreased slightly from 49 percent to 45 percent. California increased slightly to 18 percent. Idaho remained nearly the same at 11 percent.

Does the college major that a student selects have any direct effect on his starting salary? Do certain majors receive higher starting salaries? To answer these questions a chi-square test of significance was used. However, the results were somewhat biased due to the revamping of the department in 1962. The old majors of Business Administration, Business Management, and Industrial Management could not be evaluated accurately with Finance, Personnel, and Production Management. Generally higher starting salaries for all majors, plus the effects of things such as inflation have changed starting salaries enough over the years to introduce a significant bias.

To overcome this bias, only those majors offered after 1962 were tested. Accounting and Marketing figures were edited, and those graduates after 1962 were included.

It was hypothesized that there would be no significant difference in starting salaries among the five majors currently being offered.

A chi-square test measuring the goodness of fit of the expected distribution as compared to the actual distribution of questionnaires returned was found to be statistically significant at the .05 level of significance.[1]

At the .05 level the computed values of 32.19 exceeded the critical value of 21.03 with 12 degrees of freedom.[2] At this level the results were statistically significant and the hypothesis that there is no difference between major and starting salary was rejected.

Production Management majors were shown to start at the higher end of the income scale with Accounting majors second in terms of starting salary. Marketing majors were third, appearing more than expected in the $5,000-5,999 category.[3] Finance majors appeared more than expected on the low side of the income scale. Personnel majors showed the largest differences with the majority falling into the lowest income groupings.

In order to use the chi-square test for present salaries, majors were edited the same as was done for starting salaries. Three income groups were used: Under $7,000, $7,000-9,999, and Over $10,000.

Again it was hypothesized that there would be no significant difference in present salaries among the majors.

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[1]At the .05 level of significance, means that 5 percent of the time the computed chi-square could be larger than the critical value as a result of chance alone if in actuality the two distributions were the same.

[2]See Appendix for explanation of chi-square analysis used.

[3]To conform to the requirements for using the chi-square test, income groupings were combined into four groups. The four groups were: Under $5,000, $5,000-$5,999, $6,000-$6,999, and Over $7,000. This eliminated many empty cells at the two extremes of the distribution.

The chi-square test of significance at the .05 level, with 8 degrees of freedom, gave a computed value of 12.62, which is less than the critical value of 15.51. Therefore, the hypothesis that there is no significant difference in present salaries among the various majors can be accepted.

Income was also calculated by age and it was shown that income had a direct relationship with age. The average income for the graduates increased with age. The highest income group was those graduates of 37-39 years of age with an average annual income of $12,541. The average annual income of all the graduates included in the survey is $9,214. At Toledo, the average income was $8,900.

Income was also calculated by state of residence, however, it is difficult to place a high degree of emphasis on the findings. The states with the highest average income had only one or two graduates living there.

Do the graduates of any particular major change jobs more than the graduates of any other majors?

Again the graduates of the five present majors were tested by means of a chi-square test. It was hypothesized that there would be no significant difference between the college major and the number of job changes.

The independence of the two variables was tested at the .05 level with 12 degrees of freedom. The computed value of 23.60 was greater than the critical value of 21.03. Therefore, the hypothesis that there is no difference between the college major and the number of job changes was rejected.

Accounting majors changed jobs more than expected. Finance majors changed at the expected rate. Marketing majors were slightly higher

than the expected rate. Personnel and Production majors fell below the expected change rate.

To conduct a survey dealing with income, the factor of education must be considered. This single factor could bias any findings pertaining to income. One could assume quite logically, that people with more education should be capable of earning additional income.

Replies to the question regarding additional education showed that 23 percent had received some education beyond the bachelor's degree. Of this 23 percent, 16 percent checked the "other" category. The majority of these had not received a degree but had either started and dropped out of a formal program or had not yet finished. Twenty-seven students said that they were currently enrolled in advanced degree programs.

A breakdown showed that two M. A. degrees, 17 M. S. degrees, 28 M. B. A. degrees, and 2 D. B. A. degrees were earned.

A most revealing statistic was the fact that not a single graduate has earned a Ph. D. degree after leaving Utah State.

Utah was the state in which 59 of the graduates said they received their additional education. Twelve more listed California. A total of 18 states and Canada were listed.

A little over 36 percent of the graduates went out-of-state for their advanced education.

It was shown that starting salaries for the advanced education were lower, $4,270 to $5,364, when compared to those obtaining only a bachelor's degree. It is not known if this starting salary is the amount received before they obtained additional education. Many may have worked before returning to school and reported this figure as their "starting salary."

In the long-run, the advanced education groups lead with an average annual income of $9,904 to $9,214 for the bachelor's degree holders.

The job change rate for the advanced education is higher at 1.6 changes with only 1.0 changes for the bachelor's degree group. Part of this higher rate comes from the fact that 5 of this group are working in education and each of these five have changed jobs three or more times.

Tables 34 and 35 contain a complete listing of the classes most helpful and classes least helpful in the graduates present job. Table 36 is a listing of the areas the graduates would emphasize if they were to begin school again.

The first ten classes considered to be the most helpful are all core classes which all business majors must take. The basic accounting classes appear to be the most helpful classes the graduates took while in school. The others, in order, are Management Concepts, Marketing Principles, General Economics, Statistics, Corporate Finance, Personnel, Business Communications and Industrial Management Problems.

In reviewing the classes which were considered least helpful on the present job, the classes selected most often were nearly the same classes selected as most helpful. Perhaps this is because they are taken by all business students.

Probably the most revealing portion in the area of curriculum were the choices of graduates if they were to begin school again this year.

Choices of Accounting more than doubled the next highest choice of Corporate Finance. About two-thirds of the majors were in Accounting and Business Administration. Corporate Finance, Personnel, and Management Concepts were second, third, and fourth. Data Processing, which was

seldom mentioned previously was fifth. If Business Communications and Report Writing were combined, they would be the second most popular.

CONCLUSIONS

The body and summary of this report have presented the statistics compiled from the returned questionnaires. Probably the most revealing portion of the questionnaire was the area left open for "comments." These comments are similar to the areas in which the graduates would place emphasis if they were to return to school.

Two areas felt to be of great importance to the graduates are those of written and oral communications. Since the majority of USU graduates are working in large corporations, communications become increasingly important. Typical of the comments received is the following by a 1959 Personnel major.

> Selling oneself and ones ideas, verbally and through writing are real supports in the business world. One can have the best ideas in the business but if you can't sell those ideas they don't help much.

These two areas are sadly neglected by the business department at the present time. Nothing is offered in the way of oral communications for the future businessman. The present offering in business (written) communications is somewhat less than rigorous. It consists mainly of letter writing and collection procedures. It ignores almost completely the area of report writing.

These areas of communications require a "beefing-up" to the point that they will become of some value to future graduates. A 1963 Accounting graduate offers an excellent summary.

> The area of communications is probably the least emphasized, but in the end is the most important.

In the last decade, the computer has become an increasingly important part of American business. The importance of computers to the graduates is evidenced by the high rating given it by the graduates. The department is just getting in to the computer area. A class should be established to introduce students to the computer and to show them the benefits which can be derived through proper usage. A 1962 Accounting graduate expressed this point by saying:

> I feel that the department must stay abreast of the computer field and give the graduates a real knowledge of how to use it to their advantage rather than to have a fear of it.

The computer area along with the more simplified area of business machines gives the graduate a talent which they can put into use in their very first job. This lack of specific skills was a frequent complaint of many graduates. Since they had not taken classes of a practical nature many felt ill prepared on their first job assignment. A 1960 Business Administration graduate said:

> I think more Accounting and Business Machines classes should be required. The problem I found after graduation was my education was in general terms and was lacking in specific and useful skills.

This need for something of a practical nature is pointed out by a review of Table 36. In these areas which are emphasized by the graduates, the majority are of a practical nature. At the present time most of the classes being taught are for the long-run benefit of the student. The education being offered today does not try to prepare students for their first jobs, but rather for a higher position at some future point in the graduates career. It is not my intention to discuss the merits of educating for the long-run versus the short-run, but to point out the desires of the graduates for something practical. This long-run ultimate point

is not defined, but it seems rather obvious that all of the graduates will never reach this point.

Since all graduates will not reach this ultimate point, it seems logical that some will work at lower levels. The education given to all graduates would lead one to believe that all graduates are going to be Presidents of their respective businesses.

This point was a frequent complaint regarding case classes. A 1961 Marketing graduate asked for practical situations by saying:

> Most case classes at Utah State were taught on too high a level, i.e., President of the company with such and such a problem. Most students do not reach such a level for years, if at all. I would have benefited more from practical problems of lower-level business situations.

The statistics compiled from the questionnaires show that the majority of USU business graduates are going to work in big business. An increasing percentage are going to work in various phases of government operations.

Very little is taught of government operations at USU at the present time. As government becomes bigger and bigger, it will become increasingly important in the lives of many graduates. A 1963 Personnel major now working for the government expressed it this way:

> I was almost totally ignorant about civil service and the merit system they use. A class in Public Administration should be a must because of the great number eventually going to work in government.

This statement along with other similar statements seems to indicate a different approach may be needed in the education of future business students. New classes such as the one recommended in Public Administration and others in computers, and oral and written communications may be needed.

While there is presently a class in written communications, it does not seem to be doing the required job.

Because a class has always been taught in a certain way, or by a certain department, this does not preclude change.

At the present time the only speech classes offered are taught outside the department. While this in itself is not bad, the structure of the classes is not the most desirable for business students. If speech were a required class, a format could be established which would most benefit business students. A 1962 Production Management major felt the need was greater by saying:

> I feel that a business major should be required to take at least two classes in Speech. Communications is one of the most important areas of business.

Many comments were made regarding the method of instruction, some good and some bad. It is difficult to analyze these due to the many changes in the faculty during the past ten years. One point which stood out was the need or desire for heavier demands from the students, by the faculty. A 1958 Business Administration graduate expressed this feeling by saying:

> Very frankly, I feel that I gained little of substance in my undergraduate training and I wish that heavier demands and higher expectations had been placed on me.

To install many of the classes suggested by the graduates would mean heavier demands on the students. It is difficult to teach computer operations without the proper math background. To install one class without the other would not benefit the students as much as possible. These suggested classes may not be feasible to install at the present time, but consideration should definitely be given to them. Their value must be

great to receive such support from past graduates.

Another thing which the survey pointed out was the lack of use of the University Placement Office by business students.

Only one out of five students obtained a job through the University Placement Office. The most revealing fact, however, is that accountants obtained 33 of the 61 jobs via the placement office. This is slightly over 54 percent. These statistics indicate a definite lack of something in connection with the Placement Office. This is particularly true of majors other than Accounting. Accounting students seem to be able to obtain jobs from these campus interviews.

It appears that too few students take advantage of the placement office facilities. At the present time, nothing formal is done to introduce the student to the service available in the Placement Office.

A solution to this problem may be achieved by means of a classroom visit during the sophomore or junior year. All that is needed is that a class which all business majors must take; preferably before the senior year be utilized to facilitate such a visit. If the students can be shown what the Placement Office can do for them, the usage of the facilities should increase.

The large number of students going to work in areas other than their college major seems to indicate a definite lack of career planning. More consideration should be given to proper counseling of the incoming business student. Business may be business, but Accounting is not Production Management.

This survey has brought out many facts regarding the present activities of graduates of the past ten years.

The average business graduate of Utah State University appears to be quite successful in this modern business world.

To insure that this degree of success is available to future graduates, the suggestions of past graduates should be given careful attention. No one knows better the quality of the education received than do these graduates.

Suggestions for Future Studies

One area which was not investigated in this study was the reason for job changes by the graduates. The number of times the graduates change jobs was found out. The reason was not.

Over half of the graduates are working in areas other than their major area of study. Why is this figure so high? Why do the graduates major in one area and go to work in another? The answers to these questions should be of value in curriculum planning.

It was shown that past graduates obtained relatively few jobs through the placement office. A study of the numbers who utilized this service and their success would be valuable to future students.

Since this study was the first of its type in the business department, many areas were touched upon and still many more were missed. Many of the areas in this study can be elaborated and probed deeper. Anything which will benefit the future business students should be investigated. Only by finding the mistakes of the past can corrections be made in the future.

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APPENDIXES

April 11, 1966

Dear Graduate:

At the present time, the Department of Business Administration at Utah State University is in the process of evaluating the present curriculum.

As a graduate of the Department of Business your opinions are desired in order to accurately evaluate the curriculum. An idea of your career progress will enable us to see how well our past graduates are doing.

The information obtained on the enclosed questionnaire will aid in our evaluation. Your name is not required and all information will be used only for the purpose of calculation and computation of averages.

The work in this study is being performed by Mr. Rees Tribett, one of our graduate students. A copy of the final report will be made available to you upon request.

Your cooperation and opinions will be highly useful to the department in our analysis of graduates of the last ten years.

Sincerely,

D. W. Dobler, Head
Department of Business Administration

DWD:bil

enclosure

BUSINESS ADMINISTRATION GRADUATE ANALYSIS

1. What is your present age?_____

   What was your college major?

   Accounting _____(1)
   Business Administration _____(2)
   Business Management _____(3)
   Finance _____(4)
   Marketing _____(5)
   Personnel _____(6)
   Production Management _____(7)

2. Of what state were you a resident when you entered Utah State?

   _____

3. Have you received any formal education beyond the Bachelor's Degree?

   Yes_____(1) No_____(2) Currently Enrolled_____(3)

   a. If "Yes," what degree?

      M.A. _____(1)
      M.S. _____(2)
      M.B.A. _____(3)
      Ph.D. _____(4)
      D.B.A. _____(5)
      Other _____(6)

   b. In what state?_____

Curriculum

4. Which BUSINESS CLASSES have been most helpful to you in your present job?

   _____ _____

   _____ _____

5. Which BUSINESS CLASSES have been least helpful to you in your present job?

   _____ _____

   _____ _____

6. Which areas of business would you emphasize if you were to begin school again this year?

   _____ _____

   _____ _____

Job Placement

7. How did you obtain your first job?

   University Placement _____(1)
   Family or Friends _____(2)
   Personal Contacts _____(3)
   Employment Agency _____(4)
   Other_____(5)

8. In what year after graduation did you obtain your first job? (Excluding military, church mission, etc.) 19____.

9. Was your first employer a member of your immediate family or a relative? Yes_____ No_____

10. Name of your first employer_____

Employer's Address: City_____State_____

Type of Company:

Manufacturer_____	(1)	Wholesaler_____	(4)
Retailer_____	(2)	Service_____	(5)
Government_____	(3)	Other (specify)_____	(6)

Approximate number of employees:

1-25 _____	(1)
25-50 _____	(2)
50-100 _____	(3)
100-500 _____	(4)
500-1000 _____	(5)
1000-Over _____	(6)

What was your job title?_____

Brief description of your job duties_____

_____

How long were you with this firm?_____Years.

11. Please check the approximate starting salary of your first job upon graduation from Utah State:

Under $4000 _____	(1)	$6000-6999 _____	(4)
4000-4999 _____	(2)	7000-7999 _____	(5)
5000-5999 _____	(3)	8000-Over _____	(6)

Present Job

12. Name of your present employer_____

Employer's address: City_____State_____

Type of Company:

Manufacturer_____	(1)	Wholesaler_____	(4)
Retailer_____	(2)	Service_____	(5)
Government_____	(3)	Other (specify)_____	(6)

Approximate number of employees:

1-25	_____(1)
25-50	_____(2)
50-100	_____(3)
100-500	_____(4)
500-1000	_____(5)
1000-Over	_____(6)

What is your job title?_____

Brief description of your job duties_____

_____

How long have you been with this firm?_____

13. Please check your approximate annual income:

Under $5000	_____(1)	$10,000-11,999	_____(4)
5000-6999	_____(2)	12,000-13,999	_____(5)
7000-9999	_____(3)	14,000-Over	_____(6)

14. Check below the number of job changes (new employers) you have had since graduation:

1_____ 2_____ 3_____ 4_____ 5_____ More_____

15. Additional Comments:

Appendix A

Results of Sample Survey

It is felt that the size of the sample was too small to offer an accurate analysis. Only thirteen of twenty-five questionnaires were returned and none were from Accounting or Production Management. The figures were out of line with the results of the final survey. For example, the job changes figure in the final survey was 1.0. For the sample, the figure was 2.6. Present salary was only $8,480 as compared to $9,214 in the final survey.

Due to the fact that a return of less than 50 percent can be expected, a larger sample may improve the results.

Additional research with an increased sample should be conducted due to the cost of surveying the entire population, which will increase over the years.

Appendix B

Chi-square Analysis

Chi-square is a statistical test used to measure the independence of variables or the relationship of variables. It is based upon the difference between the observed and expected frequencies.

$$X^2 = \frac{(O - E)^2}{E}$$

Where O = Observed frequencies

E = Expected frequencies

Where df = degrees of freedom

r = Number of rows in the contingency table

c = Number of columns in the contingency table.

Frequencies are entered in the cells of the 2 contingency tables. One contains the observed frequencies and the other the expected frequencies. The differences between the two tables are analyzed and the computed chi-square value is checked with the critical value given in the X^2 distribution tables. These expected figures indicate if the computed value of X^2 is significantly different from the critical value at the appropriate level of probability, and with the correct degrees of freedom.