

A STUDY OF MALE GRADUATES FROM SELECTED ACADEMIC
PROGRAMS FROM THE COLLEGE OF ARTS AND SCIENCES
AT THE OKLAHOMA STATE UNIVERSITY
FOR THE YEAR 1971

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CHAPTER I

THE RESEARCH PROBLEM

Introduction

Historically, liberal education has been the cornerstone of American higher education. Even today about three-fourths of all colleges and universities offer degree programs in liberal arts, and approximately forty percent of all male baccalaureate graduates receive their degrees in the liberal arts.

The American undergraduate college curriculum may be said to incorporate two educational models, the "nature of knowledge" model and the "developmental model". The nature of knowledge model, which prevails today, derives organizing principles from the logical structure of the basic disciplines and from the nature of scholarship.¹ Recently Bell's writings stressed this model in defining a liberal arts program as:

By a liberal arts program, I mean an emphasis on the imagination of the humanities and history and the treatment of the conceptual grounds of knowledge in the sciences and social sciences as the central core of the college's concern.²

¹H. Bradley Sagen, "The Professions: A Neglected Model for Undergraduate Education," Liberal Education, Vol. 59, No. 4 (December, 1973), p. 507.

²Daniel Bell, The Reforming of General Education, (New York, Columbia University Press, 1966), p. 180.

Consistent with this approach is the liberal arts program at Oklahoma State University. Both models have as their purpose providing a broad curriculum and thus helping students acquire a fundamental understanding of themselves, of the world of nature, and of their own and other cultures. Thus, the College of Arts and Sciences at Oklahoma State University is committed to helping students fulfill their academic, vocational, and social-civic goals.

Within colleges and universities there is concern for alumni, but this concern for liberal arts graduates has a low priority. Furthermore, little research has been done in this area and, in turn, a clear course of action is lacking. Students are preoccupied with their college work and therefore give little thought to the life which follows college. Again, planning is somewhat limited because of a lack of knowledge and a follow-up study of graduates.

Sanford pointed out that:

There is a remarkable discrepancy between the wide public acceptance of the value of college education and the paucity of demonstrated knowledge that it does some good. . .³

A foundation official in 1965 cited better measurement and documentation of the outcomes of college education as one of four areas most appropriate for foundation support. He noted:

In promotional literature, colleges and universities boast about the achievements of their alumni, but rarely are the claims supported by more than conjecture of piecemeal data.⁴

³Newitt Sanford, The American College, (New York, John Wiley and Sons, 1962), p. 805.

⁴Manning M. Pattillo, "Foundations and the Private College," Liberal Education, Vol. 5, No. 4 (December, 1965), p. 511.

Statement of the Problem

The nature of knowledge model prevails at most higher educational institutions. The model generally infers that liberal arts graduates should have movement toward an effective adjustment in their personal and family life; make better use of leisure time; serve more effectively in the area of citizenship; and be employed in any of several positions of employment. The overall purpose of the study was to determine perceptions, status, and activities of male graduates of selected programs at Oklahoma State University in relation to commonly expected outcomes of such liberal arts programs. Specific purposes were (1) to determine perceptions of male graduates of 1971 as to proper goals of a liberal arts baccalaureate program; (2) to determine perceptions of these graduates as to whether the goals had been provided for in their college experiences; (3) to determine perceptions of these graduates as to other selected characteristics of their undergraduate education; (4) to determine the career status and development of these graduates; (5) to determine the aspects of the social and civic activities of these graduates; and (6) to determine relationships among selected variables mentioned above.

Significance of the Study

The ultimate test of a college or university liberal arts program is to be found in the ability of its graduating students to take an effective part in the life which lies beyond the classroom. One criterion for appraisal is that of relevancy, or the extent to which graduates feel college experiences have met their needs and have prepared them to face adult tasks with reasonable hope of success.

This study will undertake to add new data to the existing body of knowledge about the influence a liberal arts education has on young adults and their way of life. As young people enter adult life beyond college they experience a shifting of problem stresses and activities to which they carry a continuum of attitudes, habits, skills, and special or general abilities. Therefore, if an educational curriculum is to function adequately educators must assist young people in identifying these youth-adult differences and help them to find ways to care for present needs while preparing for future ones.

Whether or not a knowledge of the activities and needs of adults who were formerly students will provide useful clues to the educational needs of present students depends partly on the general truth of one major assumption: that the future needs of present students will not differ substantially from the present needs of former students. The patterns of society change and particular activities and needs of individuals change also; but in any society reasonably conceivable in America the present and future generations of young people will face fundamentally the same problems that the previous generation faced; problems of personal adjustment, personal philosophy, health and use of leisure time; problems of earning a living; problems of participation in social and civic affairs, and the problem of responsibility in a democracy. In the first place, then, some problems are more nearly universal, both in time and place, and more enduring than others. Insofar as a study of adults is focused on these fundamental and common needs, the results will have important implications for the task of educating present students.

In the second place, the results will have meaning for education to the extent that the adults studied are similar in general background and abilities to the students one is dealing with in the classroom.

Assumptions of the Study

It is assumed that persons responding to the survey questionnaire will be representative of the entire male liberal arts student population at Oklahoma State University for the academic areas covered in the study. It is further assumed that former graduates can make a rational evaluation of their college education and are able to state the effectiveness of this preparation in actual life situations.

Limitations of the Study

Information is being sought from the former male graduates now out on the job. Havighurst in his analysis of college alumni found it necessary to treat economic and educational data for men and women separately.⁵ This study will involve only those male graduates who majored in a field of study found in the College of Arts and Sciences and received a baccalaureate degree during the 1971 academic year. Selected subject matter fields will be used that are readily identifiable as part of the liberal arts curriculum at Oklahoma State University to set the boundaries of the study. These fields are: (1) Education, (2) Humanities, (3) Biological Sciences, (4) Physical Sciences, (5) Pre-Professional, and (6) Social Sciences. The following majors will be included in the above areas:

⁵Robert J. Havighurst, American Higher Education in the 1960's, (Columbus, Ohio State University Press, 1960), p. 37.

Education

Art Education
Music Education

Humanities

English
Fine Arts
History
Humanities
Music
Philosophy
Speech

Biological Sciences

Biochemistry
Biology
Biological Sciences
Botany
Microbiology
Physiology
Wildlife Ecology
Zoology

Physical Sciences

Chemistry
Geography
Geology
Mathematics
Natural Science
Physics

Pre-Professional

Pre-Dental
Pre-Law
Pre-Medical
Pre-Veterinary

Social Sciences

Economics
Political Science
Psychology
Social Science
Sociology

Many of the former students are now living in geographic areas far removed from Oklahoma State University. Thus, by means of a mail questionnaire, former graduates will be asked their perceptions of the liberal arts education program at Oklahoma State University.

Definition of Terms

"Liberal Arts Program" refers to a program in which the primary emphasis is placed on a broad curriculum designed to help the student acquire a fundamental understanding of himself and the world about him.

"Graduate" refers to a person who has graduated from Oklahoma State University College of Arts and Sciences with either a bachelor of science or a bachelor of arts degree.

"Major" refers to those persons who have selected to concentrate their efforts in the liberal arts education program at Oklahoma State University.

CHAPTER II

HISTORICAL BACKGROUND AND RELATED MATERIAL

Introduction

The term "liberal arts" is derived from the Latin artes liberales, the higher arts, which in early Roman times were accessible only to freemen (liberi). But the traditions of liberal education date back at least to Greece, to Plato and his Academy with its devotion to truth and learning for their own sake. Even then there were parallel and often competing ideas of the goals of learning. Pythagoras and his followers were concentrating upon the study of mathematics and astronomy, while the Sophists were concerned with instructions in such useful subjects as rhetoric. As Clark Kerr points out:

The modern academician likes to trace his intellectual forebears to the groves of Academe; but the modern university with its professional schools and scientific institutes might look equally to the Sophists and the Pythagoreans.... The "Two Cultures" of the "Three Cultures" are almost as old as culture itself.¹

The great medieval universities of Europe helped to perpetuate these diverse educational outlooks. The University of Paris became a leader in the study of the classics, philosophy, and theology, and established a pattern for the early development of Oxford and Cambridge along the lines

¹Clark Kerr, The Uses of the University, (Cambridge, Massachusetts, Harvard University Press, 1964), pp. 9-10.

of the liberal arts tradition. Salerno and Bologna were the professional centers, excelling in medicine and law.

In England, Francis Bacon argued for a utilitarian approach to education and decried the pursuit of learning for its own sake. This attitude was later strongly opposed by one of history's most eloquent defenders of liberal education. Cardinal Newman declared:

Knowledge is capable of being its own end. Such is the constitution of the human mind, that any kind of knowledge, if it really be such, is its own reward.²

University education, Newman said:

...aims at raising the intellectual tone of society, at cultivating the public mind, at purifying the national taste, at supplying true principles to popular enthusiasm and fixed aims to popular aspirations, at giving enlargement and sobriety to the ideas of the age, at facilitating the exercises of political powers, and refining the intercourse of private life... it prepares a man to fill any post with credit, and to master subjects with facility.³

The nine colleges of Colonial America strongly reflected the views of Newman and of the Oxford of his times. Cowley stated: "They offered little or no opportunity for specialization, taught little science, and their faculty members engaged in little research."⁴ When modern languages and natural sciences entered the curriculum in the early parts of the nineteenth century, many students avoided them as inferior substitutes for Greek, Latin, mathematics, and philosophy. Almost all the

²Cardinal J. Henry Newman, The Idea of a University, (New York, Longman, Green and Co., 1947), p. xxvii.

³Ibid., p. 157

⁴William G. Cowley, "Three Curricular Conflicts," Liberal Education, Vol. 56, No. 1 (December, 1960), p. 467.

students used college as a gateway to careers in the ministry, law, and medicine.

In the last half of the nineteenth century, a number of factors influenced higher education. The scientific revolution was having its effect upon the university curriculum and upon the development of research, first in the German universities and then elsewhere. In America, the great liberal arts institutions such as Harvard and Johns Hopkins broadened their scope and developed facilities of professional specialization. The agrarian concerns of the country and the interests of both federal and state governments in expanded educational opportunity culminated in the passage of the Morrill Act of 1862, laying the foundation for the great network of land-grant colleges and universities across America. Agriculture, engineering, and mining took their place in the curriculum beside the liberal arts.

The new segment of the population attracted by higher education clearly contemplated using college as the basis for a career. The colleges, or more particularly the university, responded to an increasingly complex social and economic order by further specialization through course work in such fields as theatre arts, accounting and public health.

While elementary and secondary school teachers first prepared at special two-year normal schools, before long many colleges, including liberal arts institutions, were devoting a considerable portion of their energies to students seeking preparation for teaching careers. Even traditional liberal arts fields underwent transformation.

The natural sciences--zoology, geology, botany--were added to the classical fields of mathematics and astronomy. The social sciences--

political science, economics, psychology--developed as distinct disciplines instead of components of philosophy or history. No longer could a single, broadly educated professor teach courses in philosophy, mathematics, and biology. Specialization and achievement within a single field became increasingly important for faculty appointment and promotion. As Schmidt observed:

The Yale catalog for 1829 managed to include the entire four-year course of study in one page; in 1955 it took two hundred pages to list the undergraduate fields of study.⁵

Related Research

Except for Charters' survey of the activities and needs of women on which the curriculum at Stephens College was based, no in-depth follow-up study of former college students was made for the purpose of examining the vocational and social-civic competencies of students before 1930.⁶ During this time, follow-up studies were typically concerned with the occupational and financial status of graduates, and frequently the results were cited as evidence of the money value of a college education.

In 1938 the American Youth Commission's study of Maryland youth⁷ and the New York Regents' Inquiry⁸ both reflected the broader philosophy

⁵George P. Schmidt, The Liberal Arts College: A Chapter in American Cultural History, (New Brunswick, New Jersey, Rutgers University Press, 1957), p. 186.

⁶W. W. Charters, Curriculum Construction, (New York, MacMillan, 1923).

⁷Francis T. Spaulding, High School and Life, (New York, McGraw-Hill Book Co., 1938).

⁸Ruth Eckert and Thomas Marshall, When Youth Leaves School, (New York, McGraw-Hill Book Co., 1938).

and deeper concern for social welfare and effective education on the part of educational leaders. The authors of the Regent's Inquiry held as a basic belief that the chief goal of education is the development of personal and social competence on the part of young people and that a study of the extent to which young people leaving school have attained personal and social competence is not only a legitimate but significant and crucial test of the effectiveness of their education.

Eckert's study had as a primary aim to outline the characteristics of students leaving the secondary school, and thereby to secure material which would reveal the clues needed for changes in the school system.⁹ The traits and qualities that appeared to contribute most directly to social and vocational competence, or the ability of young people to meet successfully the problems of out-of-school living were investigated. Measures of skills, information, attitudes, and educational and social adjustment provided a partial basis for the evaluation in this study.

Eckert found that, while graduates are better prepared for many of the demands imposed by life, their enlightened social actions and or tolerance levels are not different from those less educated. This suggests that the educational process emphasizes knowledge and its benefits are correlated with this function. The question could be raised if the course work offered met many demands of the world outside the school, such as social and vocational adjustment. Ten to fifteen percent of the graduates receiving diplomas certifying their academic competence were still ill-prepared to make a successful vocational adjustment. The last systematic effort to equip most of these students for out of

⁹ Ibid.

school living had been made. The gaps revealed here may therefore become the permanent handicaps of these students.

Although the school was willing to recognize that one of the functions of a good citizen is to keep himself informed, the present high school graduate does not seem to have the resources which lead him to further education. An analysis of the books and magazines read by pupils, and the radio programs to which they listen, revealed that apparently these young people were not receiving the information they needed to be good citizens.

Pace's study had as its basic purpose to examine former graduates from the College of Sciences, Literature and the Arts, the College of Engineering, the College of Education, and the College of Agriculture and Home Economics at the University of Minnesota in order to know them in their personal lives, in their families, and in their wider social and job relationships, and the impacts of these upon the young adults.¹⁰ The conclusions reached make it possible to group them roughly into two overlapping categories: the first, those showing evidence of apathy and complacency; and the second, those showing failure to appreciate interrelationships among problems. Complacency is apparent in the predominately self-centered goals of these young people, their lack of concern with philosophy and religion, their emotional tendencies toward introversion and neurasthenia, their passive use of leisure time, their resignation in the face of complex family situations, their ignorance of, or satisfaction with inefficient practices in home management, and

¹⁰ Robert C. Pace, They Went to College: A Study of 951 Former University Students, (Minneapolis, The University of Minnesota Press, 1941).

their lack of participation in local civic affairs. Failure to appreciate interrelationships among problems is evident in the many discrepancies among their activities, interests, and attitudes--in their desire for home economy together with their persistence in uneconomical practices, in their failure to understand the influence of their jobs on family happiness, in their inconsistent attitudes toward related social problems, in the coupling of their concern about the government with their failure to participate in political processes, in their interest in national problems but not in attempts to solve these problems, and in the fact that their desire for reliable information was falsely satisfied by the reading of biased sources. Quite clearly the young adults who came through this fragmentary, specialized training have by and large failed to see their own lives and their contemporary world as parts of an integrated whole.

West in his study used the follow-up method of investigation to study the largest college student body in the country at that time.¹¹ The objective of the 1952 study was to determine whether the graduates' needs had been met since graduation. An overwhelming majority of the graduates reported that they did enjoy their work, but men's attitudes toward their jobs are almost perfectly correlated with earnings. The more a male graduate earned, the more he liked his job. The study showed women enjoyed their work more than men, older graduates more than the younger ones, those working at jobs related to their college specializations more than those who were not.

¹¹ Leonard J. West, College and the Years After, A Career Study of Munciple College Graduates, (New York, The Board of Higher Education, The College of the City of New York, 1952).

Marsh's study was a follow-up study of Wayne University male liberal arts graduates, embracing four graduate periods judged to be characteristic of the institution's development from 1925 to 1950.¹² The purpose of the study was to gain an increased understanding of the graduate product of these years by virtue of factual knowledge of post-graduate life outcomes. Greater objectivity of institutional direction was considered a possible result of the specific examination of such factual data as: the planned and realized vocational objectives of former undergraduates; the past and present (co-curricular and civic) experiences of such alumni; the attained post-graduate social and economic positions of former students, and the graduates' present satisfaction with, or attitudes toward Wayne University and the experiences it had afforded them during their undergraduate years. Also this study sought the objective determination of existing differences between former student activities participants and non-participants during and after their student days.

No statistically significant differences were found to exist between former student activities participants and non-participants in regard to: (1) substantial earned annual incomes; (2) predominance of professional occupational endeavors; (3) relationship between planned undergraduate vocational preparation and current employment; and (4) the graduates' satisfaction with their academic preparation.

In 1969, Calvert did a study whose primary objectives were to examine the career patterns of liberal arts graduates and their role

¹²James D. Marsh, "A Follow-up Study of Male Liberal Arts College Graduates of Wayne University, 1956," (Unpub. Ed.D. dissertation, Wayne University, 1956).

in a society marked by a heavy emphasis on science and specialized skills.¹³ A national sample of graduates was surveyed with special emphasis on their occupational experiences and satisfactions and on their evaluations of their college training as seen from current perspectives. Since a primary focus was to be on occupational adjustment, an early decision was made to restrict the survey to male graduates.

The results of the survey indicate that during the previous year less than a third of the graduates worked on a community fund-raising drive. When asked whether their own education had developed a sense of responsibility, only 53 percent said it had, compared to 82 percent who felt that it should. The extent of political involvement seems equally significant. During the previous year about half of the graduates wrote or talked with a public official about a current program or proposed bill, but less than 20 percent belonged to a political club or political action group. The typical graduate reads between five and seven books a year. About a third of these attended two operas or symphonic concerts. The older alumni did most of the public speaking.

Liberal arts graduates reported a number of difficulties in obtaining their first jobs. Part of this difficulty was attributed to the fact they lacked the easy bridge from campus to career possessed by colleagues from specialized curriculums. Also contributing to these difficulties was the lack of a career goal or a fruitless search for an occupational field which matched their educational major. Private,

¹³ Robert Calvert, Jr., Career Patterns of Liberal Arts Graduates, (Cranston, Rhode Island, Carrol Press, 1969).

non-manufacturing organizations employed almost one-third of the alumni and educational institutions employed over one-sixth of the alumni. One-tenth were in government service. The study showed a large percentage were satisfied with their jobs and income level.

Perrella, in her national study, examined the job status in October, 1971, of recent college graduates and whether they obtained work in their chosen fields.¹⁴ A weakened job market of the early 1970's affected the employment situations of all college graduates, and especially those who had only recently left school. The survey showed that, of the 1.1 million men and women who received degrees in 1970 and were available for work in October, 1971, nine out of ten were employed. More than three-fourths of those employed were in jobs directly related or somewhat related to their major field of study. In October, 1971, the unemployment rate for the degree recipients (7.4 percent), while two percentage points higher than the rate for the total labor force, was about half that of high school graduates of 1970 and 1971. About seven percent of the degree recipients were not in the labor force in October, 1971. A similar proportion had not worked at all since obtaining their degrees. About half of these were out of the labor force and half were looking for work in October. The 1970 degree recipients did not differ significantly from those of 1971 with respect to either labor force participation rate or unemployment rate.

In 1973, Young did a national study to determine how successful recent college graduates were in obtaining employment and the kinds of jobs they found. The study obtained information on the characteristics

¹⁴Vera C. Perrella, "Employment of Recent College Graduates," Monthly Labor Review, Vol. 96, No. 2 (February, 1973), pp. 41-50.

which influence labor force activity--age, sex, marital status, type of degree, and field of study--as well as the occupations and the industries in which recent graduates found employment.¹⁵

The great majority of the employed recent college graduates were professional or technical workers or managers. The heavy concentration of women in the field of education shaped the occupational and industrial profile of the degree recipients. Men were more likely than women to be managers and salesworkers; roughly as many men were blue-collar workers as were managers. The heavy concentration of graduates in the service industry in October, 1972, reflected the large number working as teachers. Educational services alone accounted for half of all employed women and one-fourth of all men.

The majority of graduates found jobs directly related to their field of study, with no significant difference in the percentages of men and women. Education majors were most likely to have found jobs in directly related work (82 percent), followed by graduates in business majors (61 percent). Humanities and social sciences majors had much lower proportions in directly related work. At the time the graduates accepted employment, seven out of ten assessed their job as having definite or possible career potential. A much larger proportion of graduates with jobs directly related to their major field of study than graduates with jobs not directly related perceived career potential.

Toombs examined a statewide study in the state of Pennsylvania aimed at several issues: (1) to what extent are recent graduates

¹⁵Ann M. Young, "Labor Market Experience of College Graduates," Monthly Labor Review, Vol. 97, No. 10 (October, 1974), pp. 34-40.

finding employment in fields related to their studies? (2) must they move over significant distances to obtain jobs? and (3) when do they begin work?¹⁶

The results showed neither engineering nor education show any strong effects of a tightening market. Graduates in these fields found related employment at 60.8 percent and 60.4 percent respectively. Communications majors did quite well by exercising flexibility of choice and moving into remote job fields. The troubled areas were psychology, social sciences, and double majors with two main factors at work: (1) the entry level in professions identified with these fields of study has risen from the baccalaureate degree to the master's and doctor's; and (2) the alternative job choice of school teaching with a general B.A. degree has been foreclosed by the requirement for certified teachers.

The study indicated little evidence that large number of students migrated from Pennsylvania in order to find jobs. As a matter of fact, the most striking feature of the data is the localization of first employment. A very large share, almost three-quarters of the baccalaureates, stayed in Pennsylvania. The study showed that 21.7 percent of baccalaureates were seeking employment, which indicated there was a delay for the graduates in entering the job market.

In 1974, after a year of study concerning the employment dilemma facing the liberal arts graduate, the National College Placement Council developed a position statement as follows:

¹⁶William Toombs, "The Comm-Bacc Study: Postbaccalaureate Activities of Degree Recipients From Pennsylvania Institutions," Journal of College Placement, (December, 1973-January, 1974), pp. 47-50.

The tightening employment market during the first half of the 1970's has spotlighted a problem facing many college graduates: What can they do after graduation? The problem has become even more acute for liberal arts graduates, many of whom have difficulty identifying employment options other than those traditionally associated with a liberal arts background.

At the root of the problem is the age-old phenomenon of supply versus demand. Each year the number of jobs requiring college training is not increasing proportionately. In 1960-61 there were 368,000 bachelor's degree graduates. Projections by the U. S. Department of Health, Education, and Welfare indicate that by 1980-81, the number will increase to 1,005,000--almost three times as many.

The proportion of the students in the humanities, social sciences, and other liberal arts disciplines is increasing also. The dilemma is compounded even further because of the shrinkage of jobs in two traditional sources, teaching and social services.¹⁷

Summary

Most studies of graduates are national in scope and thus are not easily disaggregated to the level at which many policies for higher education are formed, the state level. Neither are employment or social conditions homogenous between large regions of the country. The studies show the liberal arts model of undergraduate education does not necessarily provide the student what it claims to provide. Social-civic activities and employment flexibility are just two areas of this indication.

In the present and projected environment of employment, it is necessary that realistic career planning at an early stage is a necessity if college liberal arts students are to find appropriate

¹⁷"Four-Year Liberal Arts Graduates: A Position Statement by the College Placement Council, Inc.," Bethlehem, Pennsylvania, 1974.

and satisfying employment. It is equally important that students be made aware of the career options that may be available to them upon graduation. An immediate need exists for expanded choice of courses in the form of minors or electives. This study will gather much needed information to allow the Oklahoma State University to give more academic options to the students. Also, career information will be made available to the students and counselors of the University. Many liberal arts students seem to have little purpose in their studies because of a lack of knowledge about how and where they will apply their studies to life after college.

CHAPTER III

METHOD AND PROCEDURE

Introduction

The primary objectives of this study were to determine if the graduates agreed or disagreed with the concept of a liberal arts education, what the graduates are doing professionally and to what extent the graduates are involved in social-civic activities in their communities. This chapter describes the methodology used in obtaining the data for examination in this study and is divided into the following sections: (1) Population; (2) Instrumentation; (3) Data Collection; and (4) Analysis of Data.

Population

The population included in this study consists of male liberal arts graduates who officially received a bachelor's degree from Oklahoma State University in the academic year 1971. The population was identified from the official copy of the commencement program for the graduates. There were 309 names obtained in this manner. Current mailing addresses were obtained by a search through the alumni records.

Instrumentation

Questionnaires are widely used to gather facts about current conditions and to make inquiries concerning attitudes and opinions. For some

studies, presenting respondents with carefully selected and ordered questions is the only practical way to elicit the data required to complete the study. Because the subjects of the population were living away from Oklahoma State University, it seemed appropriate to use a mail questionnaire for gathering the desired data.

The instrument was formulated primarily from a review of the literature and generally from a study of other questionnaires that were designed to gather data as it related to undergraduate curriculum, vocational and social-civic activities of liberal arts graduates. This study assumes content on face validity supported by a consensus of competent judges. The questionnaire was refined by recommendations from members of the doctoral committee, other faculty members, and a pilot study consisting of approximately fifty graduate students enrolled at Oklahoma State University in disciplines covered in the study.

The questionnaire was a printed, three-page, 7x10 inch leaflet (see Appendix D). Each questionnaire was coded to allow for subsequent follow-up of the non-responding graduates. Participants were made aware of the coding by a statement in the cover letter.

The first part of the questionnaire was designed to gather factual data on the former graduates. Items included were: college major, marital status, age, and grade point average.

The second part was designed, first, to identify what the graduates thought liberal education should do for a person and whether or not their education provided these principles; and second, to what extent they agreed or disagreed with statements about their undergraduate training. First, in deciding what a liberal education should be, items were ordered along a five-point continuum and graduates were asked to

indicate their choice whether they strongly agreed, agreed, were undecided, disagreed or strongly disagreed. They were asked to respond either yes or no as to whether they thought their education provided this principle. Second, graduates were asked to indicate to what extent they agreed or disagreed with seven items as each related to their undergraduate education, again on a five-point continuum.

Under the heading of vocational life, questions were asked that dealt with the following: present job title, number of full-time jobs held, manner of securing initial employment, how closely their present job is related to college major, did university training help in securing employment, annual income and job satisfaction. Respondents were asked to list or check the appropriate responses for each of these areas.

Under social-civic life, respondents were asked to check yes or no on twenty-three items designed to gather data regarding the social-civic activities in which they participated in their respective communities.

The questionnaire had a place for general comments. It was felt that additional comments would encourage respondents to give information to this study that the questionnaire had not covered.

Data Collection

The names of 309 male liberal arts graduates were obtained from the "Official Commencement Bulletin," and only ten persons were not contacted due to the letters being returned as undeliverable. No

correct address for these persons could be located. With ten persons not contacted, the number of contacts was 299.

The original mailing of the questionnaire on June 6, 1976, included an explanatory letter from Dr. Dan Wesley, Director of Student Services, College of Arts and Sciences, a letter from the researcher, the questionnaire and a stamped envelope addressed to the College of Arts and Sciences. (See Appendix D for the questionnaire and Appendix A and B for the correspondence).

On July 1, 1976, follow-up letters were sent to the subjects who had failed to respond to the original questionnaire mailing. A second copy of the questionnaire, a stamped envelope, and a letter from the researcher were provided (see Appendix C).

The questionnaires returned after the initial mailing amounted to 108 replies (34.9 percent) of the 309 liberal arts graduates thought to have been contacted. The returns to the follow-up mailing resulted in 75 replies (39.5 percent). The total number of questionnaires returned was 183, resulting in a 59.9 percent return.

The question arises as to whether the respondents fairly represent the surveyed field. In order to address this question, it was necessary to find some measure which could be compared for respondents and non-respondents. The undergraduate college major of all those surveyed was the measure that was used. A cross tabulation was performed of college major against whether or not the individual responded. A chi-square test of the null hypothesis was performed (the null hypothesis is that there is no bias in the sample between respondents and non-respondents).

The resultant chi-square value of 31.8, for 31 degrees of freedom, was found to have a significance level of 0.42, meaning that if the null

hypothesis is indeed true, we expect a chi-square value as large or larger than 31.8 about 42 percent of the time. Normally, rejection of the null hypothesis can only be made when the significance level is 0.05 or less. The significance level here is over eight times that large. Therefore, it is concluded that the respondents represent a fair sample of those surveyed.

Analysis of Data

The questionnaires received were coded onto computer cards. The interface was written and the Statistical Package for Social Sciences computer program was employed. Composite measures were developed to help in the analysis of data. One-way frequency distributions were done for all variables and tables were used for graphic illustration in the descriptive analysis of data. After simple descriptive analysis was performed, cross tabulation was done to explore possible association or dependence of pair variables. To measure the strength of association of the variable pairs, the statistic Cramer's V was employed. Cramer's V indicates the strength of the relationship but does not reveal the manner of the association. To determine the nature of the correlation, the composite measures were subjected to Pearson correlation analysis.

CHAPTER IV

ANALYSIS OF THE DATA

Introduction

The purpose of this chapter is to report the data gathered from the questionnaires sent to male 1971 graduates from the College of Arts and Sciences at Oklahoma State University. The findings will be presented in two sections. Section one, part one presents an analysis of factual data: marital status, age, undergraduate college major, undergraduate grade point average. Section one, part two contains an analysis of the undergraduate education information. This contains one part concerned with the liberal arts education model concept and a second part regarding general perceptions about his undergraduate education. Section one, part three is an analysis of vocational data. This part deals with occupational choices, methods of obtaining initial employment, income level, and job satisfaction. Section one, part four focuses on the social-civic life of the respondents. There were twenty-three yes-no responses solicited concerning the participation in social-civic activities. Section two, part one deals with the cross tabulation analysis of the composite variables. In section two, part two the composite measures were subjected to Pearson correlation analysis.

Statistical Analysis

Preliminary interpretation of the data was made using a set of pre-written computer programs called the Statistical Package for the Social Sciences (SPSS). The SPSS program used to generate the descriptive statistics discussed in this section is called FREQUENCIES. For each questionnaire response such as age, marital status, and so on, FREQUENCIES produced the following: a tabular representation of the data by relative frequencies of each value, a histogram depicting this information graphically, the mean, standard error, median, mode, standard deviation, variance, kurtosis, skewness, range, minimum, and maximum.

Prior to computing any of the descriptive statistics listed above, the FREQUENCIES program separated valid responses from invalid responses for each variable (questionnaire response). The invalid responses reflect either that the response for the variable was left blank on the questionnaire or that the response could not be encoded. Examples of responses which could not be encoded are respondent checking two or more alternative responses instead of just one; response undecipherable for fill-in type variables because the handwriting could not be read; respondent indicating that he wished to discuss the question on the reverse side rather than answer in a category. Invalid responses, once separated from valid responses, did not enter into computations of any of the descriptive statistics.

All variables were subjected to analysis by the FREQUENCIES program. For category-type variables, where intermediate values are not meaningful, such as undergraduate major, certain of the descriptive statistics are consequently not meaningful and were ignored. An example of an invalid statistic for this type of variable is the mean.

Results of statistical analysis for all the variables of the study are summarized in Appendix D. There a response profile appears superimposed on a blank questionnaire. Percentage figures in the summary are computed for valid responses only.

Each variable on the questionnaire is addressed below in one of the four sections into which the questionnaire is divided: first, factual data, questions 1 through 4; second, undergraduate education data, questions 5 and 6; third, vocational data, questions 7 through 14; and fourth, social and civic data, question 15.

Analysis of Section One, Part One: Factual Data

Factual data is comprised of questions 1 through 4, dealing with marital status, age, undergraduate college major, and undergraduate grade point average. Each variable is discussed in the following.

Marital Status: Most respondents (72 percent) are married, while 27 percent are single and only 2 percent divorced.

Age: The mean age of those responding was 28.5 years. The most commonly reported age was 27 years. The youngest respondent was 25 and the oldest 51.

Undergraduate College Major: Responses fell into the six groupings as follows: the largest groups were physical science and social science (each at 29 percent), followed by biological sciences (20 percent), the humanities (13 percent), then the pre-professional fields (6 percent), and last education (3 percent).

TABLE I
DISTRIBUTION OF RESPONDENTS BY MARITAL STATUS

Marital Status	Number	Percent
Single	49	28.8
Married	131	71.6
Divorced	3	1.6
Total	183	100.0

The most frequently reported major was mathematics (13 percent), followed by psychology second (11 percent), political science third (10 percent), zoology fourth (8 percent), and physiology and sociology tied for fifth (5 percent). Each of the other 26 majors reported accounted for less than five percent of the total.

Undergraduate Grade Point Average: Grade point average was reported as a numerical value on a 4.0 scale. The mean grade point average reported was 2.85 and the most commonly reported grade point average was 2.80. Responses ranged from a low of 1.70 to a high of 3.97.

Analysis of Section One, Part Two:

Undergraduate Education

This part is comprised of questions 5 and 6. Question 5 contains 14 responses and question 6 contains 7 responses. The questions of

TABLE II
DISTRIBUTION OF RESPONDENTS BY COLLEGE MAJOR

College Major	Number	Percent
Art Education	2	1
Music Education	4	2
English	5	3
Fine Arts	2	1
History	9	5
Humanities	4	2
Music	1	1
Philosophy	2	1
Speech	1	1
Biochemistry	1	1
Biology	3	2
Biological Science	3	2
Botany	1	1
Microbiology	2	1
Physiology	10	5
Wildlife Ecology	3	2
Zoology	14	8
Chemistry	8	4
Geography	3	2
Geology	8	4
Mathematics	24	13
Natural Science	4	2
Physical Science	4	2
Physics	2	1
Pre-Dental	1	1
Pre-Law	6	3
Pre-Med	3	2
Economics	1	1
Political Science	19	10
Psychology	20	11
Social Science	2	1
Sociology	10	5
Blank	2	-
Total	183	100

this part are intended to elicit responses concerning the goals of liberal arts education and the degree of success of the Oklahoma State University Liberal Arts program.

Question 5. This question is comprised of seven basic principles. For each principle, two responses are sought: first, whether the respondent agrees or disagrees with the principle stated (Column A); and second, whether the respondent's education provided the principle (Column B).

Question 5A, Column A: The principle is: A liberal arts education should develop the ability to get along with different types of people. The most common response was AGREE (47 percent). The mean response was between AGREE and STRONGLY AGREE.

Question 5B, Column A: The principle is: A liberal arts education should provide a broad fund of knowledge about different fields. The mean response was between AGREE and STRONGLY AGREE. The most commonly reported response was AGREE (49 percent).

Question 5C, Column A: The principle is: A liberal arts education should develop social poise useful in later life. The mean response was between UNDECIDED and AGREE. The most commonly reported response was AGREE (42 percent).

Question 5D, Column A: The principle is: A liberal arts education should prepare one for a happy marriage and family life. The mean response was between UNDECIDED and AGREE. The most commonly reported response was DISAGREE (34 percent).

Question 5E, Column A: The principle is: A liberal arts education should develop a sense of responsibility to participate in community and

public affairs. The mean response was between UNDECIDED and AGREE. The most commonly reported response was AGREE (51 percent).

Question 5F, Column A: The principle is: A liberal arts education should develop moral capacities, ethical standards and values. The mean response was between UNDECIDED and AGREE. The most commonly reported response was AGREE (40 percent).

Question 5G, Column A: The principle is: A liberal arts education should train a person in depth in at least one field. The mean response was between UNDECIDED and AGREE. The most commonly reported response was STRONGLY AGREE (39 percent).

The scale for Table III is as follows: SA (STRONGLY AGREE), A (AGREE), U (UNDECIDED), D (DISAGREE), and SD (STRONGLY DISAGREE).

Question 5A, Column B: The principle is: A liberal arts education should develop the ability to get along with different types of people. Respondents indicated that their education did provide this principle (75 percent Yes).

Question 5B, Column B: The principle is: A liberal arts education should provide a broad fund of knowledge about different fields. Respondents indicated that their education did provide this principle (84 percent Yes).

Question 5C, Column B: The principle is: A liberal arts education should develop social poise useful in later life. Respondents indicated that their education did not provide this principle (56 percent No).

Question 5D, Column B: The principle is: A liberal arts education should prepare one for a happy marriage and family life. Respondents indicated that their education did not provide this principle (74 percent No).

TABLE III

ATTITUDE OF RESPONDENTS TOWARD LIBERAL ARTS EDUCATION

Principle	SA		A		U		D		SD		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
A. Develop ability to get along with different types of people	80	44.3	85	46.9	9	4.9	7	3.9	0	0	181	100
B. Provide a broad fund of knowledge about different fields	68	37.6	88	48.6	12	6.6	10	5.5	3	1.7	181	100
C. Develop a social poise useful in later life	35	19.5	77	42.6	36	19.8	30	16.5	3	1.6	181	100
D. Prepare for a happy marriage and family life	18	9.9	49	27.0	43	23.7	61	33.7	10	5.5	181	100
E. Develop a sense of responsibility in community and public affairs	30	16.6	93	51.0	32	17.6	23	12.6	4	2.2	182	100
F. Develop moral capacities, ethical standards and values	38	21.4	72	40.5	32	17.9	26	14.6	10	5.6	178	100
G. Train a person in depth in at least one field	70	39.3	57	31.8	17	9.4	23	12.8	12	6.7	179	100

Question 5E, Column B: The principle is: A liberal arts education should develop a sense of responsibility to participate in community and public affairs. Respondents indicated that their education did not provide this principle (54 percent No).

Question 5F, Column B: The principle is: A liberal arts education should develop moral capacities, ethical standards and values. Respondents indicated that their education did not provide this principle (51 percent No).

Question 5G, Column B: The principle is: A liberal arts education should train a person in depth in at least one field. Respondents indicated that their education did provide this principle (53 percent Yes).

Question 6. This question elicits seven responses having to do with some characteristics of the education which the respondent received at Oklahoma State University. Responses range from STRONGLY AGREE to STRONGLY DISAGREE.

Question 6A: My professors were really interested in their students. The mean response was between UNDECIDED and AGREE. The most commonly reported response was AGREE (46 percent).

Question 6B. I received good training in how to express my ideas. The mean response was between UNDECIDED and AGREE. The most commonly reported response was AGREE (43 percent).

Question 6C: I received good preparation for my vocational life. The mean response was between UNDECIDED and DISAGREE. However, the most commonly reported response was AGREE (34 percent)

Question 6D: There was too much emphasis on social life and on non-academic matters outside the classroom. The mean response was between

UNDECIDED and DISAGREE. The most commonly reported response was DISAGREE (63 percent).

TABLE IV
RESPONDENTS INDICATION WHETHER THEIR EDUCATION
PROVIDED THE LIBERAL ARTS
EDUCATION PRINCIPLES

Principle	Yes		No		Total	
	N	%	N	%	N	%
A. Develop an ability to get along with different types of people	96	75	32	25	128	100
B. Provide a broad fund of knowledge about different fields	107	84	21	16	128	100
C. Develop social poise useful in later life	56	44	71	56	127	100
D. Prepare for a happy marriage and family life	31	26	90	74	121	100
E. Develop a sense of responsibility to participate in community and public affairs	57	46	66	54	123	100
F. Develop moral capacities, ethical standards and values	61	49	64	51	125	100
G. Train a person in depth in at least one field	66	53	59	47	125	100

Question 6E: The courses I took were, on the whole, quite challenging and interesting. The mean response was between UNDECIDED and AGREE. The most commonly reported response was AGREE (63 percent).

Question 6F: My classmates often asked me for help in their studies. The mean response was between UNDECIDED and AGREE. The most commonly reported response was AGREE (41 percent).

Question 6H: I would advise a high school graduate to take a liberal arts major. The mean response was almost exactly UNDECIDED. The most commonly reported response was UNDECIDED (40 percent).

The scale for Table V is as follows: SA (STRONGLY AGREE), A (AGREE), U (UNDECIDED), D (DISAGREE), and SD (STRONGLY DISAGREE).

Analysis of Section One, Part Three:

Vocational Data

Vocational data is comprised of questions 7 through 14, dealing with present employment, first employment, methods of securing first employment, relationship between job and college major, helpfulness of university training in securing first job, number of jobs held, income level, and level of affinity for various aspects of the job. Each of these questions is discussed in the following.

Present Job: Various methods for encoding jobs information were considered. The Dictionary of Occupational Titles of the U. S. Government is far too detailed and extensive to be of help in a study such as this. Instead, jobs were divided into nine basic categories to coincide with the responses:

1. Commercial
2. Education

TABLE V
DISTRIBUTION OF RESPONDENTS AGREEMENT OR DISAGREEMENT
ABOUT THEIR UNDERGRADUATE EDUCATION

Response	SA		A		U		D		SD		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
A. My professors were really interested in their students	10	5.8	83	48.2	35	20.3	44	25.6	7	4.0	179	100
B. I received good training in how to express my ideas	9	5.0	78	43.4	27	15.0	56	31.1	10	5.5	180	100
C. Received good preparation for my vocational life	14	7.8	60	33.3	29	16.2	28	15.6	52	29.1	183	100
D. Too much emphasis on social life and on non-academic matters outside the classroom	6	3.2	15	8.3	28	15.5	114	62.6	19	10.4	182	100
E. The courses that I took were quite challenging and interesting	20	11.0	114	62.7	15	8.3	30	16.4	3	1.6	182	100
F. My classmates often asked me for help in their studies	13	7.2	73	40.7	30	16.6	60	33.3	4	2.2	180	100
H. I would advise a high school graduate to take a liberal arts major	12	6.8	45	25.4	71	39.8	30	16.8	20	11.2	178	100

3. Environmental Services
4. Health Services
5. Professions Other Than Health
6. Science and Engineering
7. Social Services
8. Trades
9. Others

To further aid in the study, the jobs were allocated a level-value, indicating the amount of supervisory or managerial responsibility required, according to the following:

0. Non-Supervisory
1. Management Trainee
2. Assistant Manager or Supervisor
3. Manager or Corporate Officer

Each response was encoded with a category followed by the level-value.

Present Job Breakdown by Category: A breakdown of jobs by category is summarized below:

1. Commercial	24.7 percent
2. Education	14.8 percent
4. Health Services	13.2 percent
8. Trades	12.6 percent
6. Science and Engineering	10.4 percent
5. Professions	9.9 percent
7. Social Services	7.1 percent
9. Other	4.9 percent
3. Environmental Services	2.2 percent

TABLE VI
DISTRIBUTION OF PRESENT JOB BY LEVEL

Level	Number	Percent
Non-Supervisory	113	62.1
Management Trainee	4	2.2
Assistant Manager or Supervisor	31	17.1
Manager or Corporate Officer	34	18.6
Blank	1	-
Total	183	100.0

The commercial area included retail sales, manufacturing, and services such as insurance and finance. Education included both teachers and graduate students. Doctors and dentists were included in the health services. Trades were those occupations where some skill or craftsmanship must be acquired to become a practitioner (such as a carpenter). Professions did include the ministry and law, but did not include medicine, because that was included under health services. The Other group included military personnel and those involved in politics. (See Table VII).

Present Job Breakdown by Title: A total of 58 different occupations were specified. The 13 most frequent occupations are: first, law (7.1 percent); second, sales and finance, tied (4.9 percent); fourth, medicine (4.4 percent); fifth, graduate education, dentistry,

and aircraft piloting, tied (3.8 percent); eighth, manufacturing, graduate assistantship, health services, computer programming, geology, and law enforcement, all tied (3.3 percent). Each of the remaining 45 job titles comprised 2.7 percent or less of the remainder. (See Table VIII).

TABLE VII
DISTRIBUTION OF PRESENT JOB BY CATEGORY

Category	Number	Percent
Commercial	45	24.7
Education	27	14.8
Health Services	24	13.2
Trades	23	12.6
Science and Engineering	19	10.4
Professions	18	9.9
Social Sciences	13	7.1
Other	9	4.9
Environmental Services	4	2.2
Blank	1	-
Total	183	100.0

TABLE VIII
DISTRIBUTION OF RESPONDENTS BY
PRESENT JOB TITLE

Title	Number	Percent
Commercial Unspecified	4	2.2
Manufacturing	6	3.3
Sales	9	4.9
Retail Sales	5	2.7
Finance	9	4.9
Recreation	1	0.5
Restaurant	4	2.2
Service Company	4	2.2
Publications	2	1.1
Hotel or Motel	1	0.5
Graduate Student	7	3.8
Graduate Assistant	6	3.3
Teacher	10	5.5
Law Student	1	0.5
Medical Student	2	1.1
Optometry Student	1	0.5
Environmental Specialist	2	1.1
Environmental Chemist	1	0.5
Game Biologist	1	0.5
Osteopathic Intern	1	0.5
Dentist	7	3.8
Health Services Administration	6	3.3
Medical Intern	1	0.5
Doctor	8	4.4
Clinical Psychologist	1	0.5
Minister	5	2.7
Lawyer	13	7.1
Computer Programmer	6	3.3
Quality Control Supervisor	1	0.5
Chemist	2	1.1
Microbiologist	1	0.5
Engineer	1	0.5
Electronics	2	1.1
Geology	6	3.3
Social Worker	5	2.7
Law Enforcement	6	3.3
Corrections	2	1.1
Casino Employee	1	0.5
Forest Technician	1	0.5
Secretary	1	0.5
Bartender	1	0.5
Band Director	1	0.5
Airline Pilot	7	3.8
Farming	1	0.5

TABLE VIII (CONTINUED)

Title	Number	Percent
Carpenter	3	1.6
Grounds Maintenance	1	0.5
Engineering Technician	1	0.5
Railroader	1	0.5
General Contractor	1	0.5
Air Traffic Controller	1	0.5
Golf Professional	1	0.5
Lab Technician	1	0.5
Politician's Aide	2	1.1
Military Service	5	2.7
Military Unit Commander	1	0.5
Mercenary	1	0.5
Blank	1	-
Total	183	100.0

First Job After Leaving University: The method for encoding job information for this variable is the same as used for the Present Job responses, a description of which is found in the above section. Analysis of this variable proceeds in the same manner as the Present Job variable in the section above.

First Job Breakdown by Category: A breakdown of jobs by category is summarized below:

1. Commercial	27.8 percent
8. Trades	15.4 percent
9. Other (Includes Military)	14.8 percent
2. Education	9.5 percent
4. Health Services	9.5 percent
6. Science and Engineering	7.1 percent

5. Professions 6.5 percent

3. Environmental Services 2.4 percent

Further information on methods of allocating jobs to categories may be found under the Present Job Breakdown by Title section.

TABLE IX
DISTRIBUTION OF RESPONDENTS FIRST
JOB BY CATEGORY

Category	Number	Percent
Commercial	47	27.8
Education	16	9.5
Environmental Services	4	2.4
Health Services	16	9.5
Professions	11	6.5
Science and Engineering	12	7.1
Social Services	12	7.1
Trades	26	15.4
Other	25	14.8
Blank	14	-
Total	183	100.0

First Job Breakdown by Level: A breakdown of responses by level-value is summarized below:

0. Non-Supervisory	76.6 percent
2. Assistant Manager or Supervisor	9.9 percent
5. Military Trainee	8.2 percent
1. Management Trainee	3.5 percent
3. Manager or Corporate Officer	1.8 percent

TABLE X
DISTRIBUTION OF RESPONDENTS'
FIRST JOB BY LEVEL

Level	Number	Percent
Non-Supervisory	131	76.6
Management Trainee	6	3.4
Assistant Manager or Supervisor	17	10.0
Manager or Corporate Officer	17	10.0
Blank	12	-
Total	183	100.0

First Job Breakdown by Title: A total of 58 different occupations were specified. The 13 most frequently reported occupations were: first, military service (13.3 percent); second, sales (6.5 percent),

third, teaching, manufacturing and law, tied (4.8 percent); sixth, retail sales and service companies, tied (4.2 percent); eighth, finance, medicine, and law enforcement tied (3.6 percent); and eleventh, restaurant business, computer programming, and geology, tied (3.0 percent). Each of the remaining 45 occupations was reported with a frequency of 2.2 percent or less.

TABLE XI
DISTRIBUTION OF RESPONDENTS BY
FIRST JOB TITLE

Title	Number	Percent
Commercial Unspecified	1	0.6
Manufacturing	8	4.7
Sales	11	6.5
Retail Sales	7	4.1
Finance	6	3.6
Recreation	1	0.6
Restaurant	5	3.0
Service Company	7	4.1
Hotel or Motel	1	0.6
Graduate Assistant	1	0.6
Teacher	10	5.9
Law Student	2	1.2
Dental Student	1	0.6
Medical Student	1	0.6
College Faculty	1	0.6
Water Pollution Specialist	2	1.2
Game Biologist	1	0.6
Osteopathic Intern	1	0.6
Dentist	3	1.8
Health Services Administrator	4	2.2
Medical Intern	2	1.2
Doctor	6	3.6
Minister	3	1.8
Lawyer	8	4.7
Computer Programmer	5	3.0
Chemist	1	0.6
Engineer	1	0.6
Geology	5	3.0

TABLE XI (CONTINUED)

Title	Number	Percent
Social Worker	3	1.8
Law Enforcement	6	3.6
Corrections	3	1.8
Truck Driver	3	1.2
Librarian	1	0.6
Bartender	1	0.6
Band Director	2	1.2
Airplane Pilot	4	2.4
Farming	2	1.2
Carpenter	3	1.8
Grounds Maintenance	1	0.6
Engineering Technician	1	0.6
Railroader	1	0.6
Locksmith	1	0.6
Welder	1	0.6
Machinist	1	0.6
Golf Professional	1	0.6
Surveyor	1	0.6
Painter	1	0.6
Singer	1	0.6
Lab Technician	1	0.6
Politician's Aide	1	0.6
Military Service	22	13.0
Military Unit Commander	1	0.6
City Coordinator	1	0.6
Blank	14	-
Total	183	100.0

Method of Securing First Job. This question permitted multiple choice response, in one of the 7 categories provided. Or, a blank was left next to a response labeled "other". Responses are summarized below:

Personal Initiative	50.9 percent
Through Relatives or Friends	14.1 percent
College Placement Office	6.7 percent
Private Employment Agency	6.1 percent
Contacted by Employer	4.9 percent
Civil Service Examination	2.5 percent

In addition to the above responses, 14.7 percent responded in the "other" category. There were no responses in Public Employment Agency category.

TABLE XII
DISTRIBUTION OF RESPONDENTS' METHOD
OF SECURING FIRST JOB

Method	Number	Percent
Personal Initiative	83	50.9
Through Relative or Friends	23	14.1
College Placement Office	11	6.7
Private Employment Agency	10	6.1
Contacted by Employer	8	4.9
Civil Service Examination	4	2.6
Public Employment Agency	0	0.0
Blank	20	-
Total	183	100.0

Relation of Present Job to College Major. This question permitted multiple choice response in any one of three categories provided. The most commonly reported response was CLOSELY RELATED (37.4 percent) followed by UNRELATED (32.4 percent), and last was SOMEWHAT RELATED (30.2 percent). A mean value is reported between SOMEWHAT RELATED and CLOSELY RELATED.

TABLE XIII
RELATION OF PRESENT JOB TO COLLEGE MAJOR

Response	Number	Percent
Closely Related	67	37.4
Unrelated	58	32.4
Somewhat Related	54	30.2
Blank	4	-
Total	183	100.0

Helpfulness of University Training in Securing First Job. Most respondents (55.4 percent) indicated that their University training did help them secure their first job. The remainder (44.6 percent) disagreed. In most cases (66.9 percent) an explanation was given. These explanations were found to be too diverse to be subjected to analysis.

TABLE XIV
 HELPFULNESS OF UNIVERSITY TRAINING
 IN SECURING FIRST JOB

Response	Number	Percent
Yes	97	55.4
No	78	44.6
Blank	8	-
Total	183	100.0

Number of Jobs Since Leaving University. Responses ranged from zero to ten. The mean response was 1.86. The most common number of jobs held was one.

Income. This question asked for current annual income earned before taxes. A multiple choice response was solicited, with income broken into six levels. Results appear below:

Under \$6,000	12.2 percent
\$ 6,000 to \$ 7,499	4.4 percent
7,500 to 8,999	5.5 percent
9,000 to 10,499	13.8 percent
10,500 to 13,000	12.7 percent
Above \$13,000	51.4 percent

The most commonly reported response was ABOVE \$13,000 (51.4 percent). The mean obtained by averaging all six categories was in the range of \$9,000 to \$10,499. This mean of course does not represent an actual

income average, but simply an averaging over the levels.

TABLE XV
ANNUAL INCOME BY RANGE

Range	Number	Percent
Under \$6,000	22	12.2
\$ 6,000 to \$ 7,499	8	4.4
7,500 to 8,999	10	5.5
9,000 to 10,499	25	13.8
10,500 to 13,000	23	12.7
Above \$13,000	93	51.4
Blank	2	-
Total	183	100.0

Affinity for Job. This question had six parts. Each part asked the respondent how much he liked a certain characteristics of his job. Responses were obtained in multiple choice format, from LIKE VERY MUCH to DISLIKE GREATLY. In addition, a NOT APPLICABLE alternative was provided. Inappropriate and blank responses, as well as NOT APPLICABLE, were considered as missing values.

Question 14A: How much do you like the kind of work you are doing? The mean response was between LIKE FAIRLY MUCH and LIKE VERY MUCH. The most commonly reported response was LIKE VERY MUCH (71.2 percent).

TABLE XVI
RESPONDENTS' SATISFACTION WITH JOB

Response	LVM*		LFM*		DLS*		DLG*		NA*		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
How much do you like...												
A. the kind of work you are doing	126	69.8	40	22.0	9	4.9	2	1.7	4	2.2	181	100
B. the supervisors for whom you work	76	42.4	66	36.8	12	6.7	6	3.5	19	10.6	179	100
C. the colleagues who work with you	86	48.5	78	43.3	6	3.3	0	0.0	9	4.9	179	100
D. the people who work for you	64	35.7	54	30.1	7	8.9	0	0.0	52	29.0	177	100
E. your income for your job	58	32.4	69	38.7	27	15.0	16	8.9	9	5.0	179	100
F. your employer's promotion policy	42	23.7	45	25.6	26	14.6	19	10.7	45	25.4	177	100

*LVM (Like Very Much)
 LFM (Like Fairly Much)
 DLS (Dislike Slightly)
 DLG (Dislike Greatly)
 NA (Not Applicable)

Question 14B: How much do you like the supervisors for whom you work? The mean response was between LIKE FAIRLY MUCH to LIKE VERY MUCH. The most commonly reported response was LIKE VERY MUCH (47.5 percent).

Question 14C: How much do you like the colleagues who work with you? The mean response was between LIKE FAIRLY MUCH and LIKE VERY MUCH. The most commonly reported response was LIKE VERY MUCH (50.6 percent).

Question 14D: How much do you like the people who work for you? The mean response was between LIKE FAIRLY MUCH and LIKE VERY MUCH. The most commonly reported response was LIKE FAIRLY MUCH (40.6 percent).

Question 14E: How much do you like your income for your job? The mean response was almost exactly LIKE FAIRLY MUCH. The most commonly reported response was LIKE FAIRLY MUCH (40.6 percent).

Question 14F: How much do you like your employer's promotion policy? The mean response was between DISLIKE SLIGHTLY and LIKE FAIRLY MUCH. The most commonly reported response was LIKE FAIRLY MUCH (34.1 percent).

Analysis of Section One, Part Four: Social and Civic Data

This section was comprised of 23 questions. Each question permitted either a Yes or a No response. As in the other sections of the questionnaire, the percentage figures quoted are percentages of valid responses (See Table XVII).

Question 15A: During the past 12 months have you worked on fundraising drives for United Fund or other organizations? The majority of respondents said No (73.2 percent).

Question 15B: During the past 12 months have you worked on a fund-raising drive for your church? The majority of respondents said No (84.7 percent).

Question 15C: During the past 12 months have you attended two or more theatrical productions? The majority of respondents said No (52.2 percent).

Question 15D: During the past 12 months have you given one or more public speeches? The majority of respondents said No (55.9 percent).

Question 15E: During the past 12 months have you published an article? The majority of respondents said No (80.4 percent).

Question 15F: During the past 12 months have you published a book? The majority of the respondents said No (98.9 percent).

Question 15G: During the past 12 months have you run for or held a public office? Most respondents said No (98.3 percent).

Question 15H: During the past 12 months have you attended one or more public lectures? The majority of respondents said Yes (58.9 percent).

Question 15I: During the past 12 months have you belonged to a service organization? The majority of respondents said No (81.5 percent).

Question 15J: During the past 12 months have you belonged to a veterans' organization? The majority of respondents said No (91.0 percent).

Question 15K: During the past 12 months have you led or assisted in the leadership of a scout troupe or youth group? The majority of respondents said No (74.9 percent).

Question 15L: During the past 12 months have you attended a college alumni function or visited your college campus? The majority of respondents said Yes (56.1 percent).

Question 15M: During the past 12 months have you participated in a literary, art, discussion, or study group? The majority of respondents said No (68.4 percent).

Question 15N: During the past 12 months have you given money to your undergraduate college or university? The majority of respondents said No (88.3 percent).

Question 15O: During the past 12 months have you belonged to a political club or political action group? The majority of respondents said No (84.4 percent).

Question 15P: During the past 12 months have you attended two or more opera or symphonic concerts? The majority of respondents said No (76.8 percent).

Question 15Q: During the past 12 months have you belonged to a labor union? The majority of respondents said No (92.8 percent).

Question 15R: During the past 12 months have you belonged to a professional association? The majority of respondents said Yes (64.3 percent).

Question 15S: During the past 12 months have you held two income-producing jobs at the same time? The majority of respondents said No (78.6 percent).

Question 15T: During the past 12 months have you served on church or synagogue board or committee? The majority of respondents said No (82.8 percent).

TABLE XVII
 RESPONDENTS' CHOICE OF SOCIAL-CIVIC ACTIVITIES

Response	Yes		No		Total	
	N	%	N	%	N	%
During the past 12 months have you...						
A. worked on fund-raising drives for United Fund or other organizations	48	27.1	131	72.9	179	100
B. worked on a fund-raising drive for your church	27	15.3	150	84.7	177	100
C. attended two or more theatrical productions	86	47.5	94	52.5	180	100
D. given one or more public speeches	81	44.7	99	55.3	180	100
E. published an article	35	19.3	144	80.7	179	100
F. published a book	2	1.1	176	98.9	178	100
G. run for or held public office	3	1.7	173	98.3	176	100
H. attended one or more public lectures	106	58.5	74	41.5	180	100
I. belonged to a service organization	33	18.5	145	81.5	178	100
J. belonged to a veterans' organization	16	9.0	161	91.0	177	100
K. led or assisted in the leadership of a scout troupe or youth group	45	25.1	134	74.9	179	100
L. attended a college alumni function or visited your college campus	101	56.1	79	43.9	180	100

TABLE XVII (CONTINUED)

Response	Yes		No		Total	
	N	%	N	%	N	%
M. participated in a literary, art, discussion, or study group	57	31.6	123	68.4	180	100
N. given money to your undergraduate college or university	21	11.6	159	88.4	180	100
O. belonged to a political club or political action group	28	15.5	152	84.5	180	100
P. attended two or more opera or symphonic concerts	42	23.2	139	76.8	181	100
Q. belonged to a labor union	13	7.2	167	92.8	180	100
R. belonged to a professional association	117	64.2	65	35.8	182	100
S. held two income-producing jobs at the same time	39	21.4	143	78.6	182	100
T. served on church or synagogue board or committee	31	17.2	149	82.8	180	100
U. visited an art museum	116	63.7	66	36.3	182	100
V. written or talked with a public official about a current or proposed bill	78	42.8	104	57.2	182	100
W. attended religious services on a fairly regular basis	77	42.5	104	57.5	181	100

Question 15U: During the past 12 months have you visited an art museum? The majority of respondents said Yes (63.7 percent).

Question 15V: During the past 12 months have you written or talked with a public official about a current or proposed bill? The majority of respondents said No (57.1 percent).

Question 15W: During the past 12 months have you attended religious services on a fairly regular basis? The majority of respondents said No (57.5 percent).

General Comments. The majority of respondents did not make any general comments (51.9 percent). The topics discussed by those who did respond are too diverse to be categorically summarized.

TABLE XVIII
GENERAL COMMENTS

Response	Number	Percent
Yes	88	49.1
No	95	51.9
Total	183	100.0

Section Two, Part One: Cross Tabulation

In order to further analyze the data, several composite measures were used. The elaboration of data were consistent with the study objectives. While it may be argued that some of the measures are less indicative of meaningful patterns than others, it is necessary to start somewhere with a formalization of those measures which are intuitively appealing.

Just as the study was divided into groups for initial analysis, so the composite measures may be divided into groups as well. In the Undergraduate Education area, there are four composite measures: Grade Point Average (GPA); Educational Measure 1, based on responses to question 5 (EM1); Educational Measure 2, based on responses to YES/NO part of question 5 (EM2); and Educational Measure 3, based on the responses to question 6 (EM3). In the Vocational Area, there are three composite measures: Vocational Measure 1, based on responses to question 14 (VM1); Income, based on the responses to question 13 (INCOME); and Present Job Level, based on the responses to question 7 (JOBLEV). In the social and civic area, there is one composite measure, based on all 23 of the responses of question 15 (SCM).

The grade point average measure is taken directly from the preliminary analysis and is used as one measure of the performance of each respondent and of his interaction with the Liberal Arts Program. The Educational Measure 1 was a composite of the responses to the seven parts of question 5. The parts of question 5 used in generating EM1 were the sliding scale responses only. The YES/NO part of question 5 was not used in generating this measure. This question permitted responses on a sliding scale from LIKE VERY MUCH

to DISLIKE GREATLY. The additional category of NO for "Not Applicable" was provided, but this value is a missing value assigned at a nominal level, and thus is not part of the sliding scale. For each respondent, the VMI measure was computed by awarding points for each of the six responses, and then adding the seven values. The point-awarding scheme is as follows:

LIKE VERY MUCH	+2
LIKE FAIRLY MUCH	+1
DISLIKE SLIGHTLY	-1
DISLIKE GREATLY	-2

Thus, the greatest possible score is +12 and the lowest possible score is -12, corresponding to all six responses checked LIKE VERY MUCH or DISLIKE GREATLY, respectively.

Income is the second vocational measure. Like GPA, INCOME is a measure taken directly from the preliminary analysis. INCOME was measured in six categories, with responses ranging from 1 to 6.

Job Level is the third vocational measure. Like GPA and INCOME, JOBLEV is a measure taken directly from the preliminary analysis. As used henceforth, JOBLEV values are as follows:

Non-Supervisory	0
Management Trainee	1
Assistant Manager	2
Manager	3

The sliding scale ran from STRONGLY AGREE to STRONGLY DISAGREE, with the neutral UNDECIDED in the center. For each respondent, the EMI measure was determined by awarding points for each of the seven

responses, and then adding the seven values. The point awarding scheme is as follows:

STRONGLY AGREE	+2
AGREE	+1
UNDECIDED	0
DISAGREE	-1
STRONGLY DISAGREE	-2

Thus, the greatest possible score is +14 and the lowest possible score is -14, corresponding to all seven responses checked STRONGLY AGREE or STRONGLY DISAGREE, respectively.

Educational Measure 2 is a composite of the seven responses to the YES/NO part of question 5. For each respondent, the EM2 measure was determined by awarding 1 point for each YES response and -1 point for each No response. Thus, the greatest possible score is +7 and the lowest possible score is -7, corresponding to all seven responses checked YES or NO, respectively.

Educational Measure 3 is a composite of the seven responses to question 6. The manner of determining EM3 is identical with that for determining EM1, because the same sliding scale was used to record responses in questions 6 and 5.

Vocational Measure 1 is composite of the six responses to question 14 dealing with some aspects of job satisfaction.

A single measure for social and civic data was generated. For each of the 23 parts of question 15, a YES response was counted as 1 point, and a NO response was not counted (counted as 0). The SCM measure was then computed by adding together the 23 values for each respondent. Thus the largest possible score is 23 and the smallest

possible score is 0, corresponding to all YES's or all NO's, respectively.

The 183 cases of data collected were subjected to additional statistical analysis using the Statistical Package for the Social Sciences (SPSS). The SPSS program used was one which generated contingency tables and related measures of association (CROSSTABS).

The cross tabulation table is of interest simply because it permits a display of case distribution for the two variables chosen. However, the cross tabulation table also provides the basis for statistical tests which inquire into possible association or dependence of the two variables. It is mostly for this second aspect that the cross tabulation study is of interest here.

One usually starts with the (null) hypothesis of independence of the two variables. This hypothesis asserts that there is in fact no relationship between the two variables. This hypothesis cannot be proven or disproven, because we have only a sample, and not the entire population at hand. What can be done, however, is to determine some measure of likelihood of the (null) hypothesis. Then, if the hypothesis can be shown to be very unlikely, we may put forth the results as supporting (but not proving) the alternate hypothesis that there is dependence between the variables.

So there are really two questions which must be addressed: first, is it probable that the two variables chosen are associated (dependent); second, how strong is the association? Two variables may very likely be associated, but the degree of dependence may be very slight.

We deal with the first question first: isolate those variable pairs which have a good likelihood of association with each other.

This is done using what is called the chi-square test. The chi-square test looks at the distribution of cases in the cells of the cross tabulation table and figures out how likely it is that the given table could arise, given that the two variables are independent. The question then is how much of the deviations from expected values (population mean) is explained by sampling error and how much of it is not so explained.

This question is addressed by the chi-square test. The significance level value produced by the chi-square test is the association. To address this, we examine a statistic known as Cramer's V, which is generated for a cross tabulation table by a calculation which starts with the chi-square value for the table. Cramer's V takes on values in the range 0 to 1, with 1 indicating complete dependence (strongest association) and 0 indicating complete independence (weakest association). Cramer's V, while indicating the strength of the relationship, does not reveal the manner in which the two variables are associated.

The variables selected for analysis by the CROSSTABS program of SPSS are as follows:

GPARANOE A measure based on grade point average

EM1 Educational Measure 1, based on responses to Question 5,
Part A

EM2 Educational Measure 2, based on responses to Question 5,
Part B

EM3 Educational Measure 3, based on responses to Question 6

VM1 Vocational Measure 1, based on responses to Question 14
(dealing with job satisfaction)

INCOME Groups annual income into 6 ranges

JOBLEV A measure of managerial responsibility in one's present job

SCM Social-Civic success measure, based on responses to Question 15

All possible pairs of the above variables were considered. There are 28 ways to do this.

TABLE XIX

ORDERED TABLE OF CHI-SQUARE VALUES, DEGREES OF FREEDOM, AND SIGNIFICANCE LEVELS

Variable 1	Variable 2	Chi-Square Values	Significance Level	Degrees of Freedom
EM2	EM3	145.5	.00	105
VM1	INCOME	127.0	.00	85
INCOME	JOBLEV	43.8	.00	15
EM1	SCM	364.0	.01	304
EM2	INCOME	56.8	.01	35
EM3	SCM	345.8	.01	288
EM1	EM3	386.5	.05	342
EM3	VM1	345.4	.06	306
GPARANGE	JOBLEV	20.0	.07	12
EM1	EM2	155.5	.09	133
GPARANGE	INCOME	24.1	.24	20
GPARANGE	EM3	77.7	.30	72
EM1	INCOME	101.3	.31	95
INCOME	SCM	84.0	.36	80
EM2	SCM	113.2	.45	112
GPARANGE	EM1	75.7	.49	76
EM3	JOBLEV	53.4	.50	54
JOBLEV	SCM	47.0	.51	48
EM1	VM1	319.8	.54	323
GPARANGE	EM2	22.3	.56	24
EM2	JOBLEV	18.8	.60	21
EM1	JOBLEV	50.1	.73	57
EM3	INCOME	78.5	.80	90
VM1	SCM	252.5	.80	272
GPARANGE	SCM	52.8	.84	64
EM2	VM1	88.2	.88	105
GPARANGE	VM1	54.2	.89	68
VM1	JOBLEV	37.5	.92	51

The results of analysis of the tables by the chi-square test are presented below.

TABLE XX
TABLE OF CHI-SQUARE SIGNIFICANCE LEVELS

	GPARANGE	EM1	EM2	EM3	VM1	INCOME	JOBLEV	SCM
GPARANGE	-	.49	.56	.30	.89	.24	.07	.84
EM1		-	.09	.05	.54	.31	.73	.01
EM2			-	.00	.88	.01	.60	.45
EM3				-	.06	.80	.50	.01
VM1					-	.00	.92	.80
INCOME						-	.00	.36
JOBLEV							-	.51
SCM								-

Normally, significance levels of .05 or less are considered to be low enough so that the null hypothesis of independence may be rejected, so that for such values we consider the variable pairs to be associated. By this criterion, there are seven associated variable pairs in this study, corresponding to the seven rows in the table above.

For each associated pair of variables, we now examine Cramer's V, the measure of strength of the association. These values are presented in Table XXI.

TABLE XXI
STRENGTH OF ASSOCIATION FOR ASSOCIATED
VARIABLE PAIRS

Variable 1	Variable 2	Cramer's V
EM2	EM3	.43
VM1	INCOME	.37
EM1	SCM	.35
EM1	EM3	.34
EM3	SCM	.34
EM2	INCOME	.32
INCOME	JOBLEV	.28

Section Two, Part Two: Correlation Analysis

Additionally all pairs of the composite measures were subjected to Pearson correlation analysis to determine the correlation between pairs.

At the 0.05 level of significance, 14 pairs of correlations were found to be significant. Table XXII will allow us to look at the correlations. Composite measures formed from variables related to experiences during the educational process are considered as antecedent measures (GPA, EM1, EM2, EM3). The composite measures formed from variables related to experiences since completing the educational process are considered as consequent measures (VM1, INCOME, JOBLEV, SCM). Table XXII gives pairwise correlations for the composite measures at 0.05 significance levels.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The overall purpose of the study was to determine perceptions, status, and activities of male graduates of selected programs at Oklahoma State University in relation to commonly expected outcomes of such liberal arts programs. Specific purposes were (1) to determine perceptions of male graduates of 1971 as to proper goals of a liberal arts baccalaureate program; (2) to determine perceptions of these graduates as to whether the goals had been provided for in their college experiences; (3) to determine perceptions of these graduates as to other selected characteristics of their undergraduate education; (4) to determine the career status and development of these graduates; (5) to determine the aspects of the social and civic activities of these graduates; and (6) to determine relationships among selected variables mentioned above.

The instrument consisted of four parts. The first part dealt with factual information including: marital status, age, college major, and grade point. The second part was designed to measure the graduate's attitude toward the nature of knowledge model for liberal arts education and whether or not his education provided these principles. Graduates were asked to indicate to what extent they agreed or disagreed with seven general attitude items related to their undergraduate education. The third portion dealt with the vocational life of the graduates. Items included: job title, number of full-time jobs held, manner of securing

initial employment, how closely related their present job is related to college major, university training as helping in securing employment, annual income, and job satisfaction. The fourth portion was concerned with the graduates' social-civic life. Graduates were asked to check yes or no on 23 items designed to gather data in this area.

Summary of Findings

Undergraduate Education

It was found that a large percent of graduates agreed with the liberal arts principles stated in the model. After five years away from the university, graduates seem to indicate there is some value to an undergraduate education having as its goal to prepare people according to the principles stated in the model. The exception to this was the principle that an education should prepare one for a happy marriage and family life. As one looks at the second part of the section (Did your education provide these principles?), the indication is that their education provided the principles of helping the person develop an ability to get along with different types of people; provided a broad fund of knowledge about different fields; and training the student in depth in at least one field. However, respondents said that their education did not help them with the following principles: to develop social poise useful in later life; to help prepare them for a happy marriage and family life (a majority indicated they did not agree that it should); that their education did not help them to develop a sense of responsibility to participate in community and public affairs, or to develop moral capacities, ethical standards and values.

In response to statements concerning their general attitude about their education at Oklahoma State University, students were in agreement that in general they were satisfied with their undergraduate training. There was some reservation on the part of former graduates to advise high school graduates to take a liberal arts major. As a whole there was a positive attitude toward the faculty and staff, courses they took and preparation for their vocational life by the former graduates.

Vocational Life

For the purpose of this study jobs listed on the questionnaire were divided into nine basic categories: (1) Commercial, (2) Education, (3) Environmental Services, (4) Health Services, (5) Professions other than Health, (6) Science and Engineering, (7) Social Services, (8) Trades, and (9) Other. As a means to further identify occupational information, the jobs were allocated a level-value, indicating the amount of supervisory or managerial responsibility required as follows: (0) non-supervisory, (1) management trainee, (2) assistant manager or supervisor, (3) manager or corporate officer. The majority of graduates were employed in the commercial, education, health services, trades and science and engineering fields. The largest percentage of the graduates were at the non-supervisory level, followed by the assistant manager level; last was the manager level.

The first job held by graduates was in the following categories: commercial (27 percent), trades (15 percent). This is comparable to the present job category because respondents started in the commercial category and have remained there. They tend to enter the job at the non-supervisory level and do not appear to progress much in five years

because 62 percent of the graduates are still at the non-supervisory level.

Most graduates are securing initial employment on their own initiative. However, the College Placement Office and relatives and friends are seen to give a great deal of support in the graduate's job search.

A question that has been asked of higher education recently (particularly in the liberal arts sector) is: Is higher education really helpful in securing satisfactory employment? Half the respondents indicated their university training did help in securing their first job. The graduates were fairly evenly divided as to the relation of their present job to their college major. Thirty-seven percent indicated their college major was closely related to their present job, thirty-two percent said their college major was unrelated to their present job.

Most of the graduates have held no more than two jobs since leaving Oklahoma State University. The most commonly reported number of jobs held was one. The income level of 51 percent of the respondents was over \$13,000 with the mean being in the salary range \$9,000 to \$10,499.

The job satisfaction part of the vocational life had a very positive response. Persons like very much the kind of work they are doing, the supervisor for whom they work, the people they work with and are satisfied with their income level. Overall, then, they may be considered extremely satisfied with their vocational life activities.

Social-Civic Life

The social-civic activities listed on the questionnaire did not receive a typically positive response in terms of participation by graduates. In fact, somewhat negative reaction was reported to the items listed which are generally considered to be typical social-civic activities in most communities. However, location has a great deal to do with any social-civic opportunity afforded to individuals. Sixty-seven percent of the respondents indicated they favored the liberal arts education to develop a sense of responsibility to participate in community and public affairs and yet fifty-four percent said their education did not provide this principle.

Cross Tabulation and Correlation

In an attempt to draw more conclusions from the data gathered, composite measures were generated. The basis for the composite measures was the list of objectives of the study. In the undergraduate education area, four measures were developed; in the vocational area, three measures were developed; and in the social-civic area one measure was developed.

The SPSS program was used to generate contingency tables and related measures of association (Crosstabs). This was done to look at possible association or dependence of the composite measures. All possible pairs of the eight composite measures were considered. It was found that at the 0.05 significance level seven pairs were associated. To measure the strength of the association the CRAMER'S V was used. It was found the strength of association ranged from .42 to .28 between the seven variable pairs.

To determine correlations, all pairs were subjected to Pearson correlation analysis. This produced correlation coefficients at the 0.05 significance level that saw one consequent measure bearing two significant direct correlations; the social-civic measure; GPA with SCM and EM2 with SCM. It was also determined that GPA with JOBLEV and EM3 with JOBLEV were inversely correlated.

Conclusions

Several conclusions can be drawn from this study. First, we see that people who responded in a positive manner on the social-civic activities tended to have the higher grade point average. It could be predicted that graduates who had the higher grade point average in college will be more active in social-civic activities than those with the lower grade point average. Most employers have always looked at the grade point average as one criterion for employment. It has some significance in that, at least Oklahoma State University graduates after five years, these same people with the higher grade point average tend to be more active in the community activities. The grade point average can serve as a fairly good indicator of the kinds of things in which the graduate will become involved if an employer looks for management potential in a college graduate.

Second, the persons who responded positively that their undergraduate education provided the principles of the liberal arts model were the same people who responded positively to the social-civic activities. It is interesting to note that 67 percent of the respondents indicated they thought their undergraduate education should help to develop a sense of responsibility to participate in community affairs

and yet only 54 percent felt this actually did happen. It can be said that there needs to be more attention given to this area in the college curriculum and other aspects of the college life in helping to instill this feeling of responsibility in students. Perhaps a more concentrated effort to get more students involved in the student government process on the university campus, more student participation in seminars or projects related to community involvement, summer intern programs for students to work in city, state, and federal government positions to allow them to see first hand the democratic process in action, and civic organizations could sponsor students in a way that would help make them aware of the need for their participation in later life.

Last, we see that persons who responded positively to the general attitude question concerning their undergraduate education in general were the same persons who had a positive attitude toward their work environment. These respondents indicated they enjoyed the kind of work they are doing, the people for whom they work, the people they work with, and were satisfied with their income. Since an individual spends a large percentage of his time on the job, it is vitally important that a positive attitude be maintained. We can see that the attitude of university faculty, staff and administrators plays an important part in helping to develop this positive attitude while in college. Thus, there is a continuing need for college officials to be sensitive to the needs of students as well as the curriculum design. It becomes even more apparent how important this is as we consider the impact on society as a whole when people are not satisfied with their work environment. The university may want to do a

survey of students each year to ascertain their general attitude toward their college experience to that point.

Recommendations for Further Research

The following represent a few of the research topics which may be derived from this investigation:

1. An evaluation of the College of Arts and Sciences goals and objectives could be done. This study would start with the entering freshmen and follow them through their senior year. This would give a better indication of the effects the curriculum has had on students from that particular college.
2. A longitudinal study should be done with graduates from these same academic disciplines. A follow-up study of graduates from 1965, 1970, and 1975 etc. would give some insight to the post college activities of graduates over a sufficient period of time to allow for various variables operating independent of the college curriculum to be accounted for or at least controlled to some degree.
3. A study could be done to compare the various undergraduate educational models that guide higher education institutions today. An example would be to compare The Nature of Knowledge Model, Developmental Model and the Professions Model. One could look at the differences in post college activities of the graduates as one means of comparison.
4. A study could be done to examine the reaction of different employers in Business, Industry and Education to determine

their evaluations of each of the various educational models as it relates to their respective organizations.

Further Discussion

The following discussion is intended to make any researcher replicating this study aware of areas needing further consideration. The suggestions for consideration revolve around the concept of a liberal arts model of education, the methodology used in the study and the design of the instrument.

It is suggested that one should look at just the liberal arts model of education and its implementation. With this as the primary objective of the study, it would allow for more in-depth analysis of the individual principles included in the model and whether the implementation was carried out through the curriculum. The vocational and leisure time activities could be done in a separate study with the idea of looking at a person's life space divided into these two areas.

The mail questionnaire method of collecting the data seemed to be a satisfactory procedure. The researcher may want to do a random sample of the population instead of sending the questionnaire to the entire population. It is suggested that the researcher consider doing a follow-up by phone or personal interview for the non-respondents, again based on a random sample. This would tend to eliminate some of the questions of potential bias that arise about the non-respondents in the study.

Question 5, column A and question 5, column B could be made into two separate questions because as it is presently structured many people

did not see column B. This was indicated by the number of missing responses in column B. The elimination of the question concerning the general attitude of the respondents toward their undergraduate education (Question 6A-6H) is encouraged. This tended to have little significance in the overall study. The researcher should give special attention to devising a better method of allowing the respondents to indicate their job title in a more succinct manner. This would permit easier and more meaningful classification. An established classification system could be used in some way to accomplish this task. The income level or range needs to be based on some reliable national or regional income index. This would make available a more realistic and broader choice of income range. The researcher may want to eliminate the general comments section or structure it in such a way to allow for some classification of the responses. It was too difficult to categorize the responses into any meaningful data. Most of the items were written in an unambiguous fashion which tends to decrease the reliability. It is suggested, however, that a few more liberal arts principles could be included in the model to increase the reliability. Generally, the instructions seemed to be written in a clear, concise manner. Content or face validity was established for the purposes of this study. It is suggested that the researcher may want to have construct validity to be more confident of the measurement aspect of the study.

Summary Statement

There is no single research study that is capable of dealing with all variables that need examination in this area. The above recommendations suggest several areas of study that should be fully

developed to deal with the whole gamut of this topic. Any research which will increase knowledge and understanding of the influence a college education has on young adults should be encouraged.

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APPENDIX A

COVER LETTER

Dear 1971 Graduate:

We are interested in what happens to those of you who have graduated and wonder how the University has contributed to your success in life. I am pleased that Don Briggs is doing a study of our graduates five years later. We look forward to having the results of his study and encourage you to return the questionnaire which he is enclosing.

When you are on campus, I hope you will come by 202 Life Sciences East.

Best wishes,

Dan Wesley
Director

DW;zf

Enclosure

APPENDIX B

FIRST LETTER TO GRADUATES

Life Science Bldg. East
Oklahoma State University
Stillwater, Okla. 74074

Dear _____:

Oklahoma State University is attempting to make the Liberal Arts undergraduate curriculum a more meaningful experience for all students. One way of doing this is to survey former graduates and ask their perceptions after they have left O.S.U. and had time to reflect upon their time at the University.

This investigation will yield a profile of Oklahoma State University 1971 male liberal arts graduates. Several factors will be examined including social-civic activities, occupational choice and undergraduate curriculum studies.

The enclosed questionnaire is designed for brief answers and should take no more than fifteen minutes to complete--although you are encouraged to add as many comments as you wish. You will notice the questionnaire is numbered; this is for follow-up purposes only. Your anonymity as a participant is guaranteed. All information will be held in strict confidence. Because there is a relatively small population for study, your participation is very important. Please return this questionnaire in the enclosed stamped envelope.

Thank you for an early reply.

Sincerely,

Don R. Briggs

APPENDIX C

FOLLOW-UP LETTER TO GRADUATES

Life Science Bldg. East
Oklahoma State University
Stillwater, Okla. 74074

July 1976

A few weeks ago the enclosed questionnaire was mailed to you with a letter seeking your assistance in surveying selected 1971 graduates from O.S.U.

The survey is moving along quite satisfactorily. A large percentage of this group has already answered the questionnaire. It is important that this survey reflect the opinions of as many graduates as possible. Your response is important to this survey.

The enclosed materials, including a stamped envelope, are for your convenience in case the original mailing went astray or has been mislaid. Your prompt response is urgently requested in order that the research findings may be analyzed and reported as soon as possible.

Thank you for an early response.

Sincerely,

Don R. Briggs

P.S. Your interest and participation in this study is appreciated. If you have already submitted your return, thanks again.

APPENDIX D

INSTRUMENT AND PROFILE

FORMER O.S.U. UNDERGRADUATE LIBERAL ARTS STUDENT SURVEY

Your name does not appear on this questionnaire. Please feel free to add comments where there is space or use another page to add comments to particular items by number. Many of the questions will require only a check () mark. All answers will be kept confidential.

1. What is your Marital Status?
 A. 26.8 Single D. 1.6 Divorced Undergraduate
 B. 71.6 Married E. _____ Widowed College Major
 C. _____ Separated Physical Science - 29%
2. 28 Age Undergraduate
 4. 2.85 Grade Point
 (based on a 4.0 scale)

Undergraduate Education

5. Listed below are some things which different people want to receive from a liberal arts education. In column A, please check the space that best characterizes your feeling about what a liberal arts education should do. In column B irrespective of how important you consider each of these, please indicate the extent to which your education provided each.

Scale: SA (Strongly Agree), A (Agree), U (Undecided), D (Disagree), SD (Strongly Disagree)

Column A
 (Check on each line)

Column B
 Did your education
 Provide this?

Liberal Arts education should . . .	SA	A	U	D	SD	YES	NO
A. Develop ability to get along with different types of people	(44)	(47)	(5)	(4)	()	(75)	(25)
B. Provide a broad fund of knowledge about different fields	(37)	(48)	(7)	(6)	(2)	(84)	(16)
C. Develop social poise useful in later life	(19)	(42)	(20)	(17)	(2)	(44)	(56)
D. Prepare for a happy marriage and family life	(10)	(27)	(23)	(34)	(6)	(26)	(74)
E. Develop a sense of responsibility to participate in community and public affairs	(16)	(51)	(18)	(13)	(2)	(46)	(54)
F. Develop moral capacities, ethical standards and values	(21)	(40)	(18)	(15)	(6)	(49)	(51)
G. Train a person in depth in at least one field	(39)	(32)	(9)	(13)	(7)	(53)	(47)

6. To what extent do you agree or disagree with each of the following statements about your undergraduate training. (check one on each line)
- | | SA | A | U | D | SD |
|---|------|------|------|------|------|
| A. My professors were really interested in their students | (6) | (46) | (19) | (25) | (4) |
| B. I received good training in how to express my ideas | (5) | (43) | (15) | (31) | (6) |
| C. I received good preparation for my vocational life | (8) | (34) | (15) | (30) | (13) |
| D. There was too much emphasis on social life and on non-academic matters outside the classroom | (3) | (8) | (16) | (63) | (10) |
| E. The courses I took were, on the whole, quite challenging and interesting | (11) | (63) | (8) | (16) | (2) |
| F. My classmates often asked me for help in their studies | (7) | (41) | (17) | (33) | (2) |
| H. I would advise a high school graduate to take a liberal arts major | (7) | (25) | (40) | (17) | (11) |

Your Vocational Life

Please give your answers to the following questions by writing in the appropriate spaces or by checking the blanks as indicated.

7. What is your present job title, or last job if unemployed? (Please be specific so that responses can be accurately classified.)
 (Accountant, etc.) Lawyer (6.6%)/Category I (Commercial - 24.7%)/
Level - Non-Supervisory (62.1%)
8. What was your first full-time job after leaving the University?
Military (8.9%)/Category I (Commercial - 27.8%)/Level - Non-
Supervisory (76.6%)
9. After graduation, how did you secure your initial employment?
- | | |
|---|-------------------------------------|
| A. <u>6.1</u> Private employment agency | E. <u>50.9</u> Personal initiative |
| B. <u> </u> Public employment agency | F. <u>2.5</u> Civil Service Exam |
| C. <u>6.7</u> College Placement Office | G. <u>4.9</u> Contacted by Employer |
| D. <u>14.1</u> Through Relatives or friends | Other <u>14.7</u> |
10. How closely related is your present job to your college major?
- A. 37.4 Closely related B. 30.2 Somewhat related C. 32.4 Unrelated
11. Did your University training help you to secure your first job?
- A. 55.4 Yes B. 44.6 No Explain: 66.9% responded
12. How many permanent, full time jobs have you had since leaving OSU?

13. What is your approximate current annual earned income before taxes?

- | | |
|-------------------------------|----------------------------------|
| A. <u>12.2</u> Under \$ 6,000 | D. <u>13.8</u> \$ 9,000 - 10,499 |
| B. <u>4.4</u> 6,000 - 7,499 | E. <u>12.7</u> 10,500 - 12,999 |
| C. <u>5.5</u> 7,500 - 8,900 | F. <u>51.4</u> above 13,000 |

14. How much do you like: (check one on each line)

	<u>Like</u> Very Much	<u>Like</u> Fairly Much	<u>Dis-</u> Like Slightly	<u>Dis-</u> Like Greatly	<u>NA</u>
A. The kind of work you are doing	(70)	(22)	(5)	(1)	(2)
B. The supervisors for whom you work	(42)	(37)	(7)	(3)	(11)
C. The colleagues who work with you	(48)	(44)	(3)	()	(5)
D. The people who work for you	(36)	(31)	(4)	()	(29)
E. Your income for your job	(32)	(39)	(15)	(9)	(5)
F. Your employer's promotion policy	(24)	(25)	(15)	(11)	(25)

Your Social-Civic Life

15. During the past 12 months have you? (check one on each line)

Yes No

- | | | |
|------------|------------|--|
| <u>48</u> | <u>131</u> | A. Worked on fund-raising drives for United Fund, or other organization |
| <u>27</u> | <u>150</u> | B. Worked on fund-raising drive for your church |
| <u>86</u> | <u>94</u> | C. Attended two or more theatrical productions |
| <u>81</u> | <u>99</u> | D. Given one or more public speeches |
| <u>35</u> | <u>144</u> | E. Published an article |
| <u>2</u> | <u>176</u> | F. Published a book |
| <u>3</u> | <u>173</u> | G. Run for, or held a public office |
| <u>106</u> | <u>74</u> | H. Attended one or more public lectures |
| <u>33</u> | <u>145</u> | I. Belonged to a service club (Rotary, Kiwanis, etc.) |
| <u>16</u> | <u>161</u> | J. Belonged to a veterans organization |
| <u>45</u> | <u>134</u> | K. Led, or assisted in the leadership of a scout troupe or youth group |
| <u>101</u> | <u>79</u> | L. Attended a college alumni function or visited your college campus |
| <u>57</u> | <u>123</u> | M. Participated in a literary, art, discussion or study group |
| <u>21</u> | <u>159</u> | N. Given money to your undergraduate college or university |
| <u>28</u> | <u>152</u> | O. Belonged to a political club or political action group |
| <u>42</u> | <u>139</u> | P. Attended two or more opera or symphonic concerts |
| <u>13</u> | <u>167</u> | Q. Belonged to a labor union |
| <u>117</u> | <u>65</u> | R. Belonged to a professional association |
| <u>39</u> | <u>143</u> | S. Held two income-producing jobs at the same time |
| <u>31</u> | <u>149</u> | T. Served on church or synagogue board or committee |
| <u>116</u> | <u>66</u> | U. Visited an art museum |
| <u>78</u> | <u>104</u> | V. Wrote or talked with a public official about a current or proposed bill |
| <u>77</u> | <u>104</u> | W. Attended religious services on a fairly regular basis |

General Comments

Additional comments related to, but not covered by, the scope of this questionnaire are most welcomed. Please indicate the general area and number in which you make comments, i.e., undergraduate education, #5A; vocational life, #11; etc.

51.9% made no comment

Please return this survey in the post-paid, self-addressed envelope provided for your convenience.

THANK YOU FOR YOUR ASSISTANCE.

VITA²

Donnie Roy Briggs

Candidate for the Degree of

Doctor of Education

Thesis: A STUDY OF MALE GRADUATES FROM SELECTED ACADEMIC PROGRAMS FROM THE COLLEGE OF ARTS AND SCIENCES AT THE OKLAHOMA STATE UNIVERSITY FOR THE YEAR 1971

Major Field: Higher Education

Biographical:

Personal Data: Born in Alva, Oklahoma, September 26, 1942, the son of Mr. and Mrs. Woodrow W. Briggs.

Education: Graduated from Waynoka High School, Waynoka, Oklahoma, in 1960; received the Bachelor of Science degree in General Business from Oklahoma State University, Stillwater, Oklahoma in August, 1964; received the Bachelor of Art degree in Secondary Education from Northwestern Oklahoma State University, Alva, Oklahoma in May, 1966; received the Master of Education degree in Secondary Education from Northwestern Oklahoma State University, Alva, Oklahoma in May, 1969; completed requirements for the Doctor of Education degree at Oklahoma State University in May, 1977.

Professional Experience: Classroom teacher and coach at Cimarron High School, Cimarron, Kansas, 1966-67; Classroom teacher and coach at Carmen-Dacoma High School, Carmen, Oklahoma, 1967-69; Placement Counselor, University Placement Services, Oklahoma State University, Stillwater, Oklahoma, 1971-75; Director of Placement Services, University of Oklahoma, 1975-Present.