

A STUDY OF COMMERCIAL EDUCATION IN THE HIGH SCHOOLS OF
EASTERN OKLAHOMA COLLEGE AREA WITH PARTICULAR
REFERENCE TO THE ARTICULATION OF THE HIGH
SCHOOL COMMERCIAL SUBJECTS WITH THE
COMMERCIAL COURSES OFFERED AT
EASTERN OKLAHOMA COLLEGE

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EASTERN OKLAHOMA COLLEGE

By

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1929

Submitted to the Department of Commercial Education
Oklahoma Agricultural and Mechanical College
In Partial Fulfillment of the Requirements
For the Degree of
MASTER OF SCIENCE

1939

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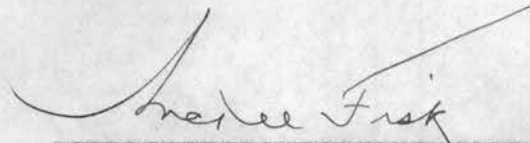
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A C K N O W L E D G M E N T S


The writer is sincerely thankful to Dr. McKee Fisk, Professor of Commercial Education, Oklahoma Agricultural and Mechanical College, for the interest and willingness he has shown in the directing of this study. His helpful suggestions were greatly appreciated without which this study could not have been completed.

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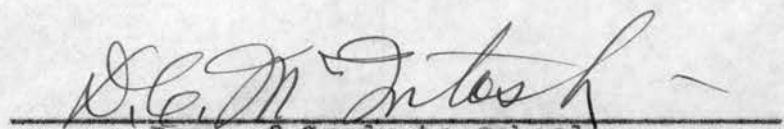
APPROVED:



In Charge of Thesis



Head, Department of Commercial Education



Dean of Graduate School

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CHAPTER I

Eastern Oklahoma College, at Wilburton, Latimer County, was founded in 1909 by an act of the First Legislature of the state of Oklahoma as the Oklahoma School of Mines and Metallurgy.¹ The Eleventh Legislature passed House Bill 201 in 1927, which changed the name of the School of Mines and Metallurgy to Eastern Oklahoma College.²

The established purpose of this college was to teach such courses in mining and metallurgy as would give a thorough scientific knowledge of all subjects pertaining to this phase of education, including mathematics, chemistry, and engineering.³

Although the college was designed by law to be primarily a technical institution, the students living in Eastern Oklahoma College area were constantly requesting that commerce be offered as a part of the curriculum. As a result of the demand, in 1924 the Board of Regents gave the college authorities permission to introduce work in commerce and provide the necessary equipment.

1 Compiled Laws of Oklahoma, School--State, 1909, p. 1689, Article XIV, School of Mines and Metallurgy, Section 8381.

2 Senate Journal, Regular Session of Eleventh Legislature of Oklahoma, House Bill No. 201, January--March, 1927, p. 509.

3 Ohland Morton, "Junior Colleges in Oklahoma," Junior College Journal, Vol. III, March, 1933, p. 307.

There is, today, a question in the minds of school administrators and teachers regarding the overlapping of some high school courses with similar courses offered in college. This study, it is hoped, will aid materially in the improvement of the commerce curriculum of Eastern Oklahoma College to fit the needs of the high schools in the area, or give evidence to justify retention of the present curriculum.

Eastern Oklahoma College serves primarily the high schools within the counties contiguous to Latimer County, namely: Haskell, LeFlore, Pittsburg, and Pushmataha.

PURPOSE OF STUDY

This study involves a survey of the commerce program in all of its phases in the high schools of the area in order to determine the situation from 1933 to 1936, inclusive. It also includes a similar analysis of the program of Eastern Oklahoma College, from 1934 to 1937, inclusive. A further purpose is to follow up the high school commerce graduates through their work in Eastern Oklahoma College to determine what, if any, relationship exists between the high school commerce work and that of the college and a comparison of the college program with the high school programs. In the light of the findings, recommendations concerning the college program are made in order better to articulate the programs, and thus to

fulfill more completely one of the primary functions of the junior college.

MATERIALS AND METHODS

The materials found in this study consist of questionnaires, letters, interviews, and permanent records available in the twelve high schools which were found to offer commerce work; records of Eastern Oklahoma College; superintendents' reports from the files in the Division of High School Inspection of the State Department of Education; miscellaneous data obtained from various government reports, and personal information from former high school and college students.

The selection of the high schools used in this study was made through a survey which determined the schools offering two or more units of commerce work. Two units of commerce were arbitrarily selected as a result of a cursory examination of the reports from the files in the Division High School Inspection of the State Department of Education reveal. It was found that schools offering fewer than two units of commerce, offer courses such as commercial geography, commercial arithmetic, and commercial law, which are usually used as fill-in courses, and do not constitute a commercial curriculum.

An analysis of the applications of accredited high schools on file in the Division of High School Inspection of the Department of Education showed that the following

high schools in the area offered two or more units of commerce during the period covered by the study.

Antlers	Heavener	Panama
Bokoshe	Keota	Poteau
Haileyville	Kiowa	Spiro
Hartshorne	McAlester	Stigler

The data secured from the superintendents' reports were checked by questionnaires and letters to the several high schools. Personal interviews were held with the administrators of several high schools. The data gathered include a compilation of high school graduates during the years studied who earned two or more units in commerce courses; equipment used in the commerce departments; grading system of the several high schools; and occupational or other activities of the graduates in September following their graduation from high school.

The college data and grades of all commerce students enrolled in the department from September 1934 to 1937 inclusive were secured from the official college records. These data were one year later than those for the high schools as normally the graduates of the preceding year entered college at that time. A comparison of grades was made of the students to discover what relation, if any, taking high school commerce work had on the college commerce achievement. In the light of these comparisons, recommendations concerning college are submitted.

FUNCTIONS OF THE JUNIOR COLLEGE

The functions of the junior college have been studied and defined by many writers. Although terminology and number of function various authors list may vary, practically all the writers agree upon the functions.⁴

It is generally accepted that the four basic functions of the junior college are as follows:

(1) The preparatory function:

The early developments in the junior college movement centered around the efforts of certain high schools and small colleges to organize courses which duplicated those of the first two years of the universities. In this way students could be retained at the smaller institution and prepared for advanced work in the upper classes of the universities.⁵

(2) The popularizing function:

The friendliness of the universities toward the junior college movement would not have availed to bring about their widespread establishment if there had not also been a local demand that pupils completing the regular high school course be accorded an opportunity for higher education more freely than was already possible. It was this desire to serve the students who could not otherwise continue their education which led to the addition of post-graduate courses in Joliet, Saginaw, Detroit, and other Middle Western high schools which pioneered in the movement.⁶

4 McKee Fisk, The Regional Junior College, Unpublished Doctoral thesis, Graduate School of Yale University, 1936, p. 113.

5 William M. Proctor, The Junior College, Its Organization and Administration, Stanford University Press, California, 1927, p. 12.

6 Ibid.

(3) The terminal function:

This is the providing of terminal courses, usually vocational in character, so that the student may at the end of two years have "rounded out" his education and be qualified to take up his vocational activities in a competent and well-prepared manner.⁷

(4) The guidance function:

Abundant evidence that the need for guidance is recognized by colleges and universities is seen in the general adoption of such devices as "Freshman Week," orientation courses, advisory systems, and similar plans for helping lower classmen to get better started in their college work. But this responsibility, resting heavily though it does on the universities, presents a peculiarly direct obligation to the junior colleges. With the growing popularity of our high schools, an increasing number of their graduates are seeking higher education. Many of these are not well adapted to the task of pursuing a four-year college course. The university, intent on professional preparation, is loth to acknowledge any responsibility for those who cannot go beyond the lower college years. The junior college must accept the duty of guiding these into lines of study for which they are fitted and which they can profitably pursue.⁸

THE EASTERN OKLAHOMA COLLEGE AREA

The community aspects and influences of the junior college seems to be well recognized. Thus one of the determinants of the effectiveness of a commerce program is the area in which the college operates.

The junior college has been variously called a peoples' college, a community college, a local institution, or some other similar term indicating that it should be an integral part of the

7 Ibid., p. 18.

8 Ibid., p. 24.

community life and activity, much in the same way that the high school has been. Koos shows that both professional literature and junior college catalogues, as early as 1921, were emphasizing the community aspects of the junior college. Granted that such is the case, and every study of the junior college seems to bear out such a conclusion, it follows that the community itself is an important factor in determining whether a junior college should be formed. If so, the type, function, curriculum, and activities of the institution will depend largely upon the community in which the college is located.⁹

The area that is served by the Eastern Oklahoma College is rural and mountainous. The southern part of LeFlore, southern Latimer, southeastern Pittsburg, and practically all of Pushmataha County lies in the Ouachita Mountain Region. The surface of the region is much rougher than the other parts of Oklahoma. The principal mountains have distinctive names, such as Winding Stair, Kiamichi, Jackfork, Pine, Rich, and Blackfork. Rich mountain in the southeastern part of LeFlore County is the highest of these hills, reaching an elevation of over 3,000 feet¹⁰ above sea level. The remaining part of the area is included in the lower Arkansas River Valley region. This condition affects all industries in the territory.

9 McKee Fisk, op. cit., p. 25.

10 L. C. Snider, Oklahoma Geological Survey, Bulletin No. 27, September 1917, p. 66.

The principal industries and business activities as found in the United States Census Reports and other sources include agriculture, coal mining, lumbering and furniture making, and wholesale-retail distribution. Data were not available by counties for other businesses, although there is a limited amount of manufacturing. Considerable income is also derived from the recreation facilities afforded by the area.

The principal occupation of the people in this area is agriculture as shown in Table I. With the proper care and cultivation of the soils, it should become the principal producing resource in this area. The crops grown are, in order of importance, cotton, wheat, corn, sorghums, hay, oats, potatoes, broom corn, and other small
11
grains.

Mining of coal is second in importance and is carried on most intensively in McAlester and Wilburton districts of Latimer and Pittsburg counties which produce a high grade bituminous coal for domestic and industrial fuel. On the eastern edge of the field, in Leflore County, a semi-anthracite coal is found. This high-grade fuel is being mined in increasing quantities. These coal deposits are also found near Stigler in Haskell County, but are not

11 United States Department of Commerce. Bureau of Census. Census of Agriculture, 1935. Vol. I, pp. 718-737.

TABLE I
 POPULATION, NUMBER, AND PER CENT GAINFULLY EMPLOYED
 IN INDUSTRY AND OCCUPATION IN THE
 FIVE COUNTIES
 1930*

COUNTIES	TOTAL POPULATION	AGRICULTURE		COAL MINING		LUMBER & FURNITURE		WHOLESALE & RETAIL (except auto)	
		Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per cent
Latimer	11,184	4,099	36.7	580	5.2	144	1.3	157	1.4
LeFlore	42,896	17,133	39.9	977	2.3	721	1.7	646	1.5
Haskell	16,216	7,770	47.9	172	1.1	42	0.3	204	1.2
Pittsburg	50,778	14,022	27.6	2,305	4.5	241	0.47	1,383	2.7
Pushmataha	14,744	6,611	44.8	-	-	511	3.5	231	1.6
TOTAL	135,818	49,635	36.5	4,034	3.0	1,659	1.2	2,621	1.9

*United States Department of Commerce. Fifteenth Decennial Census, 1930. Population Bulletin, second series. Oklahoma, pp. 44-48.

worked extensively. The coal area is divided into districts. The districts in which coal is mined are the McAlester-Hartshorne, Wilburton-Red Oak, Hughes-Howe-Poteau, and Stigler-Tamaha Districts. These centers may be noted on the accompanying map. At the present, coal mining is decreasing in most places. Because of this, the towns are suffering great population loss, and consequently economic loss. This has a tendency to affect directly business which has been built to take care of the needs of the people engaged in this occupation. It also affects the schools, in that revenue coming from these sources is not adequate to meet the needs of the various communities.

In Haskell, LeFlore, and Pittsburg Counties, from April 1, 1930, to January 1, 1935, there was approximately a \$2,000,000 decrease in land valuation and buildings on the farms.¹² In Pushmataha County there was a decrease during the same period of years of over \$800,000.¹³ This great loss in farm valuations will affect the entire life of the coming home life, industry, and civic and educational activities. In fact, it implies more poverty, and less progress from a civic and educational point of view.

12 United States Department of Commerce, Op. cit., pp. 718-737.

13 Ibid.

The raising of livestock is of considerable importance in this area, and is increasing yearly. The increase in the number of livestock from 1930 to 1935 in the respective counties is as follows: Haskell, 4,873; Latimer, 5,696; LeFlore, 15,080; Pittsburg, 18,106; Pushmataha, 11,094.¹⁴ The grazing lands in these counties are quite extensive. There are a number of mountain ranges that afford excellent grazing lands and are in an open and semi-open range where cattle graze the entire year.

The lumber and timber products are found to be mostly in the entire college area. Lumbering and saw-milling are important populating-supporting industries in LeFlore and Pushmataha counties in the Quachita Mountain region. A large saw-mill is located in this area, and has a capacity of 125,000 board feet of lumber per day. It owned approximately 70,000 acres of timbered land in 1937, and during this time employed daily more than 400 men with a monthly payroll that exceeded \$25,000. The mill is supplied with timber by means of truck and narrow guage railroads which are moved from one locality to another as the timber is cut out.

Although the lumber is rapidly diminishing, one of the greatest helps to this section of the state is the

14 Ibid.

reforestation which is carried on principally by government agencies on land that has been previously cut over and sold to the government.

A large zinc smelter located at Quinton in Pittsburg County has been an active industry in past years. Recently, it has discontinued operation because of the depth of the ore and the increased cost of production.

LeFlore County has the only glass plant in Eastern Oklahoma. It is located at Poteau. This factory specializes in making of cylinder gas containers for gasoline pumps.

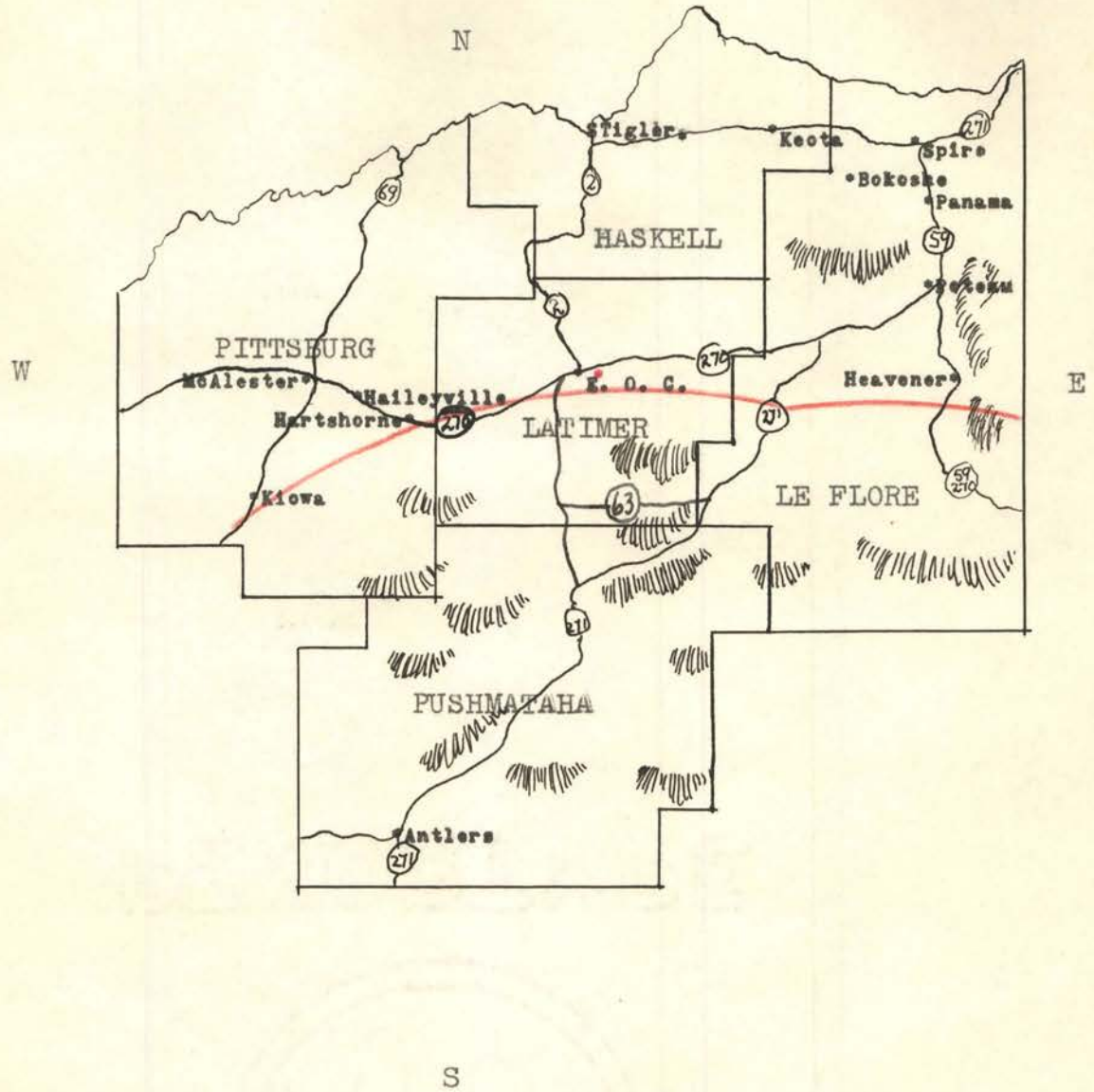
The Quachita Mountain region also affords three deposits of pure asphalt. One of these is known as the jumbo mine and is northwest of Antlers, another is near Tuskahoma, and a third is not far from Page.¹⁵

As can be seen in Table I agriculture is the most important occupation, which engages the most people. More than ten times as many people or 36.5 per cent of the population of the area are engaged in agriculture than any other occupation. Haskell County had the greatest number of any of the counties engaged in agriculture which was 7,770. The second occupation of the area in importance is coal mining, 3 per cent of the population of the area are engaged in this industry. The section above the

15 L. C. Snider, op. cit., p. 104.

Map I

MAP SHOWING THE LOCATION OF THE COLLEGE
TOPOGRAPHY, MAIN ROADS, COUNTIES AND HIGH SCHOOLS
OF THE AREA STUDIED.



red line as shown on the accompanying map show deposits
of coal.¹⁶ Pittsburg County has 2,305 people employed in
the coal mining occupation which is the greatest number
of gainfully employed of any of the counties, but Latimer
County has the greatest per cent employed in this industry.

Lumber and furniture making is another important in-
dustry within this area; 1.2 per cent of the population
are engaged in this industry. LeFlore County has 721
people employed in this occupation and is the greatest
number engaged in any of the counties, but Pushmataha
County has 3.5 per cent which is the greatest per cent of
any of the counties.

Table II shows the active proprietors and employees
gainfully employed in Service Establishments and Whole-
sale Distributive Occupations in the five counties. The
service establishments have 371 more active proprietors
than the Wholesale Distributive class. There are, how-
ever, 32 more employees in the Wholesale Distributive
group than employees listed under Service Establishments.
Data concerning other occupations were not available as to
counties.

RELATED STUDIES

There have been very few studies made that are simi-
lar to this one. Two which have a bearing on this problem

16 Ibid., p. 94.

TABLE II
 SURVEY OF SERVICE ESTABLISHMENTS
 AND
 WHOLESALE DISTRIBUTION
 IN THE FIVE COUNTIES
 1935* (1)

Counties	<u>Service Establishment</u>		<u>Wholesale Distribution</u>	
	Act. Prop.	Employees	Act. Prop.	Employees
Latimer	106	53	13	7
LeFlore	19	9	--	11
Haskell	100	54	10	47
Pittsburg	153	102	19	202
Pushmataha	39	33	46	16
TOTAL	417	251	46	283

(1) * U. S. Department of Commerce, Bureau of the Census, Census of Business, Service Establishments, II, 1935.

(1) U. S. Department of Commerce, Bureau of the Census, Census of Business, Wholesale Distribution, III, 1935.

are the Springate study made at the University of Chicago, 1937, and the Onstott study made at the University of Denver, 1936. Springate, in his study of forty colleges and universities in the central part of the United States, reports from a study of 1230 students enrolled in first semester Accounting Course, that students who had bookkeeping in high school show a marked superiority the first semester in college accounting over those who have not had high school bookkeeping.¹⁷

Onstott, Registrar of Denver University, made a study of student grades in first year accounting over a period of five years. This study reveals that in a large majority of cases the students who failed in accounting were the ones who had had no high school bookkeeping. From a study of 660 students, the grades of those who had studied bookkeeping in high school were 17.14 per cent higher than those of students who had no bookkeeping in high school.¹⁸

17 Charles Stephens Springate, *The Effect of High School Bookkeeping on Achievement in College Accounting*. Doctoral thesis, Graduate School of Business, University of Chicago, 1937, p. 56.

18 F. C. Onstott, "A Comparative Study of the Records of Students Both With and Without High School Bookkeeping," School of Commerce, University of Denver. (Unpublished Study) 1936.

SUMMARY AND CONCLUSIONS

Eastern Oklahoma College, at Wilburton, Latimer County was founded in 1909. Commerce was added as a part of the college curriculum in 1924. This college serves primarily the high schools within the counties contiguous to Latimer, namely: Haskell, LeFlore, Pittsburg and Pushmataha.

A survey of all the high schools of the area and Eastern Oklahoma College was made to cover a period of four years from 1933 to 1937 inclusive to determine what, if any, relationship exists between the high school commerce work and that of the college. The survey was made by questionnaire, letters, interviews and official records. From state reports it was found that only twelve of the 39 high schools of the area offered two or more units of commerce.

The area that is served by Eastern Oklahoma College is largely rural and mountainous. It lies in the Ouachita Mountain Region and lower Arkansas River Valley.

The principal industries of the area are agriculture, coal mining, lumbering and furniture making; agriculture with 36.5 per cent of the people of the area engaged in farming is the principal occupation. Coal mining is second in importance, three per cent of the population follow this trade. Lumbering and saw-milling employ 1.2 per cent of the population. Wholesale and retail business employ 1.9 per cent of the population.

CHAPTER II
DEVELOPMENT AND STATUS OF COMMERCE
CURRICULUM IN HIGH SCHOOLS

This chapter presents data concerning the development and status of the commerce curriculum of the twelve high schools in the area that were found to offer two or more units of commerce for the years beginning in September, 1933, and ending in June, 1937.

The high schools and years when commerce work was introduced into the curriculum are as follows:

1. Antlers 1936-1937
2. Bokoshe 1935-1936
3. Heavener. 1923-1924
4. Haileyville 1926-1929
5. Hartshorne. 1926-1927
6. Keota 1936-1937
7. Kiowa 1926-1927
8. McAlester Prior to 1924
9. Panama. 1934-1935
10. Poteau. 1926-1927
11. Spiro 1936-1937
12. Stigler 1925-1926

Seven schools were offering commerce during the first year of this study. One school added commerce in each of the next two years. Three schools added the work during the last year of the study, 1936-1937.

COURSES AND ENROLLMENTS

The courses offered, enrollment in these courses, and the number of schools offering each course each year are shown in Table III. A study of this table indicates that the usual offerings of small high schools are listed.¹ The subjects which have been offered during the four-year period covered by this study are:

Arithmetic	Shorthand (First Year)
Bookkeeping (First Year)	Shorthand (Second Year)
Business English	Typewriting (First Year)
Commercial Law	Typewriting (Second Year)
Salesmanship	

During 1933-1934 only seven of the thirty-nine high schools of the area offered two or more units of commerce work.² This number increased to eight high schools in 1934-1935, nine high schools in 1935-1936, and twelve high schools in 1936-1937. The rapid development of commerce work in the high schools of the area is apparent from the growth in the number of high schools offering the work, from seven to twelve schools, 71.4 per cent, during the four years whereas the total number of high schools in

1 Cf. National Business Education Quarterly, Vol. V, No. 3, March, 1937. Entire issue is devoted to the commerce offerings in the small high school.

2 A list of the high schools of the area may be found in the Appendix.

the area showed no change during the period. During the period studied not a single high school that offered the commerce work discontinued it. The increase in number of schools offering commerce therefore was a net growth.

As is readily apparent from a study of Table III the first year typewriting consistently had the largest enrollment of any of the commerce subjects. Indeed, this subject was the only subject that was offered every year of the four years in every high school offering commerce work. This subject enrolled both the largest numbers of students and the largest per cent of the entire high school enrollment of any of the commerce subjects. The percentage varied from 14.0 to 13.8 of the total high school enrollment.

First-year shorthand was the subject offered with the second greatest frequency. In two years, 1934-1935, and 1936-1937, it was offered in every high school offering two or more units of commerce. Second-year shorthand was offered each year in only one high school, McAlester. Salesmanship was offered the last two of the four-year period in one high school, also McAlester.

The offerings of the three semester courses, arithmetic, business English and commercial law was somewhat erratic. This apparently is due to the fact that these three subjects are what are commonly known as "fill-in" subjects, single semester courses, that are used to fill

TABLE III

SUBJECTS, NUMBER OF SCHOOLS, NUMBER AND PER CENT OF PUPILS ENROLLED
IN COMMERCE COURSES IN THE TWELVE HIGH SCHOOLS OF THE AREA

SUBJECTS	1933-1934				1934-1935			
	SCHOOL	TOTAL H. S. ENROLL- MENT	PUPILS ENROLL- MENT	PER CENT ENROLLMENT	SCHOOL	TOTAL H. S. ENROLL- MENT	PUPILS ENROLL- MENT	PER CENT ENROLLMENT
Arithmetic	4	1522	185	12.6	4	1573	155	9.9
Bookkeeping	5	1815	131	7.2	6	1998	167	8.4
English	5	1450	170	11.7	2	422	40	9.5
Law	6	2168	168	7.8	5	2091	118	5.6
Sales								
Shorthand I	6	1698	119	7.0	8	2490	211	8.5
Shorthand II	1	764	41	5.4	1	760	53	7.0
Typewriting I	7	2462	363	14.7	8	2490	395	15.9
Typewriting II								
TOTAL	7	2,462	1,177		8	2,490	1,139	

Note: This table should be read as follows: In 1933-1934 four schools with a total enrollment of 1,522 pupils offered Arithmetic. There were enrolled in the course 185 pupils, or 12.6 per cent of all pupils in the high schools offering Arithmetic.

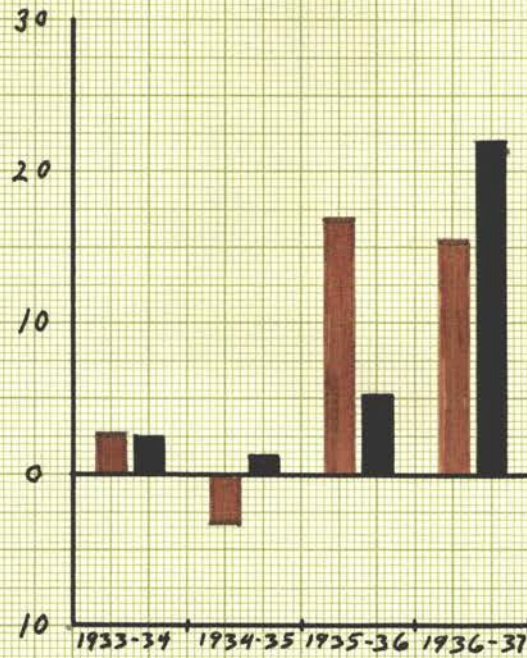
Note: The detail of this table is shown in the appendix

TABLE III (CONTINUED)

SUBJECTS, NUMBER OF SCHOOLS, NUMBER AND PER CENT OF PUPILS ENROLLED
IN COMMERCE COURSES IN THE TWELVE HIGH SCHOOLS OF THE AREA

SUBJECTS	1935-1936			1936-1937				
	SCHOOL	TOTAL H. S. ENROLL- MENT	PUPILS ENROLL- MENT	PER CENT ENROLLMENT	SCHOOL	TOTAL H. S. ENROLL- MENT	PUPILS ENROLL- MENT	PER CENT ENROLLMENT
Arithmetic	2	893	69	7.7	2	201	39	19.4
Bookkeeping	7	2195	217	9.9	10	2801	263	9.0
English	3	1141	116	10.2	5	1125	89	7.9
Law	4	1405	141	10.0	7	1511	145	9.6
Sales	1	795	24	3.0	1	808	40	5.0
Shorthand I	8	2532	203	8.0	12	3193	308	9.6
Shorthand II	1	795	68	8.6	1	808	55	6.8
Typing I	9	2619	367	14.0	12	3193	600	18.8
Typing II	1	795	126	15.8				
TOTAL	9	2,619	1,331		12	3,193	1,539	

GRAPH I

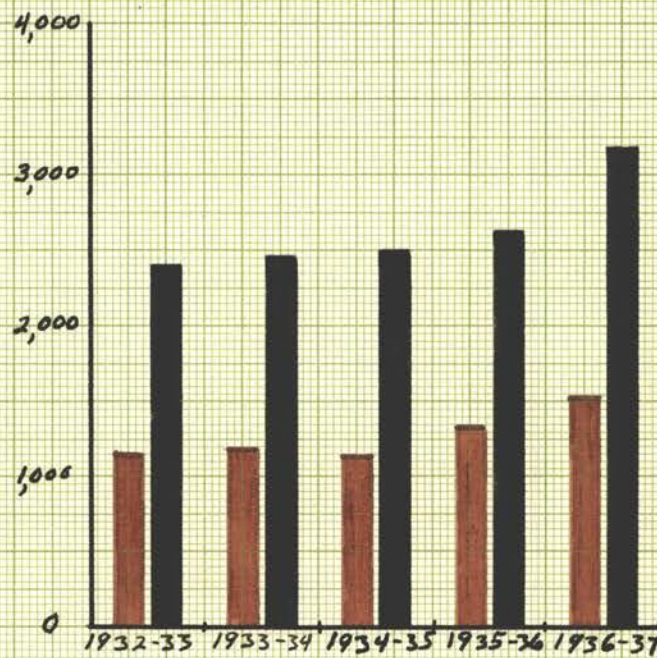


Graph showing per cent of increase or decrease of enrollments over preceding year, for commerce and total high school enrollments.

KEY

Red bars show per cent of increase or decrease for commerce enrollment. Black bars show per cent of increase or decrease of total high school enrollments.

GRAPH II



Graph showing total high school and commerce enrollments from 1932 to 1937 inclusive.

KEY

Red bars show commerce enrollment.

Black bars show total high school enrollments.

out teaching programs or that are introduced to give the students the opportunity to elect single semester courses, principally during the second semester.

Bookkeeping has been increasing in frequency. Second-year typing was offered during one year only, 1935-1936, in McAlester high school only.

It is apparent from these data that the traditional commerce subjects, especially shorthand and typewriting, have consistently constituted the commerce program of the high schools of the area. Bookkeeping was also offered consistently by all high schools.

The single semester subjects of arithmetic, business English, and commercial law were not offered with any great degree of consistency. Only one high school, Kiowa, offered arithmetic in each of the four years.³ Several high schools did not offer arithmetic at any time during the period.

Kiowa also was the only high school which offered business English each of the four years. Commercial law was offered by ten different high schools at some time during the period. Two high schools, McAlester and Heavener, offered commercial law during each of the four years.

As would be expected class sizes in the small high schools were small. Some classes were offered with as few as five or six pupils enrolled in them.

3 The detail of Table III may be found in the Appendix.

As is shown in Table III the enrollments in the high schools increased consistently. All high schools offering commerce work taught typewriting. This subject is indicative of the relative growth in commerce enrollment. The total enrollment of the seven high schools offering commerce work in 1933-1934 was 2,462 and the total enrollment of the twelve high schools offering the work in 1936-1937 was 3,193, an increase of 731 pupils or 29.2 per cent. The enrollments in typewriting in these same high schools increased from 363 in 1933-1934 to 600 in 1936-1937, an increase of 237 or 65.3 per cent. It is apparent that the enrollments in typewriting during the period have increased at more than twice the rate that the enrollments in the high schools increased.

A similar situation is found in the enrollments in shorthand. In 1933-1934 there were 1,698 pupils enrolled in the six high schools offering shorthand and in 1936-1937 the twelve high schools offering shorthand had an enrollment of 3,193. This was an increase of 1,495, or 88.0 per cent. These same high schools enrolled 119 pupils in shorthand in 1933-1934 and 308 pupils in 1936-1937, an increase of 189, or 158.8 per cent.

The relationship of bookkeeping enrollment to high school enrollment of the high schools offering bookkeeping shows a similar relationship. From five schools with an enrollment of 1,815 pupils in 1933-1934, book-

keeping offerings increased to ten schools with an enrollment of 2,601 pupils in 1936-1937. This was an increase of 986 pupils or 54.3 per cent in total enrollment. The bookkeeping enrollment for the same period doubled growing from 131 to 263, an increase of 132.

The offerings of the other subjects were erratic, a comparison of the class enrollments with those of the high schools would have no meaning.

Thus, it is apparent that the enrollment in commerce subjects, insofar as the three traditional subjects composing the commerce curriculum are concerned, has been about twice as fast as the growth of total enrollments of the high schools offering these subjects.

TEACHING STAFF

An analysis of teacher turnover and tenure in the twelve high schools of the area during the years ending in 1934-1937 is shown in Table IV. In general, the table shows that the tenure of the commerce teachers of the area is fairly secure. However, during the last year of the study, 1936-1937, only three of the eleven teachers employed in the high schools of the previous year were retained. During the first year of the study, 1933-1934, of the nine teachers employed, six had been retained from the previous year. During 1934-1935 only one of the previous year's commerce teachers was replaced. Including the teachers who entered their positions in order to inaugurate the work in commerce

TABLE IV
RETENTION OF COMMERCE TEACHERS

H. S.	1933 1934	1934 1935	1935 1936	1936 1937
A	---	---	---	N
B	---	---	N	N
C	R	R	R	N
D	N	R	N	N
E	R	R	N	R
F	---	---	---	N
G	R	N	R	R
H	RRR	RRR	RNN	RNN
I	---	N	R	N
J	N	R	N	N
K	---	---	---	N
L	N	R	R	N
New	3	2	6	11
Retain	6	8	5	3
Total	9	10	11	14

Note: The alphabetic letters represent the twelve schools in the area. The hyphens represent no commerce department and the capital (R) signifies that the commerce teacher was retained and (N) represents a new teacher employed.

in their high schools, there were forty-four teacher-years during the period covered by the study. Exactly half of these teachers had been retained from the previous year. If the new teachers who introduced commerce work in each of the five high schools which offered commerce for the first time in the years ending 1934- to 1937, inclusive, are deducted, only seventeen of 39 teacher-years were filled by new teachers. This is considerably less than half.

The average tenure of the commerce teachers in the area is at least two years, because it is not known how many years prior to 1933 the six teachers who had been retained from the previous year had been employed in their present positions. This is less than the average tenure for the state as a whole which was found by Holt to be 3.0 years.⁴

All but one of the nine teachers employed in 1933-1934 in the seven schools of the area held baccalaureate degrees. In 1936-1937 twelve of the fourteen teachers in the twelve schools held degrees.

EQUIPMENT

All of the schools had typewriters available during 1936-1937, the last year of the study. One of the twelve schools had as few as ten; another had

⁴ Hal F. Holt, Commercial Teaching Personnel in the White Public Schools of Oklahoma, unpublished study, 1938.

twelve typewriters for instructional purposes. Of the ten schools offering bookkeeping only three had adding machines available for class use. Four schools had mimeographs; one, McAlester, had two key-driven calculators. Two schools, Haileyville and McAlester, had bank posting machines available for pupil use. No other special equipment was available for pupil use.

SUBSEQUENT ACTIVITIES OF HIGH SCHOOL COMMERCE GRADUATES

This phase of the study was undertaken in order to learn to what extent the commerce graduates of the high schools included in the study were utilizing their learning. Inquiry was made by questionnaire of the graduates, themselves, and from school authorities as to the occupations of these pupils in September following their graduation from high school. A commerce graduate is arbitrarily defined as one who earned during his high school work at least two units of credit in commerce courses. During the period there were 708 graduates. Of these the activities of only twenty-five, or 3.5 per cent are unknown.

Table V shows the results of the follow-up study of the graduates. A detailed classification of these activities and occupations is given in the Appendix. There were 190 or 26.84 per cent of the 708 graduates from McAlester High School. Of the 708 graduates by

TABLE V
 FOLLOW-UP STUDY OF
 HIGH SCHOOL COMMERCIAL GRADUATES
 Years Ending 1934 to 1937 (Inclusive)

Classification	Number of Students	Per Cent
Bookkeepers	1	.14
Chauffeurs	14	1.98
Farmers	48	6.78
General Office Clerks	9	1.27
House-wives	48	6.78
Sales People	95	13.42
Stenographers	61	8.62
Students	241	34.04
Miscellaneous	94	13.28
Unable to Locate	25	3.53
Unemployed	72	10.17
TOTAL	708	100.0

Note: A more detailed classification will be found in the Appendix.

far the largest number were students in some other institution during the September following their graduation. One-third, 34.0 per cent or 241, of the 708 graduates, continued their education in some higher institution or business college. Of these forty-four attended business college. The number of graduates who were engaged in sales work ranks second. There were 95 or 13.4 per cent of the group so employed. Clerical workers ranked third, numbering 71 or ten per cent of the total. A similar percentage was unemployed in September following their graduation from high school. Farmers and housewives each numbered 48 or 6.8 per cent of the total. Only one person became bookkeeper and nine became general office clerks. Thus 166 of the 708 commerce graduates secured commerce employment. This is 23.4 per cent, not quite one-fourth of the total. If the percentage is based on the total number of graduates less those who continued their education (467) it is 35.6 per cent. This percentage includes selling as well as clerical positions with a larger number engaged in the former occupation. When it is recalled that only one school teaches salesmanship the proportion of the commerce graduates who obtain positions in the field in which they were trained is not large. This conclusion, of course, is based on the assumption that the commerce work is taught primarily for its vocational value.

A surprising feature of the study is the relatively small number of commerce graduates who have gone into farming when it is remembered that agriculture is the principal occupation of the area. It should be remembered in this connection, however, that the survey shows the commerce graduates only. Moreover, when it is remembered that more than one-fourth of the 708 graduates were from McAlester High School, which is a non-agricultural community, it should not be expected the number entering agriculture would be as large as it might otherwise be.

SUMMARY AND CONCLUSIONS

Commerce courses were offered in seven of the thirty-nine high schools of the area during the first year covered by this study. While the total number of high schools did not change during the four-year period covered by the study the number of high schools offering commerce increased to twelve. This was an increase of 71.4 per cent. No high school which offered commerce work discontinued it. The growth consequently in the number of schools offering commerce was a net growth.

Nine different commerce courses were offered at some time during the period. First-year typewriting was the only course which was offered every year in every high school offering commerce work. The total number of high school pupils in the high schools offering the work enrolled in typewriting, increased from 14.7 per cent in 1933-1934 to 18.8 per cent. The increase in numbers of typewriting pupils was 65.1 per cent. The total number of pupils in the high schools of 1933-1934 was 2,462; in 1936-1937, 3,193. This was an increase of 731 pupils, or 29.2 per cent. This would indicate that the enrollment in typewriting has been increasing more than twice as rapidly as the increase in total enrollment of the high schools.

First-year shorthand was a subject offered with the second greatest frequency. In two of the four years, this was offered in all high schools which offered two or more units of commerce work. The enrollment in

this subject also increased about twice as rapidly as total high school enrollment.

Offerings of the single semester courses, arithmetic, business English, and commercial law were somewhat erratic. This apparently was due to the fact that these three subjects are commonly known as "fill-in subjects."

Bookkeeping has been increasing in frequency and enrollments. Salesmanship was offered in only one high school in each of two years. Second-year typewriting was offered in one high school during only one year.

Class sizes in the small high schools, as would be expected, were small. Some classes enrolled as few as five pupils.

Analysis of teacher preparation shows that practically all of the teachers hold baccalaureate degrees. In 1933-1934 all but one of the nine teachers employed in the seven schools offering commerce work held this degree, and in 1936-1937, twelve of the fourteen teachers in the twelve schools offering the work had secured the bachelor's degree.

The average tenure of the commerce teacher is at least two years in their positions in the high schools of the area. The tenure is fairly secure.

Typewriters constituted the major equipment available for use by commerce pupils. One school had as few as ten typewriters, another school had only twelve type-

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writers available for instructional purposes. Only three of the ten schools offering bookkeeping during 1936-1937 had adding machines available. Four schools had mimeographs, two schools had bank-posting machines, one school had key-driven calculators.

The study of the activities of 708 high school commerce graduates from the high schools of the area showed that one-third continued their education in some higher institution or business college. In September of the year following their graduation ninety-five or 13.4 per cent of the group were engaged in some kind of sales work. Clerical workers ranked third, numbering seventy-one, or ten per cent of the total. Farmers and housewives each accounted for forty-eight, or six per cent of the graduates.

A total of 166 graduates secured commercial position. This was 23.4 per cent of all commerce graduates and 35.6 per cent of the graduates who did not continue their education. In view of the fact that a majority of the graduates secured positions in selling work which is offered in only one high school, the vocational importance of high school commerce work in the area is not particularly great.

In the following chapter a similar study is made of the commerce program of Eastern Oklahoma College.

CHAPTER III

DEVELOPMENT AND PRESENT STATUS
OF THE COMMERCE DEPARTMENT
AT EASTERN OKLAHOMA COLLEGE

This chapter shows the status of commerce work in Eastern Oklahoma College for the four-year period from 1934-1935 to 1937-1938, inclusive. This is one year later than the period covered by the study of commerce work in the high schools due to the fact that the high school graduates normally would attend college the year after finishing high school. Thus, the study includes the same students as they progressed from high school to the Junior College.

The Oklahoma School of Mines and Metallurgy, the predecessor of the present Eastern Oklahoma College, was established for the expressed purpose of providing an opportunity for students to study mining and the science of metals. The school operated chiefly as a trades school until at the outbreak of the world war, when it was closed as a result of having its appropriation vetoed by Governor Williams.¹

In 1919 Governor Robertson re-opened the school and it again functioned as a trades school until 1924.² In September of that year commerce courses were offered for the first time.

¹ Announcement Bulletin, Eastern Oklahoma College. 1933-1934, p. 6.

² Ibid.

The commerce curriculum for the first year and several years thereafter consisted of the following courses:

Typewriting	Business Law
Shorthand	Business English
Business Mathematics	Spelling

The equipment consisted of twelve typewriters, and the total enrollment for the first year did not exceed twenty-five students.

The introduction of spelling in the curriculum was found necessary and was made a general requirement for all commerce students. The students, however, did not receive college credit for spelling.

Within a few years business mathematics, business law, and spelling were discontinued as part of the commerce curriculum. The business law and business mathematics were re-introduced during 1937-1938.

Bookkeeping was introduced a short time after the organization of the department. The first year was later expanded to include two years, although as far as could be determined, the second year, while offered, never developed enough interest to warrant the organization of a class. The course was called bookkeeping until 1937-1938 when it was changed to accounting. At that time also the credit was increased from two hours per semester to three hours.

Business English carried two hours of credit until 1936-1937 when the credit was increased to three hours. In

1937-1938 the name of the course was changed to business correspondence.

The only courses that have been offered continuously since the organization of the department in 1924 have been shorthand and typewriting. The number of hours offered in these courses was two per semester until 1936-1937 when the credit of shorthand was increased to three hours per semester. The greatest expansion in course offerings came during the period included in this study. In addition to the re-introduction of business law and business mathematics a course in business training, courses in business vocations, economic geography, a semester of advanced typewriting and one of transcription were offered for the first time. A second year of shorthand and dictation has been offered for several years but until 1937-1938 there were no classes organized in this subject. Office training has been included in the catalogue for a number of years but no class has been organized in this subject.

TEACHING STAFF

Until 1937-1938 all of the commerce work was taught by one teacher. The increased enrollments of 1936-1937 made it necessary to increase the teaching staff. This is particularly true in view of expanded offerings which were contemplated for 1937-1938. During the last year of the study there were one full-time teacher and two part-time instructors. The two part-time instructors between them taught

courses equivalent to the teaching load of a full-time teacher. One of the part-time teachers had been the full-time teacher prior to 1936-1937. Thus the stability of the teaching staff is satisfactory in that the additions to the staff have been due to increased enrollments and expanded course offerings.

EQUIPMENT

The equipment of the commerce department in 1934 consisted of only thirty-five typewriters. Within a period of four years the equipment was increased to include fifty typewriters, three of which were designed for special purposes. Other equipment includes one adding machine, a mimeograph, mimeoscope, phonograph, Ditto, filing cabinets as well as smaller pieces of equipment also added.

COURSES AND ENROLLMENT

Table VI shows the college courses offered by semesters and the enrollments in each course by year.

The college enrollments for the four years included in this study are as follows:

YEAR	NUMBER	INCREASE OVER PREVIOUS YEAR	
		Number	Per cent
1934-1935	191	16	7.7
1935-1936	262	71	37.1
1936-1937	169	93	35.4
1937-1938	344	175	103.6

It is apparent that the enrollment during these years has been quite erratic. The increase in 1935-1936 over the preceding year is probably due to the fact that the State legislature in 1935 enacted a bill providing for two scholarships from each county in the state for students who wished to attend Eastern Oklahoma College but because of financial reasons were unable to do so.³ No explanation was found for the decrease in 1936-1937 as compared with 1935-1936. A change in administration and an aggressive publicity program, together with the scholarships, accounted for the startling increase in 1937-1938 as compared with the previous year.

The course offerings and the total commerce enrollments were much larger during the last year of the study, 1937-1938. There were sixteen different courses offered in this year, with a total enrollment of 469. During the previous year, 1936-1937, there were only eight courses and an enrollment of 306. The second largest college enrollment was in 1935-1936. The number of commerce courses offered during this year was six and the enrollment in these courses was only 133, the smallest of any of the four years. The first year of the study shows that only six different courses were offered with an enrollment of 151. It is thus apparent that the number of courses offered was practically

3

Session Laws of Oklahoma. 1935, Chapter 34, Article 21, Section 1-2-3, pp. 167-168.

TABLE VI

COLLEGE COURSE OFFERINGS BY SEMESTER AND ENROLLMENTS THEREIN

For Years Ending 1935 to 1938

Subject	C o u r s e s	1934-1935		C o u r s e s	1935-1936	
		Enrollment No.	P. C.		Enrollment No.	P. C.
Total College Enrollment.		191	100.0		262	100.0
Accounting, first sem.	-	-	-	-	-	-
Accounting, second sem.	-	-	-	-	-	-
Bookkeeping, first sem.	2	13	6.8	2	11	3.8
Bookkeeping, second sem.	2	11	5.8	2	10	3.8
Bookkeeping, third sem.	2	*		2	*	
Bookkeeping, fourth sem.	2	*		2	*	
Business English	2	*		2	*	
Business Correspondence	-	-	-	-	-	-
Business Law	-	-	-	-	-	-
Business Mathematics	-	-	-	-	-	-
Business Training	-	-	-	-	-	-
Business Vocations	-	-	-	-	-	-
Economic Geography	-	-	-	-	-	-
Office Training	2	*		2	*	
Shorthand, first sem.	2	23	12.0	2	32	12.6
Shorthand, second sem.	2	23	12.0	2	26	9.9
Dictation, first sem.	2	*		2	*	
Dictation, second sem.	2	*		2	*	
Typewriting, first sem.	2	41	21.5	2	29	11.1
Typewriting, second sem.	2	40	20.9	2	25	9.5
Typewriting, third sem.	-	-	-	-	-	-
Transcription	-	-	-	-	-	-
TOTAL		151			133	

* Course listed in college bulletin but no class organized.

- Course not offered.

Note: This table should be read as follows:

First semester accounting was not offered until 1937-1938. During that year thirty-five students were enrolled. This was 10.2 per cent of the total college enrollment.

TABLE VI (CONTINUED) -

COLLEGE COURSE OFFERINGS BY SEMESTER AND ENROLLMENTS THEREIN

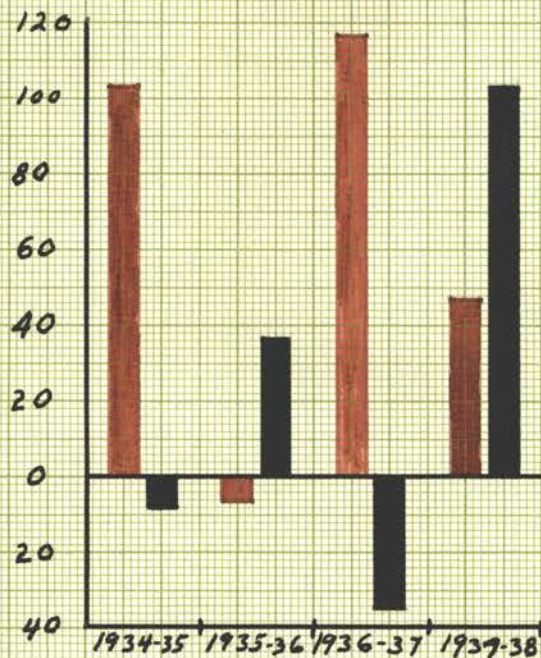
For Years Ending 1935 to 1938

Subject	C r e d i t	1936-1937		C r e d i t	1937-1938	
		Enrollment No.	P. C.		Enrollment No.	P. C.
Total College Enrollment		169	100.0		344	100.0
Accounting, first sem.	-	-	-	3	35	10.2
Accounting, second sem.	-	-	-	3	38	11.0
Bookkeeping, first sem.	3	20	11.8	-	-	-
Bookkeeping, second sem.	3	18	10.7	-	-	-
Bookkeeping, third sem.	-	-	-	-	-	-
Bookkeeping, fourth sem.	-	-	-	-	-	-
Business English	3	50	29.6	-	-	-
Business Correspondence	-	-	-	3	44	12.8
Business Law	-	-	-	3	53	15.4
Business Mathematics	-	-	-	3	21	6.1
Business Training	3	51	30.2	-	-	-
Business Vocations	-	-	-	1	34	9.9
Economic Geography	-	-	-	3	36	10.5
Office Training	3	*	-	3	*	-
Shorthand, first sem.	3	42	24.9	3	38	11.0
Shorthand, second sem.	3	37	21.3	3	32	9.3
Dictation, first sem.	3	*	-	3	11	3.2
Dictation, second sem.	3	*	-	3	10	2.9
Typewriting, first sem.	2	44	26.0	2	39	11.3
Typewriting, second sem.	2	44	26.0	2	30	11.3
Typewriting, third sem.	-	-	-	3	26	7.6
Transcription	-	-	-	3	13	3.8
TOTAL		306			469	

* Course listed in college bulletin but no class organized.

- Course not offered.

GRAPH III

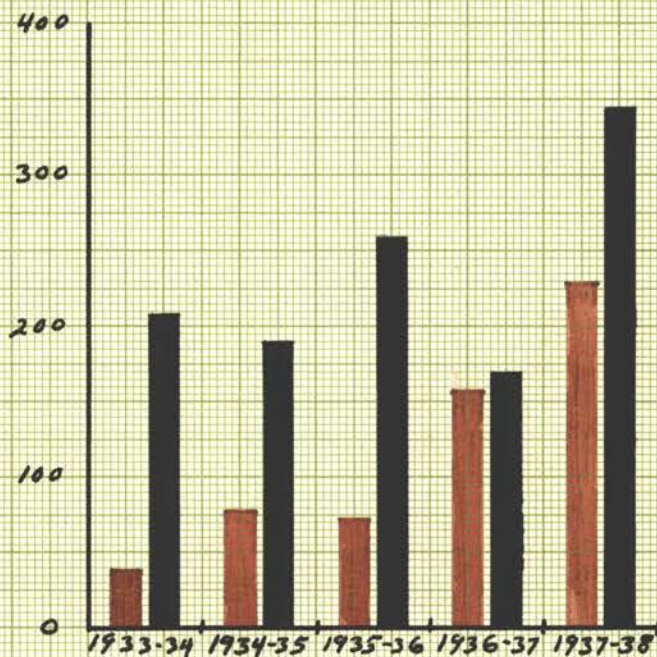


Graph showing per cent of increase or decrease of enrollments over preceding year, for commerce and total college enrollments.

KEY

Red bars show per cent of increase or decrease for commerce enrollment. Black bars show per cent of increase or decrease of total college enrollment.

GRAPH IV



Graph showing total college and commerce enrollments from 1933 to 1938 inclusive.

KEY

Red bars show commerce enrollment. Black bars show total college enrollment.

the same until 1937-1938 when the offerings were double those of the previous year.

The commerce enrollment of 1937-1938 increased 53.2 per cent over that of the previous year. The largest increase was 1936-1937 over 1935-1936 in which the total commerce enrollments increased from 133 to 306, a gain of 173 pupils or 130 per cent. The commerce enrollment in 1935-1936 decreased eighteen from 1934-1935, a loss of 11.9 per cent. In relation to the total enrollment of the college, however, this loss was much greater because the college increased by 37.2 per cent during these two years. Neither did the enrollment in commerce courses keep pace with the total college enrollment from 1936-1937 to 1937-1938. As was noted above, the increase in commerce course enrollment was 53.2 per cent whereas the increased college enrollment was 103.6 per cent, almost double the increase in commerce courses.

Nevertheless the graph clearly indicates the upward trend for the period studied of the commerce course enrollments in relation to the total college enrollment.

Because of the scattered situation with regard to course enrollments it is next to impossible to draw many conclusions from the data shown in Table VI. Shorthand and typewriting have usually had the largest numbers enrolled although business English in 1936-1937 had an enrollment of fifty and business training an enrollment of fifty-one. These two courses each enrolled between one-fourth and one-

third of the entire student body during that year. Business training was discontinued the following year but the enrollment in the business English remained about the same, although, due to the large increase in the total college enrollment, decreased greatly in per cent of the student body enrolled. During 1937-1938 business law with an enrollment of fifty-three or 15.4 per cent of the entire student body led all the course enrollments.

The percentage of students enrolled in bookkeeping and accounting during the last two years of the study showed a decided increase over the enrollments of the first two years, being 11.8 and 10.2 per cents for 1936-1937 and 1937-1938, respectively, as against 6.8 and 3.8 per cents for 1934-1935 and 1935-1936, respectively.

The percentage of enrollment in shorthand except for the one year of 1936-1937 has remained practically steady at 11 to 12 per cent. This is a rather wholesome situation in view of the findings concerning employment opportunities.

SUBSEQUENT ACTIVITIES OF COLLEGE GRADUATES

During the four years ending in 1934 to 1937, forty students who had completed two years of work, including twelve hours of commerce work, were graduated from Eastern Oklahoma College. Table VII shows the activities of these forty students in September following their graduation. These data were secured by personal interviews with the students themselves or with persons acquainted with the

TABLE VII
 FOLLOW UP-STUDY
 COLLEGE COMMERCIAL GRADUATES
 1934-1937
 (Inclusive)

Classification	Number of	Per Cent
Bookkeepers	1	2.5
House-wives	3	7.5
Stenographers	10	25.0
Students	23	57.5
Unemployed	1	2.5
Unskilled Laborers	2	5.0
TOTAL	40	100.0

students. More than half of the forty students, twenty-three, continued their education at some higher institution. This is in line with the findings of other follow-up studies of junior college graduates.⁴ Ten, exactly one-fourth of the graduates, were engaged in stenographic or secretarial work of some kind. The balance was scattered. Only one was a bookkeeper and one was unemployed. In view of the fact that so many graduates continued their work in other institutions or secured gainful employment in line with their studies it is apparent that the commerce program, in so far as is reflected from the study of graduates, is fulfilling its dual function of preparing its students for advanced study and for gainful employment.

Only two of the twenty-three students who continued their study attended business college. This indicates that students feel that their vocational preparation has been satisfactory and sufficient extent to enable them to secure a position or serve as a preparation for advanced work.

4

William Lloyd Roach, Follow-up Study of San Mateo Students, Junior College Journal, June 1932, p. 539.

SUMMARY AND CONCLUSIONS

Commerce work has been offered in Eastern Oklahoma College continuously since 1924. A considerable expansion in course offerings has occurred during the period included in this study. During the last year of the study the number of courses offered increased from eight the previous year to sixteen. Prior to 1936-1937 six courses only were offered.

Course enrollments have apparently justified this increase in course offerings. The enrollment in commerce courses increased from 133 in 1935-1936 to 306 in 1936-1937 to 469 in 1937-1938. This was an increase of 130 per cent in 1936-1937 over the previous year and 53.2 per cent in 1937-1938 over 1936-1937. The total college enrollment for these years was 262, 169, 344. This was a decrease of ninety-three during the first of these years or 35.5 per cent and an increase of 175 or 103.6 per cent from 1936-1937 to 1937-1938. Thus it is apparent that, while a tremendous gain in commerce enrollments both as compared to commerce enrollments of the previous years and in relation to the total college enrollment occurred during 1936-1937 over the preceding year, yet the increase in commerce enrollments in 1937-1938 over the preceding year was only half the increase in the total college enrollment for the same year. Nevertheless the trend during the years covered by the study is that commerce enrollments are increasing

more rapidly than the total college enrollment.

Enrollments in shorthand, typewriting, and bookkeeping have remained fairly steady although bookkeeping in relation to total college enrollment has about doubled; shorthand with the exception of the year, 1936-1937, has remained static. The typewriting trend has also been regular. The largest enrollments both in numbers and percentage of total college enrollment have been in business training, which was offered for only one year and then discontinued, business law and business English. The fact that business training drew such a large enrollment probably is indicative that it should be continued as part of the curriculum.

Until 1937-1938 the teaching staff consisted of one full-time teacher. In 1937-1938 it consisted of one full-time teacher and two part-time teachers whose teaching loads were equivalent to a second full-time teacher. The staff additions have been the result of increased enrollments and expanded course offerings.

Sufficient equipment in the way of typewriters and duplicating and filing equipment for the courses actually taught has been supplied. If courses which are listed in the catalogue were actually offered additional equipment probably would be needed.

A study of the activities of the forty graduates who completed twelve or more hours of commerce during the four years ending in 1934 to 1937 shows that twenty-three, more than half, continued their education in some higher insti-

tution. Exactly one-fourth of the graduates, ten, engaged in stenographic or secretarial work of some kind following their graduation from junior college. Only one was a bookkeeper and the others were not engaged in occupations generally classified as commercial. Only two of the twenty-three students who continued their study attended business college.

The next chapter is devoted to a comparison of the commerce work as offered in the high schools of the area with that offered in Eastern Oklahoma College.

CHAPTER IV

THE ARTICULATION OF HIGH SCHOOL COMMERCE
COURSES WITH THOSE OFFERED AT
EASTERN OKLAHOMA COLLEGE

This chapter shows the relationship of the high school commerce curriculum to that of the college. The data included in this chapter are for 1933-1934 through 1936-1937 for the high schools and 1934-1935 through 1937-1938 for Eastern Oklahoma College. This sequence of high school and college courses was selected because normally a high school graduate will attend a college, if at all, during the year immediately following that of his high school graduation. Thus, high school graduates of 1934, who took their commerce work very largely during their senior year, would attend college during 1934-1935. The data, if logical conclusions can be drawn from them, should be for the students as they progress from high school to college.

COMPARISON OF COURSES OFFERED

As is apparent from the following table there is considerable similarity and in some respects duplication in the courses offered in the high schools and those offered in the college. The courses offered for the respective years are listed below.

COMPARISON OF HIGH SCHOOL AND COLLEGE
COURSES OF 1936-1937 AND 1937-1938
RESPECTIVELY

HIGH SCHOOL COURSES	COLLEGE COURSES
Arithmetic	Accounting (First year)
Bookkeeping	Accounting (Second year)
Commercial Geography	Economic Geography
English	Business Correspondence
Law	Business Law
Salesmanship	Business Mathematics
Shorthand (First year)	Shorthand (First year)
Shorthand (Second year)	Shorthand Dictation
Typewriting (First year)	Typewriting (First year)
Typewriting (Second year)	Typewriting and Transcription

The courses in typewriting and shorthand are essentially the same and cover the same subject matter. Although the same materials are covered in both high school and college in these two courses, the standard in the college courses is generally higher than the standards for high school.

SHORTHAND. The State High School Course of Study sets a high school shorthand standard of from 60 to 80 words per minute at the end of the first year.¹ The minimum speed requirement at the end of the first year in the college shorthand is ability to take dictation at 75 words a minute. Thus, it would seem that the difference in the minimum speeds between the high school and college courses, if it is assumed that all high school teachers maintain the suggested standard, is fifteen words per minute.

¹

State of Oklahoma, Department of Education, High School Course of Study in Commercial Subjects Bulletin, Number 126, 1930, p. 10.

TYPEWRITING. In typewriting the minimum speed requirement in the college is 25 words per minute at the end of the first semester with forty words per minute at the end of the year. The suggested standard for high school is a minimum speed of twenty words per minute at the end of the first semester and thirty words per minute at the end of the second semester.² It is evident that the college speed standards in typewriting are one-third greater than in high school.

OTHER SUBJECTS. The high school work in business arithmetic, in bookkeeping, business law, and business English, while offered in college, is not a repetition. College work is generally of a more advanced nature and technical nature than the high school work. The fact that such is the case shown by the studies of Springate³ and Onstott.⁴ These studies show that as far as the effect of taking bookkeeping in high school has on college accounting is concerned, it doesn't extend much beyond the first semester of the college work. This study also seeks to determine the effect of taking high school work in the several commerce courses on subsequent work in the same courses in college.

²

Ibid., p. 18.

³

Springate, Op. cit.

⁴

Onstott, Op. cit.

ANALYSIS OF THE EFFECT OF HIGH SCHOOL WORK
ON COLLEGE ACHIEVEMENT IN THE SAME SUBJECTS

A preliminary study of the effect of previous high school experience in a subject on later college work in the same subject showed that the numbers of students taking the college subjects who had had work in the same field in high school were so small that no definite conclusions could be drawn. Hence this portion of the study was expanded to include all students enrolled in commerce courses, irrespective of the location of the high schools from which they were graduated. Each of the three subjects, shorthand, typewriting, and bookkeeping, and other subjects as a group is analyzed to determine what apparent effect, if any, previous high school experience had on college achievement as measured by grades in the same subject.

SHORTHAND. An analysis of college achievement in first and second semesters of shorthand as related to the previous experience of the students in high school shorthand is shown in Table VIII. For the four years covered by the study sixteen or 11.9 per cent of the 135 students who enrolled for college shorthand during the first semesters had credit in high school shorthand. Of these sixteen people with credit in high school shorthand, less than half, seven, earned grades of A in college shorthand. Six earned grades of B, making a total of 13 grades above the average of C or 81.25 per cent of the students with shorthand credit. Of the 119 students who had had no

TABLE VIII

COLLEGE SHORTHAND
FIRST SEMESTER

This table should read as follows: Year ending 1935, 23 students enrolled in shorthand. One had high school credit, 22 did not. One student with credit and three non-credit made A. Twelve non-credit made B, six non-credit made C. Within the area there were one with credit and 20 without; there were two non-credit from outside the area.

YEAR	ENROLLMENT			COLLEGE GRADES									LOCATION OF HIGH SCHOOL											
	CR.	Non	TOTAL	Grade-A			Grade-B			Grade-C			Grade-D			Grade-F			Within area			Out of area		
		CR.		CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.
1935	1	22	23	1	3	0	12	0	6	0	1	0	0	1	20	21	0	2	2					
1936	6	26	32	3	4	2	16	0	3	0	0	1	3	4	23	27	2	3	5					
1937	2	40	42	1	8	0	18	1	9	0	1	0	4	1	36	37	1	4	5					
1938	7	31	38	2	3	4	10	1	16	0	2	0	0	7	29	36	0	2	2					
TOTAL	16	119	135	7	18	6	56	2	34	0	4	1	7	13	108	121	5	11	14					
PER CENT	11.9	88.1	100																					

SECOND SEMESTER

YEAR	ENROLLMENT			COLLEGE GRADES									LOCATION OF HIGH SCHOOL											
	CR.	Non	TOTAL	Grade-A			Grade-B			Grade-C			Grade-D			Grade-F			Within area			Out of area		
		CR.		CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	
1935	1	22	23	1	5	0	13	0	3	0	1	0	0	1	20	21	0	2	2					
1936	5	21	26	4	7	1	14	0	0	0	0	0	0	3	18	21	2	3	5					
1937	2	35	37	1	12	0	15	1	8	0	0	0	0	1	32	33	1	3	4					
1938	4	28	32	2	4	2	9	0	13	0	2	0	0	4	27	31	0	1	1					
TOTAL	12	106	118	8	28	3	51	1	24	0	3	0	0	9	97	106	3	9	12					
PER CENT	10.2	89.8	100																					

previous shorthand experience in shorthand eighteen earned grades of A, 56 earned grades of B, a total of 74. This was 62.2 per cent of the non-credit students. This is a difference of 19.1 per cent. To determine the statistical significance of the difference. Holzinger's Formula 104 was applied:⁵

Standard error of the difference of two proportions =

$$\sqrt{\frac{p_1 q_1}{n_1} + \frac{p_2 q_2}{n_2}}$$

in which p = the proportion of A and B grades, q = the proportion of other grades, and n the total grades; sub 1 = the credit group and sub 2 = the non-credit group.

This gives a standard error of $\pm .107$, and indicates that the difference of 19.1 per cent is only two-thirds what it should be to be completely reliable. According to Garrett, a difference of $.191 \pm .107$, giving critical ratio 1.79, means that in 96 cases out of 100 the true difference in the proportion A and B grades received by the credit and non-credit students, respectively, in first semester shorthand is greater than zero.⁶

During the second semesters only twelve, 10.2 per cent, of the 118 people who enrolled had had high school shorthand. Eleven of these twelve students received grades

5

K. J. Holzinger. Statistical Methods for Students in Education, Ginn & Company, Boston, 1923, p. 248.

6

H. E. Garrett. Statistics in Psychology and Education, Longmans, Green & Company, 1926, p. 134.

of A or B. Of the 106 students with no such previous training, 79 received grades of A or B. Attention is called to the increase in the number of A grades earned by the non-credit group. Whereas the credit group received about one-fourth of the A grades during the first semesters, they received only about one-fifth of the A grades in second semesters of shorthand. Thus, while the students with credit in high school shorthand seem to have somewhat of an advantage over those students without such credit during the first semester, this advantage shows a decided decrease during the second semester. Nevertheless the difference in proportions of credit and non-credit shorthand students during the second semesters is statistically significant (17.2 per cent \pm 2.8, giving a critical ratio of 6.1). This can be interpreted to mean that during the second semesters students with high school credit in shorthand can be expected as compared with those without credit, to secure in practically 100 times out of 100, proportionately a larger number of A and B grades.

Another conclusion which seems to be warranted by the data is that relatively few people within the area who have had shorthand take shorthand if they enrolled in Eastern Oklahoma College. Only thirteen students out of the 308, who had taken high school shorthand, from the area also enrolled for college shorthand. Until more students from the area who have had shorthand wish to continue shorthand in Eastern Oklahoma College, it would not seem to be nec-

essary to make any special attempt to relate the college work in shorthand to that of the high school.

TYPEWRITING. Conclusions similar to those drawn from the study of shorthand appear to be warranted by the analysis of the data for typewriting. During the four years 153 students enrolled for first semester college typewriting. Of these 87.9 per cent, 134 students had had no previous experience with typewriting. Nineteen or 12.1 per cent had high school credit in typewriting. Of the nineteen students with credit, five received A grades, eleven received grades of C or lower. Thus 17, or about nine-tenths of the 19 students received better-than-average grades.

Of the 134 students without previous typewriting credit, sixteen received A grades and 55 received B grades. The balance received grades of C or lower as shown in Table II.

These figures indicate that for every student without previous credit in typewriting two students with credit received grades of A or B. Slightly more than four-fifths of the credit students, who comprised only one-eighth of the total typewriting group, received these grades whereas slightly more than one-half of the non-credit students received these grades although they were seven-eighths of the group. The difference in A and B grades between the credit and non-credit groups is 31.2 per cent \pm 9.6 giving a critical ratio 3.25. This is a statistically significant difference and indicates that in 100 cases out of 100 students with high school credit in typewriting can be expected

TABLE IX
COLLEGE TYPEWRITING
FIRST SEMESTER

YEAR	ENROLLMENT			C O L L E G E G R A D E S									L O C A T I O N O F H I G H S C H O O L						
	CR.	Non	TOTAL	Grade-A		Grade-B		Grade-C		Grade-D		Grade-F		Within area			Out of area		
		CR.		CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	TOTAL
1935	5	36	41	0	4	5	21	0	9	0	0	0	2	4	32	36	1	4	5
1936	6	23	29	2	4	3	12	1	5	0	0	0	2	4	22	26	2	1	3
1937	4	40	44	2	5	0	11	1	24	1	0	0	0	3	34	37	1	6	7
1938	4	35	39	1	3	3	11	0	15	0	0	0	6	3	30	33	1	5	6
TOTAL	19	134	153	5	16	11	53	2	53	1	0	0	10	14	113	132	5	16	21
PER CENT	12.1	87.9	100																

SECOND SEMESTER

YEAR	ENROLLMENT			C O L L E G E G R A D E S									L O C A T I O N O F H I G H S C H O O L						
	CR.	Non	TOTAL	Grade-A		Grade-B		Grade-C		Grade-D		Grade-F		Within area			Out of area		
		CR.		CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	TOTAL	
1935	5	35	40	2	7	3	19	0	8	0	0	0	1	4	31	35	1	4	5
1936	5	20	25	1	6	3	13	1	1	0	0	0	0	3	19	22	2	1	3
1937	4	40	44	1	5	1	11	1	22	1	0	0	2	3	35	38	1	5	6
1938	1	32	33	1	4	0	15	0	10	0	0	0	3	1	27	28	0	5	5
TOTAL	15	127	142	5	22	7	53	2	41	1	0	0	6	11	112	123	4	15	19
PER CENT	10.6	89.4	100																

to receive proportionately more better-than-average grades during the first semester than students without such experience.

During the second semesters twelve of the fifteen credit students who continued with typewriting received grades of A or B and eighty of the 127 non-credit students received the same grades. Thus, while four-fifths of the credit students received grades above average during the second semester, the proportion of non-credit students receiving such grades increased to three-fifths. This would indicate that during the second semester the advantage of the credit students decreased so that for four such students receiving better-than-average grades, three non-credit students received A and B grades. The critical ratio bears out the decrease in the reliability of the difference. The difference between the two groups was only 17.0 per cent \pm 11.5 is only half the difference necessary for complete reliability which indicate no significance should be attached to the difference. The critical ratio of 1.48, according to Garrett,⁷ means that in 92 or 93 times out of 100 that the true difference in the two groups is greater than zero. The data would indicate that by the second semester the advantage that the credit group has over the non-credit student has largely disappeared, and that, in so far as Eastern Oklahoma College is concerned,

⁷

Ibid.

no unfair advantage should accrue to the non-credit students by allowing credit students to be in the same classes beginning with the second semester.

The percentage of students who have had typewriting in high school and who continued it in college is so small that there seems to be no need at present for any close articulation of the college typewriting program with that of the high schools of the area. Only fourteen of the 153 first semester students in college typewriting came from high schools within the area. This is less than 10 per cent.

It is doubtful whether there is any justification for allowing a student with credit in either high school shorthand or high school typewriting to repeat the first semester's work. The problem is not particularly pressing at the present time but should the portion of students with credit increase in the future it may be advisable to develop a separate program designed to continue work in these two skill subjects where the high school work finished instead of allowing or requiring the students to repeat the work completely as is the present policy.

ACCOUNTING. Enrollments in college accounting of students who have had credit in high school bookkeeping as shown during the period covered by this study are steadily increasing. During the year ending in 1935 only one such student enrolled. During the year ending in 1938 ten, approximately one-third of the class, was composed of

TABLE X
COLLEGE ACCOUNTING
FIRST SEMESTER

YEAR	ENROLLMENT			C O L L E G E G R A D E S									L O C A T I O N O F H I G H S C H O O L						
	CR.	Non	TOTAL	Grade-A		Grade-B		Grade-C		Grade-D		Grade-F		Within area			Out of area		
		CR.		CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	TOTAL
1935	1	12	13	1	0	0	9	0	2	0	0	0	1	1	10	11	0	2	2
1936	5	6	11	5	2	2	4	0	0	0	0	0	0	2	4	6	2	3	5
1937	3	17	20	3	2	0	2	0	7	0	5	0	1	2	14	16	1	3	4
1938	10	25	35	3	7	5	8	2	7	0	0	0	3	3	22	30	2	3	5
TOTAL	19	60	79	10	11	7	23	2	16	0	5	0	5	13	50	63	5	11	16
PER CENT	24.1	75.9	100																

SECOND SEMESTER

YEAR	ENROLLMENT			C O L L E G E G R A D E S									L O C A T I O N O F H I G H S C H O O L						
	CR.	Non	TOTAL	Grade-A		Grade-B		Grade-C		Grade-D		Grade-F		Within area			Out of area		
		CR.		CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	TOTAL	
1935	1	10	11	1	3	0	6	0	1	0	0	0	0	1	8	9	0	2	2
1936	4	6	10	2	4	2	2	0	0	0	0	0	0	2	4	6	2	2	4
1937	4	15	19	3	4	0	3	0	4	1	4	0	0	3	12	15	1	3	4
1938	10	28	38	6	4	3	16	1	8	0	0	0	0	7	27	34	3	1	4
TOTAL	19	59	78	12	15	5	27	1	13	1	4	0	0	13	51	64	6	8	14
PER CENT	24.36	75.64	100																

students with credit in high school bookkeeping.

According to Table X for the entire four-year period nineteen, 24.1 per cent of the 79 students who took college accounting during the first semesters, had credit in high school bookkeeping. Seventeen of these nineteen students, about nine-tenths, received grades of A or B, two received a grade of C. Of the sixty non-credit students 34, or 56.7 per cent, received grades of A or B. The credit students received one-third of all the A and B grades given, one-half of all A grades. This means that during the first semester the credit students secured three better-than-average grades out of every five such grades given although they constituted only one-fourth of the group. A difference of 32.8 per cent and a standard error of 9.5 indicate the difference to have complete reliability. This confirmed by a critical ratio of 3.45.

While the proportion of credit and non-credit students in the second semesters of college accounting remained practically the same as that of the first semester, the advantage in receiving better-than-average grades on the part of the credit group decreased decidedly. Of the 59 A and B grades given, 17, or 29.0 per cent went to credit students; whereas the non-credit students received 42 A and B grades. On the basis of their proportion of students they should have had 45 such grades. The difference between the two groups was 18.3 per cent \pm 9.2, only half what it should be for complete reliability. The critical ratio was 1.98,

indicating that the chances are 98 in 100 that the true difference is greater than zero.

Thus during the second semester the advantage of the credit group decreased as in the case of typewriting. With regard to the A grades, however, the situation remains approximately the same as in the first semester.

The proportion of high school students who have taken bookkeeping and continued their work in accounting at Eastern Oklahoma College is only thirteen out of the 64 who took high school bookkeeping also took college accounting. But because the trend seems to show an increasing number it may be that before long a sufficiently large number of students who have had high school bookkeeping within the area will be enrolling in college accounting so that some adjustments should be made in course content which will take account of the students' previous experience.

OTHER COURSES. Table XI shows the relation of the more recent additions to the curriculum to the high school programs of students in these same subjects. During the two years that business correspondence has been offered only one student in this class had taken business English in high school.

Of the 36 people who took college economic geography only three, all outside of the Eastern Oklahoma College area had taken commercial geography in high school. All three of these people however received A grades.

TABLE XI

FIRST SEMESTER
BUSINESS CORRESPONDENCE

YEAR	ENROLLMENT			COLLEGE GRADES									LOCATION OF HIGH SCHOOL						
	CR.	Non	TOTAL	Grade-A		Grade-B		Grade-C		Grade-D		Grade-F		Within area			Out of area		
		CR.		CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	CR.	TOTAL
1937	0	50	50	0	9	0	14	0	20	0	6	0	1	0	44	44	0	6	6
1938	0	44	44	0	10	0	24	0	7	0	2	0	1	0	36	36	0	8	8
TOTAL	0	94	94	0	19	0	38	0	27	0	8	0	2	0	80	80	0	14	14
Per Cent		100	100																

ECONOMIC GEOGRAPHY

1938	3	33	36	3	3	0	14	0	10	0	4	0	2	0	30	30	5	3	6
Per Cent	8.3	91.7	100																

SECOND SEMESTER

BUSINESS LAW

1938	6	47	53	4	15	2	23	0	7	0	0	0	2	4	41	45	2	6	8
Per Cent	11	89	100																

BUSINESS MATHEMATICS

1938	3	18	21	3	6	0	5	0	4	0	2	0	1	3	15	18	0	3	3
Per Cent	14	86	100																

Of the 53 students in business law six had had the course in high school. All of these students received better-than-average grades. Four of them received A.

A similar relationship holds true for business mathematics. Three of the 21 students in business mathematics had business arithmetic in high school. All three of these students received A grades.

The numbers are too small and the length of the time these courses have been offered is too short to warrant any definite conclusions. Nevertheless, because in all instances where students had enrolled in these college courses after they had had similar work in high school they secured superior grades (only two out of twelve students received B grades). The data would seem to indicate that possibly there is a rather close relationship between getting A grades in college courses and having taken the work previously in high school.

SUMMARY AND CONCLUSIONS

The data included in this chapter are for the years 1933 to 1937 inclusive for the high schools and 1934 to 1938 inclusive for Eastern Oklahoma College.

There is considerable similarity and in some respects duplication in the courses offered in the high schools and those offered in the college, although the standard in the college courses is higher than the standards for high schools. The courses in typewriting and shorthand are essentially the same. The difference in standard in shorthand of high school and college for the end of the first year is fifteen words per minute. The college speed standard in typewriting is one-third greater than in high school. High school work in business arithmetic, in bookkeeping, business law and business English is not repetition due to the fact that the college work in these subjects is more advanced and more technical in nature.

An analysis of college achievement in shorthand for the four years covered by the study reveals that there is a difference of 19.1 \pm per cent in the number of students with high school credit who made grades above the average or C and those who had no credit in shorthand in high school. This is not statistically significant. During the second semesters the difference in A and B grades received by

credit and non-credit students was 17.2 ± 2.8 per cent, giving a critical ratio of 6.1 which is interpreted to mean that those with credit can be expected to secure in practically 100 times out of 100, a larger number of A and B grades than students without high school shorthand credit. Only thirteen students out of 308, who had taken high school shorthand, from the area enrolled for college shorthand.

During the four years of study 153 students enrolled for first semester typewriting, nineteen of whom had high school credit in typewriting and 134 had no previous training. About nine-tenths of the 19 with high school credit received better than average grades. Slightly more than one-half or 71 students without high school credit received grades of A or B. The difference between the two groups during the first semesters was 31.2 ± 9.6 per cent. This is a statistically reliable difference. During the second semesters the difference in better than average grades was 17.0 ± 11.5 per cent in favor of students with high school typewriting credit, only half the difference necessary for complete reliability. Little significance should be attached to the difference. There does not seem to be much justification in allowing a student with credit in either high school shorthand or high school typewriting to repeat the first semester's work in college.

In college accounting during the first semester 24.1 per cent of the 79 students had high school credit in book-

keeping. These credit students received one-half of all A grades which was 32.8 ± 9.5 per cent more than students without such credit. This difference is statistically reliable, giving a critical ratio of 3.45. During the second semesters the advantage of the credit group decreased the difference in favor of the credit students being only 18.3 ± 9.2 per cent, only half what it should be for complete reliability.

The numbers of students in other subjects who had high school credit are too small to warrant any definite conclusions. But due to the fact that only two such students received grades lower than A in the college courses in these subjects it appears empirically, insofar as these data are concerned, that the previous work in high school has a rather close relationship to superior work in college courses of similar nature.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Eastern Oklahoma College serves an area that is primarily rural and mountainous. The principal industry of the area is agriculture in which 36.5 per cent of the entire population are engaged. Coal mining, lumbering, and wholesale and retail distribution rank second, third, and fourth in the order named. These latter industries, with only one to three per cent of the population engaged in each, are minor in relation to the number engaged in agriculture.

Of the 39 schools in the area twelve were found to offer two or more units of commerce work during the period covered by this study, from September, 1933 to May, 1937. The commerce courses, both in number of high schools offering the subjects and in pupil enrollments, have shown a growth during the four-year period which is approximately twice as great as the total high school enrollment.

In 1933-1934 only seven high schools were offering two units of commerce but by 1936-1937 this number had increased to twelve.

The following courses were offered at some time and in at least one high school during the period studied:

Bookkeeping	Shorthand (First Year)
Business Arithmetic	Shorthand (Second Year)
Business English	Typewriting (First Year)
Commercial Law	Typewriting (Second Year)
Salesmanship	

Enrollments in typewriting in the high schools increased 65.3 per cent in four years, whereas the high schools offering this work increased in total enrollment only 29.2 per cent. This would indicate that the enrollment in typewriting has been increasing more than twice as rapidly as the increase in total enrollment of the high schools. A similar situation was found with regard to shorthand which increased 158.8 per cent while the total high school enrollments in the high schools offering shorthand increased 88.0 per cent. In bookkeeping the enrollment exactly doubled, whereas the number of pupils in the high schools offering bookkeeping increased 54.3 per cent. The number of schools offering other courses showed no consistency, hence any conclusions or trends drawn from data concerning these courses are not warranted. Typewriting was the only subject which was offered every year in every one of the high schools offering the commerce program. Consequently, this subject had a larger number of high school pupils enrolled than any other commerce subject.

An analysis of teacher preparation reveals the fact that practically all commerce teachers hold baccalaureate degrees. The average tenure of the commerce teachers is at least two years, whereas the state average is three years.

Although an occasional duplicating machine and adding machine was found, the usual equipment of the high

school commerce department consisted almost solely of typewriters.

A study of the activities in September of the year following graduation of the 708 high school graduates who had earned at least two units in commerce subjects, revealed that one-third continued their education in some higher institution. Forty-four of this number attended business college. Only 37 or 5.2 per cent of the graduates during the four years included in the study continued their education at Eastern Oklahoma College. This is 15.4 per cent of those who continued their education and less than the number attending business college. Such a small percentage continuing in the junior college which serves the area indicates the importance of calling attention of the high school commerce students to the commerce program at Eastern Oklahoma College. Sales work engaged 13.4 per cent of the group and ten per cent was employed in clerical work. Thus, a total of 166 of the 708 graduates, or 23.4 per cent, secured commercial positions. Since more than half of those who secured commercial positions were engaged in sales work and a course in salesmanship is offered in only one high school of the area, it would appear that the vocational importance of commerce, as judged by the subsequent activities of those who had had the work, is not very great.

Eastern Oklahoma College has offered commerce courses continuously since 1924. A tremendous increase in commerce

offerings and total enrollments has taken place during the last two years of the study. The enrollment in commerce courses increased 150 per cent in 1936-1937 over the previous year, and 53.2 per cent in 1937-1938 over 1936-1937. The total college enrollment decreased 35.4 per cent and increased 103.6 per cent for the same years, respectively. Although the commerce enrollment did not increase to the same degree during the last year as the total college enrollment, yet the four-year trend is for commerce enrollments to increase more rapidly than the total college enrollments. The largest enrollments have been in business law, business correspondence, and business training. Enrollments in shorthand are relatively steady while enrollments in accounting are rapidly increasing. It is interesting to note that courses with the largest enrollments are those which have been introduced in the last two years. Other courses which have been introduced in the last two years are economic geography, business vocations, business mathematics and transcription. Some courses have been listed in the college catalogue but no enrollments have been recorded for these courses.

The increased enrollments and course offerings have necessitated increasing the teaching staff from one teacher to one full-time and two part-time instructors.

The equipment in general appears to be adequate for courses actually taught. If office practice, which is

listed in the catalogue but not taught, is offered some additional equipment will be needed. Equipment for accounting also appears to be somewhat inadequate.

A study of the activities of 40 commerce graduates who completed twelve or more hours in commerce work show that 23, more than one-half, continued their education in higher institutions. Ten of the graduates are engaged in stenographic or secretarial work. This would indicate that, as regards work in commerce, the preparatory function of the junior college is probably of greater importance than the terminal function, although the latter should not be neglected.

Although standards of achievement are from one-third to one-fourth greater in college than in high school, the work offered in shorthand and typewriting is essentially the same. A comparison of the grades secured by students who had had shorthand and typewriting in high school before taking the work in college showed such students secure a larger proportion of better-than-average grades than students without high school credit in these courses secured. The difference in first semester typewriting in the two groups is a statistically significant difference. To a considerable extent the advantage of the credit students is lost during the second semester. While the advantages of those who have had high school shorthand is apparent in the grades secured in college shorthand, the difference during the first semester is not statistically

reliable. During the second semester the difference becomes statistically reliable.

The college work in business mathematics, accounting, business law, and business correspondence is not a repetition of the work offered in high school but of a more advanced and more technical nature. Nevertheless, an analysis of the achievement of the students in these courses who have had similar work in high school shows that such students have a decided advantage over students without previous experience in such high school work. The difference in proportion of A and B grades in first semester accounting secured by students with high school credit in bookkeeping is statistically significant. However, this advantage is largely lost during the second semester. No statistical analysis was made of the effect in the other courses but the fact that all except two of the students who had had similar work in high school made A grades appears to indicate the effect of such previous experience on college grades.

RECOMMENDATIONS

The following recommendations appear to be warranted by the data:

In view of the small number of high school commerce graduates who continue their work in Eastern Oklahoma College no particular articulation of the college courses with those of the high school seems necessary at this time. If a larger number of the college students in the

future comes from the high school commerce graduates, steps should be taken to articulate the work of the college with that of the high school rather closely. These data also point to the desirability of college commerce staff working more closely with the high school commerce teachers in order to acquaint the teachers and their pupils with the advantages and offerings of Eastern Oklahoma College. In addition to conferences and visitations, contests might well be introduced by the college.

Owing to the fact that accounting is growing and in order to bring precise practice into the work, office equipment of the type used by general office clerks, bookkeepers and accountants in the area should be added to the departmental equipment.

Due to the fact that such a large proportion of the commerce graduates continue their work in four-year collegiate institutions steps should be taken to articulate the work of the college with the work of the institutions to which the graduates transfer. This may necessitate separation of the terminal and preparatory courses.

If sufficient growth in the future warrants it, separate classes in accounting should be organized for those who have had high school bookkeeping and for those who have not had such work.

Due to the advantage which students with high school credit in shorthand and typewriting have over students without such credit the desirability of allowing students

with credit to repeat college work in these courses with credit is questioned. This should not be construed as a recommendation to prevent such students from taking the work without credit.

In view of the relatively large number of students who enter sales work some consideration should be given to the introduction of courses in merchandising.

In view of the popularity of the course in business training which was offered one year and then discontinued it might be advisable to reintroduce this same course or a similar course designed to improve students' occupational intelligence and to convey information of a general nature to students who have no vocational aspiration in taking a commerce course.

In as much as commerce on the collegiate level is almost entirely vocational some definite organization to place students in jobs when they have finished their training should be devised.

An annual follow-up of commerce graduates should be made so that the program may continually be re-adapted to the needs as such studies reveal.

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RATHMORE PARCHMENT

100% RAG U.S.A.

APPENDIX

STRACHAN

100

APPENDIX

March 31, 1938

Dear Mr. :

I am writing a thesis on commercial education in Pittsburg, Latimer, Pushmataha, Leflore, and Haskell counties and I am endeavoring to gather some material. I have secured most of my material from the state department, but, of course, there is some that must come from the high schools within this area.

First, I want the names of your commercial high school graduates from the years of 1934, 1935, 1936, and 1937. That is, I want a list of the graduates who have had two units or more of training in commercial subjects, and what each did in September following graduation.

Second, I should like to have a list of the department equipment during the same years, as for example, 1934---thirty typewriters, two adding machines, 1935---forty typewriters, three adding machines.

Third, I should, also, like to have your grading system.

Enclosed you will find blanks to be filled in.

Mr. , I am wondering if you have an office girl that you could let secure this information for me, one that is familiar with your files, or had you rather that I come and secure the information? I realize this might be asking too much of you, but I want the information, and I shall be governed by your will in the matter. I will assure you that it will be very greatly appreciated.

I am enclosing a self-addressed envelope for the return of the information and self-addressed postal card for you to express your desire as to the way in which you would like for me to get this information.

With best wishes, I remain,

Yours very truly,

Joe L. Searce

JLS:m

SUMMARY OF OCCUPATIONS
SELECTED BY
HIGH SCHOOL STUDENTS

OCCUPATIONS	NUMBER
Assessor, Tax	1
Agriculture	48
Army and C C C	11
Auto Manufacturing	2
Banker	3
Beauty Operator	6
Bookkeeper	1
Business Colloge	44
Cafe	9
Car and Truck Drivers	14
College	165
Filling Station	1
Fishing	1
General Store Work	72
House-wife	78
Laundry	1
Mechanical Drawing	1
Mining	10
News Reporter	1
Nurse	4
Office work	6
Opera Dancer	1
Professional Base Ball	1
Radio Singer	2
Salesman	1
Stenographer	60
Telephone Operator	1
Telegraph Operator	1
Unclassified	33
Unemployed	72
University	32
Unable to locate	25
TOTAL	708

HIGH SCHOOL
COMMERCE CLASS ENROLLMENT

SHORTHAND I

HIGH SCHOOL	1933-1934	1934-1935	1935-1936	1936-1937
Antlers	0	0	0	22
Bokoshe	0	0	0	12
Haileyville	15	17	18	18
Hartshorne	29	19	14	14
Heavener	27	26	32	26
Keota	0	0	0	11
Kiowa	11	11	11	7
McAlester	0	73	60	93
Panama	0	19	15	14
Spiro	0	0	0	17
Poteau	18	21	31	33
Stigler	19	25	22	41
TOTAL	119	211	203	308

SHORTHAND II

McAlester	41	53	68	55
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TYPEWRITING I

Antlers	0	0	0	39
Bokoshe	0	0	12	22
Haileyville	23	24	36	35
Hartshorne	46	44	38	38
Heavener	37	42	44	39
Kiowa	14	16	18	13
McAlester	173	178	85	216
Keota	0	0	0	37
Panama	0	21	22	30
Poteau	47	34	57	58
Spiro	0	0	0	44
Stigler	23	36	55	29
TOTAL	363	395	367	600

TYPEWRITING II

McAlester	0	0	126	0
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SALESMANSHIP

McAlester	0	0	24	40
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HIGH SCHOOL
COMMERCE CLASS ENROLLMENT

ARITHMETIC

HIGH SCHOOL	1933-1934	1934-1935	1935-1936	1936-1937
Hartshorne	34	33	0	0
Keota	0	0	0	34
Kiowa	20	16	13	5
McAlester	101	87	56	0
Stigler	30	19	0	0
TOTAL	185	155	69	39

BOOKKEEPING

Antlers	0	0	0	18
Bokoshe	0	0	10	18
Haileyville	0	20	33	37
Hartshorne	0	0	24	28
Heavener	25	24	32	17
Kiowa	13	9	16	12
McAlester	62	73	59	71
Panama	0	0	0	27
Spiro	0	0	0	20
Poteau	10	29	28	0
Stigler	21	12	15	15
TOTAL	131	167	217	263

BUSINESS ENGLISH

Hartshorne	33	24	0	12
Haileyville	15	0	27	0
Heavener	0	0	0	11
Kiowa	14	16	13	6
McAlester	98	0	76	0
Panama	0	0	0	22
Poteau	10	0	0	38
TOTAL	170	40	116	89

COMMERCIAL LAW

Antlers	0	0	0	16
Bokoshe	0	0	0	12
Haileyville	15	0	27	0
Hartshorne	0	24	0	12
Heavener	48	18	37	11
Kiowa	18	16	14	0
McAlester	47	41	63	40
Panama	0	0	0	22
Poteau	10	0	0	0
Stigler	30	19	0	32
TOTAL	168	118	141	145

TOTAL HIGH SCHOOLS IN AREA

Albion	Haywood	Pittsburg
Antlers*	Heavener*	Poteau*
Ashland	Indianola	Quinton
Bokoshe*	Keota*	Rattan
Cameron	Kinta	Red Oak
Canadian	Kiowa*	Stigler*
Clayton	LeFlore	Savanna
Crowder	McAlester*	Spiro*
Fanshawe	McCurtain	Talihina
Glendale	Monroe	Tuskahoma
Haileyville*	Moyer	Whitesboro
Howe	Panama*	Wilburton
Hartshorne*	Panola	Wister

*High Schools included in this study.

Typist:

T. Anne Cochran