

A COMPARATIVE STUDY OF THE PROGRAMS
OF UNDERGRADUATE PRE-SERVICE TEACHER EDUCATION IN COMMERCE
AT THE OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE
BETWEEN 1937 AND 1949

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BETWEEN 1937 AND 1949

By

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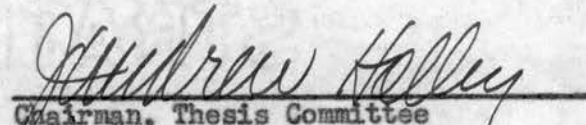
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P. M. V.

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CHAPTER I
INTRODUCTION

Statement of the Problem

This study is an investigation of the pre-employment education of the bachelor degree graduates of the Oklahoma Agricultural and Mechanical College who received life certificates in commerce through application to the Director of Certification, Office of the Registrar, Oklahoma Agricultural and Mechanical College.

Purpose

The purpose of this study is to determine the undergraduate curriculum patterns of selected courses taken by graduates of the Oklahoma Agricultural and Mechanical College who have received the Life Certificate in Commerce from the Oklahoma State Board of Education; the number of graduates of the Oklahoma Agricultural and Mechanical College who have received the Life Certificate in Commerce; the marks made in the selected courses taken; and the additional teaching fields for which the graduates have received life teaching certificates, for the period from September, 1937, to February, 1949, inclusive.

Specific questions to be answered are:

1. What is the procedure for getting a Life Certificate at the Oklahoma Agricultural and Mechanical College?
2. What are the Oklahoma State Board of Education requirements for the Life Certificate in Commerce?
3. What are the requirements for graduation from the Oklahoma Agricultural and Mechanical College with a major in the School of Commerce?
4. What are the requirements for graduation from the Oklahoma Agricultural and Mechanical College with a major in the School of Education, and a teaching field in commerce?

5. What are the requirements for graduation from the Oklahoma Agricultural and Mechanical College with a major in the School of Home Economics, and a teaching field in commerce?
6. What are the requirements for graduation from the Oklahoma Agricultural and Mechanical College with a major in the School of Arts and Sciences, and a teaching field in commerce?
7. How many life certificates in commerce were granted to students of the Oklahoma Agricultural and Mechanical College between September, 1937, and February, 1949, inclusive?
8. How many life certificates in commerce were granted to men students of the Oklahoma Agricultural and Mechanical College from September, 1937, to February, 1949, inclusive?
9. How many life certificates in commerce were granted to women students of the Oklahoma Agricultural and Mechanical College from September, 1937, to February, 1949, inclusive?

The following specific questions are to be answered about graduates who received bachelor's degrees from the Oklahoma Agricultural and Mechanical College, and who also received the Life Certificate in Commerce by application through the Director of Certification, Registrar's Office, Oklahoma Agricultural and Mechanical College, from September, 1937, to February, 1949, inclusive:

1. What were the ages of the graduates when they received bachelor's degrees from the Oklahoma Agricultural and Mechanical College?
2. What were the ages of the graduates when they received life certificates in commerce on the basis of recommendation of the Oklahoma Agricultural and Mechanical College?
3. What bachelor's degrees were granted to the graduates who received life certificates in commerce on the basis of recommendation of the Oklahoma Agricultural and Mechanical College?
4. In what schools on the Oklahoma Agricultural and Mechanical College campus did the graduates complete the bachelor degree requirements for graduation?
5. In what departments on the Oklahoma Agricultural and Mechanical College campus did the graduates complete the bachelor degree requirements for graduation?
6. How many bachelor degree graduates who received life certificates in commerce also received life certificates in other teaching fields?

7. What fields of concentration were completed by the graduates of the School of Commerce of the Oklahoma Agricultural and Mechanical College, who received life certificates in commerce from the Oklahoma State Board of Education?
8. What was the total number of semester hours completed in the commerce teaching field by the graduates who received bachelor's degrees from the Oklahoma Agricultural and Mechanical College?
9. What grade-point averages were earned in the courses comprising the commerce teaching field by the graduates who received bachelor's degrees from the Oklahoma Agricultural and Mechanical College?
10. What professional education courses, other than business education courses, were taken by the students who received bachelor's degrees from the Oklahoma Agricultural and Mechanical College, and who also received the Life Certificate in Commerce from the Oklahoma State Board of Education?
11. What business education courses were taken by the students who received bachelor's degrees from the Oklahoma Agricultural and Mechanical College, and who also received the Life Certificate in Commerce from the State Board of Education?

Need for the Study

No study has been made of the number of graduates from the Oklahoma Agricultural and Mechanical College who have received life certificates in commerce. Furthermore, no survey has been made of the courses pursued or of the scholastic records of graduates from the different schools who have obtained life certificates in commerce through the recommendation of the college. It was believed that information concerning the number of graduates would be helpful in planning the program of teacher education in business at the Oklahoma Agricultural and Mechanical College.

This should also make possible a careful and complete analysis of the patterns of courses completed by the students in professional education, and in the courses comprising the commerce teaching field. The study should bring out such differences as may exist in the patterns of college courses pursued by graduates of the various schools on the campus who qualified for life teaching certificates between September, 1937, and February, 1949,

inclusive. Such data should also be helpful in determining teaching combinations completed by the graduates, as the basis for matching such combinations against actual placements in teaching positions.

There is also a need for a study of the scholarship records of graduates who received life teaching certificates in commerce. This study presents an analysis of the grade-point averages made in courses comprising the commerce teaching field by graduates of the various schools on the campus, who received life certificates to teach commerce in the Oklahoma high schools. In this connection, it should be possible to compare the grade-point averages of the graduates who majored only in business education, with the grade-point averages of graduates who completed the requirements for the Life Certificate in Commerce, but who also completed teaching fields in other departments and schools on the campus of the Oklahoma Agricultural and Mechanical College.

The faculty of the Oklahoma Agricultural and Mechanical College may use the data obtained through this study in setting up uniform standards for teacher-education in commercial or business education.

Scope and Delimitations

This study is limited, except where otherwise indicated, to graduates of the Oklahoma Agricultural and Mechanical College who have received their bachelor's degrees from the Oklahoma Agricultural and Mechanical College. The study is further limited to graduates of the Oklahoma Agricultural and Mechanical College, Stillwater, Oklahoma, who have been granted the Life Certificate in Commerce from the Oklahoma State Board of Education from September, 1937, to February, 1949, inclusive. The study is further limited in that the graduates must have received the Life Certificate in Commerce through application to the Director of Certification,

Office of the Registrar, Oklahoma Agricultural and Mechanical College,
Stillwater, Oklahoma.

The students who received only the temporary certificates to teach
commerce in the high schools of Oklahoma were not included in this study.

Definitions of Terms

Definitions of terms as they are used in this study are given below:

Field of concentration consists of a minimum of ten to twelve
semester hours of upper-division courses completed in one department or
field in the School of Commerce.

Upper-division Commerce courses are those courses in the various
departments of the School of Commerce having course numbers of 300 and
above. Such courses are generally considered to be junior and senior
courses.

Lower-division Commerce courses are those courses in the various
departments of the School of Commerce having course numbers of 100 to 299.
Such courses are generally considered to be freshman and sophomore courses.

Professional education, broadly defined, is "strictly a course or
sequences of courses in technical education in a teacher-education institu-
tion that emphasize the study of the history, philosophy, psychology,
content, methods, etc., of education as it relates to schools."¹

Professional education courses, as used in this study, are those
professional courses in the School of Education having course numbers above
300. These courses emphasize the study of the history, philosophy, psy-
chology, content, methods, etc., of education as it relates to preparation
for teaching in secondary schools. Usually these courses are taken by
juniors and seniors. Although, strictly speaking, business education

¹ Carter V. Good, Dictionary of Education, p. 108.

courses are considered professional education courses, for the purposes of this study, business education courses are treated separately.

Business education is "an area of study dealing with the principles and practices of teaching business subjects."²

Business education courses are those courses which are offered in the Business Education Department of the School of Commerce. Such courses emphasize the study of content and methods of teaching commerce subjects, and are usually taken by seniors.

Life Certificate in Commerce is the certificate which is issued by the Oklahoma State Board of Education, upon application by students who have completed all the requirements set up by the Oklahoma State Board of Education, and who are recommended for the certificate by the Oklahoma Agricultural and Mechanical College. The Life Certificate in Commerce permits the holder to teach commercial subjects, such as typing, shorthand, accounting, business law, etc., in the secondary schools of Oklahoma, grades seven to twelve, inclusive, for the remainder of his life, or until the age of his retirement from the teaching profession as now required by law.

In this study, unless otherwise specified, whenever reference is made to certificates, or life certificates, it is to be understood that the certificate referred to is the Life Certificate in Commerce granted by the Oklahoma State Board of Education.

Permanent record cards are the records which are maintained in the Office of the Registrar, Oklahoma Agricultural and Mechanical College, Stillwater, Oklahoma, for each student who has enrolled at the Oklahoma Agricultural and Mechanical College. On each Permanent Record Card is such

² Ibid., p. 54.

information as the following about each student: sex, birth date, name and address of guardian, school last attended, courses taken and grades received at Oklahoma Agricultural and Mechanical College, degree, data degree granted, school and department, course substitutions, transferred credits, discharges, grades made on placement examinations, type of teaching certificate, data granted, etc.

Bachelor degree is "the degree conferred by institutions in higher education for the completion of a 4-year curriculum in certain technical or professional fields."³

Teaching field consists of the subject or subjects which the graduate is qualified to teach in the public school of Oklahoma. He becomes qualified to teach that subject or subjects by completing the life certificate requirements as set up by the Oklahoma State Board of Education for that particular subject or field.

Grade points are the points allowed for the work earned in each course the student has enrolled in. The grade-point system used by the Oklahoma Agricultural and Mechanical College is as follows:

Grade A to yield 4 grade points per credit hour
 Grade B to yield 3 grade points per credit hour
 Grade C to yield 2 grade points per credit hour
 Grade D to yield 1 grade point per credit hour
 Grade E to yield 0 grade point per credit hour
 Grade F to yield 0 grade point per credit hour⁴

Grade-point average is the average arrived at as follows: The total number of grade points earned by the student in the courses in his college study is divided by the total number of semester hours which the student has completed in his college study. For example, if during one semester a student enrolled in 15 semester hours of credit, and earned 9 semester

³ Ibid., p. 41.

⁴ Oklahoma Agricultural and Mechanical College General Catalog, 1947-1948, p. 22.

of C and 6 semester hours of B, his total grade points earned, figures on the point system used by the Oklahoma Agricultural and Mechanical College would be 36. The 36 grade points divided by the 15 hours completed would give that student a grade-point average of 2.4 for that semester's work.

Curriculum patterns represent groups of courses which are established by the frequency with which groups appear on the permanent record cards of the graduates included in this study.

Commerce teaching field refers to those courses and amounts of credit in commerce which are required by the State Board of Education for the Life Certificate in Commerce. The teacher becomes qualified to teach commerce subjects in high schools by completing a minimum of 24 semester hours in the following subjects: accounting, 6 semester hours; shorthand, 6 semester hours; typewriting, 6 semester hours; and 6 semester hours from any two of the following: business math, business law, or business English. At the Oklahoma Agricultural and Mechanical College, the following courses meet the Oklahoma State Board of Education requirements for the Life Certificate in Commerce: Accounting 213; Accounting 223; Secretarial Administration 110; Secretarial Administration 213; Secretarial Administration 223; Secretarial Administration 233; Mathematics 113; Business Law 313; and Business Administration 493.

Procedure

The names of all persons who have received Life Certificates in Commerce from the Oklahoma Board of Education with the recommendations of the Oklahoma Agricultural and Mechanical College are included in a special filed in the Office of the Registrar, Oklahoma Agricultural and Mechanical College, Stillwater, Oklahoma. Also in the Office of the Registrar is maintained a Permanent Record Card for each student. Permission was obtained from the

Registrar to examine the certificate register and the permanent record cards of those students who received Life Certificates in Commerce, and to record the data necessary for this study on special forms prepared for the purpose.

A preliminary check sheet for recording the data needed for this study was prepared and presented to the thesis adviser, Dr. J. Andrew Holley, Head of the Business Education Department. Dr. Holley submitted valuable suggestions and criticisms for revising the check sheet. After the suggested revisions were made, the check sheet was tested through actual use on ten records. The check sheet was then revised, duplicated, and used on the remainder of the records. A copy of the check sheet is included in the appendix as Appendix A.

Provisions were made on the check sheet for recording the following data concerning each student who received the bachelor's degree from the Oklahoma Agricultural and Mechanical College: name, sex, birth date, degree, date degree granted, school, department, date Life Certificate in Commerce issued, additional life certificates issued, teaching fields, field of concentration, courses taken, grades made in those courses, and grade-point averages in those courses.

The courses on the check sheet were arranged according to the following classifications: professional education courses, with the exception of business education courses; business education courses; lower-division Commerce courses; and upper-division Commerce courses. The courses under the professional education classification were selected from among those professional education courses which are suggested for meeting the education requirements established by the Oklahoma State Board of Education. The courses under the business education classification were set up according to the course requirements for graduation from the Oklahoma Agricultural

and Mechanical College with a major in Business Education. the lower-division Commerce courses were set up on the basis of required and elective courses thought to be generally pursued by business education majors in meeting the requirements set up by the Oklahoma State Board of Education for the Life Certificate in Commerce. The course names and course numbers were set up on the check sheet as they are listed in the 1947-1948 issue of the Oklahoma Agricultural and Mechanical College Catalog.

From the information on the check sheets, the following computations were made:

1. The age of the graduates was figured from the birth date to the date the bachelor's degree was granted by years to the nearest year. For example, if a student received the bachelor's degree June 1, 1948, and his birth date was March 4, 1926, the age of this graduate as used in this study would be 22 years.

2. Grade-point averages were figured only for the courses which comprise the commerce teaching field; the over-all grade-point average was figured only for the courses which comprise the commerce teaching field.

No failing grades were recorded on the check sheets for the courses which were failed but which were later repeated and passed. Because the grades on the check sheets were recorded only for the courses comprising the commerce teaching field, and since the students were required to complete successfully these courses before they could obtain a Life Certificate in Commerce, it was believed that only the passing grade should be recorded in order to eliminate duplication in reporting the number of students who took the various courses comprising the commerce teaching field.

Not all students took the 24 semester hours in the commerce teaching field at the Oklahoma Agricultural and Mechanical College. It is possible to obtain credit for the Life Certificate in Commerce through work completed

in shorthand and typing in an accredited high school, provided the student passes an advanced standing examination, or completed advanced courses at the Oklahoma Agricultural and Mechanical College in these subjects. This accounts for the fact that not all of the students took all of the courses set up for the completion of the requirements prescribed by the Oklahoma State Board of Education for the Life Certificate in Commerce.

During the period covered by this study, some of the course names have been changed. Secretarial Administration was formerly called Secretarial Training; Business Law was formerly called Business Administration; and Business Education was formerly called Commercial Education. Many of the course numbers have also been changed from time to time. For example, Secretarial Administration 213, Beginning Shorthand, was formerly called Secretarial Administration 113. Whenever there was any doubt about the correct identification of the course name and number on the Permanent Record Card, the catalog description of that course name and the course number included in that year's Oklahoma Agricultural and Mechanical College Catalog were compared with the description of the course name and course number found in the 1947-1948 issue of the Oklahoma Agricultural and Mechanical College Catalog. Whenever there was a discrepancy that course was not included in the check sheet. This procedure was followed in order that the course name and number might be placed in the proper place on the check sheet.

Students who graduated from the Oklahoma Agricultural and Mechanical College, but who earned undergraduate college credits from other institutions, are included in this study. No separate count, however, was made of the number of such students. The College Catalog states: "Credits transferred from institutions of equal standing with the Oklahoma Agricultural

and Mechanical College will be given full value in similar courses whenever possible.⁵

In order to interpret these transferred credits for the purposes of this study, the transferred semester-hours credits and marks of these students were recorded on the check sheets as if the credits and marks had been earned in similar courses pursued at the Oklahoma Agricultural and Mechanical College.

The data on the check sheets were then compiled and tabulated as a basis for seeking answers to the questions posed by this study.

⁵ Ibid., p. 18.

CHAPTER II

CERTIFICATION AND GRADUATION REQUIREMENTS

Procedure for Getting a Life Certificate At the Oklahoma Agricultural and Mechanical College

At Oklahoma Agricultural and Mechanical College, Stillwater, Oklahoma, applications are received from students from all schools on the campus for the Life Certificates issued by the Oklahoma State Board of Education. As the College Catalog states,

Completion in the Oklahoma Agricultural and Mechanical College of work required by the regulations of the State Board of Education entitles the student to a teacher's certificate, in accordance with the laws of the State and the regulations of the State Board of Education. Formal application for any state certificate should be made through the Director of Certification, Registrar's Office.¹

After the students' Permanent Record Cards have been examined to determine if they have completed the requirements for the Life Certificate in the subject or subjects they desire to teach in the public schools of Oklahoma, the Director of Certification in the Office of the Registrar, Oklahoma Agricultural and Mechanical College, recommends to the Oklahoma State Board of Education that the Life Certificate be granted in the subject or subjects for which the applicant has met the requirements.

Requirements for Life Certificate in Commerce as Set up by the Oklahoma State Board of Education

Below are listed the general requirements prescribed for all certificates issued by the Oklahoma State Board of Education which have been in effect during the entire period of this study:

- a. To be eligible to receive a state certificate to teach, a person shall be at least 20 years of age.

¹ Oklahoma Agricultural and Mechanical College General Catalog,
1947-1948, p. 21.

- b. Applicants shall present evidence that they are graduates of approved high schools, or that they have had equivalent training.
- c. Work completed in standard accredited colleges and universities only, will be accepted as a basis for the teachers' certificates, and applicants' grades must be as high as the average required for graduation from the institutions attended.
- d. Applicants shall present evidence that they are in sound physical health.
- e. Credit in extension and correspondence work not to exceed one-fourth of the professional or one-fourth of the academic work may count toward satisfying the original requirements of state certificates.
- f. The requirements in Oklahoma history, Oklahoma school law, and agriculture may be waived for one year, in the case of an applicant who has otherwise completed in an institution outside of Oklahoma all of the courses required in Oklahoma for a state certificate.²

Life certificates in Commerce may be issued to any student who has completed the requirements set up by the Oklahoma State Board of Education. The requirements for the Life Certificate in Commerce as listed in Table 1, page 15, of this study are as follows: 21 semester hours of education, including 6 semester hours of student teaching, and 3 semester hours of General Methods and Management, including Oklahoma School Law; 6 semester hours of typewriting; 6 semester hours of shorthand; 6 semester hours of accounting; and 6 semester hours from any two of the following: business mathematics, business law, or business English.

Requirements for a Major in Business Education

In 1937, the Department of Business Education was organized as a separate department in the School of Commerce. Previous to this time, all the professional courses in the field of business education were offered in the School of Education. The Department of Secretarial Administration of the School of Commerce, previous to this time, offered courses leading

² Ibid., pp. 144-45.

TABLE I

REQUIREMENTS FOR THE HIGH-SCHOOL COMMERCE LIFE CERTIFICATES
AS DESCRIBED IN THE 1947-1948 OKLAHOMA AGRICULTURAL AND
MECHANICAL COLLEGE GENERAL CATALOG³

	Semester Hours
Courses in Education, not more than six semester hours of which shall be completed during the first two years of the college course:	
Education Courses, Including Six Semester Hours of Student Teaching (Suggested courses: adolescent psychology, educational psychology, philosophy, or history of education, measurements, methods.)	18
General Methods and Management, including Oklahoma School Law	3
Total	21
Commercial Subjects	
Typewriting	6
Shorthand	6
Accounting	6
Work in two or more of the following subjects: Business law, Business arithmetic, Business English	6
Total	24

³ Ibid., pp. 145-46.

to a bachelor's degree in Commerce, including the courses which met the life certificate requirements in skill subjects for the commerce teaching field.⁴ A brief description of the program of the Business Education Department in the 1947-1948 General Catalog follows:

The curriculum in business education is designed to prepare qualified teachers of business subjects in junior and senior high schools, part-time schools, junior colleges, and teachers' colleges. The need for teachers in business and distributive fields is greater today than ever before. To this end there is prescribed a broad foundation of general education, an acquaintance with the major aspects of business administration, and a concentration in one field. An average grade point of 2.5 in commerce courses prescribed for the state commercial teacher's certificate is required before a student may enter upon the work of the senior year.⁵

The student pursuing the business education curriculum in the Department of Business Education must complete the following requirements:

1. the lower-division requirements specified for all students in the School of Commerce;
2. the requirements for the Life Certificate in Commerce;
3. special teaching methods courses in the commercial field;
4. twenty-four semester hours of upper-division Commerce courses; and
5. a field of concentration.

Requirements for a Major in Secondary Education

In the School of Education, Department of Secondary Education, Oklahoma Agricultural and Mechanical College, courses are offered for prospective business teachers, as well as for prospective teachers in other fields. The following statement in the 1947-1948 General Catalog indicates the scope of the program of the Department of Secondary Education.

The Department of Secondary Education, in its undergraduate program prepares students for teaching in all departments in junior and

⁴ Marjory Mae Gilbert, Values of Courses Completed for Master of Science Degree in Business Education at Oklahoma A. and M. College, An Unpublished Master's thesis, Oklahoma Agricultural and Mechanical College, 1946.

⁵ Oklahoma Agricultural and Mechanical College General Catalog, 1947-1948, p. 127

high schools. It also has a liberal offering of courses for graduate students who wish to major in secondary education.⁶

The requirements for graduation from the School of Education are listed in the 1947-1948 General Catalog as follows:

One hundred and twenty-four semester hours are required for graduation, not more than four hours of which shall be in required courses in military science and physical education. The minimum average grade shall be a C or 248 grade points. The grade point average for the junior and senior years shall be not less than 2.3. Students of questionable character will not be graduated. For teaching in high school (grades 7 to 12), credit must be earned in such courses as will give the student a broad cultural background, and, at the same time, meet the state requirements for a life certificate in one or more teaching fields.⁷

In the School of Education, Department of Secondary Education, the business education student has a wide choice of background or general education subjects. He must meet the general requirements for the life certificate, complete the special skill requirements for the Life Certificate in Commerce, must maintain a grade point average for the junior and senior years of at least 2.3, and must complete the number of semester hours required for graduation.

Requirements for a Major in Home Economics
With a Teaching Field in Commerce

In the Department of Home Economics Education, School of Home Economics, it is possible for a student to obtain a life certificate in home economics education and in commerce. The following statement in the 1947-1948 College Catalog indicates the possibility of this plan:

Plan II enables students to become equally well prepared in two teaching fields. Graduation under this plan makes possible the obtaining of a General High School Home Economics Certificate and a General High School Certificate in some field other than home economics.⁸

⁶ Ibid., p. 143.

⁷ Ibid., p. 138.

⁸ Ibid., p. 209.

To get the recommendation of the college for a Life Certificate in Commerce, the student in the School of Home Economics must complete a minimum of 21 semester hours in professional education, including Home Economics Education; and a minimum of 24 semester hours in specified skill courses comprising the commerce teaching field. The student must also complete the life certificate requirements in the content courses in Home Economics, and the number of semester hours required for graduation.

Requirements for a Major in Arts and Sciences
With a Teaching Field in Commerce

Some students graduate from the School of Arts and Sciences and receive a Life Certificate in Commerce, and a life certificate in another teaching field. The following statement in the 1947-1948 College Catalog discusses these possibilities as follows:

Students enrolled in the School of Arts and Sciences who wish to qualify for a teaching certificate may, in some instances, be unable to meet the requirements for both a life certificate and the degree within the 120 semester hours required for graduation. In such cases, students are advised to meet the requirements for the degree and qualify for a one-year teaching certificate.⁹

Many students, however, complete the requirements for two life certificates in the time they are completing requirements for a degree. To get the recommendation of the college for a Life Certificate in Commerce, the student must complete a minimum of 21 semester hours in professional education, including psychology, methods, student teaching, etc., and a minimum of 24 semester hours in specified skill courses in commerce. The student must also complete the number of semester hours required for graduation.

⁹ Ibid., p. 84.

CHAPTER III

LIFE CERTIFICATES IN COMMERCE ISSUED THROUGH OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE

As a background for making an analysis and interpretation of the data included in this study, information is presented in Chapter III concerning the number of Life Certificates in Commerce granted by the Oklahoma State Board of Education to graduates of the Oklahoma Agricultural and Mechanical College, during the period from September, 1937, to February, 1949, inclusive; the number of Life Certificates that were granted to students who were enrolled in the Graduate School; and the number of Life Certificates that were granted to students who had received bachelor degrees from the Oklahoma Agricultural and Mechanical College.

As shown in Table II, a total of 193 Life Certificates in Commerce were granted to students of the Oklahoma Agricultural and Mechanical College during the period from September, 1937, to February, 1949, inclusive. Thirty-five of the Life Certificates in Commerce were granted to students who were enrolled in the Graduate School, and 158 granted to students who received bachelor's degrees from the Oklahoma Agricultural and Mechanical College.

No Life Certificates in Commerce were granted from September, 1937, to January, 1938. This is attributed to the fact that most applications for life certificates are received directly after the spring and summer college graduations. Those persons who graduated in July, 1937, probably applied in the early part of August for the Life Certificate in Commerce.

Table III shows that for the entire period from September, 1937, to February, 1949, inclusive, 31, or 16.1 per cent, of the total number of 193 life certificates in commerce were granted to men; and that 162, or 83.9

TABLE II

NUMBER OF LIFE CERTIFICATES IN COMMERCE GRANTED TO GRADUATES OF THE
OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE FOR THE PERIOD FROM
SEPTEMBER, 1937, TO FEBRUARY, 1949, INCLUSIVE

Year	Total Number Life Certificates in Commerce Granted		Life Certificates Granted to Graduate Students		Life Certificates Granted to Bachelor Degree Students	
	No.	Per Cent	No.	Per Cent	No.	Per Cent
1937						
1938	20	100.0	6	30.0	14	70.0
1939	32	100.0	4	12.5	28	87.5
1940	19	100.0	4	21.0	15	78.9
1941	22	100.0	3	13.6	19	86.4
1942	13	100.0			13	100.0
1943	14	100.0	1	7.1	13	92.9
1944	6	100.0			6	100.0
1945	10	100.0	4	40.0	6	60.0
1946	9	100.0	5	55.6	4	44.4
1947	16	100.0	3	18.7	13	81.3
1948	26	100.0	5	19.2	21	80.8
1949	6	100.0			6	100.0
Total	193	100.0	35	18.1	158	81.9

This table is read as follows: In 1937, no Life Certificates in Commerce were issued to Graduates of the Oklahoma Agricultural and Mechanical College.

TABLE III

NUMBER AND PER CENT OF LIFE CERTIFICATES IN COMMERCE GRANTED TO MEN AND WOMEN GRADUATES OF THE OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE FOR THE PERIOD FROM SEPTEMBER, 1937, TO FEBRUARY, 1949, INCLUSIVE

Sex	Total Certificates Granted		Certificates Granted to Graduate Students		Certificates Granted to Bachelor Degree Students	
	No.	Per Cent	No.	Per Cent	No.	Per Cent
Men	31	16.1	15	7.7	16	8.3
Women	162	83.9	20	10.4	142	73.6
Total	193	100.0	35	18.1	158	81.9

This table is read as follows: Thirty-one Life Certificates in Commerce have been granted to men; fifteen of the certificates were granted to men after they had completed some graduate study at the Oklahoma Agricultural and Mechanical College; and 16 Life Certificates were granted to men who had received bachelor's degrees from the Oklahoma Agricultural and Mechanical College.

per cent, of the total number of life certificates in commerce were granted to women.

Thus, more than five times as many women as men received life certificates in commerce during the period covered by this study. It is interesting to note that the number of women completing the undergraduate program leading to a bachelor's degree and a life certificate in commerce, exceeded the number of men following a similar program by approximately nine times. On the other hand, the ratio of graduate women students to graduate men students was approximately 3 to 2.

Table IV reveals that a total of 31 life certificates in commerce were granted to men. Of this total number, 15, or 48.4 per cent of the certificates, were granted to men who were enrolled in the Graduate School of the Oklahoma Agricultural and Mechanical College; 16, or 51.6 per cent, of the certificates were granted to men who had received bachelor's degrees from the Oklahoma Agricultural and Mechanical College.

It is interesting to note that the number of life certificates in commerce granted to men decreased from 6 certificates granted in 1938 to no certificates granted in 1943 or 1944. The military and industrial demands for men probably accounted for the fact that no men students completed the teaching programs during 1943 and 1944. The number of life certificates in commerce granted to men, however, increased from 1 certificate granted in 1945 to 5 certificates granted in 1948. The men went into the armed services at the beginning of the war; when the war was over, they returned to college.

Table V reveals that a total of 162 life certificates in commerce were granted to women. Of this total number, 20, or 12.3 per cent, of the certificates were granted to women who were enrolled in the Graduate School of the Oklahoma Agricultural and Mechanical College; 142, or 87.7

TABLE IV

NUMBER AND PER CENT OF LIFE CERTIFICATES IN COMMERCE GRANTED TO
MEN STUDENTS OF THE OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE
FOR THE PERIOD FROM SEPTEMBER, 1937, TO FEBRUARY, 1949, INCLUSIVE

Year	Total Certificates Granted		Certificates Granted to Graduate Students		Certificates Granted to Bachelor Degree Students	
	No.	Per Cent	No.	Per Cent	No.	Per Cent
1937						
1938	6	100.0	5	83.3	1	16.7
1939	4	100.0	1	25.0	3	75.0
1940	5	100.0	1	20.0	4	80.0
1941	2	100.0	1	50.0	1	50.0
1942	2	100.0			2	100.0
1943						
1944						
1945	1	100.0	1	100.0		
1946	2	100.0	2	100.0		
1947	4	100.0	2	50.0	2	50.0
1948	5	100.0	2	40.0	3	60.0
1949						
Total	31	100.0	15	48.4	16	51.6

This table is read as follows: In 1937, no Life Certificates in Commerce were granted to men graduates of Oklahoma Agricultural and Mechanical College.

TABLE V

NUMBER AND PER CENT OF LIFE CERTIFICATES IN COMMERCE GRANTED TO WOMEN STUDENTS OF THE OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE FOR THE PERIOD FROM SEPTEMBER, 1937, to FEBRUARY, 1949, INCLUSIVE

Year	Total Certificates Granted to Women		Certificates Granted to Graduate Students		Certificates Granted to Bachelor Degree Students	
	No.	Per Cent	No.	Per Cent	No.	Per Cent
1937						
1938	14	100.0	1	7.7	13	92.3
1939	28	100.0	3	10.7	25	89.3
1940	14	100.0	3	21.4	11	78.6
1941	20	100.0	2	10.0	18	90.0
1942	11	100.0			11	100.0
1943	14	100.0	1	7.7	13	92.3
1944	6	100.0			6	100.0
1945	9	100.0	3	33.3	6	66.7
1946	7	100.0	3	42.9	4	57.1
1947	12	100.0	1	8.3	11	91.7
1948	21	100.0	3	14.3	18	85.7
1949	6	100.0			6	100.0
Total	162	100.0	20	12.3	142	87.7

This table is read as follows: In 1937, no Life Certificates in Commerce were granted to women graduates of the Oklahoma Agricultural and Mechanical College.

per cent, of the certificates were granted to women who had received bachelor's degrees from the Oklahoma Agricultural and Mechanical College.

The peak year for the number of life certificates granted to women was 1939, when 25 women received certificates. The smallest number of women to comply with the life certificate requirements in any year was 6, which was the record for 1944 and for 1949. During the first six years of the twelve-year span covered by this study, the output of women teachers with life certificates in commerce was better than three fifths of the total number for the entire period.

CHAPTER IV

CERTIFICATION OF THE GRADUATES

In this chapter an analysis is made of the ages of the graduates when the bachelor's degrees were granted by the Oklahoma Agricultural and Mechanical College; of the schools in which the graduates majored; and of the other life teaching certificates held by the graduates. The students included in this study are the graduates who received life certificates in commerce through application to the Director of Certification, Office of the Registrar, Oklahoma Agricultural and Mechanical College, for the period from September, 1937, to February, 1949, inclusive.

This information was obtained from the permanent record cards in the Office of the Registrar, Oklahoma Agricultural and Mechanical College, Stillwater, Oklahoma.

No life certificates in commerce were granted from September, 1937, to January, 1938. As mentioned previously, this is attributed to the fact that most applications for life certificates are received directly after the spring and summer graduations. Those persons who graduated in July, 1937, probably applied for the Life Certificate in Commerce in the early part of August, 1937.

Ages of Graduates

The data in Table VI indicate the ages of the 158 students at the time they received bachelor's degrees from the Oklahoma Agricultural and Mechanical College and the Oklahoma life teaching certificates in commerce.

For the period from September, 1937, to February, 1949, all students included in this study received life certificates in commerce in the same year that they received their bachelor's degrees. In most cases, the Life

TABLE VI

NUMBER AND PER CENT OF GRADUATES WITH BACHELOR'S DEGREES
FROM THE OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE
AND WITH OKLAHOMA LIFE CERTIFICATES IN COMMERCE,
DISTRIBUTED ACCORDING TO AGE AND YEAR OF GRADUATION

Year of Graduation	Total		Number of Graduates by Age at Time of Graduation											
	Number of Graduates		20 Years		21 Years		22 Years		23 Years		24 Years		25 Years	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
1938	14	100			3	21.5	4	28.6	4	28.6			1	7.1
1939	28	100	2	7.1	8	28.6	11	39.2	3	10.7	3	10.7		
1940	15	100			3	20.0	5	33.3	2	13.3			1	6.6
1941	19	100	2	10.5	6	31.5	6	31.5	3	15.7	1	5.4	1	5.4
1942	13	100			5	38.5	6	46.1						
1943	13	100	2	15.3	5	38.5	3	23.1	1	7.7			1	7.7
1944	6	100			2	33.3			1	16.6	1	16.7		
1945	6	100			2	33.3	2	33.3	1	16.7	1	16.7		
1946	4	100			1	25.0	1	25.0			1	25.0		
1947	13	100			4	30.8	2	15.3	3	23.1			1	7.7
1948	21	100	2	9.5	2	9.5	4	19.0	3	14.3			5	23.8
1949	6	100					3	50.0	1	16.7			1	16.7
Total	158	100	8	5.1	41	25.9	47	29.8	22	13.9	7	4.4	11	6.9

TABLE VI (CONCLUDED)

NUMBER AND PER CENT OF GRADUATES WITH BACHELOR'S DEGREES
FROM THE OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE
AND WITH OKLAHOMA LIFE CERTIFICATES IN COMMERCE,
DISTRIBUTED ACCORDING TO AGE AND YEAR OF GRADUATION

Year of Graduation	Number of Graduates by Age at Time of Graduation													
	26 Years		27 Years		28 Years		29 Years		30 Years		31 Years		41 Years	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
1938			1	7.1	1	7.1								
1939							1	3.7						
1940	1	6.6	1	6.7	1	6.7			1	6.7				
1941														
1942	1	7.7			1	7.7								
1943					1	7.7								
1944			1	16.7	1	16.7								
1945														
1946											1	25.0		
1947	1	7.7					1	7.7	1	7.7				
1948	2	9.5			1	4.8					1	4.8	1	4.8
1949					1	16.6								
Total	5	3.2	3	1.9	7	4.4	2	1.3	2	1.3	2	1.3	1	.6

This table should be read as follows: In 1938, there were 14 students who received bachelor's degrees from the Oklahoma Agricultural and Mechanical College. Of these 14 students, 3, or 21.5 per cent, were 21 years of age; 4, or 28.6 per cent, were 22 years of age; 4, or 28.6 per cent, were 23 years of age; 1, or 7.1 per cent, was 25 years of age; 1, or 7.1 per cent, was 27 years of age; and 1, or 7.1 per cent, was 28 years of age.

Certificate in Commerce was issued not later than two weeks after the bachelor's degree had been received.

The age of the students was figured to the nearest year. For example, if a person was born in January, 1922, and received the bachelor's degree in May, 1944, the age of that person, as used in this study, is 22 years.

The data in Table VI show that of the 158 graduates, 8, or 5.1 per cent, were 20 years of age; 41, or 25.9 per cent, were 21 years of age; 47, or 29.8 per cent, were 22 years of age; 22, or 13.9 per cent, were 23 years of age; and 40, or 25.3 per cent, were between the ages of 24 and 41, inclusive. From these data, it can be seen that the mode is 22 years. The arithmetic mean is 22.4 years; and the median is 22 years.

These data indicate that a majority of the college graduates included in this study received their bachelor's degrees and life certificates in commerce at the age of 22 years.

The data in Table VII indicate that the ages of the 16 men graduates who received bachelor's degrees from the Oklahoma Agricultural and Mechanical College vary from 21 years of age to 29 years of age. Four, or 25.0 per cent, of the men graduates were 25 years of age; and 12, or 75.0 per cent, were distributed among the remaining 8 age groups. From these data it can be seen that the mode is 25 years. The arithmetic mean is 25.3 years; and the median is 25 years.

These data suggest that most men college graduates included in this study received their bachelor's degrees and life certificates in commerce at the age of 25 years. Thus, the men graduates were on the average three years older than the women when they received their bachelor's degrees and life commerce certificates.

It is revealed by Table VIII that 8, or 5.6 per cent, of the 142 women graduates who received bachelor's degrees from the Oklahoma

TABLE VII

NUMBER AND PER CENT OF MEN GRADUATES WITH BACHELOR'S DEGREES
FROM THE OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE
AND WITH OKLAHOMA LIFE CERTIFICATES IN COMMERCE,
DISTRIBUTED ACCORDING TO AGE AND YEAR OF GRADUATION

Year of Graduation	Total Number of Men Graduates		Number of Graduates by Age at Time of Graduation											
	No.	Per Cent	20 Years		21 Years		22 Years		23 Years		24 Years		25 Years	
			No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
1938	1	100							1	100.0				
1939	3	100			1	33.3					1	33.3		
1940	4	100						1	25.0					
1941	1	100			1	100.0								
1942	2	100					1	50.0						
1943														
1944														
1945														
1946														
1947	2	100											1 50.0	
1948	3	100											3 100.0	
1949														
Total	16	100			2	12.5	1	6.2	2	12.5	1	6.2	4	25.0

TABLE VII (CONCLUDED)

NUMBER AND PER CENT OF MEN GRADUATES WITH BACHELOR'S DEGREES
FROM THE OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE
AND WITH OKLAHOMA LIFE CERTIFICATES IN COMMERCE,
DISTRIBUTED ACCORDING TO AGE AND YEAR OF GRADUATION

Year of Graduation	Number of Men Graduates by Age at Time of Graduation											
	26 Years		27 Years		28 Years		29 Years		30 Years		31 Years	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
1938												
1939							1	33.4				
1940	1	25.0	1	25.0	1	25.0						
1941												
1942	1	50.0										
1943												
1944												
1945												
1946												
1947							1	50.0				
1948												
1949												
Total	2	12.5	1	6.3	1	6.3	2	12.5				

This table should be read as follows: In 1938 there was 1 man student who received a bachelor's degree from the Oklahoma Agricultural and Mechanical College and a Life Certificate in Commerce. This man graduate was 23 years of age.

TABLE VIII

NUMBER AND PER CENT OF WOMEN GRADUATES WITH BACHELOR'S DEGREES
FROM THE OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE
AND WITH OKLAHOMA LIFE CERTIFICATES IN COMMERCE,
DISTRIBUTED ACCORDING TO AGE AND YEAR OF GRADUATION

Year of Graduation	Total Number of Women Graduates		Number of Women Graduates by Age at Time of Graduation											
			20 Years		21 Years		22 Years		23 Years		24 Years		25 Years	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
1938	13	100			3	23.1	4	30.7	3	23.1			1	7.7
1939	25	100	2	8.0	7	28.0	11	44.0	3	12.0	2	8.0		
1940	11	100			3	27.2	5	45.5	1	9.1			1	9.1
1941	18	100	2	11.1	5	27.7	6	33.3	3	16.7	1	5.6	1	5.6
1942	11	100			5	45.5	5	45.4						
1943	13	100	2	15.3	5	38.4	3	23.2	1	7.7			1	7.7
1944	6	100			2	33.3			1	16.6	1	16.7		
1945	6	100			2	33.3	2	33.3	1	16.7	1	16.7		
1946	4	100			1	25.0	1	25.0			1	25.0		
1947	11	100			4	36.3	2	18.2	3	27.3				
1948	18	100	2	11.1	2	11.1	4	22.2	3	16.7			2	11.1
1949	6	100					3	50.0	1	16.6			1	16.6
Total	142	100	8	5.6	39	27.4	46	32.4	20	14.0	6	4.2	7	4.9

TABLE VIII (CONCLUDED)

NUMBER AND PER CENT OF WOMEN GRADUATES WITH BACHELOR'S DEGREES
FROM THE OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE
AND WITH OKLAHOMA LIFE CERTIFICATES IN COMMERCE,
DISTRIBUTED ACCORDING TO AGE AND YEAR OF GRADUATION

Year of Graduation	Number of Women Graduates by Age at Time of Graduation													
	26 Years		27 Years		28 Years		29 Years		30 Years		31 Years		41 Years	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
1938			1	7.7	1	7.7								
1939														
1940									1	9.1				
1941														
1942					1	9.1								
1943					1	7.7								
1944			1	16.7	1	16.7								
1945														
1946											1	25.0		
1947	1	9.1							1	9.1				
1948	2	11.1			1	5.6					1	5.6	1	5.5
1949					1	16.7								
Total	3	2.2	2	1.4	6	4.3			2	1.4	2	1.4	1	.7

This table should be read as follows: In 1938, there were 13 women students who received bachelor's degrees from the Oklahoma Agricultural and Mechanical College and Life Certificates in Commerce. Of these 13 women students, at the time of graduation, 3, or 23.1 per cent, were 21 years of age; 4, or 30.7 per cent, were 22 years of age; 3, or 23.1 per cent, were 23 years of age; 1, or 7.7 per cent, was 25 years of age; 1, or 7.7 per cent was 27 years of age; and 1, or 7.7 per cent, was 28 years of age.

Agricultural and Mechanical College were 20 years of age; that 39, or 27.5 per cent, were 21 years of age; that 36, or 32.5 per cent, were 22 years of age; that 20, or 14.1 per cent, were 23 years of age; and that 29, or 20.9 per cent, were between the ages of 24 and 41 years.

From these data it can be seen that for the women graduates, the modal age was 22. The median age was 22 years of age; and the mean age was 22.2 years of age.

This signifies that most of the women included in this study graduated from college with bachelor's degrees and received life certificates in commerce at the age of 22 years.

Graduates by Schools and Departments

Table IX discloses that bachelor's degrees were granted to 158 students of the Oklahoma Agricultural and Mechanical College who also received life certificates in commerce through application to the Director of Certification, Office of the Registrar, Oklahoma Agricultural and Mechanical College, Stillwater, Oklahoma, during the period from September, 1937, to February, 1949, inclusive.

Of the 158 bachelor's degrees granted, 156, or 98.7 per cent, were Bachelor of Science degrees; and 2, or 1.3 per cent, were Bachelor of Arts degrees. Of the 156 Bachelor of Science degrees granted, 122, or 77.2 per cent, of the total number of bachelor's degrees granted, were granted to students in the School of Commerce; 31, or 19.6 per cent of the total, were granted to students majoring in the School of Education; and 3, or 1.9 per cent of the total bachelor's degrees granted, were granted to students enrolled in the School of Home Economics.

The significance of the data in Table IX is that more than three fourths of the students who graduated from the Oklahoma Agricultural and Mechanical College and obtained Life certificates in commerce through

TABLE IX

BACHELOR'S DEGREES GRANTED BY THE OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE
TO STUDENTS WHO ALSO RECEIVED OKLAHOMA LIFE CERTIFICATES IN COMMERCE,
DISTRIBUTED BY YEARS AND SCHOOLS
FOR THE PERIOD FROM SEPTEMBER, 1937, TO FEBRUARY, 1949, INCLUSIVE

Year of Graduation	Total Bachelor Degrees Granted		Total of Science Degrees Granted		Bachelor of Science Degrees Granted by Schools						Total Bachelor of Arts Degrees Granted		
	No.	Per Cent	No.	Per Cent	Commerce		Education		Home Economics		No.	Per Cent	
					No.	Per Cent	No.	Per Cent	No.	Per Cent			
1938	14	100.0	14	100.0	12	85.7	2	14.3					
1939	28	100.0	28	100.0	22	78.6	6	21.4					
1940	15	100.0	15	100.0	11	73.3	4	26.7					
1941	19	100.0	17	89.5	11	57.9	6	31.6			2	10.5	
1942	13	100.0	13	100.0	12	92.3	1	7.7					
1943	13	100.0	13	100.0	10	76.9	2	15.4	1	7.7			
1944	6	100.0	6	100.0	4	66.7	2	33.3					
1945	6	100.0	6	100.0	6	100.0							
1946	4	100.0	4	100.0	3	75.0			1	25.0			
1947	13	100.0	13	100.0	13	100.0							
1948	21	100.0	21	100.0	13	61.9	8	38.1					
1949	6	100.0	6	100.0	5	83.3			1	16.7			
Total	158	100.0	156	98.7	122	77.2	31	19.6	3	1.9	2	1.3	

This table should be read as follows: In 1938, there were 14 bachelor's degrees granted by the Oklahoma Agricultural and Mechanical College to students who also received Life Certificates in Commerce. Of the total of 14 bachelor's degrees granted, 12 were Bachelor of Science degrees from the School of Commerce; and 2 were Bachelor of Science degrees from the School of Education.

application to the Director of Certification, Office of the Registrar, Oklahoma Agricultural and Mechanical College, Stillwater, Oklahoma, were granted Bachelor of Science degrees with majors in the School of Commerce.

Table X reveals that 16 bachelor's degrees were granted by the Oklahoma Agricultural and Mechanical College to men who received life certificates in commerce. All of the 16 bachelor's degrees granted to men were Bachelor of Science degrees. Thirteen, or 81.3 per cent, of the Bachelor of Science degrees were granted to students majoring in the School of Commerce; and 3, or 19.7 per cent, were granted to students majoring in the School of Education.

Table XI shows that a total of 142 bachelor's degrees were granted by the Oklahoma Agricultural and Mechanical College to women students who received life certificates in commerce through application to the Director of Certification, Office of the Registrar, Oklahoma Agricultural and Mechanical College, for the period from September, 1937, to February, 1949, inclusive. One hundred forty, of the total of 142 bachelor's degrees granted, were Bachelor of Science degrees; and 2 were Bachelor of Arts degrees. Of the 140 Bachelor of Science degrees granted to women, 109, or 76.8 per cent, were granted to students with majors in the School of Commerce; 28, or 19.7 per cent, were granted to students with majors in the School of Education; and 3, or 2.1 per cent, were granted to students with majors in the School of Home Economics. The 2 Bachelor of Arts degrees were granted to students with majors in the School of Arts and Sciences.

The data in Table XI reveal that most of the women included in this study, who received bachelor's degrees from the Oklahoma Agricultural and Mechanical College, and who also received life certificates in commerce, were granted Bachelor of Science degrees from the School of Commerce.

TABLE X

BACHELOR'S DEGREES GRANTED BY THE OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE TO MEN STUDENTS WHO ALSO RECEIVED OKLAHOMA LIFE CERTIFICATES IN COMMERCE, DISTRIBUTED BY YEARS AND SCHOOLS FOR THE PERIOD FROM SEPTEMBER, 1937 TO FEBRUARY, 1949, INCLUSIVE

Year of Graduation	Total Number of Bachelor's Degrees Granted to Men		Bachelor of Science Degrees Granted by Schools					
	No.	Per cent	Commerce		Education		Home Economics	
			No.	Per cent	No.	Per cent	No.	Per cent
1938	1	100.0	1	100.0				
1939	3	100.0	2	66.7	1	33.3		
1940	4	100.0	3	75.0	1	25.0		
1941	1	100.0			1	100.0		
1942	2	100.0	2	100.0				
1943								
1944								
1945								
1946								
1947	2	100.0	2	100.0				
1948	3	100.0	3	100.0				
1949								
Total	16	100.0	13	81.3	3	18.7		

This table should be read as follows: In 1938, 1 Bachelor of Science Degree from the School of Commerce was granted by the Oklahoma Agricultural and Mechanical College to a man.

TABLE XI

BACHELOR'S DEGREES GRANTED BY THE OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE TO WOMEN STUDENTS WHO ALSO RECEIVED OKLAHOMA LIFE CERTIFICATES IN COMMERCE, DISTRIBUTED BY YEARS AND SCHOOLS FOR THE PERIOD FROM SEPTEMBER, 1937 TO FEBRUARY, 1949, INCLUSIVE

Year of Graduation	Total Number of Bachelor's Degrees Granted to Women		Bachelor of Science Degrees by Schools						Bachelor of Arts Arts and Sciences	
	No.	Per Cent	Commerce		Education		Home Economics		No.	Per Cent
			No.	Per Cent	No.	Per Cent	No.	Per Cent		
1938	13	100.0	11	84.6	2	15.4				
1939	25	100.0	20	80.0	5	20.0				
1940	11	100.0	8	72.7	3	27.3				
1941	18	100.0	11	61.1	5	27.8			2	11.1
1942	11	100.0	10	90.9	1	9.1				
1943	13	100.0	10	76.9	2	15.4	1	7.7		
1944	6	100.0	4	66.7	2	33.3				
1945	6	100.0	6	100.0						
1946	4	100.0	3	75.0			1	25.0		
1947	11	100.0	11	100.0						
1948	18	100.0	10	55.6	8	44.4				
1949	6	100.0	5	83.3			1	16.7		
Total	142	100.0	109	76.8	28	19.7	3	2.1	2	1.4

This table should be read as follows: In 1938, there were 13 bachelor's degrees granted by the Oklahoma Agricultural and Mechanical College to women students. Of the total of 13 bachelor's degrees granted, 11 were Bachelor of Science degrees granted to women students with a major in the School of Commerce; and 2 were Bachelor of Science degrees granted to women students with a major in the School of Education.

The data in Table XII show the number and per cent of the graduates who received Bachelor of Science degrees from the School of Commerce from September, 1937, to February, 1949, inclusive, by department, sex, and year of graduation. Of the total of 122 Bachelor of Science degrees granted to students enrolled in the School of Commerce, 11 men, or 9.0 per cent, of the total, and 109 women, or 89.3 per cent of the total, majored in the Department of Business Education; and 2 men, or 1.7 per cent of the total, majored in General Business in the Department of Business Administration.

This study discloses that more than nine tenths of the students who received bachelor's degrees and life certificates in commerce were students who majored in the Department of Business Education.

The data in Table XIII reveal the number and per cent of the graduates distributed according to major department, sex, and year of graduation, who received Bachelor of Science degrees from the School of Education and from the School of Home Economics; and the number and per cent of the graduates who received Bachelor of Arts degrees from the School of Arts and Sciences.

Of the total of 31 Bachelor of Science degrees granted to students enrolled in the School of Education, with majors completed in the Department of Secondary Education, 3, or 9.7 per cent, were granted to men; and 28, or 90.3 were granted to women.

The 3 Bachelor of Science degrees granted to students enrolled in the School of Home Economics were granted to women with majors in the Department of Home Economics Education.

The 2 Bachelor of Arts degrees granted to students enrolled in the School of Arts and Sciences were granted to women with majors in the Department of English.

TABLE XII

NUMBER AND PER CENT OF GRADUATES
WITH BACHELOR OF SCIENCE DEGREES IN COMMERCE
AND WITH OKLAHOMA LIFE CERTIFICATES IN COMMERCE,
DISTRIBUTED ACCORDING TO MAJOR DEPARTMENT, SEX,
AND YEAR OF GRADUATION

Year of Graduation	Total Number of Graduates Who Majored in Commerce		Number of Graduates by Major Department							
			Business Education			General Business				
			Men		Women		Men		Women	
			No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
1938	12	100.0	1	8.3	11	91.7				
1939	22	100.0	2	9.1	20	90.9				
1940	11	100.0	3	27.2	8	72.8				
1941	11	100.0			11	100.0				
1942	12	100.0	2	16.7	10	83.3				
1943	10	100.0			10	100.0				
1944	4	100.0			4	100.0				
1945	6	100.0			6	100.0				
1946	3	100.0			3	100.0				
1947	13	100.0	2	15.4	11	84.6				
1948	13	100.0	1	7.7	10	76.9	2	15.4		
1949	5	100.0			5	100.0				
Total	122	100.0	11	9.0	109	89.3	2	1.7		

This table should be read as follows: In 1938, 12 students received Bachelor of Science degrees in Commerce from the Oklahoma Agricultural and Mechanical College. These 12 students majored in Business Education; 1 was a man, and 11 were women.

TABLE XIII

NUMBER AND PER CENT OF GRADUATES
WITH BACHELOR'S DEGREES IN EDUCATION, HOME ECONOMICS, AND ARTS AND SCIENCES
AND WITH OKLAHOMA LIFE CERTIFICATES IN COMMERCE,
DISTRIBUTED ACCORDING TO MAJOR DEPARTMENT, SEX, AND YEAR OF GRADUATION

Year of Gradu- ation	Number of Graduates by Schools and Major Departments												
	Education			Home Economics			Arts and Sciences						
	Total	Secondary Education		Total	Home Economics Education		Total	English					
		Men	Women		Men	Women		Men	Women				
Per	Per	Per	Per	Per	Per	Per	Per	Per	Per				
No.	Cent	No.	Cent	No.	Cent	No.	Cent	No.	Cent	No.	Cent		
1938	2	100.0			2	100.0							
1939	6	100.0	1	16.7	5	83.3							
1940	4	100.0	1	25.0	3	75.0							
1941	6	100.0	1	16.7	5	83.3			2	100.0	2	100.0	
1942	1	100.0			1	100.0							
1943	2	100.0			2	100.0	1	100.0			1	100.0	
1944	2	100.0			2	100.0							
1945													
1946					1	100.0					1	100.0	
1947													
1948	8	100.0			8	100.0							
1949					1	100.0					1	100.0	
Total	31	100.0	3	9.7	28	90.3	3	100.0		2	100.0	2	100.0

This table should be read as follows: In 1938, there were 2 students who received Bachelor of Science degrees in Education. These two students were women.

It is indicated from the data in Table XIII that more than nine tenths of the graduates included in this study from the School of Education, from the School of Home Economics, and from the School of Arts and Sciences, were women. More than four fifths of this group completed majors in the Department of Secondary Education, School of Education.

Other Life Certificates

It is revealed by the data in Table XIV that a total of 41 graduates who received bachelor's degrees from the Oklahoma Agricultural and Mechanical College, and who also received life teaching certificates in commerce, were issued 41 other Oklahoma life teaching certificates. In other words, each of the 41 graduates received another Oklahoma life teaching certificate.

The subjects for which the graduates received other life teaching certificates were as follows: English, mathematics, industrial geography, history, social studies, speech, home economics education, civics, physical education, and Spanish.

Thirteen of the total of 41 graduates received life certificates in English; 7 received life certificates in mathematics; 5 received life certificates in industrial geography; and the remaining 16 graduates received life certificates distributed among the other 7 teaching fields, arranged in descending order of frequency, as follows: history, social studies, speech, home economics education, civics, physical education, and Spanish.

The data in Table XIV indicate that approximately one fourth of the holders of life certificates in commerce received a second Oklahoma life teaching certificate. The most common other teaching field for which the students completed requirements was English.

TABLE XIV

NUMBER AND PER CENT OF GRADUATES WITH BACHELOR DEGREES
FROM THE OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE
AND WITH LIFE CERTIFICATES IN COMMERCE,
DISTRIBUTED BY SCHOOLS AND BY OTHER TEACHING FIELDS
FOR THE PERIOD FROM SEPTEMBER, 1937, TO FEBRUARY, 1949, INCLUSIVE

Fields of Other Life Certificates Received	Total No. of Students with Other Life Certi- ficates		Number of Graduates by Schools							
	No.	Per Cent	Commerce		Education		Home Economics		Arts and Sciences	
			No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
English	13	100.0			11	84.6			2	15.4
Math	7	100.0	2	14.3	5	85.7				
Industrial Geography	5	100.0	4	80.0	1	20.0				
History	4	100.0	2	50.0	2	50.0				
Social Studies	3	100.0	1	33.3	2	66.7				
Speech	3	100.0			3	100.0				
Home Economics Education	3	100.0					3	100.0		
Civics	1	100.0			1	100.0				
Physical Education	1	100.0			1	100.0				
Spanish	1	100.0			1	100.0				
Total	41	100.0	9	21.9	27	65.9	3	7.3	2	4.9

This table should be read as follows: Thirteen students with bachelor's degrees from the Oklahoma Agricultural and Mechanical College received Life teaching certificates in English. Of these 13 students, 11 were in the School of Education, and 2 were in the School of Arts and Sciences.

The data in Table XV show the number of graduates with bachelor's degrees from the Oklahoma Agricultural and Mechanical College and with life certificates in commerce, who received life teaching certificates in other teaching fields, distributed by schools, sex, and year of graduation, for the period from September, 1937, to February, 1949, inclusive.

A total of 41 graduates received other life teaching certificates. Of the 9 graduates who majored in the School of Commerce and received other life teaching certificates, 1 was a man; and 8 were women. Of the 27 graduates who majored in the school of Education and received other life teaching certificates, 3 were men; and 24 were women. The 3 graduates who majored in the School of Home Economics and who received other life teaching certificates were women. The 2 graduates who majored in the School of arts and Sciences and who received other life teaching certificates were women.

The largest number of graduates who received other life teaching certificates in one year was 9 in 1941. It will be noted that there were graduates who received other life teaching certificates for every year covered by this study, with the exception of the year 1945, when the enrollment was very low because of the intervention of World War II.

The graduates who received other life teaching certificates in the first four years received more than one half of the total number of the other certificates granted during the 12-year period covered by this study. The graduates who received other life teaching certificates in the last four years of the study, received only one fifth of the total number of other certificates granted during the period of this study.

TABLE XV

NUMBER AND PER CENT OF GRADUATES WITH BACHELOR'S DEGREES
FROM THE OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE
AND WITH LIFE CERTIFICATES IN COMMERCE
WHO RECEIVED LIFE TEACHING CERTIFICATES IN OTHER FIELDS,
DISTRIBUTED BY SCHOOLS, SEX, AND YEAR OF GRADUATION

Year of Graduation	Total No. of Students with Other Life Cer- tificates		Number of Graduates by Schools											
			Commerce		Education		Home Economics		Arts and Sciences					
			Men	Women	Men	Women	Men	Women	Men	Women				
			Per No.	Per Cent	Per No.	Per Cent	Per No.	Per Cent	Per No.	Per Cent	Per No.	Per Cent		
1938	3	100.0					3	100.0						
1939	8	100.0		1	12.5	1	12.5	6	75.0					
1940	3	100.0				1	33.3	2	66.7					
1941	9	100.0		1	11.1	1	11.1	5	55.6				2	22.2
1942	4	100.0		4	100.0									
1943	3	100.0						2	66.7		1	33.3		
1944	2	100.0						2	100.0					
1945														
1946	1	100.0									1	100.0		
1947	2	100.0		2	100.0									
1948	5	100.0	1	20.0				4	80.0					
1949	1	100.0									1	100.0		
Total	41	100.0	1	2.4	8	19.6	3	7.3	24	58.5	3	7.3	2	4.9

This table should be read as follows: In 1938, three graduates obtained another Oklahoma life teaching certificate. These three graduates were women with majors in the School of Education.

CHAPTER V

COURSES TAKEN BY THE HOLDERS OF LIFE CERTIFICATES

In this chapter, an analysis is made of the fields of concentration completed by students who graduated from the School of Commerce; of the courses taken and the grades, or marks, made in those courses which satisfy the special commerce requirements for the Life Certificate in Commerce; and of the courses taken which satisfy the professional and business education requirements for the Life Certificate in Commerce. The analysis is made of the courses taken by students who received bachelor's degrees from the Oklahoma Agricultural and Mechanical College and who received Life Certificates in commerce on the basis of the recommendation of the college for the period between September, 1937, and February, 1949, inclusive.

It will be noted that no data are presented for the year 1937. This is attributed to the fact that most applications for life certificates are received directly after the spring and summer graduation. Those persons who graduated in July, 1937, probably applied for the Life Certificate in Commerce in the early part of August, 1937.

Fields of Concentration

Students with majors in the Department of Business Education, School of Commerce, are required to complete 10 to 12 semester hours in one commerce field, called a field of concentration.

The data in Table XVI reveal the number and per cent of bachelor degree graduates who have completed fields of concentration in the various departments of the School of Commerce. These graduates completed fields of concentration in Accounting, Business Administration, Business

TABLE XVI

NUMBER AND PER CENT OF BACHELOR DEGREE GRADUATES OF THE OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE WITH MAJORS IN COMMERCE, DISTRIBUTED ACCORDING TO SEX AND FIELDS OF CONCENTRATION, FOR THE PERIOD FROM SEPTEMBER, 1937, TO FEBRUARY, 1949, INCLUSIVE.

Sex of the Graduate	Number of Graduates Who Majored in Commerce No. P. C.		Number of Graduates by Fields of Concentration							
			Acctg.	B. A.	B. L.	Econ.	Geog.	G. B.	S. A.	
			No. P. C.	No. P. C.	No. P. C.	No. P. C.	No. P. C.	No. P. C.	No. P. C.	
Men	13	100.0		4 30.8	1 7.8	2 15.3			2 15.3	4 30.8
Women	109	100.0	1 .9	23 21.4	6 5.5	9 8.3	3 2.7			67 61.5
Total	122	100.0	1 .8	27 22.1	7 5.7	11 9.0	3 2.5		2 1.7	71 58.2

This table should be read as follows: Of a total of 13 men who received bachelor degrees from the Oklahoma Agricultural and Mechanical College, 4, or 30.8 per cent, completed a field of concentration in Business Administration; 1, or 7.8 per cent, completed a field of concentration in Business Law; 2, or 15.3 per cent, completed a field of concentration in Economics; 2, or 15.3 per cent, completed a field of concentration in General Business; and 4, 30.8 per cent, completed a field of concentration in Secretarial Administration.

Law, Economics, General Business, Geography, and Secretarial Administration.

The total of 122 graduates of the School of Commerce who received life certificates in commerce from the Oklahoma State Board of Education completed the fields of concentration as follows: 1, or .8 per cent, in Accounting; 27, or 22.1 per cent, in Business Administration; 7, or 5.7 per cent in Business Law; 11, or 9.0 per cent, in Economics; 3, or 2.5 per cent, in Geography; 2, or 1.7 per cent, in General Business; and 71, or 58.2 per cent, in Secretarial Administration.

Of the total 13 men graduates of the School of Commerce who received life certificates in commerce and who completed fields of concentration, 4, or 30.8 per cent, completed the field of concentration in Business Administration; 4, or 30.8 per cent, completed the field of concentration in Secretarial Administration; and 5, or 38.4 per cent, completed the field of concentration in one of the following 3 fields of concentration: Business Law, Economics, and General Business.

For the 109 women graduates of the School of Commerce who received life certificates in commerce from the Oklahoma State Board of Education, the distribution of graduates by fields of concentration is as follows: 1, or .9 per cent, completed a field of concentration in Accounting; 23, or 21.4 per cent, in Business Administration; 6, or 5.5 per cent, in Business Law; 9, or 8.3 per cent, in Economics; 3, or 2.7 per cent in Geography; and 67, or 61.7 per cent, completed a field of concentration in Secretarial Administration.

The data in Table XVI suggest that approximately 90 per cent of the graduates of the School of Commerce who received life certificates in commerce were women. The data suggest further that the field of concentration completed by three fifths of the graduates was Secretarial

Administration, while the field of concentration completed by 1 per cent of the graduates was Accounting. Thus, the largest number of graduates completed a field of concentration in Secretarial Administration, while the smallest number of graduates completed a field of concentration in Accounting.

The data in Table XVII show the number and per cent of graduates of the School of Commerce, by years and sex, who completed fields of concentration. The total numbers of graduates in each field are the same as the data included in Table XVI of this study. The distribution of graduates by fields of concentration is as follows: 27, or 22.1 per cent, in Business Administration; 71, or 58.2 per cent, in Secretarial Administration; and 24, or 19.7 per cent, distributed among the following 5 fields of concentration: Accounting, Business Law, Economics, General Business, and Geography. It is interesting, however, to note that throughout the period covered by this study, from September, 1937, to February, 1949, inclusive, the principal field of concentration was Secretarial Administration in the Department of Secretarial Administration. This would seem to indicate that graduates with life certificates in Commerce are generally better prepared to teach the secretarial subjects than subjects in the fields of accounting, general business, geography, and economics.

Courses Completed in the Commerce Teaching Field

The data in Table XVIII show by schools the number of graduates who completed the courses which meet the special commerce requirements of the Oklahoma State Board of Education for the Life Certificate in Commerce. The specific skill courses which meet the Life Certificate in Commerce requirements at the Oklahoma Agricultural and Mechanical

TABLE XVII

NUMBER AND PER CENT OF BACHELOR DEGREE GRADUATES OF THE OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE WITH MAJORS IN COMMERCE, DISTRIBUTED ACCORDING TO SEX, YEAR OF GRADUATION, AND FIELD OF CONCENTRATION

Year of Graduation	Number of Graduates Who Majored in Commerce No. P.C.		Number and Sex of Graduates by Fields of Concentration											
			Accounting		Business Administration		Business Law		Economics					
			Men	Women	Men	Women	Men	Women	Men	Women				
			No. P.C.	No. P.C.	No. P.C.	No. P.C.	No. P.C.	No. P.C.	No. P.C.	No. P.C.				
1938	12	100.0							3	25.0			1	8.3
1939	22	100.0		1 4.5	1 4.5	2 9.1			1	4.5				
1940	11	100.0			1 9.1	3 27.2	1 9.1	1 9.1	1 9.1	1 9.1	1 9.1	1 9.1	1 9.1	
1941	11	100.0				1 9.1							2 18.2	
1942	12	100.0			1 8.3	3 25.0								
1943	10	100.0				1 10.0							1 10.0	
1944	4	100.0				2 50.0			1 25.0				1 25.0	
1945	6	100.0				1 16.6							1 16.7	
1946	3	100.0				3 100.0								
1947	13	100.0				4 30.7					1 7.7	1 7.7	1 7.7	
1948	13	100.0			1 7.7	2 15.4							1 7.7	
1949	5	100.0				1 20.0								
Total	122	100.0		1 .8	4 3.3	23 18.8	1 .8	6 4.9	2 1.6	9 7.4				

TABLE XVII (CONCLUDED)

NUMBER AND PER CENT OF BACHELOR DEGREE GRADUATES OF THE OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE WITH MAJORS IN COMMERCE, DISTRIBUTED ACCORDING TO SEX, YEAR OF GRADUATION, AND FIELD OF CONCENTRATION

Year of Graduation	Number of Graduates Who Majored in Commerce No. P.C.		Number and Sex of Graduates by Fields of Concentration								
			Geography		General Business		Secretarial Administration				
			Men	Women	Men	Women	Men	Women			
			No. P.C.	No. P.C.	No. P.C.	No. P.C.	No. P.C.	No. P.C.			
1938	12	100.0					1	8.3	7	58.4	
1939	22	100.0					1	4.5	16	72.9	
1940	11	100.0							3	27.3	
1941	11	100.0							8	72.7	
1942	12	100.0		1	8.3			1	8.4	6	50.0
1943	10	100.0								8	80.0
1944	4	100.0									
1945	6	100.0								4	66.7
1946	3	100.0									
1947	13	100.0		2	15.4			2	15.4	3	23.1
1948	13	100.0				2	15.4			7	53.8
1949	5	100.0								4	80.0
Total	122	100.0		3	2.5	2	1.6	5	4.1	67	54.9

This table should be read as follows: In 1938 there were 12 graduates from the Oklahoma Agricultural and Mechanical College who majored in Commerce. Of this total, 3 women, or 25.0 per cent of the total, completed a field of concentration in Business Law; 1 woman, or 8.3 per cent, completed a field of concentration in Economics; 1 man, or 8.3 per cent, completed a field of concentration in Secretarial Administration; and 7 women, or 58.4 per cent, completed a field of concentration in Secretarial Administration.

College are Accounting 213; Accounting 223; Secretarial Administration 110, Beginning Typewriting; Secretarial Administration 213, Beginning Shorthand; Secretarial Administration 223, Intermediate Shorthand; Secretarial Administration 233, Intermediate Typewriting; Math 113, Business Mathematics; Business Administration 493, Business Communications; and Business Law 313. The descriptions of these courses, arranged alphabetically, are found in the appendix as Appendix B.

The data presented in Table XVIII were obtained from the permanent record cards maintained for each student in the Office of the Registrar, Oklahoma Agricultural and Mechanical College.

In this study, it will be noted that many of the students did not take all of the courses necessary to satisfy the life certificate requirements at the Oklahoma Agricultural and Mechanical College. It is possible to obtain credit toward the Life Certificate in Commerce by validating one or more high school credits in shorthand and typewriting. As the 1947-1948 General Catalog states,

A student who has completed one full year of shorthand or typewriting in high school or in an unaccredited institution may be granted a maximum of three credit hours in each course to teach business subjects in the high school, provided such student completed an advanced course here with a satisfactory grade (C or above). However, this credit may not be included in the total credits required for the college degree.¹

Each student must complete six semester hours selected from at least two of the following courses: Mathematics 113, Business Administration 493, and Business Law 313. Many students, however, complete all three courses.

¹ Oklahoma Agricultural and Mechanical College Catalog, 1947-1948, p. 54.

Since repeated grades would cause a duplication in the data, it was decided to record only the courses in which passing grades were made. Thus, it was possible to report the exact number of graduates who completed credit in each of the courses included in this study.

The data in Table XVIII reveal that, of the total of 158 bachelor degree graduates who received Life Certificates in Commerce, 158, or 100.0 per cent, completed Accounting 213; 152, or 96.2 per cent, completed Accounting 223; 36, or 22.2 per cent completed Secretarial Administration 110; 123, or 7.8 per cent, completed Secretarial Administration 213; 155, or 98.1 per cent completed Secretarial Administration 223; 137, or 86.7 per cent, completed Secretarial Administration 233, 148, or 93.7 per cent, completed Mathematics 113; 67, or 4.24 per cent, completed Business Administration 493; and 146, or 92.4 per cent completed Business Law 313.

From the data in Table XVIII it is possible to indicate the pattern of skill courses comprising the commerce teaching field which was completed by a majority of the 158 students obtaining the bachelor's degree and receiving the Life Certificate in Commerce.

For the purposes of this study, a course is included in the pattern when more than 50 per cent of the graduates completed credit in that course. On this basis the following pattern of skill courses characterizes the programs of specialized education in commerce for the 158 graduates as a group, for the 122 graduates of the School of Commerce, and for the 31 graduates of the School of Education: Accounting 213, Accounting 223, Secretarial Administration 213, Secretarial Administration 223, Secretarial Administration 233, Mathematics 113, and Business Law 313.

TABLE XVIII

NUMBER AND PER CENT OF STUDENTS IN THE VARIOUS SCHOOLS WHO COMPLETED THE COURSES COMPRISING THE COMMERCE TEACHING FIELD PREVIOUS TO THEIR GRADUATION FROM THE OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE WITH BACHELOR'S DEGREES, FOR THE PERIOD FROM SEPTEMBER, 1937, TO FEBRUARY, 1949, INCLUSIVE

Schools In Which Students Were Enrolled	Total Number of Students in Each School		Number of Students Completing Courses Comprising the Commerce Teaching Field by Departments											
			Accounting				Secretarial Administration							
	213		223		110		213		223		233			
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent		
Commerce	122	100.0	122	100.0	118	96.7	27	22.1	94	77.0	120	98.4	103	84.4
Education	31	100.0	31	100.0	29	93.5	9	29.0	26	83.9	31	100.0	31	100.0
Home Economics	3	100.0	3	100.0	3	100.0	1	33.3	1	33.3	2	66.7	2	66.7
Arts and Sciences	2	100.0	2	100.0	2	100.0			2	100.0	2	100.0	2	100.0
Total	158	100.0	158	100.0	152	96.2	36	22.8	123	77.8	155	98.1	138	87.3

TABLE XVIII (CONCLUDED)

NUMBER AND PER CENT OF STUDENTS IN THE VARIOUS SCHOOLS WHO COMPLETED THE COURSES COMPRISING THE COMMERCE TEACHING FIELD PREVIOUS TO THEIR GRADUATION FROM THE OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE WITH BACHELOR'S DEGREES, FOR THE PERIOD FROM SEPTEMBER, 1937, TO FEBRUARY, 1949, INCLUSIVE

Schools In Which Students Were Enrolled	Total		Number of Students Completing Courses Comprising the Commerce Teaching Field by Departments					
	Number of Students In Each School		Mathematics		Business Administration		Business Law	
	No.	Per Cent	113		493		313	
			No.	Per Cent	No.	Per Cent	No.	Per Cent
Commerce	122	100.0	112	91.8	62	50.8	121	99.1
Education	31	100.0	31	100.0	5	16.1	29	93.5
Home Economics	3	100.0	3	100.0			3	100.0
Arts and Sciences	2	100.0	2	100.0			2	100.0
Total	158	100.0	148	93.7	67	42.4	146	92.4

*All students did not take all the required courses.
This table should be read as follows: Of the 122 students enrolled in Commerce, 122, or 100.0 per cent, completed Accounting 213; 118, or 96.7 per cent, completed Accounting 223, etc.

The marked uniformity in the patterns of skill courses completed by the graduates of the School of Commerce and the School of Education probably can be accounted for by the fact that a specific number of hours is specified by the State Board of Education for each of the skill subjects, with the exception of business mathematics, business law, and business English. In the case of the latter three subjects, a student is expected to complete 6 hours in any two of the three subjects. A further observation might be made of the courses in the pattern of commerce subjects comprising the commerce teaching field; namely, that with the exception of Business Law 313, the courses may be classified as lower division subjects which were subjects completed during the freshman and sophomore years of college.

Because of the few number of students graduated from the School of Home Economics and the School of Arts and Sciences, with life certificates in commerce, it was not deemed plausible to attempt to establish patterns of skill courses in commerce, for these students.

The data in Table XIX show the special commerce courses which were taken to complete the requirements for the life certificate and the grades received in those courses by the graduates of the School of Commerce who received life certificates in commerce.

Out of a total of 879 grades recorded for courses completed by the total of 122 students, 271, or 30.8 per cent, were A's; 314, or 35.7 per cent, were B's; 252, or 28.7 per cent, were C's; and 42, or 4.8 per cent, were D's. It is noted that approximately two thirds of the grades received by the 122 students who graduated with bachelor's degrees in commerce and with life certificates in commerce, were A's and B's. No

TABLE XIX

GRADES RECEIVED IN COURSES COMPRISING THE COMMERCE TEACHING FIELD BY GRADUATES OF THE OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE WHO MAJORED IN THE SCHOOL OF COMMERCE, AND WHO RECEIVED LIFE CERTIFICATES IN COMMERCE, FOR THE PERIOD FROM SEPTEMBER, 1937, TO FEBRUARY, 1949, INCLUSIVE

Grades Received	Total Grades Received		Grades Received in Courses Comprising Commerce Teaching Field											
			Accounting				Secretarial Administration							
	213		223		110		213		223		233			
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent		
A	271	30.8	39	32.0	19	16.1	9	33.3	41	43.6	45	37.5	43	4.7
B	314	35.7	38	31.2	39	33.1	12	44.4	30	31.9	37	30.9	33	32.1
C	252	28.7	38	31.1	45	38.1	4	14.8	21	22.3	34	28.3	24	23.3
D	42	4.8	7	5.7	15	12.7	2	7.5	2	2.2	4	3.3	3	2.9
Total	879	100.0	122	100.0	118	100.0	27	100.0	94	100.0	120	100.0	103	100.0

TABLE XIX (CONCLUDED)

GRADES RECEIVED IN COURSES COMPRISING THE COMMERCE TEACHING FIELD BY GRADUATES OF THE OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE AND MAJORED IN THE SCHOOL OF COMMERCE, AND WHO RECEIVED LIFE CERTIFICATES IN COMMERCE, FOR THE PERIOD FROM SEPTEMBER, 1937, TO FEBRUARY, 1949, INCLUSIVE

Grades Received	Total Grades Received		Grades Received in Courses Comprising Commerce Teaching Field					
			Mathematics		Business Administration		Business Law	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
A	271	30.8	37	33.0	20	32.2	18	14.9
B	314	35.7	45	40.1	28	45.2	52	42.9
C	252	28.7	26	23.2	12	19.4	48	39.7
D	42	4.8	4	3.7	2	3.2	3	2.5
Total	879	100.0	112	100.0	62	100.0	121	100.0

This table should be read as follows: Of the 271 A's received in courses by graduates of the School of Commerce, 39, or 32.0 per cent, were received in Accounting 213, etc.

failing marks were reported in this study, since grades were recorded only in courses which the students completed for credit for the degree and the life certificate.

The data in Table XIX also show the distribution of grades received by students in selected Commerce courses. For example, of a total of 122 students enrolled in Accounting 213, 39, or 32.0 per cent, received A's in that course; 38, or 31.2 per cent, received B's; 38, or 31.2 per cent, received C's; and 7, or 5.7 per cent, received D's. Of a total of 118 students enrolled in Accounting, approximately one fifth received A's; approximately one third, B's; approximately one third, C's; and approximately one tenth received D's.

The data in Table XX show the courses taken and the grades received in those commerce courses necessary to complete requirements for the Life Certificate in Commerce by the graduates of the School of Education. About three fourths of the 27 students who earned credit in beginning typewriting (Secretarial Administration 110), made A's and B's, which also represents approximately the proportion of students who received A's and B's in beginning shorthand (Secretarial Administration 213), in intermediate shorthand (Secretarial Administration 223), and in intermediate typewriting (Secretarial Administration 233).

In the beginning course in accounting (Accounting 213), slightly more than three fifths of the students received A's and B's, compared with less than half who obtained similar marks in Accounting 223, the second course in accounting.

Since the majority of the students included in this study are women, and since better marks were received, on the average in the

TABLE XX

GRADES RECEIVED IN COURSES COMPRISING THE COMMERCE TEACHING FIELD BY BACHELOR DEGREE GRADUATES OF THE OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE WHO MAJORED IN THE SCHOOL OF EDUCATION, AND WHO RECEIVED LIFE CERTIFICATES IN COMMERCE, FOR THE PERIOD FROM SEPTEMBER, 1937, TO FEBRUARY, 1949, INCLUSIVE

Grades Received	Total Grades Received		Grades Received in Courses Comprising Commerce Teaching Field											
			Accounting				Secretarial Administration							
			213		223		110		213		223		233	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
A	81	36.4	9	29.0	4	13.8	5	55.6	11	42.3	11	35.5	16	51.6
B	66	29.7	13	41.9	12	41.4	3	33.3	9	34.6	9	29.0	5	16.1
C	61	27.5	7	22.6	7	24.1	1	11.1	6	23.1	9	29.0	9	29.0
D	14	6.4	2	6.5	6	20.7					2	6.5	1	3.3
Total	222	100.0	31	100.0	29	100.0	9	100.0	26	100.0	31	100.0	31	100.0

TABLE XX (CONCLUDED)

GRADES RECEIVED IN COURSES COMPRISING THE COMMERCE TEACHING FIELD BY BACHELOR DEGREE GRADUATES OF THE OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE WHO MAJORED IN THE SCHOOL OF EDUCATION, AND WHO RECEIVED LIFE CERTIFICATES IN COMMERCE, FOR THE PERIOD FROM SEPTEMBER, 1937, TO FEBRUARY, 1949, INCLUSIVE

Grades Received	Total Grades Received		Grades Received in Courses Comprising Commerce Teaching Field					
			Mathematics		Business Administration		Business Law	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
			113		493		313	
				Per		Per		Per
				Cent		Cent		Cent
A	81	36.4	15	48.3	3	60.0	7	24.1
B	66	29.7	7	22.6	1	20.0	7	24.1
C	61	27.5	8	25.8	1	20.0	13	44.9
D	14	6.4	1	3.3			2	6.9
Total	222	100.0	31	100.0	5	100.0	29	100.0

This table should be read as follows: Of the 81 A's received, 9 were received in Accounting 213, etc.

secretarial subjects than in accounting, in business communications or in business law, one may conclude that graduates who received commerce teaching certificates are, on the whole, better prepared for teaching typing and shorthand than bookkeeping, business communications, and business math.

The data in Table XX also reveal the distribution of grades received by the students in selected commerce courses. For example, of a total of 31 graduates of the School of Education who completed Accounting 213, 9, or 29.0 per cent, received A's; 13, or 41.9 per cent, received B's; 7, or 22.6 per cent, received C's; and 2, or 6.5 per cent, received D's.

The data in Table XXI and Table XXII show the courses taken and the grades received in those commerce courses necessary to complete requirements for the Life Certificate in Commerce by the graduates of the School of Home Economics, and of the School of Arts and Sciences

Out of a total of 18 grades recorded for courses taken by 3 students, from the School of Home Economics, 6, or 33.3 per cent were A's; 4, or 22.2 per cent, B's; 7, or 38.9 per cent, C's; 1, or 5.6 per cent, were D's.

Out of a total of 13 grades recorded for courses taken by 2 students in the School of Arts and Sciences, 3, 23.1 per cent, were A's; 4, or 30.8 per cent, B's; 4, or 30.8 per cent, C's; and 2, or 15.6 per cent, were D's. The table further shows that 2, or 100.0 per cent, of the graduates made C's in accounting 213.

Because of the small number of students who graduated from the School of Home Economics and from the School of Arts and Sciences with Life Certificates in Commerce, no analysis was made of their work in the skill courses prescribed for the commerce teaching field.

TABLE XXI

GRADES RECEIVED IN COURSES COMPRISING THE COMMERCE TEACHING FIELD BY BACHELOR DEGREE GRADUATES OF THE OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE WHO MAJORED IN THE SCHOOL OF HOME ECONOMICS, AND WHO RECEIVED LIFE CERTIFICATES IN COMMERCE, FOR THE PERIOD FROM SEPTEMBER, 1937, TO FEBRUARY, 1949, INCLUSIVE

Grades Received	Total Grades Received		Grades Received in Courses Comprising Commerce Teaching Field											
			Accounting				Secretarial Administration							
			213		223		110		213		223		233	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
A	6	33.3	1	33.3	1	33.3					1	50.0	1	50.0
B	4	22.2	1	33.3	1	33.3					1	50.0		
C	7	38.9	1	33.4	1	33.4	1	100.0	1	100.0			1	50.0
D	1	5.6												
Total	18	100.0	3	100.0	3	100.0	1	100.0	1	100.0	2	100.0	2	100.0

TABLE XXI (CONCLUDED)

GRADES RECEIVED IN COURSES COMPRISING THE COMMERCE TEACHING FIELD BY BACHELOR DEGREE GRADUATES OF THE OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE WHO MAJORED IN THE SCHOOL OF HOME ECONOMICS, AND WHO RECEIVED LIFE CERTIFICATES IN COMMERCE, FOR THE PERIOD FROM SEPTEMBER, 1937, TO FEBRUARY, 1949, INCLUSIVE

Grades Received	Total Grades Received		Grades Received in Courses Comprising Commerce Teaching Field					
	No.	Per Cent	Mathematics		Business Administration		Business Law	
			No.	Per Cent	No.	Per Cent	No.	Per Cent
A	6	33.3	2	66.7				
B	4	22.2	1	33.3				
C	7	38.9					2	66.7
D	1	5.6					1	33.3
Total	18	100.0	3	100.0			3	100.0

This table should be read as follows: Of the 6 A's received, 1 was received in Accounting 213, etc.

TABLE XXII

GRADES RECEIVED IN COURSES COMPRISING THE COMMERCE TEACHING FIELD BY BACHELOR DEGREE GRADUATES OF THE OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE WHO MAJORED IN THE SCHOOL OF ARTS AND SCIENCES, AND WHO RECEIVED LIFE CERTIFICATES IN COMMERCE FOR THE PERIOD FROM SEPTEMBER, 1937, TO FEBRUARY, 1949, INCLUSIVE

Grades Received	Total Grades Received		Grades Received in Courses Comprising Commerce Teaching Field											
			Accounting				Secretarial Administration							
			213		223		110		213		223		233	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
A	3	21.4							1	50.0	1	50.0	1	50.0
B	5	35.7							1	50.0	1	50.0		
C	4	28.6	2	100.0									1	50.0
D	2	14.3			2	100.0								
Total	14	100.0	2	100.0	2	100.0			2	100.0	2	100.0	2	100.0

TABLE XXII (CONCLUDED)

GRADES RECEIVED IN COURSES COMPRISING THE COMMERCE TEACHING FIELD BY BACHELOR DEGREE GRADUATES OF THE OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE WHO MAJORED IN THE SCHOOL OF ARTS AND SCIENCES, AND WHO RECEIVED LIFE CERTIFICATES IN COMMERCE FOR THE PERIOD FROM SEPTEMBER, 1937, TO FEBRUARY, 1949, INCLUSIVE

Grades Received	Total Grades Received		Grades Received in Courses Comprising Commerce Teaching Field					
	No.	Per Cent	Mathematics		Business Administration		Business Law	
			No.	Per Cent	No.	Per Cent	No.	Per Cent
A	3	21.4						
B	5	35.7	1	50.0			2	100.0
C	4	28.6	1	50.0				
D	2	14.3						
Total	14	100.0	2	100.0			2	100.0

This table should be read as follows: Of the 3 A's received, 1 was received in Secretarial Administration 213.

The data in Table XXIII show the grade-point averages earned by the students in the various schools in the commerce courses necessary to complete the requirements for the Life Certificate in Commerce. The grade-point averages were figured on the number of hours of A's, B's, C's, and D's earned by students in each school in the courses comprising the commerce teaching field. The grade-point averages earned in skill courses necessary to complete the requirements of the Life Certificate in Commerce by students in the various schools, are as follows: 2.92, for students in the School of Commerce; 2.96, for students in the School of Education; 2.16 for students in the School of Home Economics; and 2.31 for students in the School of Arts and Sciences.

The grade-point average earned by the students who graduated from the School of Commerce was approximately the same as the grade-point average earned by the students who graduated from the School of Education. Since there were only 3 graduates of the School of Home Economics and only 2 graduates of the School of Arts and Sciences who completed the courses required for a Life Certificate in Commerce, the grade-point averages for these students are not considered reliable for purposes of making generalizations.

Courses Completed in Professional Education

The data in Table XXIV show the total number of students completing credit in the different professional education courses suggested in the 1947-1948 General Catalog for the fulfillment of the education requirements for the Life Certificate in Commerce, for the period from September, 1937, to February, 1949, inclusive. A description of these courses, arranged alphabetically, is found in the appendix as Appendix B.

The data in Table XXIV reveal that of the total of 158 bachelor

TABLE XXIII

GRADE-POINT AVERAGES EARNED BY BACHELOR DEGREE GRADUATES OF THE OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE IN THE COURSES COMPRISING THE COMMERCE TEACHING FIELD, BY SCHOOLS, FOR THE PERIOD FROM SEPTEMBER, 1937, TO FEBRUARY, 1949, INCLUSIVE

Courses Comprising Commerce Teaching Field	Grade-Point Averages Earned by Schools			
	Commerce	Education	Home Economics	Arts and Sciences
	Average Earned by 122 Students	Average Earned by 31 Students	Average Earned by 3 Students	Average Earned by 2 Students
Acctg. 213	2.89	2.93	3.00	2.00
Acctg. 223	2.53	2.48	3.00	1.00
S.A. 110	3.04	3.44	2.00	
S.A. 213	3.12	3.19		3.50
S.A. 223	3.02	2.93	3.50	3.50
S.A. 233	3.12	3.16	3.00	3.00
Math. 113	3.02	3.16	3.60	2.50
B.A. 493	3.06	3.40		
B.L. 313	2.70	2.65	1.6	3.00
Grade Point Average in Courses Comprising Commerce Teaching Field	2.92	2.96	2.6	2.31

This table should be read as follows: The grade-point average earned in Acctg. 213 by 122 Commerce graduates was 2.89; the grade-point average earned by 31 Education students was 2.93; the grade-point average of the 3 Home Economics students was 3.0; and the grade-point average earned by 2 Arts and Sciences students was 2.0.

degree graduates from the Oklahoma Agricultural and Mechanical College who received Life Certificates in Commerce, 153, or 96.8 per cent, completed Secondary Education 313; 151, or 95.6 per cent, completed Secondary Education 323; 146, or 92.4 per cent, completed Secondary Education 352; 25, or 15.8 per cent, completed Secondary Education 412; 23, or 14.5 per cent, completed Secondary Education 422; 127, or 80.4 per cent, completed Philosophy 423; 136, or 86.1 per cent, completed Psychology 313; 17, or 10.7 per cent, completed Psychology 332; and 35, or 22.1 per cent, completed Psychology 343.

The data in Table XXIV further reveal the number and percentage of students who completed the professional education courses by year of graduation. For example, of the total 14 students who graduated with bachelor's degrees and received Life Certificates in Commerce in 1938, 14, or 100.0 per cent, completed Secondary Education 313, 13, or 92.9 per cent, completed Secondary Education 323; 13 or 92.9 per cent, completed Secondary Education 352; 3, or 21.4 per cent, completed Secondary Education 412; 1, or 7.1 per cent, completed Secondary Education 422; 13, or 92.9 per cent, completed Philosophy 423; 10, or 71.4 per cent, completed Psychology 313; 2, or 14.3 per cent, completed Psychology 322; 13, or 92.9 per cent completed Psychology 332; and 2, or 14.3 per cent, completed Psychology 343.

The data in Table XXIV show that students who graduated from the Oklahoma Agricultural and Mechanical College with a bachelor's degree and who received a Life Certificate in Commerce through recommendation by the college, completed the following pattern of professional education subjects in the School of Education: Secondary Education 313, Secondary Education 323, Secondary Education 352, Philosophy 423, Psychology 313, and Psychology 332.

TABLE XXIV

NUMBER AND PER CENT OF BACHELOR DEGREE GRADUATES OF THE OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE WHO COMPLETED THE PROFESSIONAL EDUCATION COURSES SUGGESTED IN THE 1947-1948 COLLEGE CATALOG FOR THE LIFE CERTIFICATE IN COMMERCE, FOR THE PERIOD FROM SEPTEMBER, 1937, TO FEBRUARY, 1949, INCLUSIVE, BY YEARS

Professional Education Courses	Total Number of Graduates who Completed Courses		Graduates by Years Completing Indicated Course									
			1938		1939		1940		1941		1942	
			No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
Sec. Ed. 313	153	96.8	14	100.0	27	96.4	15	100.0	18	94.6	12	92.4
Sec. Ed. 323	151	95.6	13	92.9	26	92.9	15	100.0	19	100.0	13	100.0
Sec. Ed. 352	146	92.4	13	92.9	26	92.9	15	100.0	18	94.6	12	92.4
Sec. Ed. 412	25	15.8	3	21.4	1	3.6	3	20.0	6	31.6		
Sec. Ed. 422	23	14.5	1	7.1	4	14.3	1	6.6	6	31.6		
Philos. 423	127	80.4	13	92.9	27	96.4	13	86.6	16	84.2	12	92.4
Psych. 313	136	86.1	10	71.4	21	75.0	14	93.3	17	89.5	12	92.4
Psych. 323	17	10.7	2	14.3	6	21.4	1	6.6	4	21.1	1	7.7
Psych. 332	91	57.6	13	92.9	23	82.1	13	86.6	13	68.4	12	92.4
Psych. 343	35	22.1	2	14.3	2	7.1						
Total Number of Graduates by Years	158	100.0	14	100.0	28	100.0	15	100.0	19	100.0	13	100.0

TABLE XXIV (CONCLUDED)

NUMBER AND PER CENT OF BACHELOR DEGREE GRADUATES OF THE OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE WHO COMPLETED THE PROFESSIONAL EDUCATION COURSES SUGGESTED IN THE 1947-1948 COLLEGE CATALOG FOR THE LIFE CERTIFICATE IN COMMERCE, FOR THE PERIOD FROM SEPTEMBER, 1937, TO FEBRUARY, 1949, INCLUSIVE, BY YEARS

Professional Education Courses	Graduates by Years Completing Indicated Courses													
	1943		1944		1945		1946		1947		1948		1949	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
Sec. Ed. 313	13	100.0	6	100.0	6	100.0	4	100.0	12	92.4	21	100.0	5	83.3
Sec. Ed. 323	12	92.4	6	100.0	5	83.3	4	100.0	12	92.4	21	100.0	5	83.3
Sec. Ed. 352	12	92.4	6	100.0	6	100.0	3	75.0	13	100.0	17	80.9	5	83.3
Sec. Ed. 412	1	7.7	1	16.7			1	25.0			9	42.8		
Sec. Ed. 422	1	7.7	1	16.7							9	42.8		
Philos. 423	11	84.6	6	100.0	5	83.3	2	50.0	8	71.5	11	52.4	3	50.0
Psych. 313	13	100.0	6	100.0	6	100.0	2	50.0	12	92.4	17	80.9	6	100.0
Psych. 322	1	7.7	1	16.7							1	4.7		
Psych. 332	10	76.9	2	33.3	1	16.7	1	25.0			2	9.5	1	16.7
Psych. 343	1	7.7	2	16.7	4	66.7	4	100.0	10	76.9	14	66.7	3	50.0
Total number of Graduates by Years	13	100.0	6	100.0	6	100.0	4	100.0	13	100.0	21	100.0	6	100.0

*All students did not take all the required courses.

This table should be read as follows: Of the total 158 graduates, 153, or 96.8 per cent, completed Sec. Ed. 313; in 1938, a total of 14 students completed Sec. Ed. 313; etc.

For the purposes of this study, a course is included in the pattern when more than 50 per cent of the graduates completed credit in that course.

The data in Table XXV show the number of students and the percentage of the total number of students enrolled in each school who completed Secondary Education 313, Secondary Education 323, Secondary Education 412, Secondary Education 422, Philosophy 423, Psychology 313, Psychology 322, Psychology 332, and Psychology 343.

The data in Table XXV reveal that the following pattern of professional education courses was taken by a majority of the graduates of the School of Commerce: Secondary Education 313, Secondary Education 323, Secondary Education 352, Philosophy 423, Psychology 313, and Psychology 332.

The pattern of professional education courses completed by a majority of the graduates of the School of Education is as follows: Secondary Education 313, Secondary Education 323, Secondary Education 412, Secondary Education 422, Philosophy 423, and Psychology 313.

Because of the small number of graduates from the School of Home Economics and the School of Arts and Sciences who completed requirements for life certificates in commerce, it is not plausible to determine patterns of professional education courses pursued by these students.

Courses Completed in Business Education

The data in Table XXVI show the total number of students who completed courses in business education in the Department of Business Education for the period from September, 1937, to February, 1949. These courses in business education were required for Business Education majors in the School of Commerce. Students from the Schools of Education, Home Economics, and Arts and Sciences, who completed requirements for the Life Certificate

TABLE XXV

NUMBER AND PER CENT OF BACHELOR DEGREE GRADUATES OF THE
OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE WHO COMPLETED
THE PROFESSIONAL EDUCATION COURSES SUGGESTED IN THE 1947-1948
COLLEGE CATALOG FOR THE LIFE CERTIFICATE IN COMMERCE, FOR THE
PERIOD FROM SEPTEMBER, 1937, TO FEBRUARY, 1949, INCLUSIVE, BY SCHOOLS

Professional Education Courses	Number of Graduates by Schools									
	Commerce		Education		Home Economics		Arts and Sciences		Graduates	
	Total No.	Graduates	Total No.	Graduates	Total No.	Graduates	Total No.	Graduates	Total No.	Graduates
	of	who	of	who	of	who	of	who	of	who
Graduates	Completed	Graduates	Completed	Graduates	Completed	Graduates	Completed	Graduates	Completed	
No. P.C.	No. P.C.	No. P.C.	No. P.C.	No. P.C.	No. P.C.	No. P.C.	No. P.C.	No. P.C.	No. P.C.	
Sec. Ed. 313	122 100.0	118 96.7	31 100.0	30 96.7	3 100.0	3 100.0	2 100.0	2 100.0	2 100.0	2 100.0
Sec. Ed. 323	122 100.0	117 95.9	31 100.0	30 96.7	3 100.0	2 66.7	2 100.0	2 100.0	2 100.0	2 100.0
Sec. Ed. 352	122 100.0	119 97.4	31 100.0	25 80.6	3 100.0		2 100.0	2 100.0	2 100.0	2 100.0
Sec. Ed. 412	122 100.0	3 2.5	31 100.0	19 61.4	3 100.0	1 33.3	2 100.0	2 100.0	2 100.0	2 100.0
Sec. Ed. 422	122 100.0	2 1.6	31 100.0	19 61.4	3 100.0		2 100.0	2 100.0	2 100.0	2 100.0
Philos. 423	122 100.0	97 79.5	31 100.0	27 87.1	3 100.0	1 33.3	2 100.0	2 100.0	2 100.0	2 100.0
Psych. 313	122 100.0	108 88.5	31 100.0	26 83.9	3 100.0	2 66.7	2 100.0	2 100.0	2 100.0	2 100.0
Psych. 322	122 100.0	9 73.7	31 100.0	7 22.6	3 100.0	1 33.3	2 100.0	2 100.0	2 100.0	2 100.0
Psych. 332	122 100.0	77 63.1	31 100.0	13 41.9	3 100.0		2 100.0	2 100.0	1 50.0	1 50.0
Psych. 343	122 100.0	32 26.2	31 100.0	8 25.8	3 100.0	2 66.7	2 100.0	2 100.0	2 100.0	2 100.0

This table should be read as follows: There was a total of 122 Commerce students; of this total, 118, or 96.7 per cent, completed Sec. Ed. 313; of the total of 31 Education students, 30, or 96.7 per cent, completed Sec. Ed. 313.

in Commerce took some of these Business Education Courses. The catalog description of these courses, is included in the appendix as Appendix B.

Business Education 432, and Business Education 492, were dropped from the curriculum during the period covered by this study; however, since many students in former years completed these courses, it was believed to be worthwhile to include them.

In September, 1948, the following course numbers were changed; Business Education 452, to Business Education 453; and Business Education 462, to Business Education 463. In January, 1949, the following course numbers were changed; Business Education 412 to Business Education 413; and Business Education 422 to Business Education 423.

The data in TableXVI reveal that of the total 158 bachelor degree graduates from the Oklahoma Agricultural and Mechanical College who received Life Certificates in Commerce, 129, or 81.6 per cent, completed Business Education 412; 129, or 81.6 per cent, completed Business Education 422; 125, or 79.1 per cent, completed Business Education 452; 5, or 3.2 per cent, completed Business Education 453; 130, or 82.3 per cent, completed Business Education 462; 87, or 55.1 per cent, completed Business Education 492; and 57, or 36.1 per cent, completed Business Education 432.

The data in TableXVII further reveal the number and percentage of students who completed the business education courses by year of graduation. For example, of the total 14 students who graduated with a bachelor's degree and received a Life Certificate in Commerce, in 1938, 11, or 78.6 per cent, completed Business Education 422; 13, or 92.9

TABLE XXVI

NUMBER AND PER CENT OF BACHELOR DEGREE GRADUATES OF THE
OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE WHO COMPLETED
THE BUSINESS EDUCATION COURSES FOR THE UFF CERTIFICATE IN COMMERCE
FOR THE PERIOD FROM SEPTEMBER, 1937, TO FEBRU., 1949, INCLUSIVE, BY YEARS

Business Education Courses	Total Number of Graduates who Completed Courses		Number of Graduates Completing Indicated Courses by Years									
			1938		1939		1940		1941		1942	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
B. E. 412	129	81.6	11	78.6	26	92.9	12	80.0	15	73.9	12	92.3
B. E. 422	129	81.6	12	85.7	22	78.6	14	93.3	11	57.9	13	100.0
B. E. 452	125	79.1	13	92.9	25	89.3	13	86.7	14	73.7	12	92.3
B. E. 453	5	3.2										
B. E. 462	130	82.3	10	71.4	24	85.7	12	80.0	12	63.1	13	100.0
B. E. 492	87	55.1	11	78.6	25	89.3	11	73.3	11	57.9	12	92.3
B. E. 432	57	36.1	9	64.3	18	64.3	9	60.0	4	21.0	3	23.1
Total Number of Graduates by Years	158	100.0	14	100.0	28	100.0	15	100.0	19	100.0	13	100.0

TABLE XXVI (CONCLUDED)

NUMBER AND PER CENT OF BACHELOR DEGREE GRADUATES OF THE
OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE WHO COMPLETED
THE BUSINESS EDUCATION COURSES FOR THE LIFE CERTIFICATE IN COMMERCE
FOR THE PERIOD FROM SEPTEMBER, 1937, TO FEBR., 1949, INCLUSIVE, BY YEARS

Business Education Courses	Number of Graduates Completing Indicated Courses by Years													
	1943		1944		1945		1946		1947		1948		1949	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
B. E. 412	11	84.6	4	66.7	6	100.0	3	75.0	12	92.3	12	57.1	5	83.3
B. E. 422	13	100.0	6	100.0	6	100.0	2	50.0	13	100.0	12	57.1	5	83.3
B. E. 452	10	76.9	3	50.0	6	100.0	3	75.0	13	100.0	13	61.9		
B. E. 453													5	83.3
B. E. 462	13	100.0	5	83.3	6	100.0	3	75.0	13	100.0	14	66.7	5	83.3
B. E. 492	4	30.8	3	50.0	5	83.3	1	25.0	1	7.7	3	14.3		
B. E. 432			2	33.3	2	33.3			9	69.2	1	4.8		
Total Number of Graduates by Years	13	100.0	6	100.0	6	100.0	4	100.0	13	100.0	21	100.0	6	100.0

This table should be read as follows: One hundred twenty-nine students, or 81.6 per cent of the total of 158 students, completed Business Education 412.

per cent, completed Business Education 452; 10, or 71.4 per cent, completed Business Education 492; and 9, or 74.3 per cent, completed Business Education 432.

Table XVII shows by schools the number of students and the percentage of the total number of students enrolled in each school who completed Business Education 412, Business Education 422, Business Education 452, Business Education 453, Business Education 462, Business Education 492, and Business Education 432.

The following pattern of business education courses for the bachelor degree graduates of the School of Commerce who received life certificates in commerce was determined by this study: Business Education 412, Business Education 422, Business Education 452, Business Education 462, and Business Education 492. As stated previously, a course is considered to be in the pattern when more than 50 per cent of the students included in this study earned credit in that course.

It will be noted that fewer than one third of the students who graduated with majors in the School of Education took any business education course; therefore, the conclusion might be made that the business education courses are taken almost exclusively by the students who have graduated with majors in the Department of Business Education in the School of Commerce.

Because of the small number of students included in this study who graduated from the School of Home Economics and the School of Arts and Sciences, and because of the small enrollment of these students in the business education course, it was not deemed plausible to establish patterns of courses in business education for these groups.

TABLE XXVII

NUMBER AND PER CENT OF BACHELOR DEGREE GRADUATES OF THE
OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE WHO COMPLETED
THE BUSINESS EDUCATION COURSES FOR THE LIFE CERTIFICATE IN COMMERCE, FOR THE
PERIOD FROM SEPTEMBER, 1937, TO FEBRUARY, 1949, INCLUSIVE, BY SCHOOLS

Business Education Courses	Number of Graduates Completing Indicated Courses by Schools							
	Commerce		Education		Home Economics		Arts and Sciences	
	Total No. of Graduates	Graduates who Completed Courses	Total No. of Graduates	Graduates who Completed Courses	Total No. of Graduates	Graduates who Completed Courses	Total No. of Graduates	Graduates who Completed Courses
	No. P.C.	No. P.C.	No. P.C.	No. P.C.	No. P.C.	No. P.C.	No. P.C.	No. P.C.
B. E. 412	122 100.0	118 96.7	31 100.0	11 35.5	3 100.0		2 100.0	
B. E. 422	122 100.0	121 99.2	31 100.0	7 22.6	3 100.0	1 33.3	2 100.0	
B. E. 452	122 100.0	116 95.1	31 100.0	9 29.0	3 100.0		2 100.0	
B. E. 453	122 100.0	4 3.3	31 100.0		3 100.0	1 33.3	2 100.0	
B. E. 462	122 100.0	120 98.4	31 100.0	9 29.0	3 100.0	1 33.3	2 100.0	
B. E. 492	122 100.0	79 64.7	31 100.0	8 25.8	3 100.0		2 100.0	
B. E. 432	122 100.0	54 44.3	31 100.0	3 9.7	3 100.0	3 100.0	2 100.0	

This table should be read as follows: There was a total of 122 bachelor degree graduates from the School of Commerce; 118, or 96.7 per cent, completed B. E. 412; there was a total of 31 bachelor degree graduates from the School of Education; 11, or 35.5 per cent, of these students completed B. E. 412; etc.

CHAPTER VI

SUMMARY OF FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The purposes of this study as set forth in Chapter I are to determine the undergraduate curriculum patterns of selected courses taken by graduates of the Oklahoma Agricultural and Mechanical College who have received the Life Certificate in Commerce from the Oklahoma State Board of Education; the number of graduates of the Oklahoma Agricultural and Mechanical College who have received the Life Certificate in Commerce; the marks made in the selected courses taken; and the additional teaching fields for which the graduates received life teaching certificates for the period from September, 1937, to February, 1949, inclusive.

Data were collected through the use of check sheets compiled for 193 students who received life certificates in commerce from records maintained in the Office of the Registrar, Oklahoma Agricultural and Mechanical College, Stillwater, Oklahoma, for the period from September, 1937, to February, 1949, inclusive. The findings are summarized below as answers to the specific questions listed in the statement of the problem in Chapter I of this study.

1. What is the procedure for getting a Life Certificate at the Oklahoma Agricultural and Mechanical College?

Applications are received from students from all schools on the campus for the life certificates issued by the Oklahoma State Board of Education. After the students' permanent record cards have been examined to determine if they have completed the requirements for the life certificate in the subject or subjects they desire to teach in the public schools of Oklahoma, the Director of Certification in the Office of the Registrar, Oklahoma Agricultural and Mechanical College, recommends to the Oklahoma State Board

of Education that the life certificate be granted in the subject or subjects for which the applicant has met the requirements.

2. What are the Oklahoma State Board of Education requirements for the Life Certificate in Commerce?

In addition to completing the general requirements for all life certificates, as listed in Chapter II of this study, the applicant must complete a minimum of 21 semester hours in professional education courses. Included in these courses must be 6 semester hours of student teaching and 3 semester hours of general methods and management, including Oklahoma School Law. The applicant must have completed at least 24 semester hours in the courses comprising the commerce teaching field as follows: 6 semester hours in typewriting; 6 semester hours in shorthand; 6 semester hours in accounting; and 6 semester hours from any two of the following subjects: business law, business arithmetic, and business English.

3. What are the requirements for graduation from the Oklahoma Agricultural and Mechanical College with a major in the School of Commerce and a teaching field in commerce?

The student pursuing the business education curriculum in the School of Commerce, Department of Business Education, must complete the following requirements: the lower-division requirements specified for all students in the School of Commerce; the requirements for the Life Certificate in Commerce; special teaching methods courses in the commercial field, which are offered by the Department of Business Education; a grade-point average of 2.5; twenty-four semester hours of upper-division Commerce courses, including a field of concentration consisting of 10 to 12 semester hours in one field, such as Secretarial Administration, Accounting, General Business, etc.

4. What are the requirements for graduation from the Oklahoma Agricultural and Mechanical College with a major in the School of Education, and a teaching field in commerce?

The prospective business teacher in the School of Education must meet the general life certificate requirements, complete a minimum of 21 semester hours in professional education courses, complete a minimum of 24 semester hours in the courses comprising the commerce teaching field, and must maintain a grade-point average for the junior and senior years of at least 2.3, and complete the number of semester hours required for graduation.

5. What are the requirements for graduation from the Oklahoma Agricultural and Mechanical College with a Major in the School of Home Economics, and a teaching field in commerce?

The student must complete a minimum of 21 semester hours in professional education, which may include selected courses in Home Economics Education; and a minimum of 24 semester hours in specified courses comprising the commerce teaching field. He must also complete the life certificate requirements for Home Economics Education, and the number of semester hours required for graduation.

6. What are the requirements for graduation from the Oklahoma Agricultural and Mechanical College with a major in the School of Arts and Sciences, and a teaching field in Commerce?

The student must complete a minimum of 21 semester hours in professional education; a minimum of 24 semester hours in specified skill subjects in commerce; and the number of semester hours required for graduation.

7. How many life certificates in commerce were granted to students of the Oklahoma Agricultural and Mechanical College between September, 1937, and February, 1949?

A total of 193 life certificates in commerce were granted to students of the Oklahoma Agricultural and Mechanical College during the period covered by this study. Thirty-five of the life certificates were granted to students who were enrolled in the Graduate School, and 158 of the life certificates were granted to students who received bachelor's degrees.

8. How many life certificates in commerce were granted to men students of the Oklahoma Agricultural and Mechanical College from September, 1937, to February, 1949, inclusive?

Thirty-one life certificates in commerce were granted to men students. Of this total number, 15, or 48.4 per cent, were granted to men who were enrolled in the Graduate School; and 16, or 51.6 per cent, were granted to men who received bachelor's degrees from the Oklahoma Agricultural and Mechanical College.

9. How many life certificates in commerce were granted to women students of the Oklahoma Agricultural and Mechanical College from September, 1937, to February, 1949, inclusive?

A total of 162 life certificates in commerce were granted to women. Of this total number, 20, or 12.3 per cent, were granted to women who were enrolled in the Graduate School; and 142, or 87.7 per cent, were granted to women who received bachelor's degrees from the Oklahoma Agricultural and Mechanical College for the period from September, 1937, to February, 1949, inclusive.

The following questions and answers apply only to the students who received bachelor's degrees from the Oklahoma Agricultural and Mechanical College and life certificates in commerce from the Oklahoma State Board of Education.

1. What were the ages of the graduates when they received bachelor's degrees from the Oklahoma Agricultural and Mechanical College?

Of the total of 158 graduates, 8, or 5.1 per cent, were 20 years of age; 4, or 25.0 per cent, were 21 years of age; 47, or 29.8 per cent, were 22 years of age; 22, or 13.9 per cent, were 23 years of age; and 40, or 25.3 per cent, were between the ages of 24 and 41, inclusive. The median age for the 158 graduates was 22 years; the median age for the 142 women graduates was 22 years; and the median age for the 16 men graduates was 25 years.

2. What were the ages of the graduates when they received life certificates in commerce on the basis of recommendation of the Oklahoma Agricultural and Mechanical College?

The ages of the graduates when they received life certificates in commerce were the same as when they received bachelor's degrees. In all cases the Life Certificate in Commerce was granted the same year the bachelor's degree was granted; and in a majority of cases, the Life Certificate in Commerce was granted within three weeks after the bachelor's degree was granted. The median age of the total 158 graduates was 22 years.

3. What bachelor's degrees were granted to the graduates who received life certificates in commerce on the basis of recommendation of the Oklahoma Agricultural and Mechanical College?

Of the 158 bachelor's degrees granted, 156, or 98.7 per cent, were Bachelor of Science degrees; and 2, or 1.3 per cent, were Bachelor of Arts degrees.

4. In what school on the Oklahoma Agricultural and Mechanical College campus did the graduates complete the bachelor degree requirements for graduation?

The 158 graduates completed the requirements for the bachelor's degrees, according to schools, as follows: 122, or 77.2 per cent, in Commerce; 31, or 19.6 per cent, in Education; 3, or 1.9 per cent, in Home Economics; and 2, or 1.3 per cent, in Arts and Sciences.

5. In what departments on the Oklahoma Agricultural and Mechanical College campus did the graduates complete the bachelor degree requirements for graduation?

Of the total 122 Bachelor of Science degrees granted to students enrolled in the School of Commerce, 11 men, or 9.0 per cent of the total, and 109 women, or 89.3 per cent of the total, majored in the Department of Business Education. Two men, or 1.7 per cent of the total, majored in the Department of General Business.

Of the total of 31 Bachelor of Science degrees granted to students enrolled in the Department of Secondary Education, in the School of Education, 3, or 9.7 per cent of the total, were granted to men; and 28, or 90.3 per cent, were granted to women.

6. How many bachelor degree graduates who received life certificates in commerce also received life certificates in other teaching fields?

A total of 41 graduates who received bachelor's degrees from the Oklahoma Agricultural and Mechanical College also received life certificates in other teaching fields. Thirteen of the graduates had life certificates in English, while the remaining 28 graduates had life certificates distributed among mathematics, history, civics, speech, physical education, Spanish, industrial geography, and home economics education. Each of the 41 graduates, received 1 life certificate in another teaching field, in addition to the Life Certificate in Commerce.

7. What fields of concentration were completed by the graduates of the School of Commerce who received life certificates in commerce from the Oklahoma State Board of Education?

Accounting, Business Administration, Business Law, Economics, General Business, Geography, and Secretarial Administration were the fields of concentration completed by the students who majored in the School of Commerce. Approximately three fifths of the graduates completed fields of concentration in the Department of Secretarial Administration.

8. What was the total number of courses completed in the commerce teaching field by the graduates who received bachelor's degrees from the Oklahoma Agricultural and Mechanical College?

Of the total of 158 bachelor degree graduates who received life certificates in commerce, 158, or 100.0 per cent, completed Accounting 213; 152, or 96.2 per cent, completed Accounting 223; 36, or 22.2 per cent, completed Secretarial Administration 110; 123, or 77.8 per cent, completed Secretarial Administration 213; 155, or 98.1 per cent, completed Secretarial Administration 223; 137, or 86.7 per cent, completed Secretarial Administration 233; 148, or 93.7 per cent completed Mathematics 113; 67, or 42.4 per cent, completed Business Administration 493; and 146, or 92.4 per cent, completed Business Law 313.

9. What grade-point averages were earned in the courses comprising the commerce teaching field by the graduates who received bachelor's degrees from the Oklahoma Agricultural and Mechanical College?

The grade-point averages made by students in the various schools in courses necessary to complete the Life Certificate in Commerce requirements were as follows: 2.92, made by students in the School of Commerce; 2.96, made by students in the School of Education; 2.16, made by students in the School of Home Economics; and 2.31, made by students in the School of Arts and Sciences.

10. What professional education courses, other than business education courses, were taken by the students who received bachelor's degrees from the Oklahoma Agricultural and Mechanical College, and who also received the Life Certificate in Commerce from the Oklahoma State Board of Education?

Of the total 158 bachelor degree graduates, 153, or 96.8 per cent, completed Secondary Education 313; 151, or 95.6 per cent, completed Secondary Education 323; 146, or 92.4 per cent, completed Secondary Education 352; 25, or 15.8 per cent, completed Secondary Education 412; 23, or 14.5 per cent, completed Secondary Education 422; 127, or 80.4 per cent, completed Philosophy 423; 136, or 86.1 per cent, completed Psychology 313; 17, or 10.7 per cent, completed Psychology 332; and 35, or 22.1 per cent, completed Psychology 343.

11. What business education courses were taken by the students who received bachelor's degrees from the Oklahoma Agricultural and Mechanical College, and also the Life Certificate in Commerce from the State Board of Education?

Of the total 158 bachelor degree graduates from the Oklahoma Agricultural and Mechanical College who received Life Certificates in Commerce, 129, or 81.6 per cent, completed Business Education 412; 129, or 81.6 per cent, completed Business Education 422; 125, or 79.1 per cent, completed Business Education 452; 5, or 3.2 per cent, completed Business Education 453; 130, or 82.3 per cent, completed Business 462; 87, or 55.1 per cent,

completed Business Education 492; and 57, or 36.1 per cent, completed Business Education 432.

Conclusions

1. One of the purposes of this study was to determine procedures and requirements for the completion of the Life Certificate in Commerce, as set forth in the College Catalog, for students enrolled in the various schools on the campus of the Oklahoma Agricultural and Mechanical College. A study of the college catalog reveals an essential uniformity in the requirements in the skill courses comprising the 24 semester hours of work prescribed by the State Board of Education for the Life Certificate in Commerce. The study further reveals, however, that there is a variation in the provisions for meeting the requirements in professional education among the different schools on the campus. Variations also were found in the grade-point averages required and in the number of semester hours of upper-division credit required in the field of commerce.

On the basis of these findings, it may be concluded that the nature and scope of the programs of teacher education for prospective teachers of commerce vary considerably among the Schools of Commerce, Education, Home Economics, and Arts and Sciences on the campus of the Oklahoma Agricultural and Mechanical College.

It may also be concluded that the scope and the character of pre-service preparation for teaching commerce depends upon the school in which the student happens to be enrolled, while pursuing a course leading to the bachelor's degree.

2. The data in this study reveal that more than four fifths of the students who received life certificates in commerce obtained such certificates in connection with the completion of the requirements of the bachelor's degree. It may therefore be concluded that a majority of the students set

up the objective of securing the life certificate in commerce as one of the objectives of their undergraduate program of education.

3. The data in this study reveal that four out of five of the life certificates in commerce granted through the Oklahoma Agricultural and Mechanical College were received by women. These data would seem to indicate that the commerce teaching field is more attractive to women than to men. The fact that the prospective teacher of commerce has had to complete a minimum of 6 semester hours in shorthand probably accounts in part for the fact that more men have not chosen commerce as a teaching field.

4. Another purpose of the study was to determine the ages of the persons who received life certificates in commerce. The findings indicate that the average age of the students who received bachelor's degrees and life certificates in commerce at the Oklahoma Agricultural and Mechanical College was 22 years. On the basis of this finding, it may be concluded that a majority of the graduates who received life certificates in commerce were 22 years of age or younger. It may also be concluded that the majority of such persons were relatively inexperienced insofar as extensive full-time employment in business offices was concerned.

5. The data in this study indicate that slightly more than 3 out of 4 graduates who received life certificates in commerce majored in the School of Commerce. Approximately one fifth majored in the School of Education and the remaining proportion majored in the School of Home Economics, and the School of Arts and Sciences. It may, therefore, be concluded that the majority of prospective teachers of commerce are prepared primarily in the School of Commerce.

6. Of the 122 bachelor degree graduates in the School of Commerce, more than nine out of ten majored in the Department of Business Education.

These findings indicate that a preponderance of the persons obtaining life certificates in commerce received their professional guidance and training in the Department of Business Education.

7. One of the purposes of this study was to ascertain the number of persons who received a Life Certificate in Commerce in addition to a life certificate in one or more additional teaching fields. According to the findings of this study, approximately one in four of the bachelor degree graduates reported a life certificate in one additional teaching field. One may conclude that the program of teacher education for prospective teachers of commerce at the Oklahoma Agricultural and Mechanical College should provide opportunities for the preparation of individuals who wish to obtain the Life Certificate in Commerce and in addition, a life certificate in a second field of instruction.

8. According to the findings of this study, approximately three fifths of the bachelor degree graduates of the School of Commerce completed fields of concentration in the Department of Secretarial Administration. It may be concluded, therefore, that the graduates with life certificates in commerce are generally better prepared to teach the secretarial subjects than subjects in the fields of accounting, general business, geography, and economics.

9. The findings of this study indicate that the grade-point average in the courses comprising the commerce teaching field of bachelor degree graduates who majored in Commerce was 2.92, compared with the grade-point average of 2.96 for majors in the School of Education, 2.31 for majors in the School of Home Economics, and 2.16 for majors in the School of Arts and Sciences. From these facts it may be concluded that as between the graduates who majored in Commerce and those who majored in the School of Education, there was no selective factor which operated to cause persons

of different ability to enroll either in the School of Commerce or in the School of Education for the purpose of completing the requirements for the life certificate in commerce.

10. According to the findings of this study, the patterns of professional education programs varied considerably as between the graduates who majored in Commerce and the graduates who majored in the School of Education; and, as between the graduates who majored in Commerce and the graduates who majored in each of the schools of Home Economics and Arts and Sciences. The data reveal, for example, that the majority of the graduates with majors in Education, Home Economics, and Arts and Sciences did not take their apprentice teaching or methods courses in the Department of Business Education. To this extent, it may be said that they did not receive class instruction and supervision in the skill courses comprising the requirements for a Life Certificate in Commerce.

11. On the basis of the findings in this study, it may be concluded that the typical bachelor degree graduate with a Life Certificate in Commerce granted through the Oklahoma Agricultural and Mechanical College is a young lady, 22 years of age, who majored in Business Education in the School of Commerce; who earned a grade-point average of approximately 3.0 in the skill subjects required for a Life Certificate in Commerce; and who completed a major of 24 semester hours in upper-division Commerce courses, with a concentration of 10 to 12 semester hours in Secretarial Administration.

Recommendations

On the basis of the findings and conclusions in this study, it is recommended that:

1. Further study including all persons who received life teaching certificates and temporary certificates in commerce on the basis of recommendation of the Oklahoma Agricultural and Mechanical College be conducted. In this way, a more complete analysis of the findings included in this study might be made.

2. A study of the placement and success of the graduates included in this study compared with the scholastic standing made by these students in the commerce courses comprising the teaching field in commerce.

3. A more uniform program for education of prospective business teachers at the Oklahoma Agricultural and Mechanical College be initiated and maintained.

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APPENDIX

Name _____ M _____ F _____ Date of Birth _____
 Degree _____ Date Degree Granted _____ School _____
 Department from which degree was granted _____
 Date Life Certificate in Commerce Granted _____
 Other Life Certificates Held _____

Course	Teaching Field	Teaching Field	Teaching Field	Concentration
Hours	_____	_____	_____	_____
Grade Points	_____	_____	_____	_____
Grade Point Average	_____	_____	_____	_____

Professional Education

Course	H.	G.	G.P.
Sec. Ed. 313	_____	_____	_____
Sec. Ed. 323	_____	_____	_____
Sec. Ed. 352	_____	_____	_____
Sec. Ed. 412	_____	_____	_____
Sec. Ed. 422	_____	_____	_____
Philos. 423	_____	_____	_____
Psych. 313	_____	_____	_____
Psych. 322	_____	_____	_____
Psych. 332	_____	_____	_____
Psych. 343	_____	_____	_____
Others	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
Total	_____	_____	_____
G.P.A.	_____	_____	_____

Business Education

Course	H.	G.	G.P.
B. E. 412	_____	_____	_____
B. E. 413	_____	_____	_____
B. E. 422	_____	_____	_____
B. E. 423	_____	_____	_____
B. E. 452	_____	_____	_____
B. E. 453	_____	_____	_____
B. E. 462	_____	_____	_____
B. E. 463	_____	_____	_____
B. E. 492	_____	_____	_____
Others	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
Total	_____	_____	_____
G.P.A.	_____	_____	_____

Lower-division Commerce Courses

Course	H.	G.	G.P.
Acctg. 213	_____	_____	_____
Acctg. 223	_____	_____	_____
B. A. 111	_____	_____	_____
Geog. 113	_____	_____	_____
Geog. 120	_____	_____	_____
Geog. 123	_____	_____	_____
Econ. 213	_____	_____	_____
Econ. 223	_____	_____	_____
S. A. 110	_____	_____	_____
S. A. 213	_____	_____	_____
S. A. 223	_____	_____	_____
S. A. 233	_____	_____	_____
Soc. 213	_____	_____	_____
Soc. 223	_____	_____	_____
Soc. 233	_____	_____	_____
Others	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
Total	_____	_____	_____
G.P.A.	_____	_____	_____

Upper-division Commerce Courses

Course	H.	G.	G.P.
Acctg. 313	_____	_____	_____
Acctg. 333	_____	_____	_____
Acctg. _____	_____	_____	_____
B. A. 493	_____	_____	_____
B. A. _____	_____	_____	_____
B. A. _____	_____	_____	_____
B. L. 313	_____	_____	_____
B. L. 323	_____	_____	_____
Econ. _____	_____	_____	_____
Econ. _____	_____	_____	_____
Geog. _____	_____	_____	_____
Geog. _____	_____	_____	_____
S. A. 310	_____	_____	_____
S. A. 314	_____	_____	_____
S. A. 324	_____	_____	_____
S. A. 340	_____	_____	_____
S. A. 352	_____	_____	_____
S. A. 362	_____	_____	_____
S. A. 443	_____	_____	_____
Others	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
Total	_____	_____	_____
G. P. A.	_____	_____	_____

Math 113
 Math _____

APPENDIX B

Accounting

213 Elements of Accounting. I, II. Class 2, lab. 2, cr. 3. Prerequisite: 24 credit hours. Fundamental processes of accounting applied to service and trading concerns; preparation of working papers and financial statements.

223 Elements of Accounting. I, II. Class 2, lab. 2, cr. 3. Prerequisite: Acctg. 213. Continuation of Accounting 213. Partnership and corporate accounting problems; manufacturing accounts; reserves and funds; bonds; voucher system; interpretative accounting.

Business Administration

493 Business Communications. I, II, Class 3, cr. 3. Prerequisite: Senior standing. Consideration of form and language of business communications and reports.

Business Education

412 Apprentice Teaching in Business Education. I, Class 1, lab 2, cr. 2. Prerequisites: Senior standing; Sec. Edu. 323, 352; consent of Department; Bus. Edu. 453 to be taken concurrently. Gives the prospective teacher an opportunity to observe and evaluate the procedures of effective teaching and to direct learning activities under the guidance of a skilled critic teacher.

422 Apprentice Teaching in Business Education. II. Class 1, lab. 2. Prerequisites: Bus. Edu. 412, 453; consent of Department. Continuation of Bus. Edu. 412; to be taken concurrently with Bus. Edu. 462.

452 Teaching Business Subjects. I. Class 2, cr. 2. Prerequisites: Sec. Edu. 313, 323, or taken concurrently. Materials, methods, classroom procedures, and testing in the several subjects which comprise the curriculum of the business education department in secondary schools; to be taken concurrently with Bus. Edu. 412.

453 Teaching Business Subjects; I. Class 3, cr. 3. Prerequisites: Sec. Edu. 313 and 323 or concurrent enrollment therein; concurrent enrollment in Bus. Edu. 412. Materials, methods, classroom procedures, and testing in the secretarial subjects which comprise the curriculum of the business department in secondary schools.

462 Teaching Business Subjects. I. Class 2, cr. 2. Prerequisite: Bus. Edu. 452. A continuation of Bus. Edu. 452; to be taken concurrently with Bus. Edu. 422.

492 Junior Business Training. I. Class 2, cr. 2. Prerequisite: Acctg. 223. Study and discussion of materials and methods suitable for introductory and pre-vocational courses in commerce, with special reference to the junior high school or first-year high school offerings.

432 History and Philosophy of Commercial Education. Class 2, cr. 2. Prerequisite: Sec. Edu. 313. History, objectives, and philosophy of commercial education in its vocational and socio-economic aspects.

Business Law

313 Business Law. I, II. Class 3, cr. 3. Prerequisite: 50 credit hours. Legal background. Contracts.

Mathematics

113 Business Mathematics. I, II, S. Class 3, cr. 2. Use of numbers in business. Elementary operations with integers, fractions, and decimals; equations; ratios; proportion, and percentage; simple interest; computation with short cuts; true, bank, trade, and cash discounts; price markups and profit percentages; use of elementary algebraic formulae.

Philosophy

423 History and Philosophy of Education. Class 3, cr. 3. An elementary survey of institutional and philosophical trends, with emphasis upon the modern period. (A combined course in philosophy and history of education to meet state requirements.)

Psychology

313 Educational Psychology. I, II, Class 3, cr. 3. Scope, purpose, and methods; heredity and environment; intelligence; individual differences; motivation; learning.

322 Child Psychology. II. Class 2, cr. 2. Prerequisite: Psych. 313. Child growth and development as related to the problems of teaching. History and techniques of child study; infancy; physical and mental growth; unlearned behavior; motives in learning; habits; growth of meanings; play; emotions and character development; personality.

332 Adolescent Psychology. II. Class 2, cr. 2. Adolescent growth and development as related to the problems of teaching. Meaning of adolescence; principal differences between the adolescent and pre-adolescent; criteria of development; tendencies, drives, interest, and emotions; moral and religious life and training; personality, its problems and development.

343 Child and Adolescent Psychology. I, II. Class 3, cr. 3. Designed for students in the Department of Home Life, and for students in Education preparing for teaching fields involving elementary and secondary schools. Physical, mental, and emotional life from childhood through adolescence and the influence of this growth on home and social factors which influence behavior and personality.

Secondary Education

313 Principles of Secondary Education, Management, and Oklahoma School Law. Class 3, cr. 3. Prerequisites: Psych. 313 and junior standing. The American high school; its evolution, organization, curriculum, and function. Principles and techniques of management. Oklahoma law affecting the secondary school teacher.

323 Methods of Teaching and Measurement. Class 3, cr. 3. Prerequisite: Sec. Edu. 313. Principal factors and techniques that have general application in all teaching effort in secondary schools. Principles and methods of measurement in secondary schools.

352 Apprentice Teaching in Secondary Schools. Lab. 6, cr. 2. Prerequisites: Sec. Edu. 313; a minimum of one-half of the teaching field; consent of director of apprentice teaching in the secondary school; and minimum of 2.5 grade-point average in teaching fields. Required of seniors in secondary education. Gives the prospective high-school teacher experience in controlling the incidental and physical factors that affect the classroom situation, in presenting subject matter, and in applying remedial techniques.

412, 422 Apprentice Teaching in Secondary Schools. Lab. 6, cr. 2. Prerequisites: Sec. Edu. 352; a minimum of one-half of the teaching field; consent of the director of apprentice teaching in the secondary school; approval of subject matter department; and minimum average of 2.5 grade points in teaching fields and required courses in psychology and education. Students are required to do apprentice teaching in fields and required courses for which they intend to secure certificates. Designed to follow Sec. Edu. 352 and to provide additional experience in the actual processes of classroom instruction.

Secretarial Administration

110 Typewriting. I, II, S. Class 1, lab. 4, cr. 1 to 3. Correct techniques, speed, and accuracy.

213 Beginners' Shorthand. I, II, S. Class 1, lab. 4, cr. 3. Gregg shorthand; emphasis on phonetics.

223 Intermediate Shorthand. I, II, S. Class 1, lab. 4, cr. 3. Prerequisite: Concurrent enrollment in S. A. 233. Continuation of S. A. 213. Transcription given greater emphasis.

233 Typewriting. I, II, S. Class 1, lab. 4, cr. 3. Continuation of S. A. 110. Practical application of typewriting skill.

TYPED BY:

GORDON CULVER

BETTY DICKERSON

HAROLD A. COONRAD